Hmong American Students Who Majored in STEM in Two-Year Colleges in the Midwest: Experiences Before, During, and Outside of College Which Contribute to Their Development as Global Citizens

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ABSTRACT

Our colleges and universities recognize the need to prepare graduates as global citizens, especially in STEM fields. It is vital that future scientists, researchers, and medical professionals possess global competencies, show compassion, and are active citizens. Absent from the literature is research on the experiences of racially/ethnically underrepresented students in two-year colleges who major in STEM as they develop as global citizens. Especially, since racially/ethnically underrepresented groups, including Hmong American students, are marginalized in higher education, it is important to understand how these students navigate structural and institutional characteristics of STEM programs on predominantly white campuses while they pursue their degrees.

This qualitative study explored the experiences of a group of successful Hmong American students from two-year colleges in the Midwest where they majored in STEM who became global citizens. The research design included two rounds of interviews with ten participants, in which these global citizens were asked about social responsibility and global civic engagement. Three grounded theories that emerged from stories of Hmong American participants are included in the experiences of these students before, during, and outside of college that led to their development as global citizens. These theories have important implications for two-year colleges administrators and faculty as well as future research.

CHAPTER 1: INTRODUCTION

Global citizenship, especially in the last thirty years, has been getting increased attention across higher education for four main factors: "increasing pressure of global problems requiring common solutions; the general phenomenon of globalisation; revived interest in the idea of citizenship itself; and a revived interest in the perennial approach of cosmopolitanism, often called nowadays the 'global ethnic" (Dower, 2003, p. 3). Our rapidly changing world requires graduates to be global citizens prepared to solve complex and interconnected problems, to be actively engaged in local and global communities, to show empathy to others, and to practice rights and responsibilities in international settings. The need to develop college graduates as global citizens is forcefully argued by the Abraham Lincoln Commission's (2005) report:

> Producing successive generations of undergraduates who have engaged with the world beyond American boundaries will do more than anything else to enable the United States to hear the world, to see the world – and to know the world in ways that will alert us to emerging problems before they become serious threats. (p. 8)

The United States Congress has also made clear that the need for global competence is urgent: "the security, stability, and economic vitality of the United States in an increasingly complex global age depend largely upon having a globally competent citizenry and the availability of experts specializing in world regions, foreign languages, and international affairs" (Senate Resolution 308 ATS., 2005, p. 1). This urgent call was directed to colleges and universities, including two-year institutions.

Colleges and universities around the world realize the need to prepare graduates as global citizens. In fact, fostering global citizenship is one of the main goals of the United Nations' (UN) Secretary-General Ban Ki-moon's Global Education First Initiative, which was launched in 2012

in close cooperation with the United Nations Educational, Scientific and Cultural Organization. As the Secretary-General stated:

> It is not enough for education to produce individuals who can read, write and count. Education must be transformative and bring shared values to life. It must cultivate an active care for the world and for those with whom we share it. …It must give people the understanding, skills and values they need to cooperate in resolving the interconnected challenges of the twenty-first century. (Jelinek & Formerand, 2013, p. 16)

Higher education institutions in Thailand have been working on revising undergraduate programs to include discourse on global citizenship in light of the upcoming creation of the Association of Southeast Asian Nations (ASEAN) Economic Community in 2015 (Thanosawan & Laws, 2013). Canada, the European Union, and Australia all recognize a growing need to equip professionals and public policy makers with a deeper understanding of the international and trans-cultural aspects of important ethical and human rights issues and the institutional frameworks within which they arise (Schulz & Jorgenson, 2009).

At the same time as there is a growing awareness of the need for global citizenship in colleges and universities around the world, leading educators and scientists have called for the reform of undergraduate science education in order to address the need to prepare students in STEM fields as responsible, global citizens. The attention paid to enhancing the competitiveness of the U.S. in science and engineering is increasing. One of the efforts to reform undergraduate science instruction in the United States has been the Science Education for New Civic Engagements and Responsibilities (SENCER) project sponsored by the National Science Foundation (NSF). The project's goals were to: (1) get more students interested and engaged in STEM courses, (2) help students connect STEM learning to their other studies, and (3)

strengthen students' understanding of science and their capacity for responsible work and citizenship (Weston et al., 2006).

Garon Smith, a professor of chemistry from the University of Montana, participated in the SENCER project. He redesigned his introductory CHEM 151 course so that students could connect the course content and themselves to the world outside of the regular classroom. Smith suggested that it was very important that such courses were offered at the early stage of the student's college experience: "If we want to prompt our students to become civically engaged, what better place than at the beginning of their college careers, in introductory courses, before they know any better?" (Smith, 2004, p. 45)

It was my belief that only education could develop global citizens, which led me to pursue a career in international education and study abroad. I have long been convinced that international student presence on campus and study abroad opportunities develop important and necessary global citizenship skills. Having worked in different types of two-year colleges in the Midwest that serve predominantly white communities, I have felt that my role was particularly important. These students, many of whom had never even left the boundaries of their counties, needed to have a broader knowledge about the world and develop cross-cultural competencies to be successful in the future. Because international education and study abroad were not widely practiced on the campuses where I worked, I felt that my role in developing global citizens was especially urgent.

The communities where I came to live almost fourteen years ago were predominantly white, but their demographics were gradually changing, mainly due to the resettlement of Hmong refugees in the 1970s. Growing up in the former Soviet Union, I knew about the United States involvement in the war in Vietnam, but I knew very little about the contribution of a

certain ethnic group that provided support to the U.S. military during this war and their sacrifices. When I moved to the United States, to an area in the Midwest with one of the highest number of Hmong Americans in the United States (who resettled there as a result of the government-sponsored refugee program) I felt proud to live in a community that was very welcoming to diverse populations, especially refugees who had risked their lives to help this country. Sadly, the longer I lived in the community and the more I learned about and got acquainted with Hmong Americans, I learned about tragedies and hardships that Hmong refugees often faced in the United States and the disparities and inequalities they continued to experience in finding a job or even renting an apartment.

Even though the Hmong American population was growing faster than the white majority, it did not seem as though the community at large was making a genuine effort to learn about Hmong communities, their history, or traditions. Ironically, at the same time, my Hmong American colleague had shared with me how she and her family were trying to make that community their home and prove that they could be good citizens. She, for example, was actively engaged in the local and global community. I observed other Hmong Americans in the community who were practicing social responsibility and global civic engagement by being actively involved in various non-government organizations and agencies in the area and by being genuinely concerned about local and global issues. This made me revisit the whole notion of global citizenship and, in particular, whether what we were offering in colleges and universities was preparing students as global citizens.

Later in my career, I had the opportunity to discuss the issues of recruiting minority students from two-year colleges in STEM fields with officers from the National Science Foundation. To my surprise, the conversation deviated from discussing that issue to the need for

future graduates to possess the knowledge and skills necessary to be a global citizen. We talked about the importance of speaking another language, understanding other cultures, and experiencing other countries. I had an "aha" moment: Of course, we need to have scientists, engineers, and doctors who understand the complexity of the world, view issues in the global context, are able to communicate across different cultures, and are compassionate and concerned with global issues. For the first time I started thinking about how higher education is fulfilling its mission of preparing STEM graduates for global citizenship. I realized I knew so many great examples of global citizens among Hmong Americans. The Hmong language was not a foreign language to them; Laos and Thailand were not some other countries abroad, but their other home; and they didn't need to travel abroad to learn about another culture because they continued practicing customs and traditions of their elders here in the U.S. I started asking myself, if most activities and practices that were offered in higher education were designed with majority white students in mind, focusing on developing their language and intercultural skills, then how did racially/ethnically underrepresented groups such as Hmong Americans become global citizens, especially when they were pursuing a degree in STEM from a two-year college? My attempt to answer this question led to this study.

When I started researching my topic I learned that it was not only higher education professionals and scientists who were concerned with whether colleges and universities were developing their graduates as global citizens. Students themselves recognized the need to have global citizenship skills. During a series of conversations organized and supported by the National Science Foundation (NSF), students' voices proclaimed the need to connect science with serving our society and the global world. During these National Conversations on Undergraduate Biology Education in 2009, a total of 231 undergraduate students from 13 U.S.

institutions participated in discussions with NSF and biology faculty. When students were asked what they thought about biology, the question provoked many responses. Among those responses, students mentioned that biology could help make connections between self and society, that biology presented a good way to communicate about science because many biology topics are immediately relevant and relatable to anyone's life, that an understanding of biology could make people feel more engaged with Earth and its environment and more inclined to take steps to protect it, that good biology education is needed for global competitiveness, and that biology education is needed to provide solutions for diminishing resources/sustainability issues (Brewer & Smith, 2009, p. 5).

No less significant, policy makers, educators, researchers, and the private sector are urging higher education to attract more students to science and engineering and increase the number of racially/ethnically underrepresented students in STEM. As a result, there has been a sustained growth of interest in STEM fields nationwide, and the gap between the STEM interests of underrepresented minority students – specifically African Americans, American Indians, and Latino/a students, and their White and Asian American peers – continues to narrow (HERI, 2010). Nested in the context of the growing need to prepare graduates as global citizens and the widespread concern for diversifying STEM fields, this study will explore the experiences of students from one racially/ethnically underrepresented group – Hmong American students – who majored in STEM fields in two-year colleges and how their experiences prior to, during, and outside of college contributed to their development as global citizens.

Providing training and education to almost one-half of all undergraduates in the country, two-year colleges can play an important role in developing global citizens, particularly in STEM fields. These colleges provide the most diverse student body in the history of the United States

with access to higher education. Moreover, minorities, who are typically underrepresented in STEM fields, are disproportionately enrolled in two-year colleges. A report published by the National Academy of Engineering in 2005, *Enhancing the Community College Pathways to Engineering Careers*, highlights the important role of community colleges as stepping stones for underrepresented groups that might not have considered careers in engineering (Mattis & Sislin, 2005). A report published by the National Academy of Sciences, National Academy of Engineering, and Institute of Medicine of the National Academies (NAS et al.) in 2010, *Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads*, also emphasized the importance of community college pathways to STEM fields and careers for minority students (Costello, 2012).

Notwithstanding the strong push from policymakers, employers, and researchers, two-year college students from minority groups continue to be severely underrepresented in STEM. The 2010 NAS et al. report found that in 2006 underrepresented minority groups comprised 28.5 percent of the national population, yet they constituted only 9.1 percent of Americans with a college degree in science and engineering occupations (academic and non-academic), "suggesting the proportion of underrepresented minorities in S&E [Science and Engineering] would need to *triple* to match their share of the overall U.S. population" (p. 3). In response, institutions of higher education have designed programs and activities to engage two-year college students from minority groups in research experiences in science and engineering. As a result of these initiatives, the general student demographics as well as the student body in STEM fields in two-year colleges have started to change, including in the Midwest.

In two-year public liberal arts colleges in the Midwest that serve the second largest number of incoming freshmen in the state compared to four-year institutions, the population of

Southeast Asian, predominantly Hmong, students has continued to grow. In 2012, Southeast Asian students constituted almost 3% of the total student population and 23% of all students of color (UW Colleges, 2013). Among various racially/ethnically underrepresented populations in the two-year colleges' system, the Hmong American population is one of the fastest growing groups. There was a 39% increase in head-count enrollments of Hmong American students over the five-year period between 2008 and 2012.

Even though there is a shared understanding of the need to develop STEM graduates as global citizens and there are few innovative programs that aim to develop global citizens around the world and in the U.S., there is no research on the experiences of two-year college racially/ethnically underrepresented students who major in STEM that facilitate and nurture students' development as global citizens. At the same time, the significance of preparing scientists with global citizenship skills cannot be underestimated. Clearly, there is a disconnect. On one hand, higher education aims to prepare two-year college students as scientists and global citizens. On the other hand, higher education professionals do not have any understanding of the ways in which two-year college students who major in STEM fields can develop the knowledge, skills, and attitudes to be global citizens.

Despite the lack of understanding on what experiences contribute to global citizenship development, higher education professionals recognize the need to prepare its graduates as global citizens, especially in STEM fields. As I mentioned earlier, it is important that future scientists, researchers, or medical professionals possess global competencies. I believe that it is especially important to focus on racially/ethnically underrepresented groups because their numbers are growing in two-year colleges and they are becoming the majority in these types of institutions. Moreover, since racially/ethnically underrepresented groups, including Hmong

American students, are marginalized in higher education, it is important to understand how these students navigate structural and institutional characteristics of STEM programs on predominantly white campuses. And since two-year colleges will continue to play a critical role not only in serving marginalized student populations and preparing them for careers in science and engineering but also in facilitating the development of social responsibility and global civic engagement, it is important to know how these students develop as global citizens when pursuing studies in STEM fields in a community, technical, or junior college and what are the implications for higher education practices and policies.

Research Question

While scholars in various disciplines and from diverse perspectives have studied global citizenship, education scholars have not fully applied this research to STEM fields, to learning experiences in two-year colleges, and to racially/ethnically underrepresented groups. The literature on global citizenship development has been limited to four-year institutions, with programs mainly developed for the majority student body, and with a focus on "students" in its neutral definition. There is minimal emphasis on the importance of developing two-year college racially/ethnically underrepresented students, including Hmong Americans, as global citizens and no mention of students from this diverse group who major in STEM. No research has been specifically directed toward global citizenship development among two-year racially/ethnically underrepresented students who major in STEM in any field, including education. To address this gap, the following research question guides this study: *For Hmong American students who majored in STEM at two-year colleges, what experiences before, during, and outside of college contribute to their development as global citizens?*

Background

Before presenting my review of the literature related to the study, I provide background for the study. First, I briefly discuss the underrepresentation of racially and ethnically diverse students in two-year colleges who major in STEM and the accompanying need to focus on these students in this study. I also provide an overview of the educational experiences of Hmong American students and the role their worldview and identity play in public schools, colleges, and universities. Finally, I discuss the challenge of crystallizing a shared definition of global citizenship in higher education.

Racially/Ethnically Underrepresented Students in Two-Year Colleges Who Major in STEM

Our rapidly changing world requires graduates to be global citizens who are able to solve complex and interconnected problems, to be actively engaged in local and global communities, to show empathy to others, and to practice rights and responsibilities in international settings. This is especially urgent in STEM fields because scientists, researchers, engineers and medical professionals need to possess these global citizenship skills to be successful and contribute to our rapidly changing world. This need can be met in part by attracting more diverse students to STEM fields. Policy makers, educators, researchers, and the private sector are urging higher education to recruit and graduate more racially/ethnically underrepresented students in STEM. In 2011, the National Academies issued *Expanding Underrepresented Minority Participation: America's Science and Technology Talent Crossroads*. The report called for increasing the racial-ethnic diversity of participation in STEM fields.

Even though they play an important role in educating a large number of students, two-year colleges are often overlooked as an important partner in STEM education. Various types of

two-year colleges offer general education as well as training in essential technical skills that are of importance for national and local economic development and innovation. From 1990 to 2000, on average 44 percent of Americans who received bachelor's degrees in science and engineering attended community college at some point during their education, almost one-third of recipients of science or engineering master's degree did so, and slightly more than 8 percent of recent doctorate recipients (1996-2000) reported that they had attended community college before receiving their doctoral degrees (Tsapogas, 2004). Community colleges provide the most diverse student body in the history of the United States with access to higher education, predominantly serving people of color, women, older students, veterans, international students, first-generation college goers, and working parents. In particular, minorities who are underrepresented in STEM fields are disproportionately enrolled in community colleges.

Two-year colleges continue to be an important and relatively inexpensive path for students entering higher education. Associate's degrees, largely offered by two-year programs at community colleges, two-year liberal arts junior colleges, and technical colleges, are the terminal degrees for some students, while others continue their education at four-year colleges or universities and earn higher degrees. The questionnaire in the National Science Foundation's 2008 National Survey of Recent College Graduates asked graduates who had received bachelor's or master's degrees in science or engineering fields whether they had ever attended a community college. While the data collected provided valuable information for research, it was limited due to the fact that the data did not distinguish between graduates who attended community college part-time or full-time. According to the results of the survey, the main reasons for attending community college given by recent graduates with bachelor's degrees in science, engineering, or health were earning credits for a bachelor's degree (22.3%); financial reasons (13.2%); preparing

for college or increasing chances of 4-year college acceptance (12.5%); and gaining further skills or knowledge in academic/ occupational fields (12.4%). It is important to acknowledge how critical these associates degrees are, even if many who transfer to baccalaureate granting institutions do not earn associate's degrees before transferring. Associate degrees in S&E and engineering technology accounted for about 11% of all associate degrees in 2009, that percentage did not significantly change for four years between 2006 and 2009 (NSF, 2012).

The National Science Board (2010) stated that science and engineering occupations were projected to grow by 21.4% between 2006 and 2016, while employment in all occupations was projected to grow 10.4% over the same period (pp. 3-14). Estimated STEM employment grew at an average annual rate of 2.3%, compared to 1.3% for the whole labor market between 2004 and 2008. Still, there are challenges with diversifying STEM-related occupations to include racially/ethnically underrepresented groups. With the exception of Asians/Pacific Islanders, racial and ethnic minorities represent only a small proportion of those employed in science and engineering occupations in the United States. Collectively, Blacks, Hispanics, and other ethnic groups (the latter category includes American Indians/Alaska Natives) constitute 24% of the total U.S. population, 13% of college graduates, and 10% of college-educated individuals employed in S&E occupations (National Science Board, 2010, p. 3-35). Therefore, growing the diversity of perspectives in the workforce and increasing the number of STEM degrees among minority groups is seen as vital to maintaining national economic competitiveness in a globalized economy (Hira, 2010).

The summit organized by National Research Council and National Academy of Engineering to discuss the role of community colleges in the evolution of STEM education noted that relatively low numbers of minorities in the science and engineering workforce stemmed

from the underrepresentation of minorities in science and engineering at every level of the pathways from elementary school to higher education and the workplace. The summit report stated: "Though underrepresented minorities now account for almost 40 percent of K-12 students in the United States, they earn only 27 percent of the associate's degrees from community colleges, only 17 percent of the bachelor's degrees in the natural sciences and engineering, and only 6.6 percent of the doctorates in those fields" (p. 12). Given the need for national competitiveness and innovation, some policy makers and scholars posit that more attention should be given to two-year institutions, which enrolled 7.4 million students in Fall 2013, including 46 percent of U.S. undergraduates (American Association of Community Colleges, 2015). In the context of the projected demand for additional science and engineering workers and the need for diversifying the STEM workforce, increasing the preparation for science and engineering careers among two-year college students from racially/ethnically underrepresented groups is especially important.

As a result of various local, state, and national efforts and initiatives, there has been a sustained growth of interest in STEM fields nationwide. Two-year colleges have contributed to this growth. Data provided by the National Center for Education Statistics (NCES) indicated that nationally the most popular STEM-related career education fields of study at the associate's degree level in 2007-2008 were health sciences (21% of the total); engineering and engineer technologies (6.7%); computer and information sciences (3.8%); agriculture and natural resources (0.7%), and biological and biomedical sciences (0.3%) (Aud et al., 2011). In addition, the gap between the STEM interests of underrepresented minority students – specifically African-Americans, American Indians, and Latino/a students, and their White and Asian American peers – continues narrowing (HERI, 2010). According to the report by the Higher

Education Research Institute (HERI) at University of California-Los Angeles (*Degree of Success: Bachelor's Degree Completion Rates among Initial STEM Majors*), significantly, the initial interest in STEM among underrepresented minority students are similar (approx. 34%) to the interests of their White and Asian American peers in 2004 (HERI, 2010, p. 1). This increased interest among underrepresented minority groups could potentially result in filling the growing need for STEM careers.

As noted earlier, Southeast Asian, predominantly Hmong students, are one of the fastest growing groups among other racially/ethnically underrepresented populations in two-year public liberal arts colleges in the Midwest; that population constitutes of 386 students, which is almost 3% of the total student population, compared to 1.5% just five years ago (UW Colleges, 2013). Despite the growth in this population, there is no research on the experience of minority students, particularly Hmong Americans who majored in STEM fields in these two-year institutions, and whether these students are being developed as global citizens. In the context of the growing need to prepare graduates as global citizens and widespread concern for diversifying STEM fields, this study will explore the learning experiences of racially/ethnically underrepresented students in two-year colleges who major in STEM that contribute to their development as global citizens.

Completion of Associate Degree

Two-year colleges continue to be an important and relatively inexpensive path for students entering higher education. Associate's degrees, largely offered by two-year programs at community colleges, two-year liberal arts junior colleges, and technical colleges, are the terminal degrees for some students, but others can continue their education at four-year colleges or universities and earn higher degrees. Many who transfer to baccalaureate granting institutions do not earn associate's degrees before transferring. Associate's degrees in science and engineering

and engineering technology accounted for about 11% of all associate's degrees in 2009 – a percentage did not significantly change between 2006 and 2009 (National Science Board, 2012).

Science and engineering associate's degrees from all types of academic institutions rose from 38,434 in 2000 to 62,805 in 2003, before declining for four straight years. The situation started improving in 2006, and science and engineering associate's degrees reached 54,284 in 2009. Most of the increase through 2003 was attributable to the growing demand in computer science jobs, which peaked in 2003, followed by the subsequent decrease in the need of specialists in this field. Associate's degrees earned in engineering technology (not included in science and engineering degree totals because of their applied focus) declined from 40,470 in 2000 to 29,710 in 2006 and started gradually increasing until they reached 33,243 in 2009.

More than 30 percent of science and engineering graduates who have attended community colleges earned an associate's degree in 2008. The rate at which these graduates earned associate's degrees varies by field. Graduates with degrees in computer and information sciences and those with degrees in the biological, agricultural, and environmental life sciences who attended community colleges earned associate's degrees in higher numbers than graduates in other science and engineering fields. Forty one percent of S&E graduates in computer and information sciences and almost 40 percent of graduates with degrees in biological, agricultural, and environmental life sciences who attended community college earned associate's degrees (National Science Board, 2012).

Gender

According to the *Science and Engineering Indicators 2012* report published by the National Science Foundation (National Science Board, 2012), almost 62% of all associate's degrees were earned by female students in 2009, a two percent increase since 2000. They earned

a smaller share of associate's degrees in science and engineering: 40% in 2009, down from 48% in 2000. The most popular field among female students was computer science with almost 15% of total S&E degree recipients, but female students still number more than three times less than male students in that field. The next most popular fields among female students were other social sciences (10%), engineering technologies that are not included in S&E fields (9.6%), psychology (6.5%), and biological sciences (3%). The 2009 data shows that engineering fields had the lowest number of female students (0.6%).

Race/ethnicity

Fifty-seven percent of Hispanic students, 52% of African American students, 61% of Native American students, and 43% of Asian-Pacific Islander students attended community colleges in the Fall of 2013 among all undergraduates (American Association of Community Colleges, 2015). According to the NSF's Science and Engineering Indicators 2012 Report, students from underrepresented groups (blacks, Hispanics, and American Indians) earned a higher proportion of associate's degrees than of bachelor's or more advanced degrees (National Science Board, 2012, p. 2-20). In 2009, they earned 28% of science and engineering associate's degrees – more than one third of all associate's degrees in social and behavioral sciences and more than one-quarter of all associate's degrees in biological sciences, computer sciences, and mathematics. The report suggested that in the last ten years, the number of science and engineering associate's degrees earned by these students more than doubled, constituting 52%, compared with the overall national increase of 41%.

Age

Tsapogas (2004) studied the role of community colleges in the education of recent science and engineering graduates. He found that older science and engineering graduates were

more likely to have attended community college than were younger graduates. In 2001, 72% of 1999 and 2000 science and engineering graduates 50 years of age and older had attended community college, compared with 32% of science and engineering graduates 24 years of age and younger (p. 3). Tsapogas suggested that some students who were starting their postsecondary education began by enrolling in community college:

> These students may choose to earn an associate's degree or certificate at a community college before entering the workplace or transferring to four-year institutions for completion of the bachelor's degree. In addition, community colleges have increasingly become colleges of choice for workers taking classes to upgrade their skills for promotions or raises or to enter new fields. (p. 3)

The researcher concluded that the older the graduate was at the time of graduation, the higher the likelihood was that the graduate had attended a community college to take classes to upgrade employment skills.

The above described socio-demographic characteristics of two-year college students who major in STEM are important for this study because they contribute to understanding why students choose STEM as their major (Crisp, et. al, 2009) and for understanding student college experiences (Pascarella & Terenzini, 2005). The latter is particularly important because initial college experiences at students' first post-secondary institution are presumed to directly shape their decision to pursue STEM fields of study (Wang, 2013, p. 1084).

Summary

Notwithstanding the strong push from policy makers, employers, and researchers, two-year college students from minority groups continue to be severely underrepresented in STEM. In response to this need, higher education institutions have designed programs and activities to

increase the number of two-year college students from minority groups who major in science and engineering. To achieve the goal of increasing the racial/ethnic diversity of participation in STEM fields, the characteristics of STEM learning environments and those who have traditionally succeeded in them in formal educational systems in the United States need to be studied.

Experiences of Hmong American Students in Education

Since the first wave of Hmong refugees' resettlement to the United States in 1975, their population has increased significantly due to the second and third generations being born and raised in the new homeland as well as additional refugee waves, with the last one taking place in 2004. According to the 2010 U.S. Census, 260,076 Hmong Americans live in the United States (Pfeifer & Thao, 2013). Minnesota and Wisconsin were the home to almost one-half of that population with 66,181 and 49,240 Hmong residents, respectively. Small-size metro areas in Wisconsin like Wausau, Sheboygan, Green Bay, and Appleton are among fifteen communities with the largest Hmong populations in the country. The number of Hmong students attending elementary, middle, and high schools in Minnesota and Wisconsin has increased in the last ten years. According to the 2010 U.S. Census, about 71,900 Hmong school-age children were enrolled in school: 28% resided in Minnesota and 21% resided in Wisconsin (Pfeifer & Thao, 2013).

The number of Hmong Americans who are pursuing higher education has increased as well: the proportion of Hmong Americans 25 years and older who possess a bachelor's degree or higher rose from 4.9% in 1990 to 7.4% in 2000 (Pfeifer & Thao, 2013, p. 30). Still, according to the 2008-2010 American Community Survey 3-year Estimates, only 14.5% of Hmong Americans 25 years and older attained a bachelor's degree or higher compared to 28% of the

total U.S. population. The data shows that even though the population of Hmong Americans is growing, the number of students who attain a bachelor's degree or higher is still small, and this group continues to be marginalized in colleges and universities. To fully understand the experiences of these students in higher education it is important to examine the Hmong culture as well the pre-, during, and post-resettlement experiences and the role they play in the education of Hmong refugees and their children.

Wars, oppression, discrimination, change in political systems, religion and healing practices, family values, role of the old and the young, role of husband and wife, and parent-child relationships have shaped and influenced the development and maintenance of the Hmong culture in the U.S. (Vue, 2009, p. 3-4). These and other influences impact everyday experiences of Hmong Americans, including their educational experiences. In particular, Ngo (2006) explored the education of Hmong American students in context. Ngo suggested that the educational experiences of Southeast and South Asian American students, including Hmong American students, are shaped by their social, cultural, and economic marginalization. As a result, students often contend with many challenges in their academic pursuits. As Ngo puts it: "More often than not, their struggles are exacerbated by the myths perpetuated by the Asian American success story and obscured by the American achievement ideology. …The educational experiences of Southeast and South Asian American youth are influenced by issues involving cultural capital, gender and generational struggles, and racism" (pp. 61-62). In this study, I examined the complex context within which Hmong American students are educated, including the worldview of Hmong Americans, their experience in middle and high school, and their pursuit of higher education.

Worldview of the Hmong American Communities

The austerities of the Vietnam War and the hardships of refugee camps in Thailand followed by the resettlements dominate the narrative of Hmong Americans. They continue to face stigmas and misconceptions of their culture perpetuated by the media. The Hmong hunter incidents in Northern Wisconsin, gang groups, and early marriage are still among topics that emerge in publications and misrepresent Hmong communities and the complex realities of being torn between past and present and being questioned if they can fit into this new land. These are spaces where Hmong Americans are trying to define themselves and build their new home. "Home was over there and not yet over here," as Her (2012) pointed out when analyzing the search for identity of Hmong Americans.

Hmong elders play an important role in the lives of Hmong Americans, be they refugees or their children who were born in the U.S. They believe that "cultural retention is key to the continued existence of Hmong identity" (Her, 2012, p. 38). Her, a researcher who studies Hmong identities in multicultural America, describes how the elders use a special song to influence their children and grandchildren that describes what is Hmong. The song is a "potential reminder of the link between traditions and cultural continuity" (p. 38). The tradition is viewed as knowledge of self, family, and society, and it is a part of their identity that is rooted in the Hmong concept *puj ua tseg jawm ua ca* (p. 39). When Her asked one of the elders in the Xiong clan to explain the meaning of this concept, the elder implied:

> [K]nowledge of the elders is depth of understanding; tradition is knowing the norms, conventions, and expectations of society. In his view, competency is the ability to grasp the implications of a culture's morals, values, and teachings in everyday life. To be

> articulate is to take what has been learned and put it to use to advance self, family and community. (p. 39)

Her suggested that knowing Hmong traditions and the teaching of elders was beneficial to Hmong Americans, in particular, young people. Analyzing "the depth of creativity behind their culture, religion, and spirituality," having tools to fulfill obligations to family; and being better equipped to act as agents of change are among the main benefits of knowing traditions that are a part of their identity (p. 39).

Since Hmong refugees had not planned nor prepared for their leave taking, Han (2008) argues that they "were subject to many traumas during flight and were poorly prepared to adjust to their receiving country in addition to the traumatic experiences" (p. 26). A family members of one of the the participants I interviewed for this research was separated from his parents for 12 years before they were finally able to move to the U. S. and reunite with him and his sister. Personal traumas of war, refugee camps, resettlement, and the feeling of being lost and confused in the new land added to significant mental health consequences among Hmong Americans (Han, 2008). Besides these already significant barriers, the new land presented serious challenges to the preservation of their traditions and identity. However, in spite of these traumas, lack of English language skills, preferred oral communication traditions, and sometimes without any formal education experience from their home country or the U.S., Hmong refugees developed and show deep appreciation for education and they make an effort to ensure that their children receive it.

Experiences of Hmong American Students in Middle and High Schools in the U.S.

In their study, Ngo and Lee (2007) discussed the paradox of how, like other Asian American students, Southeast Asian Americans are often at once stereotyped as hardworking and high-achieving model minorities and depicted as low-achieving high school dropouts involved in

gangs. The authors argue that the realities of academic performance and persistence among Southeast Asian American students, including Hmong, in middle and high school are far more complex than either image suggests. Ngo and Lee criticized the notion that cultural differences and cultural barriers dominate the discourse of Hmong students' achievement. They showed that various researchers have tried to present the ways that oral tradition and the struggle to adapt to life in literate societies among Hmong community members, as well as early marriage and early child bearing among Hmong girls in particular, were cultural barriers to student achievement (Ngo & Lee, 2007). Meanwhile, other studies have examined structural and institutional issues faced by Hmong American students. As Ngo & Lee elaborate, the findings of these studies suggest that teachers had low expectations for Hmong students and they were subsequently tracked into lower level courses (p. 430). This practice had a long-term impact on those Hmong American students who were pursuing their college degrees: the researchers cited several studies that concluded that Hmong American students were unprepared to manage college-level coursework because they were tracked into low-level courses in high school.

The Youth Development Study report (Swartz, Lee, & Mortimer, 2003) on the achievements of first-generation Hmong youth in Minnesota found very positive educational outcomes for Hmong youth, despite the difficulties they experienced as children in Southeast Asia and in the United States. The results showed that Hmong American high school students had similar educational aspirations as their non-Hmong peers in high school, including hopes to attain a bachelor's or master's degree. To achieve their goals, Hmong American high school seniors spent much more time on homework than non-Hmong seniors, studying an average of 21 hours per week compared to the average 8 hours per week spent on homework by non-Hmong peers. Swartz, Lee, and Mortimer suggested that their hard work seemed to "have paid off for

these Hmong youth." Not only did Hmong American students graduate from high school on time and at a similar rate as their non-Hmong peers, but their grade point average was 3.05 during their senior year, compared to the grade point average of 2.77 of the non-Hmong seniors (p. 19).

Considering that the lives of Hmong American students are very much intertwined with the needs and demands of their parents and families (Ngo, 2006, p. 62), Ngo and Lee (2007) analyzed studies that showed that Hmong parents viewed education to be the primary responsibility of schools. In her study, Adler (2004) examined how Hmong parents and professional staff at one elementary school perceived home-school relations and how they constructed racial and ethnic identities of Hmong American children. The researcher found that Hmong parents were deeply concerned about their children's education and expected the school staff to be accountable for their children's achievement. In addition, Hmong parents were primarily concerned with their children's behavior, not their academic performance, when they attended parent-teacher conferences (as cited by Ngo and Lee, 2007). Being an immigrant myself and not going through school system in the United States I have difficulty trying to find a way to engage with the school my daughter attends. However, I would argue that I am very engaged with her education after school. Similarly, the Hmong American participants I talked to also have indicated that they are very involved with the learning process of their children. Moreover, the limited number of studies on Hmong families and education do not show us the "real picture" about the level of engagement of Hmong parents in the children's education process; nor do they address the complex contexts within which the parents are viewing their children's education, particularly while they are going though a process of social and cultural transformation. Because of the missing voices of Hmong parents in the research, little is known about how Hmong American students' parents are viewing their relationship with schools while they are

"attempting to redefine and re-express customs and values" and while they are concerned that "they will lose their children to 'American' ways and society" (Ngo, 2006, p. 62).

Experiences of Hmong American Students in Colleges and Universities in the U.S.

As was noted earlier, the number of Hmong American students is growing in colleges and universities in the U.S. Still, they remain marginalized on campuses and experience various challenges in pursuing their educations. As Ngo (2006) pointed out, "More often than not, Hmong American students' struggles are exacerbated by the myths perpetuated by the Asian American success story and obscured by the American achievement ideology" (p. 61). In their study of the attrition of Hmong students, Root and his colleagues (2003) observed that a majority of former students listed financial concerns as a major factor in their decision to dropout of school (Root et al., 2003).

DePouw (2006) examined Hmong American students' experience on a predominantly White campus and highlighted struggles these students had to go through to create spaces for their culture, history, and communities within the university. The study concluded that even though Hmong American students experienced racial hostility within educational institutions the research participants persisted in college, due in part to:

> their understanding of institutional and interpersonal racism; student activism; their concern for youth who would one day enter the same institution; their recognition of the ways in which earlier generations of Hmong people had been denied access to educational opportunity; and their belief that they needed a university degree in order to obtain secure employment. (p. iii)

In spite of being marginalized as a result of the normative Whiteness of educational institutions that created various barriers to access resources and "moved responsibility for educational

difficulties away from the institution and onto the individual shoulders of Hmong American students," (p. 262), as DePouw pointed out, these students learned to navigate the education processes and worked hard to obtain a degree.

Ngo and Lee (2007) discussed a study that suggested that the Hmong community's belief in education as the route out of poverty explained Hmong success in higher education. Another finding in that study indicated that the positive attitudes of Hmong American students toward education help them to overcome the cultural obstacles they face in school (p. 431). The authors also examined acculturation as a process that allowed students to become academically successful. In particular, they cited Bosher's 1997 study that examined the relationship of native language maintenance, self-esteem, and academic success. That study concluded that "students who are successful academically have been able to adapt to American culture without giving up their native culture or ethnic identification" (as cited in Ngo and Lee, 2007, p. 432).

In spite of the evidence of the increased number of Hmong American students attending higher educational institutions and their academic success, these students "continue to be marginalized from full participation throughout the institution" (Poon, 2010, p. 196). Their experiences of racial microaggression are documented by researchers. The study by Poon (2010) is particularly important to my research because it examined how ascription of intelligence as one of the categories of racial microaggressions contributes toward the high level of occupational segregation among Asian American students. After conducting in-depth interviews with 25 randomly selected Asian American undergraduates at the University of California-Los Angeles, the researcher found that, for many, their racial background prevented them from freely pursuing their career interests. Poon noted that not only do these students observe discrimination on the part of the labor market against Asian Americans in non-STEM fields, but even if they choose

atypical for Asian American career fields "they face a racially isolating vocational pathway" (p. 199). Moreover, Asian American, including Hmong, students face negative prospects in pursuing these careers in addition to experiencing pressure from their parents and peers. Poon concluded that "the concentration of Asian Americans in STEM careers should not be viewed separately from broader social forces that are also communicated through racial microaggressions they experience" (p. 1999).

Another study examined experiences of Hmong American students in a predominantly white university. The author of the study, Christine DePouw (2012), criticized postsecondary institutions for 'Whitening' Hmong American students and using them

> to raise their numbers of enrolled students of color, promote a public image of 'diversity' and inclusion, create interracial contact and experiences for White students on campus, and perform exotic and symbolic versions of traditional Hmong culture for the use and enjoyment of Whites on campus. (p. 223)

The author also suggested that colleges and universities would 'Blacken' Hmong American students when

> …they advocate for more meaningful inclusion in campus decision-making and push for more Hmong-related course offerings or Hmong faculty; when they request concomitant funding for these initiatives and attempt to institutionalize access to these resources; when Hmong American students expose and demand recourse for their experiences of racism on campus, particularly at the hands of White faculty and staff; and when Hmong American students' academic performance is not at parity with their White peers. (p. 223)

This convenient flipping of the position of higher education institutions towards Hmong American students undermines their status as a unique minority group with its own individual

challenges and needs and confuses these students while they are searching for their identity and negotiating their spaces on campus and in higher education in general.

Summary

Traditions, tragic history, and the continued quest for identity characterize the Hmong people. With the growing number of Hmong American students entering colleges and universities, it is not enough to examine their educational experiences through cultural lenses and identify differences in their academic progress, engagement, or degree attainment. Focusing solely on cultural differences does not allow for critically examining the role of identity and race in the lives of Hmong American students and their experiences in higher education. Even though cultural differences are often identified as the cause of inequities for Hmong American students (DePouw, 2012), they neither help these students understand their role and experiences as members of a marginalized group on campus nor give tools to institutions to recognize and address race and racism as a part of Hmong American students' experience on their campus.

Toward a Definition of Global Citizenship in Higher Education

Global citizenship is increasingly emphasized in academic programs and student learning outcomes in colleges and universities across the United States and globally. The concept of global citizenship is mainly viewed in the context of an interconnected world and can be interpreted as: (1) a choice and way of thinking; (2) self-awareness and awareness of others; (3) the practice of cultural empathy; (4) the cultivation of principled decision making; and (5) participation in the social and political life of one's community (Green, 2013). Institutions of higher education often cite global citizenship in their mission statements and/or as an outcome of liberal education and internationalization efforts (Shattle, 2009). However, since institutions

interpret global citizenship differently, their programs and initiatives reflect the interpretation and definition employed by a particular college or university.

Various studies have researched global citizenship as a broad concept and many have focused on what constitutes global citizenship. Reysen and Katzarska-Miller (2012) noted that it was difficult to clarify the concept of global citizenship due to the use of seemingly synonymous terms to describe a "superordinate" global identity and the influence of theorists' disciplinary perspectives in defining the construct (p. 2). The authors explained that the confusion regarding the concept of global citizenship was also exacerbated because theorists draw from diverse disciplines and perspectives (e.g. political, theological, developmental, and educational) to define the construct.

Bosanquet (2010) argued that global citizenship is closely aligned with globalization, and "there is a risk of the terms collapsing into one another." Since globalization itself is a "contested notion in the scholarly literature," the author warns that if understood as "the amalgamation of multiple peoples and places into 'a single world society' which is underpinned by imperialist values," then celebrating differences and diversity has a risk of being undermined and overshadowed by reinforcing existing power relations and entrenching inequality (p. 5).

Alternatively, Shattle (2009) explored the subject of global citizenship and described it as an emergent "way of living and thinking" with roots in classical ideals of cosmopolitanism that preceded national identities. He interviewed self-identified global citizens and identified three primary characteristics of global citizenship as a practice: (1) awareness that is both self-awareness and external awareness; (2) responsibility expressed as "principled decision-making" and "solidarity across humanity"; and (3) participation in public affairs focused on accountability and social change (Shattle, 2009, pp. 9-17). The author also argued that global citizenship often

signified forms of civic engagement that were mainly domestic and cross-cultural rather than international and political. Cross-cultural aspects of global citizenship are human relationships across many sources of difference, such as ethnicity, language, religion, and social class:

> For individuals who consider themselves global citizens by virtue of cross-cultural empathy, global citizenship has little, if anything, to do with where a person votes, or from which country one holds a passport, and everything to do with how an individual interacts with others and fits in where one should happen to be planted at any moment in time, even if only temporarily. …Whether one is an outsider in unfamiliar surroundings or fully entrenched in one's place of birth, global citizenship as cross-cultural empathy depends heavily on a willingness to build personal relationships with those from other backgrounds. (p. 14).

Shattle believed that global citizenship represented cross-cultural empathy that depended on a willingness to build personal relationships with individuals from other backgrounds.

Among many other possible perspectives on global citizenship, Che, Spearman, and Manizade (2009) focused on a social justice perspective. In this view, the authors supported researchers like Cogan, Grossman, and Lui (2000); Grelle and Metzger (1996); and Merryfield and Kasai (2004) who believed that global citizenship involved working toward world common good while remaining attentive to the responsibilities of a citizen in a pluralistic society (p. 8).

Another definition of global citizenship was suggested by Oxfam (2006) and is widely accepted, especially in K-12 systems. The definition includes key elements for responsible global citizenship. These suggested key elements (see Table 1) as a part of the developed curriculum for global citizenship that has been used by many schools in the United Kingdom as well as other countries. However, while this definition is useful, Chen (2010) argues that there is no fully

accepted explanation of the meaning of global citizenship and that Oxfam's perspectives have limitations. In particular, he raises a question about why some aspects, such as critical thinking, are included in Oxfam's meaning of global citizenship but others, for example, knowledge and understanding of human rights, are not (p. 11).

Table 1

Oxfam's perspectives of key elements for responsible global citizenship

Knowledge and Understanding	Skills	Values and Attitudes
· Social justice and equity · Diversity · Globalisation and interdependence · Sustainable development · Peace and conflict	· Critical thinking · Ability to argue effectively · Ability to challenge injustice and inequities · Respect for people and things · Co-operation and conflict resolution	· Sense of identity and self-esteem · Empathy · Commitment to social justice and equity · Value and respect for diversity · Concern for the environment and commitment to sustainable development · Belief that people can make a difference

Note: Adapted from Oxfam. (2006). *Education for global citizenship: A guide for schools*. Oxfam GB.

The dimensions of global citizenship were at the center of the research conducted by Morais and Ogden (2011). Their study is of particular importance for this research because I adopted some constructs of global citizenship that they discussed. The authors suggested that even though global citizenship did not have one particular adopted definition, it had three overarching dimensions: social responsibility, global competence, and global civic engagement. Each dimension had multiple sub dimensions that "further reflect the complexity of the construct." The authors stated that these main interrelated dimensions "align well with the prominent theoretical and philosophical perspectives described in the literature," "reflect how governmental entities, associations, and educators have framed global citizenship," and "articulate ideas that resonate with the goals of undergraduate education abroad" (p. 447).

Social responsibility is understood as the perceived level of interdependence and social concern to others, to society, and to the environment (p. 447). Morais and Ogden suggested that the following concepts constitute social responsibility:

1. *Global justice and disparities.* Students evaluate social issues and identify instances and examples of global injustice and disparity.

2. *Altruism and empathy.* Students examine and respect diverse perspectives and construct an ethic of social service to address global and local issues.

3. *Global interconnectedness and personal responsibility.* Students understand the interconnectedness between local behaviors and their global consequences. (p. 448)

According to Morais and Ogden (2011), global competence means having an open mind while actively seeking to understand others' cultural norms and expectations and leveraging this knowledge to interact, communicate, and work effectively outside one's environment (p. 448). Deardorff (2006) investigated various definitions of intercultural competence in her study and found that intercultural experts had supported Lambert's and Byram's definition of global competence the most (p. 248). Lambert argued that global competence was comprised of knowledge, empathy, approval (of other peoples and cultures), foreign language competence, and task performance (in a different cultural setting) (Lambert, 1994, as cited in Deardorff, 2004, p. 247). Byram (1997) expanded the list to include, "Knowledge of others; knowledge of self; skills to interpret and relate; skills to discover and/or to interact; valuing others' values, beliefs, and behaviors; and relativizing one's self. Linguistic competence plays a key role" (as cited in Deardorff, 2004, p. 247).

Morais and Ogden (2011) introduced the following concepts as constituting global competence when developing their constructs of global citizenship:

1. *Self-awareness.* Students recognize their own limitations and ability to engage successfully in an intercultural encounter.

2. *Intercultural communication.* Students demonstrate an array of intercultural communication skills and have the ability to engage successfully in intercultural encounters.

3. *Global knowledge.* Students display interest and knowledge about world issues and events. (p. 448)

Global civic engagement is viewed as the demonstration of action and/or predisposition toward recognizing local, state, national, and global community issues and responding through actions such as volunteerism, political activism, and community participation (p. 448). According to Morais and Ogden, the following concepts constitute global civic engagement:

1. *Involvement in civic organizations.* Students engage in or contribute to volunteer work or assistance in global civic organizations.

2. *Political voice.* Students construct their political voice by synthesizing their global knowledge and experiences in the public domain.

3. *Global civic activism.* Students engage in purposeful local behaviors that advance a global agenda. (p. 448)

I will continue referring to the constructs of social responsibility and global civic engagement through my study because I consider them more important for preparing students as global citizens than just self-awareness, intercultural communication, and global knowledge. I argue that higher education mostly focuses on developing global competencies among its graduates and carries less emphasis on developing and enhancing social responsibility and global civic engagement of its students.

Summary

The definition of global citizenship continues to be problematic. In part, the lack of a uniform definition stems from the fact that various disciplines provide their own interpretation of the concept, as Reysen and Katzarska-Miller (2012) have rightly pointed out. I would also suggest that the difficulty in defining the term lies in the way we view ourselves in relation to the world and how that is reflected in the way that global citizenship is defined. Does global citizenship mean that we practice responsibility and civic engagement for others or with others? Do we learn about other cultures or with other cultures? Do we provide answers to questions or do we look for solutions together? These may seem like small differences, but those differences are important in our understanding of the decisions and policies higher education institutions make when creating opportunities for students that aim to develop them as global citizens.

It is worth noting that no critical analysis has been conducted to investigate the stances of defining global citizenship, particularly through the Critical Race Theory lens. None of the various definitions or understandings of global citizenship have been critically examined in relationship to racially/ethnically diverse students who are underrepresented in the practices widely used in higher education to develop global citizens. Data shows that the participation of racially/ethnically diverse students in study abroad is three times lower than white students (Farrugia et al., 2012) and, further, this group of students, especially those from two-year colleges, is severely underrepresented in research as it relates to developing global citizens. How we define global citizenship, whether from the perspective of the majority or underrepresented groups, or whether from the perspective of "for others" vs. "with others," will determine how it will be taught and how students will learn and experience it.

The lack of shared definition of global citizenship does not diminish the significance of preparing scientists with global citizenship skills. It is especially critical for two-year colleges that serve a large number of minority students who choose STEM field to define what global citizenship is and what opportunities for their diverse students should be developed to engage them in meaningful practices that lead to social responsibility and global civic engagement. Thus, this study will explore experiences of racially/ethnically underrepresented students who major in STEM in two-year institutions that contribute to their development as global citizens. In so doing, I hope that this study will move away from the "feeling good" and "for others" discourse of global citizenship, and will give underrepresented students the voice to identify best practices that have prepared them as global citizens.

CHAPTER 2: REVIEW OF LITERATURE

Even though Hmong American students are one of the fastest growing racially/ethnically underrepresented populations enrolling in two-year colleges in the Midwest, they are still marginalized in higher education and research is scarce on this group. This review of the literature surrounding my study examines the learning experiences of students from various racially/ethnically underrepresented groups and majority groups in two year colleges and, wherever possible, includes studies of the learning experiences of Hmong American students who majored in STEM and the practices for developing racially/ethnically underrepresented students as global citizens in two-year colleges.

First, I provide background on global citizenship and a discussion on teaching and learning global citizenship in higher education with a focus on two-year colleges. To better understand the features of learning experiences that contribute to two-year college students' development as global citizens, an integrative review (Cooper, 1982; Torraco, 2005; Whittemore & Knufle, 2005) of the literature was conducted to examine how preparing for global citizenship is facilitated by various practices employed in two-year colleges. I explored the existing practices of preparing two-year college students as global citizens, particularly the practices of study abroad, service learning, and research experience. Study abroad, service learning, and research experience were chosen because these were the only practices examined by researchers in regard to two-year, racially/ethnically underrepresented students that were linked to preparing them as global citizens.

Search Process

The initial literature review involved online access to the University of Wisconsin-Madison library system, including Educational Resources Information Center, EBSCOhost and

Pro-Quest Dissertation Abstracts. Google Scholar was used for additional internet searches. Specific websites obtained from conference attendance were also referenced: NAFSA: Association of International Educators, California Colleges for International Education, Forum on Education Abroad, and the Institute for International Education. The descriptors and terms searched included: STEM in two-year colleges, research experience in two-year colleges, research experience in community colleges, service-learning in two-year colleges, service-learning in community colleges, international research experience, research experience abroad, international service-learning, service-learning abroad, study abroad, global citizenship, global competence, study abroad outcomes, and community college study abroad programs.

Criteria for inclusion and exclusion of research literature

The broader field of undergraduate education and research has received increasing attention after the Boyer Commission on Educating Undergraduates in the Research University (hereafter referred to as the Boyer Commission). It was formed in 1995 in response to numerous studies that were questioning aspects of undergraduate education in the United States and calling for the examination of some of its underlying assumptions (Kinkead, 2003). In 1998, the Boyer Commission produced a report that identified challenges and opportunities for undergraduate education and developed recommendations for how to improve it. Many universities responded to the call and implemented some of their recommendations. The evaluation of the initiatives in 2001 produced new suggestions on how to improve undergraduate research experiences for students. At the same time, international education in America had been fundamentally changed by the terrorist attacks on the United States on September 11, 2001. Several initiatives, including the work of the Lincoln Commission, encouraged policymakers and higher education institutions to strengthen the preparation of graduates as global citizens.

Therefore, my criteria for inclusion in this review of literature called for studies conducted after 2001 because the nature and focus of undergraduate research initiatives, study abroad programs, and global citizenship have changed. Preference was given to studies published in peer-reviewed journals. While they were consulted for any relevant information, studies that focused exclusively on study abroad at four-year institutions were excluded from inclusion in this literature review. All studies reviewed were originally written and published in English and in the United States.

The most alarming finding from this literature review is that none of the articles met all of my criteria. There is no research about the learning experience of two-year college students from any racially/ethnically underrepresented group, including Hmong American students, in two-year colleges who majored in STEM and their development as global citizens. This finding is of special concern because higher education is working on fulfilling the mandate of increasing diversity in STEM fields and preparing future scientists and engineers as global citizens while there is no knowledge on what experiences of racially/ethnically underrepresented group before, during, and outside of college contribute to their development as global citizens.

Since my first attempt to identify relevant literature did not yield any findings, I revised the initial descriptors for my search to include international research experience, research experience abroad, international service-learning, service-learning abroad, study abroad, global citizenship, global competence, study abroad outcomes, and community college study abroad programs. The descriptors of "racially/ethnically underrepresented" and "Hmong" were deleted from the initial list of descriptors.

From this extensive review of the literature, 47 empirical studies in study abroad experience were identified for inclusion in this review. Only one of these studies primarily

focused on the experiences of students in international research experience as that experience relates to their development as global citizens (Bender et al., 2009). For the purpose of this analysis, studies were classified and analyzed according to the following criteria: targeted group, outcomes, and research method. A descriptive overview of the data set ($N = 47$) used for the review of the literature on international experiences and study abroad outcomes is presented in Appendix A. Across all studies, the most popular research method was quantitative: 31 studies used quantitative techniques, 12 used qualitative techniques, and 4 used mixed methods. The overwhelming majority of studies (96%) researched students at four-year institutions. Out of the total number, 10 studies examined students in certain disciplines other than STEM. None focused on racially/ethnically underrepresented students from two-year colleges.

Practices in Higher Education that Prepare for Global Citizenship

Higher education around the world recognizes the importance of preparing its graduates to be global citizens. Some institutions have responded to this urgency by revising their missions, developing academic programs that focus on global citizenship, enriching curricula with global context, and designing extracurricular activities around global issues. Schulz and Jorgenson (2009) reviewed literature on global citizenship education in post-secondary institutions. They found strong evidence that initiatives will be successful and sustainable if global citizenship programs are linked to the strategic vision of the institution and supported from different levels of management (p. 8). They shared lessons learned from work at the University of British Columbia to establish global citizenship as an institutional goal. These lessons included:

1) There is a crucial need for an institution to act and also be seen to be acting as a responsible global citizen in areas such as purchasing and investment.

2) A university's intellectual, moral and social mission in developing global citizenship needs to be translated into concrete and sustainable policy and practice.

3) The goal of global citizenship is embedded within each of the university's core functions: teaching, research, and service.

4) The significance of employing communication, consultation, and dissemination processes (both internally and externally) that are demonstrably inclusive and transparent.

5) It is fundamentally important to establish an appropriate balance between centralized and decentralized initiatives.

6) There is a need to allocate sufficient and sustainable resources to support the implementation of these initiatives.

7) Universities need to introduce annual assessment processes to determine whether or not specified targets and timelines are in fact being met.

8) Emphasis must be placed on the creation of an incentive and reward structure that encourages and recognizes successful performance.

9) Senior university administrators must recognize that the preparation of global citizens is an ongoing process not an end state. (pp. 8-9)

Even though these are very detailed lessons, they do not include the need to define global citizenship for this institution and, most importantly, students are missing in this conversation.

The literature reveals a wide range of approaches to global citizenship education employed by colleges and universities. Many look to individual courses and activities to achieve overall global citizenship education, while others develop comprehensive programs. Classes on global citizenship education use service learning and experiential learning abroad to introduce the concept of global citizenship and develop students into global citizens. Schulz and Jorgenson

(2009) discussed multiple examples of such classes. For instance, the University of British Columbia offers an interdisciplinary online course called *Perspectives on Global Citizenship*. This course was developed in congruence with the University's aim to "equip graduates with the knowledge and competencies which will enable them to work and participate as global citizens" (as cited in Schulz and Jorgenson, 2009, p. 17). It was comprised of twelve weekly modules and it was designed to "complement a student's major and challenge them to consider the roles and responsibilities that each has within their political, social, cultural and professional contexts" (p. 17). Schulz and Jorgenson elaborated that the class was also offered to students from several partner universities in Hong Kong, Australia, New Zealand, and the UK. Another higher education institution, James Madison University in Virginia, developed a course in "Global Citizenship in a Service-Learning Context" that gave students "the opportunity to engage in one or two intensive service-learning projects over a four-week period in the Dominican Republic" (p. 18). Similarly, the University of Alberta designed a course entitled "Global Citizenship Field Experience in Ghana" "as a way to broaden pre-service teachers' horizons and educational experience by enabling them to live and work briefly in a foreign country" (p. 18).

Schulz and Jorgenson (2009) also examined various programs of global citizenship education at post-secondary institutions and identified several emerging trends. The researchers suggested that despite the common commitment to educate students for global citizenship, no two programs of global citizenship education were alike. In their words: "Each institution of higher education has created its own unique initiative consisting of various forms of policy, programming, pre-requisites, credentialing and student and community involvement" (p. 9). They found that the most expansive initiative to educate for global citizenship was launched by the Association of American Colleges and Universities (AAC&U) in 2002 under the project

titled *Liberal Education and Global Citizenship: The Arts of Democracy*. Funded by the federal Department of Education's Fund for the Improvement of Post-Secondary Education, the project set out to enhance global education and prepare future college graduates "to become more informed, socially responsible and engaged citizens of the nation and the world" (as cited in Schulz and Jorgenson, 2009, p. 9). As a result of this project, 10 different initiatives of varying complexity and depth designed to educate for global citizenship were instituted across the United States. Schulz and Jorgenson noted that the current status of programs and courses developed as a result of this initiative was unclear, even though each of the project proposals presented various learning activities that they would implement with the money. Some of the programs the researchers examined did not have documented results and, as of 2002, there was no clear record or evaluation of the programs.

According to Grudzinski-Hall (2007), several American institutions have implemented programs of global citizenship on their campuses since the AAC&U's project was put into practice in 2002. These institutions used "global citizenship" as an umbrella term for various academic programs that fall under education abroad, service learning, and volunteer exchanges. For instance, Haverford College in Pennsylvania developed a *Center for Peace and Global Citizenship* and encouraged interdisciplinary collaboration, curricular innovation, and connections to community organizations by providing funding for various programs. Chatham University in Pittsburgh, Pennsylvania established programs in collaboration with private donors that provided funding for specific initiatives. In 2006, the University established the *Benter Initiative for Global Citizenship*, supporting faculty members who work with students in experiential learning projects with global dimensions with award grants. Many other small American universities developed programs of global citizenship of different scale with more

specific academic foci and credentials for global citizenship education (Schulz & Jorgenson, 2009). That said, it is difficult to determine how many similar programs structured around and committed to developing and credentialing global citizens exist (p. 12).

A two-year college, Santa Monica College (SMC), launched the Global Citizenship initiative in 2007. As a result of this college-wide initiative, the college has been developing and promoting activities that prepare students for the 21st Century. Such preparation includes awareness of the social, cultural, and environmental transformations taking place in our world of unprecedented global interconnection; attitudes of tolerance and respect for diversity and of anticipation and adaption toward global change; skillful command of the technologies that revolutionize the way we obtain information and interact with each other; and a commitment to act as responsible global citizens through political engagement, entrepreneurship, and community service (Santa Monica Colleges, 2013). SMC's original Global Citizenship Task Force developed a working definition of the concept for the college: "To be a global citizen, one is knowledgeable of peoples, customs and cultures in regions of the world beyond one's own; understands the interdependence that holds both promise and peril for the future of the global community; and is committed to combining one's learning with a dedication to foster a livable, sustainable world" (p.1). Annually, the college identifies the Global Citizenship theme and plans and organizes events and activities on campus around this theme. Two main programs that are used to promote global citizenship are study abroad and research opportunities for students. Notwithstanding the college's commitment to global citizenship, little is known about how these practices contribute to developing SMC's students as global citizens (Santa Monica Colleges, 2013).

Che et al. (2009) differentiated global citizenship and global education, suggesting that the term global citizenship implies more action than global education. In their words, "citizenship brings rights and responsibilities" (p. 108). The authors recommended that students should strive to view manifestations of citizenship from "non-dominant, non-Western perspectives" (p. 108). They suggested that understanding non-dominant and non-Western perspectives implied that a student could recognize dominance, power, and hierarchies, and that he/she could begin to position him/herself with respect to these webs of influence. According to Che et al., "this process of becoming more fully aware of one's relationship to hegemony and oppression can be emotionally and intellectually challenging" (p.109).

Experiencing familiar things within unfamiliar contexts is one of the joys of educational travel that leads to global learning, according to Slimbach (2010). In his words, "The very act of moving from one place to another helps create a space where we can bump up against strangeness and reexamine some of the settled assumptions we hold regarding the world – and ourselves" (p. 5). The author views the world as a living classroom, "a place to watch and wonder, to enter into experiences and perspectives of others to communicate across differences and to use knowledge on behalf of the common good" (p. 5).

Brockington and Wiedenhoeft (2009) argued that education for global citizenship should be cooperative, multicultural, multinational, broadly historical, infused with cross-cultural understanding, and aware of and sensitive to difference (p. 118). They support the view of Martha Nussbaum, who suggested: "The new emphasis on 'diversity' in college and university curricula is above all a way of grappling with the altered requirements of citizenship, an attempt to produce adults who can function as citizens not just of some local region or group, but also, and more importantly, as citizens of a complex interlocking world" (Nussbaum, 1997, as cited in

Brockington and Wiedenhoeft, 2009, p. 118). The authors also discussed the five dimensions of global perspective proposed by Robert Hanvey as curricular goals for education for world citizenship: (1) perspective consciousness; (2) state of planet awareness; (3) cross-cultural awareness; (4) knowledge of global dynamics; and (5) awareness of human choices (p. 120).

Cornwell and Stoddard (1999) studied how to help students move among different cultures. Based on their research, the authors suggested the following interrelated goals for undergraduate students:

1. Understanding diverse cultures and understanding cultures as diverse;
2. Developing intercultural skills (through second language study; intercultural experiential learning; college campuses as intercultural laboratories; study abroad; service learning);
3. Understanding global processes;
4. Preparing for citizenship, both local and global. (p. 21)

All of these goals aim to develop global competencies of undergraduate students and do not emphasize social responsibility and global civic engagement. It is also unclear the rationale of why Cornwell and Stottard suggest that undergraduate students should focus on just "preparing for citizenship" instead of practicing it.

Several works discuss language as an important part of global citizenship development. Brockington and Wiedenhoeft (2009) stated that cultural nuances are often lost in translation:

> One claims citizenship of a locality by virtue of birth or by long-term residence and the gradual acquiring of local knowledge, customs, and language. And while it is impossible for a global citizen to have a command of all of the languages of the world, it is possible

> to develop an appreciation for the linguistic diversity of the world's peoples and begin to recognize those things that have special linguistic relevance to them. (p. 122)

This poses a question: can a student develop as a global citizen without being able to speak another (foreign) language? And how can an appreciation for linguistic diversity be assessed?

Intentional activities, particularly during study abroad, have been linked to developing global perspectives and intercultural outcomes. Braskamp, Braskamp, and Merrill (2009) explored developmental processes from three domains: cognitive (cultural knowledge, global awareness); intrapersonal (identity, emotion); and interpersonal (behaviors, skills sets, and social responsibility). They concluded that study abroad was an effective educational experience for students, especially if the objective is to help students develop holistically and globally, noting that "student engagement in education abroad experiences enhances global learning and development which we argue should now become an important and even the core of holistic student development, a goal of almost every undergraduate college or university" (Braskamp et al., 2009, p. 111).

Various higher educational institutions around the world have also been addressing the need of preparing their graduates as global citizens and developing courses and programs related to global citizenship. The University of Glasgow initiated a project that aimed to establish a model for embedding education for global citizenship in initial teacher education, building global citizenship into the philosophy and practice of the program and providing evidence of the effectiveness of this approach in developing global citizens (Schulz & Jorgenson, 2009, p. 12). Schulz and Jorgenson (2009) examined the EU-AU Global Citizenship Program, a good example of programs that were developed through partnerships between nations and institutions. This program offered students from three Australian universities and four European universities with

an interest in globalization, international relations, development studies and languages an opportunity "to prepare themselves as global citizens and leaders." Distinguishing itself from other basic institutional exchanges, the program declares that it provides students "with a deeper understanding of the cultural and political dimensions of change, and of their potential role in developing a conception of citizenship geared to the needs of rapidly globalizing world" (as cited in Schulz & Jorgenson, 2009).

Bosanquet (2010) critically reviewed the complexities of the definition, implementation, and evaluation of global citizenship – albeit in the context of global citizenship as an attribute of graduates of Australian universities. She suggested that preparing for an uncertain future and acting for the social good were closely aligned with the attribute of global citizenship, with an emphasis on transforming the student, the curriculum, and the future and acting to benefit the broader community. In the last five years there has been a shift in the language describing the attributes of a college graduate; institutional statements justifying their inclusion in the curriculum have moved away from a concentration on the individual student and toward a notion of community. Similarly, emphasis over the past fifteen years has moved from gaining skills for employability, to action-based approaches between 2000 and 2005, and finally toward a focus on participation, with a sense of the imperative or obligation of global participation having been emphasized in the last five years. Evident in these shifts is an increasing focus on the concept of global citizenship and the affiliated notions of adapting to or promoting change and community leadership, as well as a shift in emphasis towards experiential learning, participation, and sustainability (Bosanquet, 2010). Recognizing the challenges faced by Australian institutions, particularly in the context of the current Bradley Review of Higher Education (which has as one of its goals widening participation, including a 20% increase in students from lower socio-

economic populations), Bosanquet poses these questions: What are the needs of students as global citizens? Do universities have the capacity to engage *all* students in activities that promote global citizenship? Are the ideals of global citizenship consistent with a mass education system? (p. 6).

After reviewing multiple programs and literature on global citizenship in higher education, Schulz and Jorgenson (2009) suggested that one of the most obvious trends in programs of global citizenship education at post-secondary institutions relates to their location: "It appears that the majority of global citizenship education programs are located in the United States and, to a lesser degree, in Canada, the UK, and Australia. The use of 'global citizenship' to frame postsecondary educational programs is rarely found outside of these countries" (p. 15). Gacel-Ávila (2005) offered an interesting perspective on the absence of global citizenship programs in regions such as Latin America. She asserted that the effects of globalization are divergent and felt unequally across nations. Universities do not always make internationalization and global citizenship education the priority that they should because they don't have the resources or systems in place for co-operation with other institutions (p. 121). Gacel-Ávila suggested that current programs of global citizenship have gate-keeping mechanisms that privilege a global elite. This point of view was supported by Zemach-Bersin (2007), who made arguments about these elitist trends found in study abroad programs in the United States. The researcher noted that "individuals are constructed into global citizens through their ability to access elitist modes of attaining citizenship…. [G]lobal citizenship, therefore, is an identity available and granted to some but not to others" (pp. 21-22).

Despite the fact that the majority of the global citizenship programs are located in the United States, Canada, the UK, and Australia, other countries around the world are increasingly

concerned with preparing their graduates as global citizens. In particular, Thanosawan and Laws (2013) investigated how a university in Thailand and its affiliated international college had interpreted and implemented the discourse on global citizenship into their undergraduate programs. The study developed as a result of the upcoming creation of the ASEAN Economic Community in 2015 and implications associated with the preparedness of the Thai higher education sector to face new challenges. The goals of the ASEAN Community are economic cooperation and development, social progress, and cultural development. It is anticipated that as the Community develops,

> higher education will be under the tension of the open economic zone for a number of reasons such as the free movement of academics and students among the member countries and the challenges of multi-level identities. These identities are not mutually exclusive, but may challenge the status quo of the aims and purposes of higher education in universities throughout member states. (pp. 293-294)

According to Thanosawan and Laws, if "globalization could be viewed as an opportunity, universities should look for ways to build networks with other universities, especially those within the region. Through internationalization, universities can promote student and staff mobility as well as enhance teaching quality and research capacity" (p. 301). At the same time, the study found that some senior administrative participants viewed globalization as a threat. Moreover, as more students enrolled in the University, it was becoming increasingly difficult to control the quality of the courses. Thanosawan and Laws shared that a lecturer from the International College contended that higher education had become "commodified." The authors posed this idea: "The essence of knowledge acquisition had been lost in the midst of globalization forces." One of their interviewees from the same college expressed that "once there

are too many students from one dominant country in the class, we (in the International College) begin to lose our character" (p. 301).

The study by Thanosawan and Laws found that global citizenship was a desirable attribute for graduates of both the University and the International College. However, the researchers noted that some individuals questioned the legitimacy of the concept itself. Still, most lecturers agreed that their students should develop as global citizens or at least understand global perspectives. Another finding of the study was that participants defined the concept differently. Thanosawan and Laws found that some comments concurred with Western literature that "global citizenship is concerned with intercultural awareness, global competence and social responsibility, whereas other comments indicated alternative views such as preparation for work, intellectual growth, and Thai values being essential for the students" (p. 301). The researchers concluded that the complexity and interdependencies created through globalization and internationalization indicated the necessity of citizenships beyond the national level and expressed the urgency of achieving multi-level citizenships. In response, higher education institutions have to be prepared to develop graduates as citizens of regions as well as at a global level.

Notwithstanding various practices employed by higher education institutions to prepare graduates as global citizens, study abroad is the most popular practice offered to students who major in STEM fields. Service-learning and research experiences are also used by colleges and universities to developed knowledge and skills associated with global citizenship and will be discussed in later sections of this review.

Study Abroad

This literature review found that study abroad is the most popular practice to promote global experiences and, furthermore, that study abroad program characteristics and structures vary widely among educational institutions. The literature identifies two major international experience structures: the academic program and the residential program. Characteristics in the academic program include faculty and curriculum selection, program location, and program length. Characteristics of the residential component include housing options, cultural activities, and student services.

Most of the literature reviewed was based on study abroad programs at four-year colleges and universities, all of which had residential programs at their U.S. campuses. Four-year colleges have expertise and experience structuring residential life for students. Unlike universities, relatively few community colleges have residence halls on campus. As a result, community colleges have been dealing with an unfamiliar burden in both the academic and residential programs (Arden-Ogle, 2009). Below, I also explore the types of study abroad programs that are offered by two-year colleges, the diversity of students participation in these programs, and the important findings of the research that has been done on study abroad in two-year colleges.

Academic Study Abroad Programs in Two-Year Colleges

Researchers have been interested in the relationship between the amount of time students spend abroad and their learning outcomes. Significantly, the length of the study abroad program affects other aspects of a program, including program location, content area taught, and faculty selected. Specifically, Tillman (2001, 2005), Medina-Lopez-Portillo (2004), and Chieffo and Griffiths (2004) examined program duration as one of the key components of the academic program structure. Some study abroad faculty and administrators argued for the value of short-

term programs (Isabelli-Garcia, 2003; Kitsantas, 2004; and Tillman, 2005) compared to the value of traditional semester length or academic year length programs as recommended by Dwyer (2004) and Ruhter, McMillan, and Opem (2004).

Program length has been a critical area of concern for scholars and practitioners because of its impact on the acquisition of global competence (Arden-Ogle, 2009). Continuing conversations regarding program duration have been justified by the needs of colleges to establish the most efficacious academic structure for their study abroad programs so that students have the necessary learning opportunities to acquire global competence. Arden-Ogle (2009) argued that colleges could not afford to put together programs that did not maximize their students' opportunities to acquire global competence, but neither could these institutions structure programs that were too expensive for their students to attend (p. 34). While some researchers, such as Medina-Lopez-Portillo (2004) and Dwyer (2004), argued for lengthier experiences for student success, other researchers, including Chieffo and Griffiths (2004) and Tillman (2001, 2005) asserted that shorter programs can have positive impacts on student success in acquiring global competence.

Not much data exists that supports program development based on shorter-term study abroad experiences and provides evidence of the effective outcomes of short-term study abroad programs (Chieffo & Griffiths, 2004). Chieffo and Griffiths offered us explanation for this lack of data, suggesting that "nearly one half of the students earning credit overseas are doing so for a period of fewer than eight weeks, leaving educators to explain or defend with only spotty evidence what the benefits of these shorter-term sojourns might be" (p. 166). These two researchers assessed 2,300 students studying in short-term (less than eight weeks) programs over a two-year period in their mixed-methods study. Their project was aimed at assessing levels of

student global awareness in four areas: intercultural awareness, personal growth and development, awareness of global interdependence, and fundamental knowledge of world geography and language. The statistical analysis included frequency of data analysis, while the qualitative analysis coded student responses in categories. Their conclusions supported short-term structures as valuable:

> Based on the data yielded by this study, it was concluded that short-term programs, even as short as one month, are worthwhile educational endeavors that have significant self-perceived impacts on students' intellectual and personal lives. The data collected over a two-year period from over 2,300 students provide a much needed base of information from which international educators can begin to draw conclusions about the impacts of short-term programs abroad. (Chieffo & Griffiths, 2004, p. 174)

Tillman (2005) asserted that short-term programs were the area of greatest growth (p. 2), and therefore were important to consider in assessing what academic structure was best suited to the particular needs of a particular college.

Diversity of Study Abroad Participation in Two-Year Colleges

According to the Institute of International Education's (IIE) 2012 Open Doors report, 273,996 U.S. students studied abroad for credit in 2010-2011, a 22.6 percent increase from five years earlier (2005-2006) and a 77.7 percent increase over the past decade (2000-2001) (Farrugia et al., 2012, p. 18). About 86 percent (236,470 students) of these students were undergraduates. Despite this increase in the total number of students studying abroad, the population of students going abroad remains dominated by students attending a four- year institution of higher education. In the 2010–2011 academic year, only 1.7 percent of total study abroad students were community college students.

Among the challenges that students attending community college experience as they consider the possibility of participating in a study abroad program, the following themes emerged in the literature: funding, anxiety/general fear of travel, and academic-family conflict (Amani, 2011). Students in the study by Amani (2011) cited funding as one of the reasons that prevents them from engaging in study abroad opportunities. In the words of Amani (2011): "Data analysis demonstrated that although cost can be an important source of concern for students at community colleges, institutional (i.e., scholarships), social (family's monetary support), and personal resources (i.e., personal savings) can facilitate students' engagement in international programs" (p. 197). Fear of flying and/or traveling for the first time, as well as traveling without family, were other concerns the students discussed. Amani found that balancing family obligations with academic responsibilities were commonly shared concerns, particularly among the non-traditional participants. In her words: "In making a decision to study abroad, the non-traditional students were confronted with the dilemma of balancing their academic goals and negotiating household responsibilities during their absence and leaving loved ones and young children behind" (p. 198). The researcher also indicated that some participants found themselves needing to convince their spouse/partner about the necessity of studying abroad as part of their personal and academic goals.

Despite the challenges faced by non-traditional two-year college students while making the decision to study abroad, there has been gradual growth in the diversity of study abroad participants. In 2010-2011, 22.2% of study abroad students represented minority racial or ethnic groups. In comparison, 77.8% of students studying abroad identified as White, while only 7.9% identified as Asian, Native Hawaiian, or Other Pacific Islander; 6.9% as Hispanic or Latino(a); 4.8% as Black or African American, 2.1% as Multiracial; and .5% as American Indian or Alaska

Native. There is no data specifically on Hmong students who participated in study abroad. Thus, while we know that their numbers are growing on campuses in the Midwest, unfortunately there is no clear picture that will describe their engagement with study abroad opportunities because this group of students is not specifically identified in the national data and is usually lumped together with other Asian populations.

There is no lack of available anecdotal information on students of color and study abroad (see Akomolafe, 2003; Brown, 2002; Dessoff, 2006), yet few rigorous studies have been conducted on the subject, and there are even fewer studies that directly address individual minority groups of undergraduate study abroad participation (McLure et al., 2010). Moreover, there are no studies that address the experiences of minority students from community colleges. In 2008 Comp created an extensive annotated bibliography on underrepresentation in education abroad. Comp (2008) found that the majority of research on students of color and study abroad was not published in peer-reviewed journals. Instead, most of this literature is comprised of magazine and newspaper articles and conference presentations. The studies that do exist focus on students of color in general or African American students exclusively (McLure et al., 2010).

Research on Study Abroad Programs

Several researchers have examined the impact of study abroad on students' development as global citizens. In particular, Tarrant, Stoner, Borrie, Kyle, Moore, & Moore (2011) studied educational travel and global citizenship. In particular, they explored the extent to which participation in short-term, educational-travel, study abroad programs to the South Pacific influenced support for environmental policies across four different citizen types: justice-oriented citizens, participatory citizens, personally responsible citizens, and non-citizens (p. 409). A pre-test and post-test survey of students in 10 U.S. universities participating in a four-week, six-

credit educational travel program were conducted over a two-year period of time. The results of the study suggested that academic institutions had fallen short in advocating for, and delivering, international education that promoted global citizenship (p. 421). Building on the work of others, the researchers maintained that "education for global citizenship should foster connections between humans and their environment utilizing a sustainable development perspective; requiring students to explore the links between society, economy, and the environment at both local and global levels" (p. 421). One of the limitations of the study was that the pre-test and post-test interviews were conducted at the home institution. Little is known about the experience of students during the program in a foreign country and what features of the program facilitate their global citizenship development. It would have been beneficial to assess students' perspectives not only immediately after the program but also at least six months or a year after their international travel experience in order to collect further qualitative data.

Another study on developing students as global citizens through international experiences was conducted by Braskamp (2008). He viewed education abroad as one of the effective pathways to develop students with a global perspective and he warned that we should not "limit our perspective to cultural differences that are only associated with nations and countries" (p. 4). By using a survey instrument, Global Perspectives Inventory (GPI), he measured student progress on "their journey of life" organized around three major questions: How do I know? Who am I? And how do I relate to others? These questions served as a framework to characterize student learning and development holistically, based on the argument that "students—and all humans—go through life trying to find meaning and making sense of who they are and what they wish to do with their lives" (p. 2). The GPI included an item, "I see myself as a global citizen." The study correlated this item with the other 45 items, and based on a sample of over 2,500

students from several diverse colleges, items that correlated highest with self-identifying through global citizenship included a student's ability to interpret debatable issues, to be informed of current issues that impact international relations, to understand how various cultures of this world interact socially, to discuss cultural differences from an informed perspective, to be aware of how other cultures consider "fairness" differently from his/her own culture, to intentionally involve people from many cultural backgrounds in his/her life, to be open to people who strive to live lives very different from his/her own life style, to work for the rights of others, to consciously behave in terms of making a difference, and to think of his/her life in terms of giving back to society (p. 3). Braskamp asserted that "global citizenship was an appropriate image to frame the aims and goals in educating students" (p. 2). The set of items affiliated with global citizenship reflected all three domains of student development—thinking, seeking a sense of self, and relating to others. In turn, Braskamp suggested several ways for using global citizenship, including reimaging undergraduate education; designing environments for integrated learning; viewing and organizing curriculum and experiences more holistically and with greater integration and coherence; working with parents and helping them be effective partners in educating students; understanding the influences of American values and ways of behaving on others in order to critically analyze problems and solutions; and, finally, understanding and respecting justice, equity, fairness, and equal opportunities as virtues and values that "should not be viewed as assumed universal truths, but important and contested goals and ends in our dialogues that also accept different traditions" (pp. 2-4).

In addition to the above mentioned research that examined the development of students as global citizens as a result of their participation in study abroad programs, there were numerous

studies conducted on study abroad that produced significant findings on study abroad learning outcomes and continue to influence the field. Below I want introduce three studies that stand out.

The Beyond Immediate Impact: Study Abroad for Global Engagement (SAGE) project examined the long-term impact of study abroad on various forms of global engagement. The study employed a retrospective tracer study and mixed methods research design. Survey results from 6,391 study abroad participants revealed that study abroad had had an impact on five dimensions of global engagement (civic engagement, knowledge production, philanthropy, social entrepreneurship, and voluntary simplicity) as well as on subsequent educational and career choices. Sixty-three interviews were also conducted to provide more detailed life stories about the role of study abroad on students' global engagement, education, and career paths (Paige et al., 2009). Data were also gathered concerning study abroad program characteristics and participant characteristics. The study did not bring to light the experiences of Hmong students and the engagement of this particular student group in study abroad.

Georgetown University, together with partner institutions, designed a large-scale, multi-year study of U.S. student learning abroad. The data from the Georgetown Consortium Project supported several broad conclusions with important implications for study abroad policies and practices. One of the findings showed significant relationships between independent variables representing learner characteristics and program features and the intercultural and target language learning of students abroad were found in the study. Another important finding suggested that students learned most effectively abroad given proactive learning interventions. The study identified two intercultural learning needs and offered six interventions that might be implemented at home campuses prior to departure to increase intercultural learning abroad. It also identified five intercultural needs that might be addressed abroad through the intervention of

a well-trained cultural mentor who met with students frequently and who designed and delivered those interventions (Vande Berg et al., 2009). Even though these findings and suggested interventions add to the field of study abroad they should be critically assessed considering that white students dominate study abroad and these suggested interventions reflect mainly their needs and not the needs of growing racially/ethnically underrepresented groups who are not yet well represented in study abroad practices.

The Georgia Learning Outcomes of Students Studying Abroad Research Initiative (GLOSSARI) also documented important findings accruing from students' participation in study abroad. It focused on comparing several outcomes between study abroad participants and non-participants attending 16 varied public institutions within a state university system. Sutton and Rubin (2004) described and interpreted the data they had collected in Phase I of a six-phase, multi-year University System of Georgia project that collected data annually from more than 4,000 students. The authors traced the growth of the assessment movement in higher education and pointed out that institutions often defined success in study abroad through such things as increases in study abroad participation or through post-program surveys that attempted to measure student satisfaction with their study abroad experience. They argued that neither these nor other measures commonly in use provided direct evidence of students' curricular content knowledge gained abroad or the cognitive understanding that they were presumed to have acquired.

These three large-scale studies are of importance to our understanding of study abroad and offered valuable findings about the benefits of international experience. However, none of these studies explored how international experiences contributed to the development of global

competencies in undergraduate students (Stebleton et al., 2013) or included two-year college students and their learning experience.

Service Learning

Because of their mission, community colleges are viewed as well-positioned to promote civic engagement. However, some researchers argue that it is challenging to engage two-year college students in civic related activities, as this unique group of students typically has fewer opportunities to engage with faculty and peers or participate in social and academic activities outside of the classroom (Bailey & Alfonso, 2005; Barnett, 1996; Duffy, et. al., 2007; Robinson, 2004). Service-learning is one of the strategies employed by two-year colleges to address this challenge.

The benefits of service-learning have been linked to educational, vocational, and social outcomes (Pascarella & Terenzini, 2005). Service-learning research confirms Astin's (1993) assertion that an important learning outcome for service-learning classes is cognitive learning. Astin (1993) also argued that service-learning resulted in affective learning and later researched affective learning outcomes such as enhanced self-knowledge (Eyler & Giles, 1999) and personal growth (Eyler, 2002; Eyler et al., 1997; Roschelle et al., 2000).

Building on the ideas of John Dewey, Battisoni, Longo, and Jayanandhan (2009) emphasized that service learning has always sought to embed educational experiences within local contexts, relationships, and community institutions. Increasingly, however, our interconnected, global world envisions a new understanding of "community," where the context of the global and the local changes. As a result, service-learning has been framed within the context of global citizenship (Battisoni et. al., 2009), and various service-learning projects have

been designed by higher education institutions to introduce the concept of global citizenship and develop students into global citizens (Schulz & Jorgenson, 2009).

The course "Global Citizenship in a Service-Learning Context," which was developed at James Madison University gave students the opportunity to engage in one or two intensive service-learning projects over a four-week period in the Dominican Republic. "The course sought to address definitions and issues of global citizenship, development, and service through the use of service-learning" (Schulz & Jorgenson, 2009, p. 18). Schulz & Jorgenson (2009) described that through service-learning, structured outings, cultural events, guest speakers, coursework, and course readings and assignments, students experienced and learned about contemporary social, political, cultural, and economic conditions within the Dominican Republic. Students worked with both American and Dominican professionals. Ongoing structured reflection was incorporated into the course and provided a way for participants to "discover, articulate, integrate, and act on what they learn from their experiences" (p. 18).

As noted earlier, the University of Alberta offered a course entitled "Global Citizenship Field Experience in Ghana" as a way to broaden pre-service teachers' horizons and educational experience by living and working briefly in a foreign country. The course aimed to prepare "students to become informed and active global citizens" and help them to teach global citizenship in their own diverse classrooms in Canada (Schulz & Jorgenson, 2009, p. 18). Following a one-week orientation in Edmonton, Canada, the students travelled to Ghana where they underwent another orientation, team-building activities with school partners, project work, seminars, and teaching experiences in a rural community for four weeks. These students were also provided with opportunities to extend their pre-departure preparation by taking education

courses offered by the faculty that included one focused on an international and comparative examination of education and citizenship and/or one on globalization and education.

Even though research confirms that service-learning impacts students and their learning, the majority of research to date has been conducted on students attending four-year institutions (Einfeld & Collins, 2008; Hollis, 2002;). Since a two-year college setting can uniquely influence student outcomes, it is not reasonable to assume that a service learning experience will necessarily impact students attending two-year colleges and four-year institutions in the same ways. According to Taggart and Crisp (2011): "Rather, methodologically sound empirical work done with community college samples is required to establish the relationship between service learning and outcomes for community college students" (p. 26). This is also true for international service-learning. The scarce research on the outcomes of international service-learning or service-learning abroad (Kiely, 2004; Kraft, 2002; Parker & Dautoff, 2007) cannot be generalized to suggest that two-year college students develop as citizens.

Service-learning is an effective practice that contributes to academic, civic, and personal outcomes (Eyler & Giles, 1999). The terms service-learning and civic engagement have recently been used interchangeably in the field (Keen & Hall, 2009). However, there is no research to support that two-year college students develop as global citizens as a result of being involved in domestic or international service-learning.

Research Experience

In response to numerous studies questioning aspects of undergraduate education in the United States and calling for further examination of some of its underlying assumptions, the Boyer Commission on Educating Undergraduates in the Research University was formed in 1995 (Kinkead, 2003). As discussed earlier, many universities responded to the 1998 Boyer

Commission's call to implement recommendations to improve undergraduate education that were outlined in its 1998 report. The follow-up survey of 2001 tried to determine the extent to which research universities had incorporated elements of the commission's recommendations. The survey revealed that research universities have made considerable headway in bringing undergraduate education to the fore and transforming many of its core elements. The survey and follow-up interviews also suggested that the following three recommendations had attracted the most attention: 1) engage undergraduates in research or a creative endeavor and make it the centerpiece of their education, 2) construct a first-year experience that encourages active learning and critical skills development, and 3) build on the first-year experience through a course of study epitomized by inquiry-based learning, collaborative experiences, and the development of written and oral communication skills that are at least at a standard reflective of a college degree (p. 24). Not insignificantly, the Boyer Commission paid no attention to two-year colleges and the needs of undergraduate education in these institutions was not discussed. Therefore, the participation of minority students from two-year colleges in innovative projects in STEM fields, including research experiences, continues to be minimal, but the need and demand for these experiences is high.

Types of Research Experiences

Undergraduate research experience is commonly viewed as a practice that includes individual projects supervised by faculty members and collaborations with faculty mentors. Very often this experience is organized through undergraduate research programs or summer research opportunity programs. With the explicit goal of encouraging underrepresented students to pursue higher degrees, NSF has designed several programs that support undergraduate research in order to promote interest in STEM fields, particularly among students underrepresented in these fields.

NSF has funded many initiatives specifically oriented for two-year colleges. The Community College Undergraduate Research Initiative (CCURI) is one example. Its model of incorporating undergraduate research into community college curricula involves engaging students from the moment they enter the classroom. The model employs a case study method of instruction in freshman coursework. Instructors can use cases developed by the CCURI writing team to teach basic scientific concepts within the context of an ongoing research project. Students are then given an opportunity to explore those projects as either a CURE (Course Undergraduate Research Experience), a SURE (Summer Undergraduate Research Experience), or PURE (Program Undergraduate Research Experience). The growing CCURI network has become a rich source of collaboration on both the curricular and the research side of the CCURI model. This network allows students to get connected to research opportunities and prospects to transfer their experience to a four-year institution as they continue to pursue their STEM career.

In 2006, the Council on Undergraduate Research (CUR) and the National Council of Instructional Administrators (NCIA) received a two-year planning grant from the NSF's Advanced Technological Education program. The key component of this planning grant was a series of regional conversations about undergraduate research and the role community colleges played in it. It was followed by another initiative of the CUR also supported by NSF and it was a series of workshops on "Developing Undergraduate Research at Community Colleges," which began in the 2010-2011 academic year. These workshops paired faculty and administrators at two-year institutions that have embedded undergraduate research in the curriculum with their counterparts at institutions, which planned to follow suit and develop these programs in the near future. Yet another example of one of these initiatives is a statewide project in the state of Minnesota (under the auspices of the Minnesota State Colleges and Universities Leadership

Academy) that plans to identify resources and level-appropriate expectations and to showcase opportunities for faculty and students at four-year institutions in order to share their research experiences with two-year colleges.

There are several research programs that take students abroad and that could be useful models for two-year colleges to emulate. The University of Arizona (UA) designed the Biomedical Research Abroad: Vistas Open (BRAVO!), which has been offered since 1992. This program sends research-experienced undergraduate students abroad to do research relating to their work on campus (Bender et al., 2009). The BRAVO! Program's goals are "to promote international understanding by enabling students in the sciences to participate in research abroad relating to the research they do at UA, and to advance collaborative projects involving UA biomedical and behavioral scientists and foreign scientists" (Bender et al., 2009, p. 308). NSF supports several international research initiatives including Research Experiences for Undergraduate (REU) projects that involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program in the U.S. or abroad. Some of these four-year programs are open to two-year college students and provide important real problem-based research experience.

Outcomes of Undergraduate Research Experience

Various studies have researched the outcomes that resulted from participation in undergraduate research. Evidence suggests that students gain self-confidence from participating in undergraduate research (Campbell & Skoog, 2008; Franz et al., 2006; Kardash et al., 2008; Lopatto, 2003a, 2003b, 2004, 2007; Russell, 2008; Seymour et al., 2004). The 2004 study conducted by Seymour et al. confirmed that students gained confidence in their ability to do research, to contribute to science, and to present and defend their findings. Other findings

suggested that undergraduate research participants gained the ability to act independently and developed a sense of accomplishment (Campbell & Skoog, 2008; Kardash et al., 2008; Lopatto, 2003a, 2003b, 2004, 2007; Russell, 2008).

In her study on students' expectations for and the benefits of undergraduate research experiences, Buckley (2010) suggested that these experiences result in various educational outcomes. She reviewed studies regarding education outcomes and presented the following results: (1) increasing college persistence and completion rates; (2) taking more advanced or honors courses; (3) pursuing educationally purposeful activities; (4) engaging in effective student learning behaviors; (5) increasing disciplinary learning gains; (6) building research skills; (7) improving communication skills; and (8) gaining critical thinking abilities (p. 28-33). While most of these outcomes are directly related to academic pursuits since these students' main interests are in STEM fields, nevertheless there is an interesting link between undergraduate research participation and gaining communication skills (Bauer & Bennett, 2003; Kardash et al., 2008; Lopatto, 2003b; Seymour et al., 2004). Since students are engaged in explaining, presenting, discussing, and defending their work, they enhanced their oral communication skills (Bauer & Bennett, 2003; Kardash et al., 2008). Students reported significantly more oral communication gains in another study when they contributed to the research design, reviewed literature, interpreted findings, and received mentor feedback (Buckley, 2010). However, STEM participants reported that writing was a less enhanced skill as compared to other skills they developed during their research experience (Kardash et al., 2008; Seymour et al., 2004).

Students have also reported career-oriented benefits as a result of their undergraduate research experience (Bauer & Bennett, 2003; Kardash et al., 2008; Lopatto, 2003a, 2003b; Seymour et al., 2004). In addition to clarifying their career and educational paths, they enhanced

their academic and professional preparation (Lopatto, 2003b; Seymour et al., 2004). A national study of NSF sponsored research programs reported that more than three-fifths (68%) of STEM participants increased their interest in pursuing STEM field careers (Russell et al., 2007). They reportedly gained confidence about their job qualifications in related fields because of this experience (Russell, 2008).

Fostering interest in graduate school and making decisions about pursuing graduate school are among the other positive outcomes of undergraduate research experiences (Russell, 2008). Forty percent of participants in NSF sponsored research programs reported higher expectations for obtaining advanced degrees after completing their first undergraduate research experience, and their interest in pursuing doctoral degrees increased from 37% before the research experience to 57% afterwards (Russell, 2008). Three-fifths indicated their research experience was important in deciding where to apply to graduate school (Russell). Other studies indicated that students learned more about what graduate school would entail through their undergraduate research experiences (Campbell & Skoog, 2004; Russell, 2008; Russell et al., 2007).

Researchers have investigated whether undergraduate research participants are more likely than non-researchers to have plans to attend graduate and professional schools (Seymour et al., 2004). Two large alumni studies found that participants in formal research programs were significantly more likely to pursue law school, medical school, or doctoral degrees as compared to their counterparts with similar academic characteristics who independently organized research projects or did no undergraduate research (Bauer & Bennett, 2003).

A limited number of studies have addressed the need for the development of intercultural skills as a result of research experience. For example, Bender et al. (2009) researched students'

self-reported changes in intercultural knowledge and competence through three undergraduate science experiences, two of which were programs abroad (BRAVO! and the Semester at Sea (SAS)). They used Meyers-Lee and Evan's three categories of direct impact of international experience to classify their data: gains in disciplinary knowledge, intercultural competence, and social growth. While students from all three programs developed similar gains in disciplinary knowledge and social growth, there was a clear difference between students who participated in international science experiences and the home science experience, called the Undergraduate Biology Research Program (UBPR). Results showed that students understood the world differently as a result of their experiences: 83% of BRAVO! students and 90% of SAS students reported learning more about the world, while only 28% of UBRP students affirmed this (p. 319). After analyzing the results regarding intercultural competence, the researchers suggested that SAS students observed the countries they visited while BRAVO! students experienced life as it was lived in the host countries. Bender et al. posed that both experiences were important in providing undergraduate students with an informed world-view. In their words: "Because science is international, UBRP students tend to develop an indirect appreciation for different cultures through their interactions with foreign students and scientists in research groups on their home campus" (p. 319).

There are no studies that support whether two-year college students who participate in research experiences in STEM disciplines develop the intercultural competence, social responsibility, or global engagement needed for the 21st Century, particularly among minority groups. This gap comes from the lack of a variety of research opportunities available to underrepresented students; furthermore, the majority of research opportunities are developed and offered in mainstream four-year institutions.

Diversity of Participation in Undergraduate Research Experience

In 2001 the Boyer Commission pointed out that most opportunities for undergraduate research experiences offered by research universities appear to be directed at a limited number of students (Boyer Commission, 2001). Among 91 research universities, less than one-fifth reported that 75% or more of their undergraduates participated in research, about one quarter reported that approximately 50% pursued research, and about one-half indicated that 25% were involved (Boyer Commission, 2001). One in five seniors at research universities nation-wide worked on a research project with a faculty member outside of course or program requirements during their undergraduate career (Kuh et al., 2007; NSSE, 2007). While trying to increase the number of diverse participants from underrepresented groups and from two-year colleges in research, the numbers of students from two year colleges participating in these experiences continues to be significantly low, especially in the programs designed by research universities.

Undergraduate research has been more common in laboratory sciences and engineering than in business, social sciences, humanities, or the arts (NSSE, 2007; Russell et al., 2007). A study of nearly 1,200 institutions found that 39% of biology majors participated in undergraduate research as compared to 17% of humanities majors, 13% of education majors, and 10% of business majors (NSSE). Two national studies of STEM and social science alumni found that 74% of environmental science majors, 72% of chemistry majors, 63% of psychology majors, 38% of economics and political science majors, 37% of computer science majors, and 34% of mathematics majors participated in undergraduate research (Russell et al., 2007).

Initiatives similar to the ones supported by the NSF aimed at increasing undergraduate research participation among students of different ethnicities, races, and genders have produced positive results (Hu et al., 2008). Among the 3,400 STEM and 3,200 social science graduates

who participated in NSF undergraduate research initiatives, Hispanic/Latino and African American participation rates were equivalent to or slightly higher than those of Whites, and participation rates for men and women were almost identical (Russell, 2008). Ethnic and racial minorities and women were also well represented among approximately 4,500 NSF undergraduate research participants, as 10% were African Americans and 17% were Hispanics/Latinos, which was proportionally higher than the underrepresented STEM graduates in the United States at that time (9% and 5% respectively) (Russell, 2008). Encouragingly, 47% of participants were men and 53% were women. Other national studies reported that Asian Pacific Islanders have the highest undergraduate research participation rates (22%), followed by Whites (19%), African Americans (17%), and Hispanics (17%) and that men participated more often than women (Kuh, 2008). There is no data regarding Native-American and Hmong students' participation in these initiatives, even though their population is growing in two-year colleges.

Limitations of the Research

Higher education institutions around the world develop programs and learning experiences for students that focus on fostering global citizenship skills, however there is no strong evidence to support that these learning experiences develop graduates as global citizens. So far the data shows the increase in language skills and global competencies. Perhaps not insignificantly, nearly all of the relevant research has been conducted in mainstream four-year institutions.

Study abroad, service-learning, independent study, research experience, and personal travel are among traditional global experiences that students engage in during their college years, including in two-year institutions. Moreover, the majority of research on these practices is

centered on white students' voices and does not critically explore the complex issues of racial or ethnic attitudes, structures, and inequality in relationship to global citizenship and current practices in higher education that help develop global citizens. As a result, there is still very little known about students in two-year colleges and what learning opportunities and experiences can facilitate the development of racially/ethnically underrepresented students who major in STEM as global citizens.

Numerous studies have reported positive outcomes of undergraduate research participation in STEM fields (Campbell & Skoog, 2008; Franz et al., 2006; Kardash et al., 2008; Lopatto, 2003a, 2003b, 2004, 2007; Seymour et al., 2004). However, no in-depth studies have been done to investigate the outcomes of research experiences with respect to global citizenship. In addition, there has been no research done to investigate the experiences of two-year college students from racially/ethnically underrepresented groups, particularly Hmong American students who majored in STEM, in research experiences. Moreover, the existing studies on student experiences are mostly quantitative. Qualitative research might help understand how research activities can lead to different outcomes and what features of these experiences contribute to students' growth and development academically, professionally, and, hopefully, as global citizens.

In addition to findings from research on the impact of undergraduate research opportunities, there is extensive evidence that international experiences broaden perspectives, strengthen knowledge, and improve foreign language abilities, cross-cultural understanding, and communication skills – all of which results in a greater ability to live and work effectively in other cultures, openness to diversity, and enhanced career choices (Hovland, 2010). The existing research (Bolen, 2007; Norris & Dweyer, 2005; Paige et el., 2009; Vande Berg et al., 2009) has

confirmed the relationship between study abroad experiences and enhanced cultural and intercultural competencies (Hoff & Paige, 2008; Johns & Thompson, 2009; Noda, 2007; Pennington & Wildermuth, 2005; Pedersen, 2010; Rixeisen et al., 2008; Savicki, 2008); foreign language acquisition (Cubillos et al., 2008; Freed et al., 2004; Hoff & Paige, 2008; Kinginger, 2011; Lord, 2009; Pellegrino, 2005; Segalowitz & Freed, 2004); intellectual development (McKeown, 2009); and improved graduation rates (Malmgren & Galvin, 2008). Study abroad helps students develop their identity (Jessup-Anger, 2008; Gore, 2005; Patron, 2007; Penn & Tanner, 2009) and enhance their understanding as global citizens (Braskamp, 2008; Hendershot & Sperandio, 2009; Lewin, 2009; Stearns, 2008; Tarrant, 2011). However, the voices of students from two-year colleges, particularly from Hmong Americans who majored in STEM and who participated in study abroad, are non-existent in the research. Besides the lack of information about study abroad, there is also little knowledge about other learning opportunities on or outside of two-year campuses that help students develop their understanding about the world and their role in it.

Even though there is a lack of knowledge on the development of racially/ethnically underrepresented students from two year colleges who major in STEM as global citizens, there have been a few attempts to link research and study abroad experience with global citizenship development. Bender et al. (2009) assessed the benefits of various types of international experiences and compared the results. They surveyed students in the beginning and at the end of their program participation in addition to conducting organized focus groups where students were asked to reflect on their experience. The assessment focused on determining the changes that occurred in student motivation for participating in the programs and evaluating their self-reported learning and cultural gains (p. 310). The researchers concluded that students who

participated in the research-based program abroad reported greater gains than students who participated in other types of programs, whether those programs were research programs in the U.S. or non-research focused programs abroad. Particularly, the gains were observed in students being able to clarify career goals, interpret results, and demonstrate tolerance for obstacles faced in the research process; being ready for more demanding research; and their "understanding that assertions require supporting evidence, skill in science writing, self-confidence, independence and becoming part of a learning community" (p. 317). These were important findings, even though the study had certain limitations, including self-selection of the participants for the program, small sample size to provide statistical significance, and the students self-reporting their findings. Because of these limitations, the subjectivity of students interpreting their own experience increased.

Streiweiser and Leephaibul (2007) researched in what ways independent research enhanced the study abroad experience of students who traveled to Germany. Surveys administered at the end of the pre-departure workshop and after students returned from studying abroad suggested that participation in study abroad research projects influenced their post-graduate decisions to apply for fellowships or return abroad for work or graduation. Unfortunately, the study does not provide statistical or qualitative data to discuss their findings.

Another study that examined the impact of research opportunities abroad was done by Hornfeck and Jouny (2010). They shared and analyzed the results of a partnership between Lafayette College in Easton, Pennsylvania and Jacobs University in Bremen, Germany. Lafayette College students who qualified as undergraduate engineering majors were eligible to study abroad for one semester while staying on track for a four-year degree program. Faculty from Lafayette College was also able to teach at Jacobs. An important component of the partnership is

the willingness on the part of the host institution, Jacobs University, to prepare a week-long orientation given at the start of the study-abroad program and their assistance with identifying host families for students so that they could visit and learn firsthand the German way of life. While it had been only a one-way exchange, students from Jacobs were to come to study at Lafayette in the future. The evaluation of the program proved that it was a mature and successful program and suggested that the model could be implemented in other colleges and departments. In the end of their report, the authors concluded that "The broad educational objectives of our students studying abroad are the greater appreciation of the global nature of the engineering profession, the realization of the importance of multiculturalism in engineering practice, and understanding the interconnectedness of global communities" (p. 4).

The studies by Streiweiser and Leephaibul (2007) and Hornfeck and Jouny (2010) produced important implication for study abroad and research opportunities in the STEM field. However, both studies were conducted in four-year institutions, and the research on international experiences in two-year colleges is still limited. Among few studies, the research by Arden-Ogle (2009) is worth mentioning. In her dissertation, Ellen Arden-Ogle investigated how exemplary community college study abroad programs assisted student participants in acquiring global competence. The study used three major data sources: website documentation, program director interviews, and online threaded discussions with recommended student participants. The author particularly tried to examine the characteristics of study abroad programs in community colleges in order to strengthen opportunities for students to achieve global competence. One of the themes that emerged from the findings identified the disconnect between what the study abroad directors thought they had provided and what the students perceived and took advantage of during the study abroad experience. To close the gap, Arden-Ogle suggested that some version of

assessment for global competence acquisition would have the potential to provide direction and context for community college program planners in order to achieve continuous program improvement (p. 186).

This limited research increases the urgency to investigate the learning experience of two-year college students who major in STEM in order to identify the features that contribute to advancing students as global citizens, especially with respect to racially/ethnically underrepresented students because their numbers continue growing in these institutions. A qualitative approach involving interviews would be appropriate to investigate students' participation in programs and activities offered by their colleges because they will allow us to hear students voices about what is important to them and how they develop as global citizens. Jones & Caruana (2010) suggested, "Having engaged with the complexity of internationalization in different geographical, pedagogic and participative contexts, there is a surprising consensus on critical issues, the interpretation of experience, the perennial challenges and dilemmas and the key lessons to be learned from the student voice" (p. xv). I expect that the findings constructed from student voices will contribute to the knowledge on developing student inquiry, learning outcomes, student diversity, and improvement of learning processes. Additionally, the findings will further enhance a dialogue with policy-makers on the many varied issues of global learning and democratizing education opportunities for all.

Contribution to the Field

The need for STEM students to develop as global citizens is growing. There is extensive evidence that international experience broadens perspective and knowledge and improves foreign language abilities, cross-cultural understanding, and communication skills that result in greater ability to live and work effectively in other cultures, openness to diversity, and enhanced career

choices (Hovland, 2010). The existing research (Bolen, 2007; Norris & Dweyer, 2005; Paige et el., 2009; Vande Berg et al., 2009) has confirmed the relationship between study abroad experiences and enhanced cultural and intercultural competencies (Hoff & Paige, 2008; Johns & Thompson, 2009; Noda, 2007; Pennington, 2005; Pedersen et al., 2011; Rixeisen et al., 2008; Savicki, 2008); foreign language acquisition (Cubillos & Chieffo, 2008; Freed et al., 2004; Hoff & Paige, 2008; Kinginger, 2011; Lord, 2009; Pellegrino, 2005; Segalowitz et al., 2004); intellectual development (McKeown, 2009); and improved graduation rates (Malmgren & Galvin, 2008). Study abroad helps students develop their identity (Penn & Tanner, 2009; Jessup-Anger, 2008; Patron, 2007; Gore, 2005) and enhance their understanding as global citizens (Braskamp 2008; Hendershop & Sperandio, 2009; Lewin, 2009; Stearns, 2008; Tarrant, 2011).

The participation of students who major in STEM fields in research experiences has also been linked to various beneficial educational outcomes. Students engaged in research during their undergraduate years reported that these experiences increased or improved self-confidence; self-esteem; college persistence and completion rates; completion of more advanced or honors courses; engagement in educationally purposeful activities; adoption of effective learning behaviors; disciplinary learning gains; and research, communication, and critical thinking skills (Buckley, 2010). In addition to contributing to the epistemological development of students (Bauer, 2001; Baxter Magolda et al., 1998; Seymour et al., 2004), undergraduate research experiences had longer-term impacts. Participants reported clearer career goals and sustained or increased interest in attending graduate school, and some gained confidence in their ability to succeed in these endeavors (Buckley, 2010).

Research confirms that service learning results in educational, vocational, and social outcomes (Pascarella & Terenzini, 2005) and enhances self-knowledge (Eyler & Giles, 1999)

and personal growth (Eyeler, 2002; Eyler et al., 1997; Roschelle et al., 2000). A limited number of studies examined international-service-learning or service learning abroad (Kiely, 2004; Kraft, 2002; Parker & Dautoff, 2007). However, there is no research to support the impact of domestic or international service-learning on two-year college students who major in STEM, particularly from racially/ethnically underrepresented groups.

The number of innovative projects that engage two-year college students from racially/ethnically underrepresented groups is growing both in two and four-year institutions, but the participation of racially/ethnically underrepresented students from two-year colleges in these innovative projects continues to be minimal, while the need and demand are high. More than 40% of all undergraduates study at some type of two-year college every year, making two-year colleges the largest single sector of American postsecondary education (Horm & Nevill, 2006; Phillippe & Sullivan, 2005). This reality is of particular importance to anyone who is concerned with meeting the need for students in STEM fields because approximately 59 percent of all 2006 community college enrollees transferred to a 4-year college within 3 years of enrollment (NSF, 2012). Additionally, two-year colleges are the primary entry into higher education for low-income students - African American, Latinos, immigrants, and working adults (in Dowd, 2003). Unfortunately, there are other racially/ethnically underrepresented groups that should be a focus of the conversation, particularly, Hmong American students. Moreover, there is no support for whether these minority groups of students from two-year colleges who major in STEM disciplines and participate in research experiences develop the global citizenship skills necessary for the 21st Century.

According to the American Association of Colleges and Universities, it is essential to engage all students in powerful pedagogies, such as inquiry projects, so that students “learn how

to find and evaluate evidence, how to consider and assess competing interpretations, how to form and test their own analyses and interpretations, how to solve problems, and how to communicate persuasively" (AAC&U, 2007, p. 30). Both research and study abroad are considered high impact practices in undergraduate education. However, a practice can be of high impact only if it is accessible. Unfortunately, the marginalization of underrepresented groups limits their choices in exploring careers in research and science. The same marginalization limits these groups' access to international research experiences. As Lave and Wenger (1991) noted, "To become a full member of a community of practice requires access to a wide range of ongoing activity, old-timers, and other members of the community; and to information, resources, and opportunities for participation" (p. 100-101). Therefore, further research will also help support the main mission of higher education: to build a democratic society where all students can have access to any program or career as they become responsible citizens of a global community.

CHAPTER 3: THEORETICAL FRAMEWORK

Study abroad, service-learning, and research experiences have all been linked to developing students as global citizens. Yet, most of research on these programs and practices has been conducted in mainstream higher educational institutions and is centered around the voices of white students. Only a few studies have explored current practices in higher education that helped develop traditionally underrepresented students who majored in STEM as global citizens.

To identify learning experiences, which facilitate the development of Hmong American students in STEM fields from two-year colleges as global citizens, this study was guided by two interpretive lenses— Critical Race Theory (Delgado & Stefancic, 2001; Ladson-Billings, 2000) and Identity Negotiation Theory (Ting-Toomey, 1993) —derived from a second-person perspective. Therefore, it is not only me, the researcher, who was involved in constructing this reality, but also the critical perspectives of students and their insights. In applying these two critical lenses, I assumed that students had their own understanding and analysis of their learning experience before, during, and outside of a two-year college where they had been developed as global citizens due to their various world-views, values, and individual interpretations.

Critical Race Theory and Identity Negotiation Theory allow me to be open with defining global citizenship, a concept that is often contested. Both emphasize the need to examine experiences that lead diverse students to becoming global citizens and suggest that existing pathways to global citizenship development do not fit everyone. Some researchers (e.g. Wood, 2014) examined global citizenship through a cultural capital lens that was introduced by Bourdieu (1997). For the purpose of this study, Bourdieu's approach is problematic because Hmong American participants, who are predominantly refugees, do not possess sufficient cultural capital associated with their new homeland; moreover, they often search for who they

are in addition to learning new foreign characteristics that are assigned to them, in particular, race. Because of their ongoing quest for identity most cannot fully understand the field of formal global citizenship development practices offered by higher education institutions and they cannot recognize the knowledge and skills related to a global citizen that exist in an embodied state or in an objectified form. Therefore, I applied Critical Race Theory and Identity Negotiation Theory that provided a valuable lens in guiding my study. Figure 1 illustrates the development of perspectives on the experiences of racially/ethnically underrepresented students from two-year colleges who majored in STEM fields as they relate to their development as global citizens

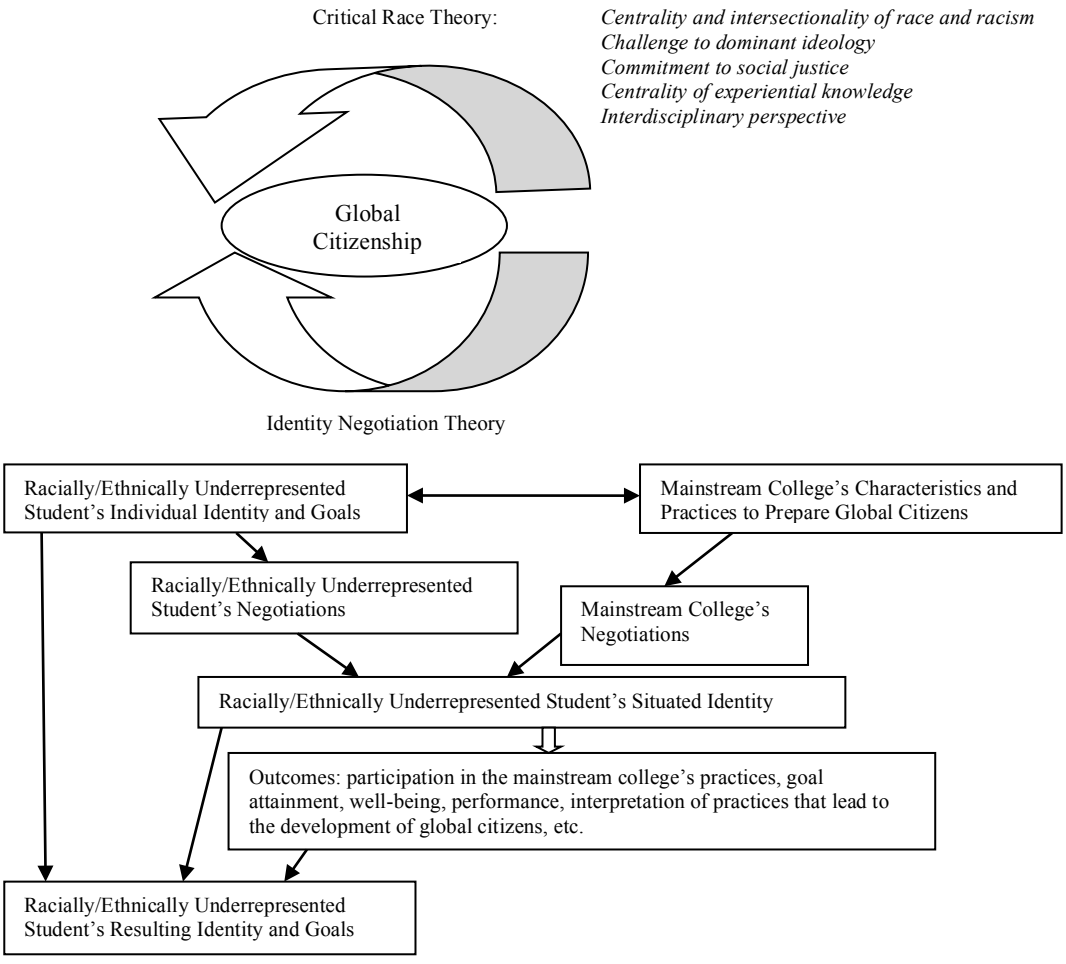

Figure 1. Theoretical framework.

through these various interpretive lenses. Each of these two theoretical frameworks does not exist separately; each influences the other.

Critical Race Theory

Critical Race Theory (CRT) is the foundation for this study. CRT seeks to question "the very foundations of the liberal order, including equality theory, legal reasoning, Enlightenment rationalism, and neutral principles of constitutional law" (Delgado & Stefancic, 2001, p. 3).

Ladson-Billings (2000) highlighted three important aspects of critical race theory relevant to this study:

> First, racism is a normal part of American life and 'not aberrant;' storytelling can be an important means of increasing race saliency and challenging common, dominant white culture norms about people of color as inferior; finally, liberal legal structures and the legal community, through civil rights legislation, have continued to serve the interests of whites, particularly white women, through their slow, fundamentally non-transformative legal processes. (p. 264)

CRT suggests that the desire to be colorblind and have everyone get along is fundamentally in the best interests of the white elite rather than a desire to truly change (Delgado & Stefancic, 2001). The desire to be colorblind "allows us to redress only extremely egregious racial harms, ones that everyone would notice and condemn" (p. 22). Consequently, this tendency prevents us from challenging and changing the way we see and make sense of the world and allows majority groups to dominate discourse and everyday practices.

According to Solorzano (1997), CRT has five themes that form its basic perspectives, research methods, and pedagogy: (1) the centrality and intersectionality of race and racism; (2) the challenge to dominant ideology; (3) the commitment to social justice; (4) the centrality of

experiential knowledge; and (5) the interdisciplinary perspective (pp. 6-7). It is also important to note that race and racism are also viewed at their intersection with other forms of subordination, such as gender and class discrimination (p. 6). Using these five themes, I will explore how racially/ethnically underrepresented students experience practices employed by mainstream higher education institutions and intended to prepare them as global citizens.

Critical Race Theory was pertinent to this study because it offered a lens through which to view racism in global citizenship development and the practices employed by mainstream higher education institutions that are intended to prepare students as global citizens. A long-standing colorblind discourse towards the experiences of "college students" in developing them as global citizens has obscured the voices of racially/ethnically underrepresented students. CRT draws attention to the perpetuation of power imbalances and white dominance in practices and experiences in higher education that lead to developing global citizenship. Being informed by CRT provided me with the lens to explore practices offered to racially/ethnically diverse students and the learning experiences, be they on campus or outside of it, that led to their development as global citizens.

Identity Negotiation Theory

College students of today live in a developing globalized world. There are many ambiguities and uncertainties that are a part of this development and they influence students' world views, including students from racially/underrepresented groups. To help understand how identity impacts students, in cultivating their global citizenship I used Identity Negotiation Theory (Ting-Toomey, 1993). According to this theory, identity is contradictory in nature and is based on conflicting and interconnected opposites, which create tension. The contradictory state takes the form of a dialectical tension, which is "the simultaneous presence of two relational

forces that are interdependent and mutually negating. Their interdependence is evident in that the forces define each other" (Montgomery, 1993, p. 207). Ting-Toomey (1993) argued that ethnic identity indicates the contradictions between a sense of group belonging and a sense of individual needs. Thus, the ultimate challenge is to find the balance between both dialectical states. This tension between in-group membership and individuality is anchored in the daily life and social practices of ethnic individuals. As Ting-Toomey pointed out:

> Self-identification provides the motivational key to communicative actions. How we conceive our sense of self and how we want to be perceived by others are fundamental communicative questions. …How we want to be defined by others and how our conversational partners want us to define them are expressed in and through communication processes. In addition, it is through communication that we can reframe and modify our self-views. Thus, self-identification is maintained, re-created, and changed through mutual enhancement processes. (p.76)

During a student's time at college, a racially/ethnically underrepresented student who majors in STEM experiences various events that constitute the identity negotiation process. The model used in this study was developed from a process model of identity negotiation across time introduced by Swann and Bosson (2008). According to my model, a student starts with negotiating his/her initial identity and goals when entering a mainstream college where he/she will major in STEM. For the purpose of this study, identity refers to students' personal and social self-views as representatives of another race and ethnicity underrepresented in a mainstream higher education institution, particularly in STEM.

At the very beginning of students' interaction with the college and its practices, students' interpretation of their learning experiences is mainly influenced by their initial identity. As

students start negotiating their goals with mainstream practices of higher education institutions, be it advising, study abroad, or research opportunities, they develop situated identities that often differ from their initial identities. Based on the range of differences between their initial and situated identity, students will develop a capacity to achieve the outcomes they desire, including the degree of participation in the mainstream college's practices that will develop them as global citizens. As a result of these identity negotiation processes, students develop a new interpretation of learning experiences that lead to their development as global citizens at this stage as well that may include parts of the initial interpretation of practices that aim to develop them as global citizens and new changes.

Identity negotiation theory was pertinent to this study because it offered a lens on belonging and relationships and how they impacted the way a Hmong American student interpreted and identified practices that helped him/her develop as global citizen. As students continued negotiating their identities, and sometimes struggled with competing values, they developed mechanisms to adapt or reject certain realities, practices, and ideas and find ways to belong.

Defining Global Citizenship

As discussed earlier, global citizenship has a problematic definition (Reysen & Katzarska-Miller, 2012). For the purpose of this study, global citizenship was viewed in two overarching dimensions: social responsibility and global civic engagement (Morais & Ogden, 2011). These dimensions are of particular interest to higher education since they are related to implications of global competences and go beyond self-awareness, intercultural communication, and global knowledge. The review of literature in the previous chapter showed that the majority of experiences offered to students in mainstream higher education institutions focused on

developing global competencies. In contrast, I argue that social responsibility and global civic engagement are the most important areas for developing students as global citizens. As noted earlier, social responsibility is understood as interdependence with and social concern for others, society, and the environment; global civic engagement is viewed as the demonstration of action and/or predisposition toward recognizing local, state, national, and global community issues and responding through actions such as volunteerism, political activism, and community participation (Morais & Ogden, 2011, pp. 448-449).

CHAPTER 4: RESEARCH DESIGN AND METHODS

This qualitative study focused on identifying the experiences of Hmong American students in different types of two-year colleges where they majored in STEM fields that facilitated their development as global citizens. Grounded theory was used as the primary method in this study.

In order to learn what experiences contributed to students' development as global citizens, this study addressed the following research question: *For Hmong American students who majored in STEM in two-year colleges, which experiences before, during, and outside of college contributed to their development as global citizens?* To address this three-facet question, it was important to collect rich, descriptive data to understand how racially/ethnically underrepresented students, in particular Hmong American students, in two-year colleges who majored in STEM for purposes of identifying what experiences contributed to their development as global citizens. A qualitative approach was appropriate for this study because it focused on individual students and used their voices to build the meaning of their experiences.

Looking through the lenses of Critical Race and Identity Negotiation Theories, this study used grounded theory. The grounded theory approach helped maximize flexibility in the interviews and identify emerging themes while simultaneously testing them.

Grounded Theory

Grounded theory was appropriate for this study because it "tells us what is going on, tells us how to account for the participants' main concerns, and reveals access variables that allow for incremental change" (Glaser, 1999, p. 840). This inductive approach focuses on developing theory through theoretical sampling, systematic collection, coding, and analysis of data (Glaser & Strauss, 1967; Bogdan & Biklen, 1998).

Central to the methodology of grounded theory is the use of the constant comparative method to keep analysis and theory generation anchored in the data (Glaser & Strauss, 1967). Four overlapping stages comprise this methodology (Glaser & Strauss, 1967). Research begins with the collection and coding of data into as many categories of analysis as possible. These categories are abstracted through the constant comparison of data. From the beginning of the study, the researcher considers the theoretical properties of these developing categories. Conrad (1982) describes the first stage as blended into the second "as the analysis moves increasingly from comparing data incident to comparing the data with properties of the concepts that have been abstracted during the comparison of incidents" (p. 240). The third stage begins with further refinement of the concepts and their relationships. At this stage, the researcher selects data to support or reject key concepts and theoretical propositions. Concepts may be eliminated or modified depending on the level of support found in the data. The final stage of grounded theory is the emergence of an integrated theory in a discussion format or as a set of propositions that meets the requirements of theoretical saturation. After constant seeking and analysis of collected data, a point is reached when no new data results from additional data collection. Collection stops and theoretical coding examines saturated categories to conceptualize relationships that emerge. To translate this to my study, using grounded theory meant that I didn't have to wait until I conducted all of my interviews to be able to start analyzing the data. From the very beginning on the first interview, I conducted microanalysis of gathered data, developed categories, and constantly compared them with newly gathered data and categories, sifting and crystallizing, until new material started fitting into my three grounded theories.

Glaser (1999) suggested that, as a research methodology, grounded theory "is no better or worse than other methods" (p. 837). Grounded theory provides a flexible and realistic approach

to research and the constant comparative method allows for reorienting the study based on emerging concepts. The emphasis on the constant "interrogation of the data" also acts as a safeguard to prevent diversions that could subvert the study.

Over the course of several decades, the degree of structure imposed on the coding process led to the establishment of two schools of grounded theory (Strauss & Corbin, 1990; Glaser & Holton, 2004). My study was guided by Glaser's approach to the coding process, which preserves the inductive nature of the method. Following the less proscriptive technique offered by Glaser instead of being confined within a "legitimizing rubric" (Glaser, 1999, p. 839) helped me keep a window on the process that enhanced trustworthiness. I also understand that my own world-view and the theoretical framework that guided this study impacted my interpretations and how I guided the interviews in the study, but I sought to remain flexible and open in my interpretations and was willing to accept alternative findings.

Design of Study

The study took a qualitative approach using semi-structured interviewing as the main source of data collection. I was interested to learn from participants what experiences before, during, and outside of their studies in two-year colleges where they majored in STEM had contributed to their development as global citizens. As discussed earlier, one of the dominant, but lamentable, trends in higher education informed my approach to this study. This trend is the frequent absence of voices of racially/ethnically underrepresented two-year college students, in particular Hmong American students, who majored in STEM in the global citizenship discourse. "College students" in the existing mainstream research on global citizenship have been racially/ethnically neutral and, upon closer examination, the term refers largely to white students in four-year institutions. This study attempted to give voice to those students who are

underrepresented in the conversation on global citizenship and its research. To achieve this goal, semi-structured interviews were designed to gain understanding of how these students interpreted the experiences that had contributed to their development as global citizens.

Sampling

This study used "purposive" theoretical sampling to choose participants. The sample of participants who completed a two-year college program and were pursuing a further degree or a career in STEM were identified for this study in two ways. First, I purposely selected faculty and academic staff from five junior liberal art and technical colleges in the Midwest that enrolled a high number of Hmong American students. I asked them to nominate former students that they thought exemplified the concept of "global citizens." These students had majored in STEM fields in these colleges and, after graduating, either went on to a four-year university to pursue a more advanced degree or had a career in STEM from their two-year degree. Prior participation in a research project, service-learning, or a study abroad program during their time in a two-year college was not required since the study was interested in identifying the various experiences of Hmong American students who majored in STEM that contributed to their development as global citizens. The faculty and staff initially contacted their former students who met the criteria for my study via email and asked them to get in touch with me if they were interested in participating in the research. Second, during the interviews, participants asked me if I would be interested to interview other people that fit the participant criteria. Therefore, the snowball approach resulted in additional participants for my study.

After an interested participant contacted me, I responded with an email that outlined the purpose of my research and my expectations for their participation in it. I also asked them about

the time and place that would be convenient for them to meet. Some participants voluntarily shared their cell phone numbers with me and we communicated via phone and text messages.

Theoretical saturation was achieved with ten participants. There were six female and four male participants. The age of participants ranged between 28 and 54. Three participants had bachelor's degrees and the other seven had associate degrees. Three participants were pursing higher degrees: one student was enrolled in a bachelor's-degree program and the other two were enrolled in a master's-degree program. One participant who studied for her master's degree was also working in the field in addition to her studies. The participants received or were pursuing a degree in the following STEM areas: Engineering, IT, Math, Medical Business, Natural Resources, Nursing, and Nutrition. Table 2 presents demographic details on the study participants.

Table 2

Participant Demographics

Variable		*n*
Gender	Male	4
	Female	6
Age	25-30	2
	30-35	6
	40-45	1
	50-54	1
Age when came to the U.S.	1-5	3
	5-10	5
	10-15	1
	15-20	1
Education	Associate	7
	Bachelor	3
Current employment or education status	Employed in STEM Field	8
	Pursuing an Advanced Degree	3

Note. $N = 10$

Data Collection

A "cross-program level analysis," as described by Conrad et al. (1993), was used to collect data for this study. Interviews with students who completed their studies in two-year colleges and were working on pursuing a higher degree or a career in STEM were the primary means of data collection. Interviewing was an effective method to collect data related to my study because it allowed for receiving the information from the subjects' perspectives. As Kvale (1996) noted: "The qualitative research interview attempts to understand the world from the subjects' point of view, to unfold the meaning of peoples' experiences, to uncover their lived world prior to scientific explanations" (p. 1).

I was interested in eliciting in-depth perspectives on various experiences that contribute to developing global citizens. According to Patton (1990), the purpose of conducting in-depth interviews is to understand the experiences of the participants and the meanings they found in those experiences. Therefore, the semi-structured interview approach was appropriate for this study (see the Interview Protocol in Appendix D) because it allowed for gathering rich responses focused on participant life histories, details of experience, and reflections on meaning (Seidman, 1991). Along with the burning question of this study, the composition and key components of the interview instrument were guided by the theoretical framework used for this study and related literature (Patton, 1990).

It was important to be cognizant of the additional information that individual participants shared and to be careful to identify both similarities and differences between participants (Conrad et al., 1993). Therefore, it was essential to capture students' voices accurately and add "thick description" to field notes, including identifying non-verbal responses (facial or emotional reactions) that were not identifiable through the audio-taped conversation.

Since the study employed a grounded theory approach, I sought to be open and flexible in my study and revise and expand interview questions as necessary in order to capture any additional themes or concerns by student participants. I was prepared to change or add additional questions for future participants based on what I learned from early interviews.

Two rounds of interviews were conducted with each participant. The first interview meeting with a new participant started with administering the consent form. This was the time when participants could ask any questions about the study. Because I wanted to keep the material confidential, participants used the time before the interview to come up with a pseudonym. Participants were also asked to give their permission to record interviews because this allowed me "to concentrate on the topic and the dynamics of the interview" while it was taking place (p. 160). The actual interview started with a structured set of questions, but they were adjusted as needed, including asking follow-up questions to gain the most accurate and important information from the participant about their experiences before, during, and outside of two-year colleges where they majored in STEM fields that contributed to their development as global citizens. Along with developing an initial understanding of the students' experiences as they were related to global citizenship, questions in the second interview drew from participants' first-interview responses and further identified features of participants' experiences that contributed to their development as global citizens.

During our second meeting, I gave each participant a copy of the signed consent form for his or her records. I also asked the participants if they had anything that they wanted to add since our previous meeting. This was a good way for them to share additional information and set a tone of continuity for the new session, because sometimes periods of time from a day up to three weeks passed between our meetings. Several participants shared that this intentional break in

between interviews allowed them to reflect deeper on the study questions and interpret their experiences in two-year colleges as they were related to social responsibility and global civic engagement.

To get a better record of information from these interviews, I took field notes and compared reflections that emerged during interviews. As Kvale noted,

> An interview may also be recorded through a reflected use of the researcher's subjectivity and remembering, relying on his or her empathy and memory and then writing down the main aspects of the interview after the session, sometimes assisted by notes taken during the interview. (p. 161)

The information missing on the tape but written down in the form of field notes contributed significantly to the collected audio-recorded data (Glaser & Holton, 2004). Following each interview, I set aside time for written reflection on the conversation. I made records of initial reflections of the data collected and noted any categories that seemed to be emerging. When new information suggested that a question needed to be added or changed, I altered the interview question list.

Each researcher possesses his/her own values and judgments. To avoid the researcher's personal bias on the transcript, the literature emphasizes the importance of transcription validity. In particular, Kvale (1996) discussed the importance of reliability and validity of recorded information and state:

> When analyzing interviews, the tape recording, and in particular the ensuing transcripts, tends to become an opaque screen between the researcher and the original situation. . . .The transcripts become a kind of fundamental verbal data for interview research, rather than a means to evoke and revive the personal interaction of the interview

situation. (pp. 167-168)

For the purpose of minimizing as much as possible the subjectivity of transcriptions on the researcher's part, I asked participants to judge the accuracy of the transcribed material. Requesting that my interviewees check the accuracy of transcripts not only established credibility but also gave an opportunity for an interviewee to review his/her stories and add to them if they had omitted meaningful information during our interview session.

Data Analysis

Analysis of the data was informed by grounded theory technique. This type of data analysis employs the constant comparative method, which allows the researcher "to focus and shape the study as it proceeds" (Glesne & Peshkin, 1992, p.127). The constant comparative method "continuously interrogates" the data to highlight recurring patterns of meaning and themes (Miles & Huberman, 1994).

Subjectivity is an integral part of qualitative research. Sometimes it is criticized because subjectivity reduces research findings to personal opinion. Therefore, it is important for researchers to be mindful about the pitfalls of subjectivity in the analysis process (Berg & Smith, 1988). Self-check allows the researcher to recognize personal limitations, prejudices, and blind spots that compromise research findings. In my case, my ethnic background, upbringing abroad, and professional career in international education provided me with my own understanding of global citizenship and perspective on how it could be cultivated in higher education. My familiarity with the research problem might obscure important concepts that were worth exploring. This was especially important for me to be aware of because different themes arose from the responses of Hmong American participants, and I had limited knowledge and experience of working exclusively with this group of students. To guard against this pitfall, I

needed to remind myself before each interview session that I knew nothing about the problem I was researching. I needed to do this to be alert to asking follow-up questions of the students rather than assuming I fully understood their answer.

I made an effort to be continuously mindful that my research questions and theoretical sampling were guiding my data collection and treatment. While transcribing interviews I was simultaneously making notes regarding emerging themes and attributes of experiences that contributed to developing students as global citizens and was grouping the identified attributes. Concepts and attributes retrieved from the recorded material were compared with field notes to make sure that nothing was missed. To ensure accuracy during the process, participants were asked follow-up questions during a succeeding session to support or reject my interpretations.

I analyzed and coded the gathered data myself without using a qualitative software program. Coding is central to data analysis and provides the bridge between data and theory (Glaser, 1978, p. 55). As Conrad (1982) noted, "Coding forces the researcher to move from the empirical to the conceptual and theoretical level by identifying the underlying patterns in the data" (p. 241). By transcribing the data myself I had a deeper engagement with the material and allowed enough time for the "constant comparative method" of grounded theory to unfold. Additionally, coding the data myself allowed me to go back and collect more data based on emerging concepts. The search for data continued until all major concepts and their interrelationships had been theoretically saturated (Conrad, 1982).

Initial Coding

During the initial coding stage, I interrogated data, as Charmaz (2014) describes it. By which I mean that I took the collected data apart to examine how they were constituted (p. 113). In some instances, I named each word and line and, in others, I named segments of data. It was a

true process of mining "early data for analytical ideas to pursue in further data collection and analysis" (p. 114). This process was very intense and careful because I could not rely on the categories from literature since research on my topic is non-existent. Moreover, I tried to be open and flexible with emerging directions and ideas, and therefore the codes I suggested at this stage were tentative and provisional (Saldana, 2013). Even though I was looking for patterns and similar properties, I continued recording stand-alone incidents and compared them with my field notes. I reworded codes many times and identified instances where I needed more data "to support and build an emerging theory" (Saldana, 2013, p. 101).

Code Mapping

Before I moved to the next stage of coding, I used code mapping to organize my emerging salient codes. This process also helped me later in the visualization of emerging grounded theories.

After all descriptive codes were extracted from the data, I listed them randomly and started categorizing them. Similar to the example described by Saldana (2013), my categories also ranged from real (people) to the conceptual (institutional support). As a result of the comparing and sorting process, the codes were tentatively placed in three grounded theories.

Axial Coding

While continuing to collect data and map codes, I worked on axial coding that was extended from the initial coding. Since this process involved defining categories and reorganizing data that were "split" and "fractured" (Strauss & Corbin, 1998, p. 124), axial coding looked like a work in progress. I grouped similar codes, tested newly emerged categories during my interviews, and revised codes and categories. It was important to keep the focus on my research questions because there were different directions where the data were going and I did

not want to deviate from answering my primary concern: how Hmong American students from two-year colleges where they majored in STEM developed as global citizens.

While I was going back and forth between initial and axial coding, I continued to gather data from my study participants. It helped that I had intervals in between the interviews because the intervals allowed me to prepare to test the emerging categories. After interviewing ten participants, saturation was reached, and I did not need any new data that would "spark new theoretical insights" (Charmaz, 2014, 213).

Theoretical Coding

Theoretical coding is viewed as "the culminating step toward achieving grounded theory" (Saldana, 2013, p. 224). During this stage of my research, I brought together all categories from previous coding stages to create a theory. Saldana (2013) suggested that this integration begins with identifying the main theme of the research and cited Strauss and Corbin (1998), who called it the "core category" in grounded theory, which "consists of all the products of analysis condensed into a few words that seem to explain what 'this research is all about'"(p. 223-224). After completing all stages of data analysis to answer my research questions, three grounded theories were developed.

Trustworthiness and Reliability

A triangulation approach using multiple interviews of two-year college graduates at different stages of their academic and/or career pursuit in STEM fields was implemented. Triangulation is one means to enhance trustworthiness by corroborating findings with evidence from diverse sources (Denzin & Lincoln, 2000). This study incorporated triangulation by soliciting perspectives from the participants in the study. These participants were from different educational institutions and STEM fields and had differing academic and future professional

goals and aspirations. Further, triangulation was accomplished within interviews by revisiting different perspectives in order to corroborate earlier statements and solicit elaboration. The interpretations were tested in a series of interviews with these participants.

Goodness-of-Fit Between the Overarching Research Questions and Study Design

Grounded theory applied in this study led to identifying factors that played a significant role in students' definition of global citizenship and their interpretation of significant experiences before, during, and outside of their studies in two-year colleges, where they majored in STEM, that impacted their development as global citizens. The two theoretical frameworks of Critical Race Theory and Identity Negotiation worked together to inform the development theories, which identified the attributes of the experiences of Hmong American students who majored in STEM in two-year colleges that contributed to their development as global citizens.

CHAPTER 5: THREE GROUNDED THEORIES

The voices of the Hmong American participants in this study provided rich insights into the complexities of experiences that contributed to their development as global citizens. A summary of relevant information with respect to their personal lives is presented in Table 3. As discussed earlier, all participants shared certain life experiences: they were all refugees who came to the United States as children or young people and they all have experienced hardships of refugee camps and resettlement. But they also had very different experiences that informed their perspectives on global citizenship: they moved to the United States at different ages and their memories varied; they attended different types of two-year colleges where they majored in various STEM fields; and finally, their educational and professional aspirations differed. It is important that I share individual and shared Hmong American participants' perspectives on social responsibility and global civic activism and the role two-year colleges played in developing these constructs before advancing my grounded theories.

In my attempt to examine what experiences contributed to global citizenship development among Hmong American students who attended two-year colleges where they studied STEM fields, it is worth noting that all of the participants viewed getting an education as an act of social responsibility. The majority of the participants' parents did not have a chance to obtain an education, but they emphasized the importance of education to their children. That is clearly why the participants show deep respect and appreciation for college and recognized that studying in school was their first practice of social responsibility.

While participants reflected on what to study in college, their choice of future career was influenced by their intrinsic need to help others and to address various problems, local and global.

Table 3

Study Participants' Pseudonym and Other Personal Data

Pseudonym	Gender	Age When Came to the U.S. as a Refugee	Current Age	Type of 2-year College	STEM Field Major	Current Status
Kazoua	Female	12	41	Technical/liberal arts	Nutrition	Nutritionist
Kevin	Male	8	32	Liberal arts	Biology/Botany	Soil conservationist
Mao	Female	2	31	Technical	Nursing	Registered nurse
Pa	Female	4	28	Technical	Medical Assistant	Medical professional and pursuing master's degree
Pang	Female	8	31	Technical	Nursing	Registered nurse
PaSoua	Female	8	31	Technical	Nursing	Manager of home care services
Sue	Male	18	54	Technical/liberal arts	IT	IT Professional
Tina	Female	8	28	Technical	Nursing	Registered nurse
Wilson	Male	3	32	Technical	Automotive	Pursuing bachelor's degree
Yang	Male	8	32	Technical and liberal arts	Nursing/Math	Pursuing master's degree

Even though the Hmong American participants in the study suggested that two-year colleges didn't play a significant role in their development as global citizens, they all recognized the importance of having global citizenship to be successful in their careers. For example, Mao discussed the importance of having an understanding of different cultures for nurses: "[A global citizen is] somebody who is open minded to all various cultures. … I think, you know, I think the job that I have I have to be very open."

The participants in this study reported that they had chosen a two-year college because of various personal responsibilities and needs. Some participants indicated they felt responsible to their families and could not leave them to travel to another place to study. This was particularly

true among female participants, the majority of whom had a husband and at least one child before finishing high school. Other participants indicated that they had chosen a two-year college because they felt welcome. In particular, they valued the age diversity of students there. Since many students who attend two-year colleges are older than students in four-year institutions and they are more mature, the Hmong American participants had more commonalities with them. Mao, one of the research participants, did not graduate from high school because she had to raise her children. When her children were a little bit older she took her GRE test and applied to a local college to study nursing. In her words:

> Two-year colleges and community colleges were awesome. I mean they were geared more towards adults. And it was easy to enroll and get help. And you see people from various ages, from young to old, and it was very, it was comfortable … I would imagine it would be difficult at this age to go to [college], to feel a little bit out of place, but I did not feel that way at all in this two-year college because there is such a diverse age group there. And it was great. I mean, the assistance that you could get there. I just felt that I was, it was really easy, yes, it was really easy to go through the schooling there.

It was important for Mao to relate to students and she was looking for students who were her age because she perceived that they were more mature and that her two-year college provided with the space where she felt safe as an adult student to study in her field.

Even though the majority of the participants recognized two-year colleges as contributing to their future career, most of them did not feel that their experience in two-year colleges significantly contributed to their development as global citizens. On the contrary, some of their experiences were rather negative as far as seeking support for goals, aspirations, or just simply being advised in regard to global citizenship development opportunities. Nested in the context, it

is worth mentioning that all participants displayed interest regarding global issues although they had various levels of knowledge on these issues and various current events that were happening in the world. Moreover, all participants indicated that they had studied a foreign language in school or college in addition to their mother tongue and English. Still, they did not see that this was necessarily contributing to their identity as global citizens. Not all participants even see themselves as global citizens. In their understanding, they were simply trying to help communities, both local and global, address various challenges. They considered it a norm and a way of life. "It's a norm to be human," said PaSoua, a research participant. As she elaborated:

> I guess that it is like a common sense thing, a common sense thing that that you know that whatever you do you will end up helping another people, another person anyway. So that's not like, not anything that you would have to discuss; I mean it's common sense. You are going to go out into the world and it's going to involve people and you eventually have to, you know, help other people. It's never really talked about or an issue to debate about. I mean, it's common sense. You go out into the world and you just work with people and you help those who are less fortunate.

This norm is shared and practiced by all participants, but this is something that they did not learn or develop in college.

As a result of analyzing data, the grounded theories that emerged from the interviews suggest that Hmong American students develop as global citizens primarily as a result of their experiences that occur before entering college, followed by their experiences outside of college. The grounded theory of experiences that occur during the college years is based on the students' desirable experiences. These are experiences that, if they were to take place, could have contributed to their development as global citizens. Only a handful of examples of experiences

that occur during their studies at two-year colleges contributed to this grounded theory. Otherwise, the rest are desirable experiences that are informed by the Hmong American participants' experiences in other higher educational institutions where they pursued a higher degree after completing a program at a two-year college.

The findings regarding the lack of opportunities offered to Hmong American students to develop them as global citizens during their time in two-year institutions, in particular in technical colleges, suggest that these institutions do not know their students and what their aspirations are. These students are eager to be active and contribute to communities, local and global, and understand the importance of social responsibility and global civic engagement. They seek out opportunities to be involved because they know that their help does not only benefit certain individuals or communities but also themselves. PaSoua shared, "Being involved like that [in the community and in church, in different projects that address community needs] makes you see a bigger picture." Seeing that bigger picture allows Hmong American students to be able to analyze and synthesize their knowledge and skills in a global context and apply that knowledge to complex issues that impact local and global communities.

It is worth noting that although most of the participants do not consider themselves to be global citizens, they suggest that volunteering, social responsibility, global engagement, and help to others are some qualities of a global citizen. For them social responsibility and global civic engagement are a way of living, and they don't know any other way. Even their sense of community is not the conventional one. Pa, another participant in the study, said that they just lived together and they knew each other,

> [W]ell, the city that we were in when we came, it was such a really small, small community that they were mainly all my Mom's brother[s], they all lived there and so

> then, there was not like an organization or a group formed, it was more like – it was such a small community that everybody just knows everybody. So if anything were to happen or if there was an event, everybody just, everybody just got involved. And there was no need to form a group or like that.

Pa, who grew up observing people close to her to be involved, thought it was natural to follow the examples set by others.

By coming here as refugees and growing up in a different culture, now their home, and having conflict between their self-identities, including their role as a woman, and between Christianity and shamanism, they have learned that challenges are not simple. More often they are complex. They have also learned to deal with complexities without any formal training, but through personal experiences. One of the examples of such complex issues is related to the veteran status of members of the Hmong military who fought on the side of the United States. The study participants knew about the sacrifice of their fathers, brothers, uncles, and cousins in this war first-hand. On the other side, even though they came to the U.S. because of that sacrifice, these Hmong veterans, many of whom are also U.S. citizens, are not recognized as U.S. veterans. This situation raises a lot of questions in the Hmong American community about citizenship. They also view this in a global context because they were born in Laos, their relatives still live there and in Thailand, and this is where their souls are supposed to be sent back after they die.

I felt it was important to introduce the above-mentioned perspectives of Hmong American participants on social responsibility and global civic activism before describing the three grounded theories. The rich and diverse experiences of Hmong refugees that I interviewed for this study suggest that they developed a sacred script of global citizenship that exists through their memories and stories. I will also suggest that this occurred because of complexities with the

citizenship of Hmong refugees; in particular, that their home country, Laos, does not allow them back; they are not wanted here. As Kazoua pointed out, they find that being a global citizen gives them a sense of belonging and informs their identity.

Last fall, I attended an event organized by Hmong American student organization at the University of Wisconsin-Stevens Point. The theme of their annual Taste of Toj Roob – The Mountains Dinner and Entertainment Event was *Footprints from the Mountains – Hmong Around the World*. The students wrote and directed a play that raised many questions about identity and citizenship. The title of the play was *Forward to the Past* and it depicted a conflict between the father and the son. The father who fought in the Secret War and then resettled to the United States with his family tried to preserve culture and traditions of Hmong people. His son who was born in America did not understand why he had to learn those traditions: "[W]hy do I need to learn them? We live in America!" He was a student at a university and he just wanted to study and get good grades. He argued with his father about that during his visit home on Christmas.

The son's friend Jay was another important character in the play. This character symbolizes struggles and challenges of many Hmong American people. In one of the scenes, Jay shared: "I dropped college because I didn't think that I was good at that, just like my parents thought they had never been good at anything when they came here. That is why I went to the army to protect other people." These feelings of humiliation and non-worthiness, at the same time, strong resilience and desire to prove that they were good citizens were observed among the Hmong American participants I interviewed in my study. Similar to the father and Jay in this play, these participants were looking for a place to belong and they wanted to prove that they deserved to be citizens.

After a series of events in the play that took the son on a journey to the past, he realized that he could not run away from his roots and he needed to find the place where he belonged. He finally found it: "I belong … with my people." At the end of the play he concluded: "Looking back, it looks like we have always been in war in China, Laos, Vietnam and now here, in the U.S., we are in war but with ourselves." The characters of the story, though not real, represent a large number of Hmong Americans who are still searching for their identity. For many of them, global citizenship has become as a pathway to find who they are and where they belong. Similar to the events in the play, these pathways in real life are rather different. Some Hmong Americans believe that they will prosper only if they continue to live together in close communities, practicing their traditions, and speaking their language. Other Hmong Americans, in particular younger generations, are more open to adapt to new culture and practices. At an event I attended, Hmong American students performed a hip-hop dance and they shared how much they loved it. Robert Her (2014), a freshman from UW-Stevens Point ,wrote a poem, *Yo Picture This* (Her, 2014), in a hip-hop style that he recited at the event (personal communication, November 9, 2014). This poem serves as evidence of the complex realities and experiences Hmong Americans face every day. He described people who have suffered a lot and now are trying to make the U.S. their new home by adapting American practices and culture. He also described people who value freedom and are committed to preserving their ethnic traditions and feel responsibility towards Hmong people in the United States as well as in Laos and Thailand. This poem is included with the permission of the author.

> Yo picture this,
> Running through the jungle with babies strapped on your back,
> And holding the hands of kids that can barely run/
> Next to you is your loved ones and neighbors or at least some of em'/
> The others were killed and shot/

And remember this, you're running with everything you got because everything you got on is everything you got/
There's no turning back, and as you keep running away people began to subtract/
The elder left behind because they were too weak to continue/
Babies and kids would cry because they were new, to the world/
Every boy every girl/
And if your kids were crying others would tell you to go away/
Because they didn't want to be found and their own lives they were trying to save/

So are you picturing it?/
You keep running and trying to get by/
The only thing on your mind is to survive/
While being chased by killers who get to decide whether you lived or you die//

The terrain was thick jungle in Vietnam/
Every corner there were booby traps, landmines and bombs/
You approach escape with caution, trying to be calm/
But your heart rate escalates, weak knees and sweaty palms//

All you can do is run and pray that the refugee camps you heard of were real/
Cause a deal was made with the CIA for our help we'd get freedom in return/
But all we saw were our village's burn/
Crossing border and we had to learn, and adapt/
Try to earn their respect/
In other people's country living with regrets//

Many living there alone, while their families still in the war zones/
Even though the refuges was small, it was still called home/
A place to roam, everyday they stayed strong like stones/
Even in this new place that was called an 'escape' they still faced hate/
It wasn't a new plate or slate they were given, just leftovers from yesterday that they already ate//

Eventually, they flew to the States/
Now I wouldn't say they were safe, because they faced a whole new set of rules and a new place/
Did you get that picture?

That's just how it is/
Cause they say we live off food stamps and their money/
But picture this,
Not being educated enough to work to put food in your children's tummies/
I just find it funny, cause I'm a big dude,
And if my parents struggled to feed us how'd I get so big dude?//
That's because they worked hard and didn't want to see us struggle/

So they paid attention to the puzzle of life and adapted so they could create a protective bubble around us/
And I know we didn't have much, but they always kept me happy, and made the struggles seemed subtle/
When we went through unknowns, like astronauts in space and they were our space shuttles/
They guided us through the darkness, and in the cold they were there to cuddle/
There was already enough rain in life, but they protected us and gave us directions to avoid the puddles//

The same puddles they face when they first came here and back in the mother land/
My mom would always tell me "txhob pais tsuj tsuj dej" and that's what my grandma told my mother, while she held her mother's hand/

And we know the war separated many people and families/
Some were stuck and some didn't want to leave/
Others came over, and others still living in the refugees/
I'm impacted by this tragedy//

Even now, my mom still sends money to my aunts, which I've never met/
A whole side of the family that I want to meet, but just haven't yet/
My dad's side in California that I too don't know much about/
Maybe one day I'll be flying out/
And show them love, cause love and family is what it's really about//

I'm impacted by this tragedy, or blessing because I believe/
That if the war never broke out I would not be born in the USA or even here today/
I'm impacted by this tragedy, or blessing because I believe/
I would have never got to hear and see, rap and hip hop which is such an influential part of me, and I would probably be a little more skinny/

But it ain't all bad/
Cause look at how far we've come and how much we have/
We may not have land to call our own, but we have freedom and for that I'm glad/
I'm standing on stage with great people surrounding me/
So to all my Hmong people, every brother, sister, moms and dads, every aunts, uncles, sons and daughters, every grandparents and cousins you've ever had/
Remember to stand strong like we did 60 years ago and never fall/
Remember to be thankful to the elders, because without them we would not be here at all/
And remember your history and preserve your culture no matter how small/
So don't clap for me, YOU guys are the ONES that deserves this applause/

This poem supports my assumption that the second and third generation Hmong Americans, the generation of Robert Her and other students from UW-Stevens Point that I mentioned earlier, are

more open to adapting to American culture and practices. These individuals will have other views on global citizenship and different experiences that lead to their development as global citizens. The three grounded theories developed for this study are drawn from the voices of ten Hmong Americans who came to the U.S. as refugees. Their personal stories and insights are the foundation for my research findings.

In this chapter, I discuss three grounded theories of experiences before, during, and outside of college that contribute to the development of global citizens in Hmong American students who attended two-year colleges in the Midwest where they majored in STEM. Figure 2 illustrates these three grounded theories, which are are: 1) Prior-to-college experiences that contribute to the development of social responsibility and global civic engagement of Hmong American students who majored in STEM in two-year colleges; 2) College experiences that

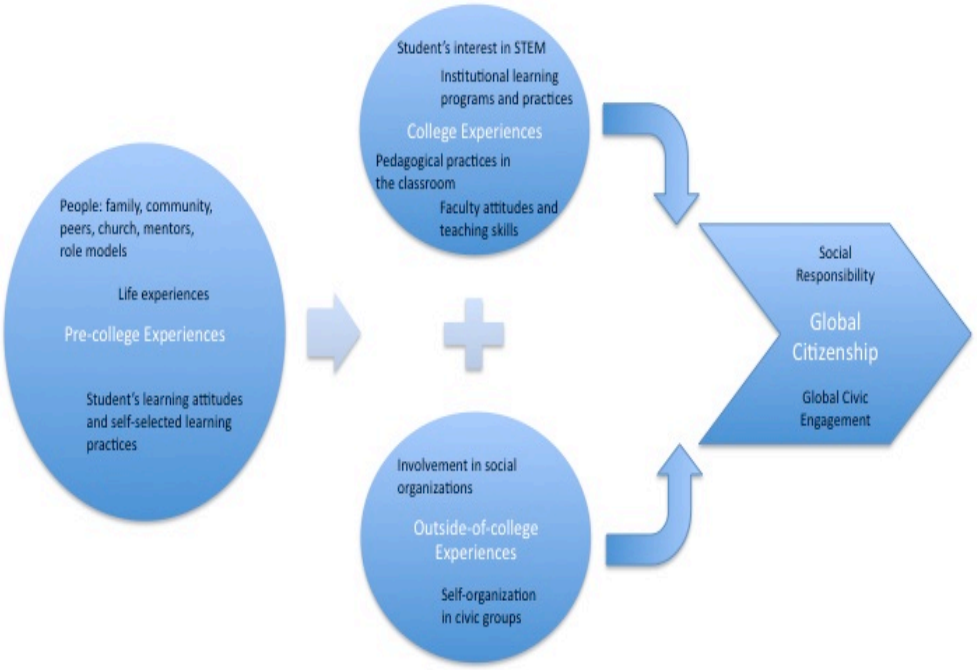

Figure 2. Three grounded theories.

cultivate social responsibility and global civic engagement of Hmong American students who majored in STEM in two-year colleges; and 3) Outside-of-college experiences that cultivate

social responsibility and global civic engagement of Hmong American students who majored in STEM in two-year colleges. Each of these theories consists of attributes and sub-attributes of experiences that develop and cultivate global citizenship in Hmong American students with a focus on social responsibility and global civic activism. All attributes and sub-attributes are explained in detail based on the data collected from the interviews.

In discussing each sub-attribute, direct quotes are included to support the respectful theories. The stylistic and grammatical structures of the original participants' statements are preserved in these quotes. As discussed earlier, each participant chose a pseudonym and quotes are coded under the chosen name. Table 4 presents an overview of the grounded theories, including the major attributes.

Table 4

Three Grounded Theories

Grounded Theory	Attribute
Grounded Theory 1: Prior-to-College Experiences that Contribute to the Development of Social Responsibility and Global Civic Engagement of Hmong American Students Who Majored in STEM in Two-Year Colleges	
	1) Life experiences of Hmong American students contribute to the development of social responsibility and global civic engagement
	2) Diverse people contribute to the Hmong American students' development of social responsibility and global civic engagement
	3) Self-selected learning attitudes and practices lead Hmong American students to embrace social responsibility and global civic engagement
Grounded Theory 2: College Experiences that that Cultivate Social Responsibility and Global Civic Engagement of Hmong American Students Who Majored in STEM in Two-Year Colleges	
	1) Colleges build on Hmong American students' interest in STEM as a motivator for cultivating their social responsibility and global civic engagement
	2) Pedagogical practices in the classroom cultivate and stimulate social responsibility and global civic engagement in Hmong American students
	3) Faculty genuinely engage with Hmong American students that stimulates social responsibility and global civic engagement

4) Practices that nurture and advance social responsibility and global civic engagement in Hmong American students

Grounded Theory 3: Outside-of-College Experiences that Cultivate Social Responsibility and Global Civic Engagement of Hmong American Students Who Majored in STEM in Two-Year Colleges

1) Hmong American students are involved in social organizations, which demonstrates their glocal civic activism

2) Hmong American students self-organize in civic groups

Grounded Theory 1: Overview of Prior-to-College Experiences that Contribute to the Development of Social Responsibility and Global Civic Engagement of Hmong American Students Who Majored in STEM in Two-Year Colleges

Attribute 1.1: Life experiences of Hmong American students

The Hmong American participants in my study shared multiple personal stories of life experiences that impacted their development as global citizens. When I asked Mao what influenced her development of social responsibility and global civic engagement, she said: "My life experiences have to do a lot with it." For Mao and others, these stories included participants' and their families' experiences in refugee camps in Thailand and Laos, the hardships of resettlement, and their lives before they started college. Some participants described in detail their experiences in middle and high school and suggested that this period of life launched their development as global citizens.

All of the female participants of this study indicated that being married, having a family, and being a daughter-in-law led them to assume more responsibility. When I asked Tina when she started thinking about social responsibility she responded:

> I would say just being married, honestly. Because being a daughter-in-law in our culture is not an easy task. That alone, aside from school, is a lot of responsibilities for yourself,

> for your in-laws, your husband, and that till you have kids. [pause] I really didn't think I could do all of that in school, but I did [laughs]. It – it is hard work. You just have to find the way to juggle, you know, and set up your priorities, so that, you know, whatever you are responsible for, for certain things at certain times, you know, is getting taken care of.

Other female participants felt that their role as a mother and a daughter-in-law in a Hmong family led them to take more responsibilities than Caucasian women. These differences may explain why Hmong American female students more often had other Hmong American female students as their "study buddies" or were more likely to socialize with them in college. They felt that they would not have to explain to anyone else outside of their culture the multiple pressures they face outside of college that had an impact on their overall college experience and success.

Another participant shared his story of being a veteran. When I asked Yang about the time when he began thinking about the importance of global responsibility he responded:

> I think I started looking at [social responsibility], like what I want to do when, I don't know if you know, I was a veteran. Coming out from the recent war in Iraq I look at the war differently now. So for me, I want to make a difference, I want a change. And just pass what I know to the younger generations to see if I could … help the Hmong and to grow.

His return to civilian life was not easy, but he kept on focusing on helping others:

> I volunteer my time to teach them what I learn. And since they say I know Hmong culture, I know American culture, tradition too, so I am helping them – what is the word I am looking for – I am not smarter than them. But I am just – I've been there, and I have done that. And I've been to the bottom. Back up. So if you say you have not been to the bottom, or you have not hit the bottom, I can tell them: "Oh yeah, I hit the real bottom." I think

> what really got me, um – thinking about life and helping other people. Another, you heard about the mental institutions and hospitals and stuff. I went there for three days. Because like I said, I hit rock bottom in my life. And the only way to get it is just go and stay in walls, white walls like this, nothing between you, just bed. You are thinking about life. So that has brought me back into the life and say, you know, what is my main purpose here, in life, what I am doing here? Am I here to help other people, am I here as just to be a minority, and I here just to – you know – waste space? What am I here for? So a lot of that is, I don't know, I don't know – a lot of people say I am not wasting space, because I am here, I am helping other people out. [pause] And I am teaching them the hope of life.

Yang also shared that he offers help not only to Hmong Americans but to other minority individuals as well as anyone who needs help. His life experiences led him to appreciate the importance of helping anyone, regardless of their race or ethnicity.

These examples of life experiences of the Hmong American female students and the student-veteran show the diverse experiences of the participants. However, in my study I focused mostly on shared experiences. Therefore, the stories of the study participants that included the intersectionality of ethnicity and gender, as well as individual life stories, such as that of the student-veteran, did not constitute a sub-attribute and were not included in this grounded theory. I still wanted to share them because they are very powerful and show the uniqueness and depth of the experiences of each global citizen that influenced them for life.

Sub-attribute: Life experience in refugee camps leads Hmong American students to reflect on their memories and develop their understanding of disparities

All participants in my study were born in Thailand or Laos and moved to the United States as children. Their recollections of life in refugee camps varied; some remember their experience very clearly, and some retell their life there through their parents' stories. Kevin referred to the hardships of growing up in a refugee camp in Thailand:

> [T]he way how I grew up, my childhood was mostly in Thailand. And being, seeing the struggle, seeing and living in the conditions were back then; coming here you realize how good you have it here. There is no comparison to what [younger generation of Hmong Americans who were born in the United States] were and how I was raised back there in a refugee camp.

Lack of food, poor living conditions, and no opportunity to obtain an education, at least in the early years of refugee camps, made the need to move to another country, especially the country they fought for, even more urgent. But Hmong people had little knowledge about the United States and they did not speak English, which made the resettlement even more challenging and often tragic.

The refugees portrayed their new country as similar to the description that PaSoua gave: "[T]he new world has giants that wants to eat people." She emphasized that it was very scary, especially when you are a child: "It was a scary thing to move from your home land to a whole new world where somebody is trying to kill you, or go back to jungle." She concluded that even though the life in the camps was not desirable, leaving what you already know was not better: "[I]t's all big steps."

Having these memories was important for all of the participants because they fear that the younger generation does not know or is losing this part of history and understanding of the experiences that the Hmong people have gone through. These memories also indicate that the

Hmong American participants are connecting their ability to understand disparities to the time they first encountered them in refugee camps as children or youth. All of this suggests that these Hmong American participants are able to identify and analyze instances of injustice and disparity that happen to other individuals around the world, and by being able to do that they embrace and practice global citizenship.

Sub-attribute: Life experience of resettlement leads Hmong American students to begin asking questions about their belonging and identity

Even though there is no strong evidence to support this interpretation, some sources suggested that Hmong means "free men" (Chan, 1994). Few Hmong American participants in my study used this interpretation to suggest the reason for why they, Hmong people, are always searching for an answer to the question about who they are. In their quest for identity and belonging their global citizenship skills are revealed. When the Hmong people resettled to the United States, they had to negotiate practices, norms, and communities in the U.S. to find their space. Kevin suggested that the established systems in the U.S. are set in such a way that an individual will only succeed if he or she adapts to fit into assigned roles. This means that a minority individual has to acculturate by compromising who he/she is. This is particularly tragic for Hmong refugees who are in constant search for their identity, for after they have resettled they have to adapt to a completely different culture while still trying to answer many questions that have lingered from their homeland about who they are and where they belong. This creates many internal and external conflicts.

The participants in this study began asking questions about their identity at different stages of their earlier lives. Kevin, for example, has been involved with his youth group since middle school. All members of his group were Hmong American young men close in age. They

felt that they could relate because they shared the same values, traditions, and language. Kevin shared that his peers started asking questions about belonging and identity when they self-organized in their youth group. This is also the period of life when they learned how to identify themselves with certain groups:

> I think that is just a way the classroom worked out. Or the way you go to, for example, a middle school class, or high school class. You can pick up different groups within those lunch breaks and if I come in as a new student to the class I have to pick a group that I am most related to. It's not that you dislike this group or you dislike that group. It's how you identify yourself as. So you pick a group and you just stay connected to that group. And like I say this is not like or dislike the other group, you just have more identification with that particular group. That's just how it was, it's just come up – so if you are within social studies side of things this is just the human part of nature, part of connecting to that group.

Most often, students would stick with the identified group till they graduate. This group, to some extent, was a safe space for individual Hmong Americans to explore their identity and test many assumptions about their belonging.

Other students experienced more challenges in finding the space where they could search for their identity. There are more players and complexities in their journey. PaSoua's description of the conflict of generations and cultures within the Hmong communities as a part of her search for belonging and identity illustrates these complexities:

> It's – is very difficult because [pause] I don't know. I am kinda like still in the middle generation when you are not old enough to learn and understand why people are people are just talking about Hmong people – so we are stuck in between. We don't know all about the English or Caucasian manners, how to follow rules and regulations and

everything like that, properly, proper way…. [W]e don't know all our Hmong culture traditions properly either. We are kinda stuck and don't know which way to go because if we decided and say, "Hey I am very tradition and I study my own language, and culture and stuff like that"– you don't know all of it, there's – nobody knows all of it any more. So they can't teach you then I go to Caucasian way, then I go to church and live normal life like Caucasian people, but it goes, it all goes back when you die – who's gonna send you back. That's what they always say, who is going to send you back? That's when you go back and find your clans and – do your rituals, do your cultural way of sending your spirits back. That's why it is so hard for people to jump to Caucasian: I go to church and I am done. You know, it's hard. It seems like us Hmong people live by groups. We live by groups and we kinda like do our activities by groups – like eating parties, doing shaman, religion, cultural way. If you don't do it this way then you are considered kinda like nobody, you know. And in a – being a human being you need to have a belief: you can't – whether you believe in God or believe in your way, your culture or your religion. Eh, we don't believe in God all the way because we, we don't know the story, you know. It's kind a book you read, like "Beauty and the Beast." Do you believe in Beauty and the Beast? This is like it is for us. Uh – and we don't know all what our culture considers – we are stuck in the middle. So I think as we get older we learn, and by the time we are ready we will truly know which we believe is one. [laughs]. You know it is really difficult for our generations. The people who are in 40, 50s – uh – they are probably more knowledgeable about our culture than us 30, 40s. Even the younger generation know – oh, I am afraid that they will lose it, you know, because we don't know how to teach them.

> They are all looking up to us, 30 and 40s. You know and, yeah – even their kids, I don't know who is going to teach them because we are slowly losing our culture.

These conflicts reveal multiple complexities within Hmong American communities that are very dynamic, but they are not visible to an outsider. Various differences of beliefs, gender roles, generations, family status, traditions, and views on identity result in a continuous search for their own space within the diverse narrative of Hmong American lives. This quest for belonging and identity informs Hmong Americans' understanding of the complexities of the identities of different people and cultures in the world. It also allows them to assess their abilities to negotiate their identity when engaging with different issues and environments while practicing global citizenship.

Sub-attribute: Life experience of resettlement leads Hmong American students to self-reflect on their need to assume social responsibility and global civic engagement

Since Hmong refugees were sponsored by a religious organization, a relative, or another third party as immigrants, they usually came to the communities where their immediate or extended families lived. Despite this, the resettlement did not go smoothly for any of the participants. They all shared hardships that they and their families faced. These hardships were related to economic difficulties, education and literacy disparities, and racism.

Some participants described economic hardships their families went through and continue experiencing. For example, seeing the way her parents were dealing with difficulties, PaSoua, for example, felt that she had to assume more responsibility to help them. She said that her parents wanted better lives for her and her siblings, and they said that through education they could be more successful. This is how PaSoua described her thinking at that time:

> They always go back and say: you know, we are dumb, you know, it is very hard for us to learn, you are here now in the USA. That knowing English and getting a job is a success. And a life. We are not successful, you know. So you need to do it, so you need to continue your education, not give up. So they are saying and that's what you see, too: yeah, Mom and Dad works at a company, they don't get good pays, they work almost every day. Sometimes even weekend. I mean I am the oldest too. I also have a lot of responsibility of taking care of my siblings. And I mean just a lot on my shoulders.

Later on in her life, this responsibility for her siblings grew into a larger responsibility: PaSoua organized a youth group for Hmong girls and taught Hmong traditions and civic engagement to them.

Economic hardships followed Hmong refugees from refugee camps to their new lands. Pa was four years old when she moved to the U.S. with her family. As she recalled,

> We were very poor. We were on welfare, of course. And but it's amazing how my parents, I guess, with their background and stuff, they learned how to save money, that they were able to buy all the things that we needed. It's amazing how they were able to really, you know, really be responsible with money that they were able to provide us, I mean, all seven of us children, and with many things. It's amazing.

Reflecting on the economic hardships of her family after resettlement was the way Pa was able to learn to be responsible for her own family, and she continued to share this knowledge in the work her church is involved in other countries. Pa is very active in international projects that sponsor various churches to support poor people around the world.

Other students reflected on their hardships as they relate to accepting the status of being a minority. They remembered their families looking forward to resettling to avoid prosecution for

their support of the U.S. in the Secret War. They hoped that the country that they fought for would give them the home they had been longing for. They had never expected to face racism, especially since they had had no prior experience with it. Even though they faced disparities and inequalities in their homelands, they all belong to the same race group. After coming to the U.S., they had experienced oppression from the dominant group in all aspects of lives. When Yang was describing his feeling as a minority, he indicated that he experienced racism first-hand, but he still had the hope that these tensions could be resolved:

> I think what prompted is, eh, one thing is how they looked at us. They think that just because we are ethnic group, we are ethnic minority group we are not welcome. So they might involve with my wife in the community, just to let them know we are here, we are not going anywhere. So whatever you do we can do too. Just let them know we are here, you know.

In spite of these various hardships, the Hmong American participants in my study found the way to deal with them, including by getting involved in local and global organizations. PaSoua, for example, shared the different activities she had been engaged in and described what prompted her to take those steps:

> I did get involved with the Hmong community. The Hmong New Years, or like the Hmong Mutual Association. Doing tutoring after school for … the people who just came from Thailand in 2006 or 5, something like that. I like doing that because it was hard for me when I first came too. And I had a great uncle that was like committed every night to study with me. And by first year, I was able to read. So yeah, eight years old. So I tutored after school kids. Again my motivation is it was hard for me to learn, so it must be for them too. So and they are there to do readings, math, science stuff, project stuff, and also

> the head of the tutor program was trying to teach them Hmong too, as well, so that they do not lose it at the same time. Yeah, that's easy to lose. Because they all were young and if you don't study, don't learn anything about your culture you are going to lose it too. You know, so I did it for, I don't know for how many years, maybe two-three years [before I went to study nursing].

Resettlement was a very tragic experience for Hmong refugees. There is strong evidence that this caused a lot of mental health issues among refugees and that has, unfortunately, not been addressed. The study participants used reflection to examine the hardships of their resettlement. These reflections led them to choose to assume social responsibility and become globally engaged.

Sub-attribute: Life experience of conflicts and pressures in school and at home leads Hmong American students to develop self-determination in facing challenges

All participants described various conflicts and pressures that they faced in their lives. At home, these conflicts involved their parents, elders, community members, peers, and their own families. Other conflicts and pressures took place in school. Sometimes pressures at home impacted the study participants' experience in school. Some students had to drop out of school because they started a family of their own, and sometimes students had to miss school because of life events in the Hmong community, especially death. School administrators would not show understanding of Hmong traditions and would require Hmong students be present in school when all their family members were saying good-bye to one of their community members. Pa shared that she felt frustration with the lack of advising and guidance from administrators in school and later in college. Her parents were very supportive and stressed the importance of education when she and her siblings were growing up, but she got married when she was fourteen. Even though

she finished high school, she did not get any career advising. When later on in life she went to college, she had to change her major several times before she finally got into health care. She says that this experience led to her resilience and determination to get educated so that she could help other Hmong people.

Tina grew up with her parents encouraging her to get educated. But after she got married, she did not get much support from her in-laws with regards to continuing her education. She shared"

> Honestly, my ex-husband's all his family are really against it. And my parents, on the other side, they have actually gone away from the traditional way of thinking: my Dad sees it that this is America, we have big opportunities here to grow, and what they wanted for their kids is not enough for them to work in the company, to work for minimal wages, you know. And they want us have a better life. So I think with their support, it's enough courage in myself to fight against my in-laws and say: "No, you know, you guys should be supporting me, and be proud that you have a daughter-n-law who is going to do this." And – it was hard. They could only say no, but they can't take actions and I feel like no matter what I have to be the one who agree and sit still or actually do something.

Tina embodies resilience to the pressures of, as she called it, "traditional family." Moreover, while she was trying to get an education she was facing other tragic events in her life: she was diagnosed with cancer, and she decided to divorce her husband because he had had an affair while she was sick. She said that there had been many times when she wanted to quit; however, she would always find strength and the self-determination to face a new challenge. In her words, "I never regret the things that happened, so I never regret my kids, going through cancer treatment, or going through all that. I think it has its purpose to bring me to where I am today."

This self-determination led to Tina's connections with various non-profit and educational institutions where she was actively involved and volunteered her time.

Even though all participants emphasized their deep respect for their elders, they also recognized the pressures they experienced from these hierarchical relationships. The female participants, in particular, experienced pressures related to gender roles. Other hardships were related to age. Young people had to keep their place, and they were not expected to change the way things were. One of the participants shared:

> I know I am young and in our culture they do not look up to younger kids because they think they are older, they are wiser. And we should not speak up to them, you know. But I think sometimes we, as younger generation, needs to say something, so that our older generation needs to listen. And you know, because we are young it doesn't mean we are not educated, we don't know what they are doing, you know.

Because young people are supposed to know their place, many members of their close community look down on them and their achievements. One of the participants said, when talking about the pressures of clans: "[I]t's kinda you know, you learn from that: They don't expect me to do it? I will show them that I can do it. Everything is possible because of learning. You know – if you learn from it you'll get through it, you know. That's how I look at it."

Hmong American students face pressures every day. In addition to experiencing pressures as a minority in predominantly white communities, the participants in the study had to deal with pressures at home. These constant battles cultivated resilience and self-determination among Hmong American participants to face challenges.

Sub-attribute: Life experience of mistreatment by an education system leads Hmong American students to developing a foundation of knowledge of justice

When Hmong refugees came to the United States, the majority of them did not have formal education and they did not speak English. Because of their age, some refugees were not able to obtain adequate education even after they resettled. Their younger siblings or children observed the mistreatment people close to them were experiencing. Such encounters with unfair and unequal opportunities in education informed the Hmong American participants in this study about justice and how differently people are treated by the education system. Pa saw the hardships her siblings faced in getting an education in the United States:

> I have five brothers and one sister. But when we came, my oldest brother, he was, he was 16 already. So then when we came he started high school. Then I mean he just kinda went through high school, just like that, simply because he was old already and they just kinda pushed him through. So he did not actually really learn anything, and so then it was really sad because then – he was old enough already, and then he was kinda put in that situation. And … then my sister. She is older than me, she is 10 years older…. She started the eighth grade. And so because they did not get a chance to start in a kindergarten they didn't, I guess they didn't have those basic information, no basic learning. So it was really, really hard for them.

The Hmong American participants felt that the school system in the U.S. was not set up to help them. In particular, they would struggle because of English. English as a Second Language resource centers were supposed to provide needed assistance, but Hmong American students were sent to ESL centers regardless even if they needed help with Math or History. Because all Hmong American students were sent to the ESL resource center to get help with all

their classes, these students stopped asking for help and went immediately to that center where they often tutored each other in other non-English subjects. They learned studying this way in school and continued doing it when they went to college. This is what Kevin shared about his experience:

> So you come to the college. I don't know how long that system developed, but you come and you follow that norm. You don't go to the History resource center, even though you need help with History, you don't go there [laughs], you just go where your group and you are associated with. The same thing is with the other group: if I need math and I stay with that group in the ESL center and I ask around if somebody knows Math and they can help me to get the answer, to help me out with the problem. You don't go to all those resource centers to get help. And this is the way social structure works within, I think, within community, within school system, within pretty much anywhere.

Kevin said that because of what he knew now he would have tried to challenge the norm. He hopes that other students will try to do it.

These experiences in school, like when a student would be pushed through school just to graduate without gaining knowledge or without being provided needed support underscores the whiteness of the education system in the U.S. This mistreatment resulted in the realization of what justice is among the Hmong American in this study and they could recognize it in local and global contexts.

Sub-attribute: Life experience of being bullied by peers leads to maturity and development of deep understanding of compassion among Hmong American students

All participants described their school years as difficult, and they all stayed within their own culture groups to manage pressures. This was reinforced by the fact that the education

system was "color-blind" and did not recognize the unwelcoming environment created by peers. Yang shared that he was harassed and humiliated by his peers because of the way he looked:

> [F]or me as ethnic Hmong – sometimes I feel like, you know, we are wanted, but we are not wanted, you know. I always would hear when I was a child: "When are going back to your own country?" And I don't know, I keep on telling them: "I can't go back," you know.

Yang, unlike other study participants, identified these instances as racist, and he is very outspoken about that. Nevertheless, within these negative recollections he tries to find a way to explain why his Caucasian peers behaved that way. He shows compassion to them because of their lack of knowledge and experience of other cultures. Moreover, Yang knows what it means to be bullied and harassed because of the way one looks or speaks. As a result he tries to direct his efforts toward educating other people and helping the community:

> I want to – [pause] tell other people: "We are not Hmong, we are not just Hmong. We are here because we want to be here; we are here because we have to be here. I am here because I can make a change for you and for me, so that you get to know my culture and I get to know your culture." So, that's it – that is how I look at it and also like getting education, helping the community too.

There were other ways participants were bullied by their peers, both in school and outside of school. Several participants referred to schoolmates or members in the community that they tried to avoid. In particular, they were worried about getting involved with young people that had "wrong" habits. This finding is important because Hmong people have been portrayed as gang members by white-based media. Because the participants of this study tried to resist the influence of their peers, they were called names and bullied by the members of their own cultural

community. Even though they were humiliated, and some ended up being isolated, they were able to develop the strength to stand up for themselves. PaSoua talks about her experience,

> So when I get a lot of – like a lot of push down, you know – things like that or discouragement, I take it and learn it, grow from it instead of being sad about it, cry about it, or have low self-esteem. So – I mean you go – I try to change and be a better person than they expect. I mean that's how I cope [laughs].

Because of her own experience, she organized a youth group for Hmong American girls where they were engaged in various meaningful activities and worked on addressing bullying by peers.

The Hmong American participants in this study recognize the importance of school. Yet, they experienced a lot of bullying by their peers, predominantly because of the way they looked. Some of the participants were bullied by the members of their own communities and clans. In spite of these negative experiences, they built more compassion toward other people who are bullied. Among the various activities that these Hmong American participants are involved in are projects related to helping youth develop their talents and find their way in life.

Attribute 1.2: Diverse people contribute to the Hmong American students' development of social responsibility and global civic engagement

The Hmong American participants in this study mainly live in close communities and in clans. Four groups most strongly contributed to the Hmong American students' development of social responsibility and global civic engagement: 1) parents, in particular, father; 2) close community: clans, ethnic communities, groups; 3) a mentor or role model: family member, supervisor/boss; and 4) peers: friends, classmates, relatives of the same age (for example, cousins). These diverse groups of people added global citizenship of the Hmong American participants in this study that are discussed in more detail in the following sub-attributes.

Sub-attribute: Family instills respect for others and the importance of social responsibility in Hmong American students

Hmong Americans have a strong feeling of community and family. Historically and after resettlement, the majority of Hmong people continue to live in clans. In our conversation about the role a family plays in developing global citizens, PaSoua described the differences between Americans and Hmong with regard to the responsibility to their families:

> [T]o me I think that they don't have as much as what we need in our culture think about because Caucasians don't live in clans or groups, or by last names. It's like all over, and they are trying to do what is best for them; some go to church, some don't; so it's not like any heavy – what's that – it's not like they have to be responsible for. But for us, I have a responsibility of being a daughter-in-law, wherever my in-laws are. My husband has a responsibility of caring his name, his Dad's name, and trying to understand what's out for him, such as knowing the Hmong cultural way, and those are like trying to catch up to us or trying to chase you. For Caucasians, I don't see that. It's like, "Oh, I am married. This is my life. We go to church." It's not like, "We are responsible for in-laws. I need to be there and prepping, cooking, and do this and that, and be a good daughter-in-law to you." You know, it's different, you don't have this heavy responsibility, which we do. I mean I feel I do. That, that's part of your culture. That's what they raised you for: to be a good person, care for them when they are old. That's why we can never get away from them. [laughs] You know, yeah, it's kinda harder, if you want to say the difference: it's more work for us. Maybe it's for you guys too, for Caucasians, too. We just don't see, I don't know.

This expectation of respect for families translates into showing respect for other people, and all study participants agreed that they learned this behavior from their parents. Some participants emphasized the role that both parents played in instilling respect to others. In Kevin's words, "[A]s I was growing up, you know the way I grew up, just my norms, your parents taught you, you just get into that aspect, and as you grew up." He went to college already having the deep understanding of social responsibility, and he carried this quality on: "[M]y two years, and it was in that college, I engaged in a lot of, you know, I feel like I do have a responsibility for my community trying to make sure that all the youth within my community are acting responsibility."

Another participant shared that her parents were always talking about having a purpose in life, and they taught her that helping each other should be one of those purposes:

> I grew up always knowing that, you know, there is a reason why you were born here, I mean. We were all born to, you know, I guess to help all each other, and then we have a responsibility to help those who are less fortunate, and so like I said yesterday, my parents have always instilled that at, in our mind: You always have to help other people no matter what.

Pa also added that her parents viewed education as one of the acts of social responsibility. They always emphasized the importance of going to school and college to her and her siblings. It is through the stories of her parents about their hardships and lack of education that Pa developed respect for others and learned the importance of social responsibility.

Many participants reflected on the hardships of their parents and how that increased their respect for their parents for everything they had done for them even though they themselves did not have much. By seeing their parents' determination to give their children opportunities to have a better life, the Hmong American participants in this study had a deep appreciation for

their sacrifice and became more socially responsible about their own lives and their willingness to help others.

Several participants emphasized the role their fathers played in instilling respect and social responsibility. Some fathers used their own example to show how to be a responsible citizen. This is how Kevin described the influence of his father:

> I think the biggest factor in there is my Dad. He was a leader in the community, and he as a big proponent of not using alcohol, not using tobacco and he has always been against it, and he tries to teach his kids not to go that route. And that's how ever since I was brought up. So that was the biggest factor to, to sway me that direction. You know my Dad is, basically he can teach you how to live, how to live not doing bad stuff. This all comes from my Dad.

Most of the fathers of the Hmong American participants I interviewed were Laos veterans. The narrative of veterans that are American citizens but are not recognized as U.S. veterans, even though they had fought for this country, was reflected upon in interviews. The participants in my study have learned since a young age that citizenship is more than just a document, and that one can be an active citizen in a country that might not fully recognize one's contribution, as is the case with these Hmong veterans. That is why Yang, whose father was a Laos veteran, considered his father's wish for him to serve in the U.S. military, albeit with some doubt. He told me: "If this country does not recognize my dad and his sacrifice during the Vietnam War, then how will I serve this country?" Yang changed his mind though. By joining the army and fighting in Iraq, Yang shows a high level of social responsibility and respect for others, qualities that a global citizen possesses and that were instilled by his father.

The parents of the Hmong American participants in this study lived through many tragic events. Their children saw their struggles, including not being able to speak English, a lack of education to attend college, not being recognized as a U.S. veteran, and more. They have deep respect for their parents, and therefore they feel an obligation to live the life their parents want for them. This means to getting educated, respecting others, and being socially responsible and help others.

Sub-attribute: Ethnically similar close community instills respect for others and the need to help other people

Since many Hmong Americans continue living in groups or clans, their influence on the development of young people is strong. This is also true in regard to developing respect for others. For example, PaSoua described how when her family arrived to the United States it was very difficult. But because of close families and communities they were able to get help. They celebrated their holidays with the Hmong American community and kept the traditions alive. Her family also relied on them when they experienced difficulties. When PaSoua was growing up she knew that she would "pay back": "[I]t's kinda planted in my – in me that I want to go back and educate my community, my Hmong people, this is how we are USA, and this what we learn here and giving back to you, you know." The experience of living in a community and seeing the interdependence of its members led to her understanding of the role her close community played in her upbringing.

Examples of volunteering that the Hmong American participants in this study saw in their close communities and families inspired them to offer their help. Tina grew up seeing members of her community and her family volunteering, so she started doing it with them. In her words: "[W]hen we do our New Year celebration then, you know, we and my brothers whether we

volunteer be at the gate and collect money or tickets, or one year, I was picked to be a judge for the dance contest. And we do all that out of volunteer work and time." Tina added that now even though she lives in a different community she still goes home to volunteer with her family in various events.

Life in close communities impacts individual members and the way they live. The Hmong American participants recognized the role which close communities played in their development as global citizens. In particular, they emphasized such qualities as respect for others and the need to help others.

Sub-attribute: Ethnically similar peers and youth groups from the same ethnic population include Hmong American students in activities aimed at addressing local or global issues

American schools offered limited opportunities for Hmong American students to engage or they did not put much effort into reaching out to them, at least during the times when the participants of this study were middle and high school students. In response, many of the participants tried to find peers to self-organize into a group or identify a youth group to join. Most of the students joined other existing groups when they were in high school. PaSoua shared that she was involved in various activities offered by her school and outside of school. She said that it was important for her to engage in various organizations: "But you know little pieces here and there, I mean that's how you learn as well too that this what people do, this is what you need to do to help out in the community." This experience helped her later on in college and professional life by giving her an understanding of local and global issues and what agencies were working on them.

Unlike the majority of the Hmong American participants in this study, Kevin did not find groups or organizations in school to engage with. He felt very isolated in school. But outside of

school he was very active and exemplified strong skills of a global citizen. He said that because of his upbringing he was always concerned with the environment and how people chose their lifestyle. This prompted him to try to find a way to address various needs in the community, especially those impacting young people: “That’s probably the biggest factor is just seeing your peers you know smoking, seeing your peers using alcohol, seeing your peers doing all this, we considered bad stuff at that time; seeing them doing that you kinda say maybe I should get together, get a group together and do something about it.” He and some of his friends started getting together and became a youth group that worked on various issues and needs that they saw in the community but that were not being addressed. Personal relationships and enthusiasm about what they were doing played an important role in sustaining the group. In his words:

> So some of the factors that got them involved is probably, I would say, part of it was what I do as well…. I am very enthusiastic…. You know, when your friends are really into one thing and you are not, even if you are not it is a little spill, that you spill onto them to get them a little bit more understanding of the things you are interested in, and eventually they kinda see when they go out into the world and they see that and they got more and more interested into it. They go back and talk to you a little bit more, about it more, you give them more information, and ultimately their understanding pretty much increases and got more engaged.

The Hmong American students were looking for opportunities to practice their social responsibility and global civic engagement both in school and outside of school. While some were engaged in formal programs and organizations, others were looking for less formal groups to participate in activities that aimed to address local and global issues.

Sub-attribute: Church instills respect for others and the need to help others in Hmong American students

Many Hmong Americans continue practicing animism traditions, the belief in the coexistence of physical and spiritual worlds. The participants of this study shared the conflicts they faced in this regard: on the one hand they wanted to follow traditions, but many of them lost that foundational knowledge; on the other hand, they were in America and they should go to church. Regardless of their point of view on religion, none of the participants suggested that their animist faith influenced them as global citizens. Several study participants indicated that their church encouraged them to develop respect to others and help anybody who is in need. In particular, Pa said:

> I guess you know because I grew up in the church and my family have always been, you know, Christianity and just seeing the missionaries who just go, you know, in different countries, you know … not just talk about you know about God, religion and stuff, but just helping out to in like countries, or places like they are very poor, less fortunate just, you know, help wise, so education and stuff like that. Just then just seeing those people, just amazes me how you know, I mean, I guess if you think about it in you know, with the religion mind site, then you: "Wow, it's amazing how God can use such, you know, such people to do such great work." And I've always had that mindset that I wished that one day God can use me to do such great part too.

Pa and her family have always been very active in their church. She shared that faith has helped them to go through hardships and she was also glad that her parents chose to convert to Christianity because it opened more opportunities for them to help others.

Sub-attribute: Mentor or role model helps Hmong American students develop leadership skills

The Hmong American participants in this study have met many different people in their lives that they considered their mentors or role models because of their impact on them. Some of these individuals were close community members, some were from the larger community, and some were in professional relationships with the participants. One participant shared that he was a role model for another member in his youth group. In Kevin's words: "[O]ne of my friends that was really close to me said he would never be the person he is without being friends with me. He said to me a few times, even a couple of weeks ago, when I went to visit him in Oklahoma he said, he is the person he is because of that."

The participants I interviewed viewed a mentor or a role model as a person who engaged them in the activities that taught them about the local community and other cultures and developed their leadership skills. One of the participants described a group of girls that her aunt had organized. As a leader of this group, her aunt developed various activities, such as experiencing the wilderness or visiting pre-college camp, that were directed at preparing the Hmong American girls as future leaders. PaSoua told me: "Being involved like that makes you see a bigger picture than just see yourself in your work." Seeing a bigger picture allowed PaSoua to see a mentor and a role model in her aunt who was trying to give important skills for the girls in that group. Everybody was impacted by the experience. In her words: "We really enjoyed the experience and learned a lot of things. Encouraged each other to work harder in life."

Many participants indicated that having a mentor or a role model in their life encouraged them to strive to become role models themselves. Because of the influence of PaSoua's aunt, – "I look at her as my motivator, I need to be one, too" – she organized a girls' group herself. Several years later she met one girl who said that she had owed her a lot because PaSoua was a leader of

the girls' group that allowed her to develop leadership skills when she was a little girl, and she used her experience to successfully finish school and graduate from college. Now that young woman is a leader of another group for girls.

Pang considers her ex-boss a real role model. Although this woman was Caucasian, she had lived in the community for a long time and knew the diverse needs of the different people that lived there. These were the skills that she was trying to teach Pang: who the people in the community are and what their needs are. Pang shared that this knowledge and understanding helped her in college and later on in her job because she knew all kinds of different people who lived in the community she served.

Role models for the Hmong American participants in my study were influential people that they have never met and knew about from books or documentaries. All of the mentors and role models that impacted the development of their leadership skills, both in local and global context, were "real people" from their communities or work places who put in their time and effort to contribute to these students' development as global citizens.

Sub-attribute: Mentor or role model challenges Hmong American students' worldviews

The impact of mentors and role models in developing the Hmong American participants as global citizens did not only include their local and global leadership skills development. These individuals were also challenging the existing worldviews of the participants. They did that by introducing them to other ethnic and cultural diversity in the community and the state, by taking them to different events, or by simply spending time together and discussing various issues. PaSoua, who had her aunt as a role model, also had another woman in her life that she considers a mentor and a role model. She was introduced to her through a YWCA program. This woman was Caucasian and she was close to retirement age. In PaSoua's words:

> [W]hat I remember is that she showed me a lot of ways how to be active in the community as well, like her doing to me, having that spare time spending with somebody hoping to change their life someday somehow. And I could feel it because we were together. Other she takes me to fundraising events or actually volunteering do fundraising, like selling popcorns, things like that. Taking me to this … international day in Milwaukee where you see all this different race group, you know, people selling stuff. And it's like exposing me to other community, and she is also encouraging me not to get married soon, and things like that. That's probably part of their role to be a mentor, see what I need, ask her. They do help with the homework and things like that too. And looking for job, applying, if you have questions they will walk you though it. You know, that's part of their role. I just don't remember what it's called exactly. But I am glad I joined that group. I don't know how I got there. [laughs]. Yeah, she is like my role model, too.

PaSoua said that this mentor was the first one who questioned her conventional worldviews. And even though she married young in her culture, she now tried to model her work with girls based on the experience and the knowledge she received from her mentor.

Pang and her husband got married when Pang was still in high school. After her husband graduated from college they moved. Pang says that her ex-boss, whom she considers her role model, has taught her a lot and challenged her traditional worldviews, particularly on family and parenting. As a part of her responsibilities when working for this non-profit organization after she finished school and before she went to college, Pang provided services to families in the communities. She worked with families that were ill and families that had just immigrated to the

United States, “so it was kind of different types of families.” This is what Pang learned from her boss:

> She basically teach me the community key, how to get around the community, how to help and advocate for people and families that are in need of help. I would probably say probably learned more with my mentor. When I went to school it was – it helped me because it was a different setting, and my knowledge from the mentor helped me with my education because at that point of time I was already comfortable with the community.

The Hmong American participants recognize the importance of being open-minded. Having mentors or role models who can challenge their worldviews and develop new perspectives contributed to their development as global citizens.

Attribute 1.3: Self-selected learning attitudes and practices lead Hmong American students to embrace social responsibility and global civic engagement

Since educational institutions did not offer many opportunities for the Hmong American participants in my study to develop their skills, they developed their own ways to learn about and embrace social responsibility and global civic engagement. Their memories of life in refugee camps and the hardships of resettlement continue to play an important role. The participants spent considerable time during their pre-college years reflecting on their experiences and their memories. They also reflected on the memories of their parents and other family members. These reflections contribute to the self-motivation of the study participants to engage and demonstrate an intrinsic need to help others in addressing individual, local, and global issues. The intrinsic need to help people in need and to resolve global issues led these Hmong American participants to choosing their future careers.

Sub-attribute: Self-motivation leads Hmong American students to help others

The Hmong American participants in this study mainly developed as global citizens as a result of the influence of their parents and their community. Because of their experiences in refugee camps and during and after resettlement in the U.S., they developed important skills that a global citizen needs, especially related to social responsibility and global civic engagement. Since schools were not prepared to meet the unique needs of these students or to continue nurturing their global citizenship development, students had to motivate themselves to be involved in the community and help others. This is what Kevin shared about his self-motivation:

> I think that deals a lot with how I grew up. When I was in high school and then going into college I … was inclined to, to get involved within community. Through that aspect I got involved in a lot of the community youth group. So as I was growing up, you know the way I grew up, just your norms, your parents taught you, you just get into that aspect, and as you grew up, and my two years, and it was in that college, I engaged in a lot of, you know, I feel like I do have a responsibility for my community trying to make sure that all the youth within my community are acting responsibility.

Similar self-motivation is practiced by other Hmong American participants in this study. Pa shared:

> [J]ust having that mindset that my people need me, and not only that my people need me but you know the community at large also need me too. I believe that I have my own unique skills and stuff that I can, you know, contribute to the community. So then just that whole idea: Oh, I am going to be great one day, you know [laughing] is, is what, you know, motivates me to keep going to college.

This self-motivation encourages global citizens to assess their skills and identify areas for development and growth. For example, Pa already has a degree and she works in her field. But she understands that health care is changing all the time and policies change continuously as well. To be able to be effective in her job and serve her community better, she recognizes the limits of her knowledge and, therefore, she went back to school for her master's degree and she hopes to pursue her doctorate in the future.

Self-motivation leads the Hmong American participants in this study to search for needs in the community that are not met. They look for opportunities to step in and help others with local and global issues.

Sub-attribute: Emerging leadership skills of Hmong American students lead them to start self-organizing in groups to help the community

While they were learning leadership skills, many Hmong American participants in this study immediately put these skills into practice. As I described earlier, some Hmong American students joined formal groups and programs to engage in addressing local and global needs. However, some decided to self-organize. They observed needs in the community and the missed opportunities to address those needs. Instead of waiting for someone else to step in, several young Hmong American men decided to meet regularly to discuss how to address such problems as smoking and alcohol use. Kevin describes his self-organized group:

> My community at that time was about seventy thousand individuals or seventy thousand population wise. As far as my high school it was … my class was 400-450 individuals. So and through my youth I do see a lot of, you know, close friends that do go, you know, using tobacco, using alcohol, things like that. So how I grew up I got involved a lot in the local community trying to, trying to influence them to go the other way, trying to find the

> other ways to be more responsible community members ah then basically I was chosen to be the lead for that group and we had at one time, we had 30 youth group in that group our group. Trying to volunteer in community events, going to trainings within the state on how to better, just eh, just more likely we targeted just the minorities. Trying to, trying to improve the youth basically being responsible community members at that time.

Kevin recognized that the success of this group came from the fact that it was self-organized and self-governed. Nobody imposed any rules, but at the same time, they had to sustain its existence. To do that, they identified a clear goal and defined objectives for the group. In addition to focusing on promoting a healthy life style, the members were concerned with environmental pollution. Without anybody's directive they would go and clean rivers and woods. They also educated each other and discussed pollution in the global context. The group was comprised of only Hmong friends because they felt they had more commonalities and more shared values. The group also celebrated success: they would travel around the state to see new places or attend events to learn new skills: "[We were] doing something fun, instead of doing something unproductive like smoking, like, things like that." This group shows the mature leadership skills of its members, and Kevin emphasizes that their success was due to their shared governance: "We actually make our own guidance. We make our own and I think that that's good because we are the one that set the rules. And I think it is how it makes the group run and, and everything is we did a little bit not somebody else says this is what you've got to do to make the group work."

PaSoua shared that a self-organized group was a way that her youth group was successful. In her words,

> It was self-group: encouraging each other, see what other do, hey, that's what you are going for? Let me think what I would like to do. You know, it's like that, it's not like

> pushing thing, eh – they don't peer pressure to do things so that you feel comfortable too. It's kinda motivating each other: hey, I am going for this, what about you … and then you see yourself, and yeah, let me see, I am a CNA now, let me go for nursing. You know things like that. It's the whole group motivating each other…. It was a small group, maybe 7-8 people.

These self-organized groups allowed the growth of leaders within. Many of the American Hmong participants I interviewed were recognized by their peers or other people they influenced as role models. The emerging local and global leadership skills that these participants developed not only contributed to organizing in groups to address local and global issues but also encouraged these emerging leaders to grow as mentors and role models.

Sub-attribute: Knowledge of peers' abilities and their strengths leads Hmong American students to depend on them when helping the community

Since Hmong Americans live in communities and clans, they understand and practice interdependence. They know each other well and reach out to close community members for help. This is the principle behind how Kevin's youth group functioned: group members knew each other's strengths. When they identified an issue that they wanted to work on, they would use the knowledge and skills of the members who had had more experience with these problems, and then they would develop a plan of action and lead the others. For example, the students who were seriously interested in ecological problems led their river and woods cleaning projects, while the student who was seriously interested in a healthy lifestyle was leading their work with youth projects. In short, interconnectedness with respect to different issues and how to use each other's skills to find the best ways to help each other and the community were widely-practiced by the members of Kevin's group.

Another participant indicated that her youth group also included only Hmong girls. Their leader identified the strengths of all its members and tried to develop them further. PaSoua said that they always focused on positive traits, and that allowed them to have a stronger connection with each other and trust each other. This interdependence helped them deal with many issues in their personal lives as well in their work in the community. PaSoua said that being with the right people and trusting them had a lifelong impact: "[T]he group of people I hung out with we all became successful in something, you know. It was a good thing…. We [were] all are Asian, all Hmong kids."

It is worth pointing out that all participants in this study indicated that their circles of friends or self-organized groups were exclusive: they all were Hmong American youth. Some participants suggested that the exclusivity came about as a result of shared values and worldviews that you did not have to explain to an outsider. Other participants suggested that other kids, namely Caucasian kids, would not join their groups because their parents would not let them. In PaSoua's words, "I think back when … we can see there is a limitation to our friends, the things that we can do they cannot do, like going out camping, their parents won't trust." Realizing the exclusiveness of their group, and at the same time feeling distrust from Caucasian parents, did not give this youth group a choice but to continue reaching out to their own cultural community.

As I learned in my interviews, the Hmong American participants in my study do not only possess the understanding of the interconnectedness of issues in the world but they also realize the value of interconnectedness and interdependence of people in addressing these various issues. They know how to identify the strengths and expertise of members of the group and depend on them when practicing social responsibility and global civic activism

Sub-attribute: Continuous reflection leads Hmong American students to fully embrace social responsibility and global civic engagement

As discussed earlier, memories play an important role in the Hmong American participants' development as global citizens. These memories do not sit still: the participants go back to them and share them. These memories help them construct who they are and interpret the world around them.

The participants remembered that they started practicing reflection for the first time when they were in middle or high school. Kevin was in sixth grade when he began reflecting on how he could connect his life with his love to science. In his words:

> I think it goes back into 5th grade, 6th grade. I was always fascinated in the science world, knowing that, you know, how much our earth, the world has changed from when I was in the sixth grade till, you know, now, it's something that I can – you can look and say I can do a little change, I can make a little change.

Another participant [Pa] was in high school when she first started reflecting on life in Laos, living in poverty, and what purpose her parents wanted for her life and she wanted for herself:

> I remember maybe at the age of twelve I didn't care much about anything, I mean I was in my own mind set, my own world. I didn't care about the future. But then I think maybe when I started the high school, I really, really thought about my future. And thought back to my family, how poor they were back in Laos. And how they never get an opportunity to go to school. And so that's when I started … I guess I can say I started study hard so then I can have better grades and be, and you know hope, my hope is to live the American Dream. And that is also the same hope that my parents wanted for us. And so I would say it's high school is when I started to think, you know, education is extremely

> important. And this is the only way for you to get a good job and fathers will respect you because if you do not have good education people will look down on you, especially in the Hmong community. And so if you are in college, you are smart, and you knew those things from school that will help your own community then you get a lot of respect for that. It's so then, that is what triggered my thinking that, yes, I need to go, finish high school, go to college, and make an impact in my community. And it's not only in the Hmong community, but you also need to impact community as a whole as well because you really, really cannot do anything without the partnership of everyone else. In regard, it does not matter what a great idea I have if I don't have the support of other people or the community at large then it's not going to go anywhere.

Pa's hopes for the American dream intertwined with gaining respect from the elders and close community around her pushed Pa to get an education. The importance of being respected by her parents, clan, and the Hmong community and not being looked down upon show the pressures that she was reflecting on when searching for her way in life.

Many Hmong American participants in my study viewed education as their social responsibility. As PaSoua elaborated: "[W]hen you got married and started thinking about education and that's when you realized how important it was for you to engage in the community." When they made that connection, they admitted that they started working harder to get better grades and were determined to graduate.

Life in general and how they grew up was probably the main focus of the Hmong American participants' reflection. This process helped them to know where they had been, where they were, and where they were going. This is the way they also reflected on their engagement, as stated by Kevin:

> When I was in high school and then going into college I always have a – I have was inclined to, to get involved within community. Through that aspect I got involved in a lot of the community youth group…. So as I was growing up, you know the way I grew up, just my – your norms, your parents taught you, you just get into that aspect.

Reflections helped many Hmong American participants in this study to deal with their personal tragedies, find ways to accept the things that happened to them, and develop ways to move forward. Yang had to deal with a lot of tragedies and traumas as a result of his active duty during the Iraq War. When he reflected on his experience, one thing that came out of it was that he did not want to go back to war. But another thing was that he tried to identify his purpose of life and what will people remember him for:

> Then when I came back I decided to, I decided not to go anymore. Because I seen a lot of my friends dead, there they pass on. So I [had] seen life is too short. And then I was thinking to myself, what I am gonna do to make people remember me, you know? So one thing is for me is like coming back to the point: all I want them to know me is I am a guy that helps other people. They try to be good citizens, and help other – it does not matter if it is my nationality, or another nationality. Try to put the foot in the door so that they can, once they get there, they keep on going. And then go and bring another one…. I read in one of Rick [Warren] books, Rick wrote, his Dad was talking, his Dad was dying, so his Dad say: "One more for Jesus." But I say: "OK, one more for Jesus, but one more for the world." So as long as I bring someone to know the world then I am good. Ha-ha [smiles].

His father played an important role in Yang's life, and he spent a lot of time reflecting on his dad's words. In particular, he reflected on his father's strong advice to get an education. When

Yang returned after Iraq, he said that his Dad's advice to go to college made more sense and he was ready to do that because this would help him to help the community and the world:

> I always say to him: "Dad, life – God has created us differently, and people's minds and mentalities are different. But his thing is always: if one of us will go to school, and get a degree, you will be happy. So that is why when I went to Iraq, came back, I thought of my Dad: "Hey, you know, why not just, why not just focus on me and focus on other people too? " Not what I wanted, but what my Dad wanted, and what my wife wanted. That would benefit us and then other people will want. I was like, OK. So I didn't talk to my dad, I didn't tell him what I was doing, but I thought of my Dad and his words, and the pen and the paper is the way to go. So a degree, people will look at you differently.

Reflections help the Hmong Americans as global citizens to keep their memories alive, assess their dreams, consider the advice of others, analyze the world around them and their role in it, and look into future. These study participants recall that they first started reflecting when they were in middle or high school. This practice not only helped them to deal with personal tragedies and identify the purposes of their life but also helped them to more strongly embrace social responsibility and global civic engagement.

Sub-attribute: Intrinsic need to help others leads Hmong American students to feel concern and compassion for all

In light of their personal experiences in refugee camps and resettlement, all of the Hmong American participants in this study developed a strong sense of responsibility to help others. For example, Tina came with her family to the U.S. when she was almost nine years old. She vividly remembers all the hardships she had to go through. She also realizes that there are many people

who continue to face these hardships every day. Tina is very involved in her community, but she hopes to travel to Thailand and provide help there. In her words:

> And getting to know, like, people that were left back in Thailand, my people, and just how they are uneducated about diseases, and health, I really had a goal set down for myself: One day if – of course, I have money – I want to go to Thailand and set up a clinic to help my own people to educate them and you know provide them just basic one. You know, so that they could prevent diseases.

This need to help others is not exceptional. Pa says that it is considered a norm among Hmong people. In her words:

> Help the poor, then like provide for the poor. One thing about the Hmong is that they are very good, they have a very good hospitality. So then they just, they are open-minded to that, they open house to anybody, literally to anybody. And that's what people like about the Hmong, they said: "They are so open … they are willing to help anybody along the way." And not only that: if you have anything, if you have money or you have a lot of animals … so then … you are willing to share [your animals] and give it away to people who are less fortunate. So those kinds of things … have a huge impact on our community, and [they are] doing such things.

This intrinsic need to help others led the Hmong American participants to feeling and expressing concern and compassion for all people, regardless of their ethnicity or nationality. One of the participants, for example, is working as a school bus driver in addition to continuing to work on his master's degree. He sees kids of different cultural and ethnic groups every day and listens to their problems. He is concerned about their education and he encourages them to go to school: "I care about their education to them, and meanwhile I am getting my education. I

am just telling them what school to go to that will benefit them in their future." Even just being a school bus driver, as Yang described himself, he tells kids on his bus what opportunities two-year colleges can bring to them and how they can start. He is an informal advocate for these types of colleges, and he says they will open doors to these kids in the future.

Helping any people who need help is a quality of global citizens, and all of my Hmong American participants demonstrated it. They understand the specific needs of diverse groups around the world and can offer their particular skills and expertise in addressing these needs. As Pa shared:

> One day I want to do that too. I want to go around the world. So that I could help other people in other countries, that, you know, that are not necessarily my people, but then like I really want to go back to Laos and Thailand. Although my Hmong people, they are originated from there, but then like, I want also to help Laotian and Thai people to understand that you know life can be better.

Feeling and showing compassions and concern for all people is an important quality for global citizens. All of the Hmong American participants in this possess this quality when engaging in local and global projects to help other people.

Sub-attribute: Intrinsic need to help others leads Hmong American students to choosing STEM field for their future career

All of the Hmong American participants I interviewed in my study shared that helping others and a need to address local and global issues led them to choose their future careers. A serious interest in science and concern for the environment led Kevin to his choice of a profession:

> I think one of the most is the science. The science field is probably – I would say that something that hits me – engage me the most. And I probably would not say it was a two-year college. I think it goes back into 5th grade, 6th grade. I was always fascinated in the science world, knowing that, you know, how much our earth, the world has changed from when I was in the sixth grade till, you know, now, it's something that I can – you can look and say I can do a little change, I can make a little change…. [S]cience is what stimulated me the most, as far as trying to do something for my community. You know, as a youth group we do a lot of volunteer work: going and cleaning the river, along the river taking garbage, picking up garbage, and things like that. I always felt like it's a small part, but then again, you know, it relates back to the science, providing back, well, that area to – not to the original pristine, but you are providing less garbage into the, to the environment.

One of the participants who was not able to finish school because she had started her own family had always dreamed of having a job where she could help people, "[I]t was something I have always had a passion about, helping people. I worked in a nursing home before [college] for four years and enjoyed that quite a bit. I always liked helping people. That's how I am, my personality" [Mao]. So when her children were a little bit older, she did not have to explore what to study. She immediately applied to a nursing program at a local technical college.

Another participant decided to go into the medical field in high school because she wanted to take care of people. She experimented with whether it would be a good fit for her by participating in the Health Apprenticeship program offered by her school. In PaSoua's words:

> So in high school I've always wanted to be like MA. I don't know it's MA physician. Because I like to come out, take people, weigh them, ask them what's wrong, why are

> you here today? Go get the doctor. So I thought: "I like Health Apprenticeship program." I signed up and joined the Health Apprenticeship program. And to be CNA Physician. Which end up caring for people, and not nursing home and stuff like that.

She was also encouraged by other nurses when she was in the Apprenticeship program to get an education: "'Be a Hmong nurse,' that is what they said, 'Be Hmong nurse. Try to help in your community. That's what nurses do.'"

The desire to fulfill her role as a citizen led Pa choose health care. The choice was also driven by her wish to be respected by her community:

> But then when I went to school, the other reason is that I really decided to go to college is that you know I feel that you know as a citizen I have to find the way to contribute back to my community. You know, for the Hmong people, it's really, really important that you, you help your own people and not only that, but other people as well. And so then if, you know, if I didn't do anything to better my life or you know get that respect from my own community, from my own people then you know I feel that I wouldn't be able to get that same from other people as well.

These complex driving forces inform the choices and decisions of the Hmong American participants in this study. On the one hand, they are inspired to fulfill the obligations of a citizen, and by doing that they hope that they will prove the legitimacy of their citizenship. On the other hand, they know that they rely on their close communities and they need their respect. This knowledge allows the Hmong American participants in this study to recognize and understand complex issues in the local and global context. For example, Pa knows how complicated laws and policies are in the United States. The newly adopted Affordable Care Act, in particular, benefits a lot of underrepresented people, but it has a lot of nuances. Pa recognizes a huge need

in interpreting this law to the minority groups, including Hmong Americans. As a result, she sees her obligation to get educated to be able to help other people understand the details of this law and make informed decisions.

Another participant of this study developed the need to help other people as a result of her volunteer work as an interpreter for various agencies. This experience prompted her to consider the medical field. In Pang's words:

> I interpret at the clinics, I interpret at the courthouse, throughout Marathon County. And I think doing that I felt that. You know, medical field was something I want to go into. When I was doing interpreting, I just realized I wanted to do more than just interpreting at the clinics. I wanted to help other people. And so I think at that point when I was interpreting – maybe I could have gone to any different field with interpreting, but I chose that specific one…. [T]here's not only trying to help my ethnic too, but other people too. That's what I wanted to do to help other people better themselves, and to live a healthier life.

The Hmong American participants in my study developed a strong sense of responsibility to help others as a result of their personal experiences both when they faced disparities and when they received help from others. In addition, they all displayed a strong interest in a particular STEM field and a commitment to education. As a result, their choice of career was driven by their need to help other people with local and global issues. These informed decisions and continuous engagement with communities help advance a global agenda.

Grounded Theory 2: Overview of the Grounded Theory of College Experiences that Can Cultivate Social Responsibility and Global Civic Engagement of Hmong American Students Who Majored in STEM in Two-Year Colleges

The Hmong American participants I interviewed were strongly committed to going to college and getting an education. This commitment was closely linked to the influence of their parents and close community and their own reflections on the hardships they experienced in refugee camps and during resettlement. They viewed education as a path to improve their lives and the lives of their families and communities. Their social responsibility and global civic engagement played an important role in their choice of a field of study in various STEM areas, while economic factors, as well as pressures to live close to their families, were the primary reasons these Hmong American participants decided to study in two-year colleges.

Some two-year colleges offered special programs to attract Hmong students. As Mao put it:

> I know that the college in particular was very interested in Hmong students. They were always seeking to try to accommodate our needs and stuff like that. And the Director was always making sure that anything, you know – it seemed like there were interested in our comments or any issues we had while going into the program. So they were looking to expand and try to see if they could have ways to help Hmong students. That was what it was.

At the same time, Mao shared that her college did not develop her as a global citizen and did not provide opportunities for her social engagement and global civic activism. She recognized that these qualities were important for the field she works in: nursing. In particular, she emphasized the importance of being open-minded. When I asked her how she worked to develop the quality

of being open-minded in herself if her college did not offer opportunities for students to develop that quality, Mao responded:

> How did I do it myself? [laughs] I think, I just have to, I have to. I learned it on my own. I don't know, I think it's, you just have to be that way. You know, and it's tough. You just, I know, you know I hope that everybody who goes into that profession is open-minded and they have to know [laughs] how to – cultures out there, there are other things out there. I guess it's just me that I don't know how to. I have always been that kind of way when I try not to judge, but it's tough and I like to be – I like to try to take other people's position and be in their shoes too. I don't always like to judge even though I know what they did is very bad and stuff like that. I am always sympathetic. And I've tried to be empathetic to that way, think from that person's shoes, from what they are coming from to. That's just personally me.

It is worth pointing out that even though Mao realized that her college did not provide such skills for her, she still tried to "cover" for them. She would talk about faculty members being good at training students in the skills that they would need for jobs, but she did not mention that the entire faculty were Caucasians who were generally trained to teach white students for "white" professions. Even though more and more diverse students are going into nursing, some topics remained sanitized, in particular, cross-cultural competencies and open-mindedness. Mao had to figure out on her own how to develop needed competencies for her future career. Still, she was very respectful toward faculty and, following the pattern of many oppressed individuals, she was trying to blame herself for not seeking various opportunities. In Mao's words: "Nothing else that I could think of. They might have offered but I did not participate." And she added: "I think as far as college, what the college offers, I am sure that they offer the best what they can."

This disconnect between what the colleges they attended offered and what the students needed was echoed by other participants of the study. For example, the colleges were trying to attract Hmong students, but the students could name only single instances when a college faculty member showed genuine interest in students' unique needs and aspirations. They could name no such instances from administrators. For example, Pa mentioned several times that she felt that students come to college with a certain purpose, but she found that the college did not support that student while he or she was trying to achieve that purpose. Kevin suggested that colleges do not necessarily have to develop their students as global citizens, as the development usually starts earlier in life. He believes that what colleges need to do is offer opportunities to nurture and enhance these students' growth as global citizens.

Since there are only single instances of interactions with faculty that students identified as meaningful and that enhanced their global citizenship development, this grounded theory is based largely on these single instances. To validate these examples, these instances were tested with other students during the interviews, and they also supported the idea that these college experiences would have helped them develop further as global citizens. In addition, students who pursued advanced degrees had additional experiences in institutions of higher education that contributed to their enhancement as global citizens. Attributes from these post-two-colleges experiences were also included in this grounded theory.

Attribute 2.1: Colleges build on Hmong American students' interest in STEM as a motivator for cultivating their social responsibility and global civic engagement

Sub-attribute: Course content and activities include opportunities for social responsibility and global civic engagement

The Hmong American participants in this study showed persistence in attending college and graduating with a degree in a STEM field. Even though they did not participate in study abroad opportunities, some participants related course content and activities that were offered during their classes and connected them to social responsibility and global civic engagement.

To enhance their global citizenship experience, the Hmong American participants sought out classes or course activities that led to developing their knowledge and competencies in the global context. Kevin, who was majoring in biology, could not participate in a study abroad program due to financial and logistical reasons. He found another opportunity through his college that allowed for the enrichment of his knowledge and his enhancement as a global citizen. In Kevin's words:

> And it was not abroad, but there were those summer classes that enhanced my understanding about environmental fields. That three-week camp that I took, those kind of experiences, promoted more of my understanding of being more global responsible person.

This course allowed students to examine local nature parks and analyze the environmental changes that occurred as a result of various factors such as pollution, global warming, invasive species, and forest management. Kevin reflected on the knowledge and skills he gained as a result of the course and indicated that it greatly contributed to his global citizenship development.

Similar to Kevin, other students looked for course activities to enhance their social responsibility and global civic engagement. Yang, for example, took advantage of an internship that was being offered as a part of his academic program. This course allowed him to observe a teacher in a local elementary school and provide support to him during classes. Yang learned about the diversity of the students who attended the school and their various unique needs. Even

though the internship was short, he was able to develop a close relationship with the instructor. One of the lessons he learned from this instructor was related to what role a teacher should play in lives of children and the community in large. Yang recalled:

> [T]eacher at [elementary school] told me that: "No matter what you do in life never put yourself above other people. That will make their esteem low. If they come to you for help then help them, help them best you can. If you can't help them … go get them help." You know, I always learned that.

Yang still remembers that teacher's words and he tries to live by them. He has said that he tries to put other people above him whether he is in his church, volunteering, or riding a school bus.

Because of their intrinsic need to address local and global issues, the Hmong American participants in this study were seeking courses and learning activities that included opportunities for enhancing their social responsibility and global civic engagement. Courses that included opportunities to examine local and global issues and communities attracted these global citizens, satisfied their intrinsic need to help others, and built on their prior experience with social responsibility and global civic engagement.

Sub-attribute: All courses (STEM and non-STEM) focus on connecting global issues and coursework with local community and its needs

The Hmong American participants I interviewed indicated that even though they majored in certain STEM fields like nursing, engineering, biology, math, or information technology, they benefitted from STEM courses as much as non-STEM courses when they discussed local and global issues. They saw the importance of connecting local issues to a global worldview and vice versa: connecting global needs to local communities. These global citizens were interested in obtaining knowledge and skills that they could put in use immediately. For example, Kevin felt

that he could apply the knowledge he received from his experience in the classroom immediately in his self-organized youth groups that were working on addressing various local and global issues. As Kevin elaborated:

> I think that the school plays a role, and it all is kinda connected to each other. The school part prompted me to do some youth group activity because of what I have learned in the classroom. And then what I do outside kind of helped to promote the stuff that I have learned in the class. So this is I think one of the bigger things that I did outside of the classroom.

Kevin also shared that the knowledge he received was disseminated to the members of his self-organized youth group. This way he was helping other members of his group continue to develop the knowledge and skills of a global citizen.

It is worth noting that the Hmong American participants I interviewed had a wide breadth of knowledge and experience that they had developed prior to entering college. Not surprisingly, they were intentional in what new knowledge and skills they needed. One of the students shared that they discussed community needs during some of her health care classes, but diversity and the unique needs of diverse groups were not discussed. This is how Pa discussed this gap:

> I don't think we even talked about different diversity groups, different resources at all. It just you, knowing yourself, "Oh yeah, Hmong have Hmong Mutual Association. And there there is also Neighbors Place for all kinds of poor people, or poor family. And there is also a Red Cross." But we really didn't talk about divided resource for each race. That would be good to know! [laughs]. Because yeah, you know, it's not all Caucasians going for nursing. …Because we grow up knowing that there are resources out there for us. So

that was like in the back of our mind, we already know the resource and when going for nursing I do not remember hearing anything about like that.

Pa suggested that the material discussed in the courses did not meet her needs and the needs of other minority students. Moreover, she thinks that the content did not serve the majority students well either. According to Pa, the course did not provide the majority students with a realistic picture of the diverse needs of local communities and the resources that were available to meet their unique needs. As a result, Pa suggested that courses in two-year colleges should connect issues and community needs in a global context. For example, local health issues or the problem of aging population can be viewed in the global context. It will allow identifying better solutions to addressing and resolving them. She praised a four-year university she transferred to for her bachelor's degree where she was able to experience this approach.

Connecting global issues to the local community and its needs is an important skill of global citizens. The Hmong American participants in this study indicated that students benefit from courses that offer opportunities to develop this skill during their studies in two-year colleges.

Attribute 2.2: Pedagogical practices in the classroom cultivate and stimulate social responsibility and global civic engagement in Hmong American students

The Hmong American participants in this study possess qualities of adult learners that are characterized by the role of identity and prior experiences, readiness to learn, and orientation to learning (Knowles, 1973). Their statements in the interviews suggest that they have been looking for and responded better to relevant pedagogical practices that focused on cultivating and stimulating their global citizenship development. The sub-attributes of these pedagogical practices are discussed further below.

Sub-attribute: Faculty invite Hmong American students to discuss global issues in and outside of the classroom

The Hmong American participants in this study developed a lot of experiences that prepared them for global citizenship before entering college. As a result of their life experiences and the influence of various people in their lives, they embodied the need to be socially responsible and engage on a global level. Through local and global formal and self-organized efforts, they volunteered in domestic and international organizations, involved themselves in political actions, voluntarily served in the U.S. military, participated in projects to address environmental issues, educated communities on women's issues, developed multiple learning opportunities for youth, and engaged in many other meaningful activities. These global citizens were willing to share their experiences in the classroom. But unfortunately, there were scarce opportunities for that available to them. The Hmong American participants felt it was important to discuss global issues because they were relevant to what they were studying, and because these issues would always relate to local communities and needs. Some of the issues they were interested in discussing were related to health care, information security, sustainability, nutrition of children, and other relevant topics.

When the Hmong American participants did get an opportunity to discuss a global issue it would most often happen in small groups and outside of class time. Many students were not comfortable starting a discussion and contributed to one only if another individual had already initiated the talk. At the same time, all of them indicated that it would be important if a faculty member started a discussion on certain global issues and encouraged Hmong American students to share their experiences. Yang, who said that there were no classes during his two-year experience that discussed these global issues, also indicated that he would have benefitted from

such discussions. He knows the value of such interactions between faculty and students in and outside of the classroom because of his experience after he transferred to a four-year institution. He recalls, “No. I am thinking about. It didn’t happen until I went to a 4-year college. So then I started getting interested in it. ” Since Yang had always viewed education as a two-way process, I suggest that not only was he not able to share his experience with other students so that they could learn from him, but he was not able to hear about the experiences of other students in his class so that he could learn from them. These discussions could have potentially led to sharing knowledge about certain global issues. It is important that faculty members organize opportunities to discuss global issues in and outside of the classroom and invite all students, including Hmong American students, to participate and contribute to them.

Sub-attribute: Faculty apply global contexts to local issues

The Hmong American participants in my study have strong connections to the parts of the world they come from. This can be explained by the fact that they were born in Laos and they remember their life in refugee camps. They still have family members who live in Laos or Thailand. Moreover, these participants also are engaged in formal and self-organized organizations that address both local and global issues. As a result, these global citizens have an ability to see local issues in a global context. When they went to college, they knew that they would need learning that would be relevant to their future careers and would build deeper knowledge and connections to global issues. Several students emphasized the importance of examining complex issues in courses. One of the students who took honors courses during his two-year studies shared the following:

> [J]ust the classes that I taking, extra, those honors classes I took. It gives me deeper understanding of what I am interested in. At that time it was more global environmental

> type of field. Taking the class itself is good, but having that additional honor's course gives you a little bit more deeper understanding of that course. [Kevin]

Kevin's experience in his honors courses allowed him to engage with the topic he was interested in and examine it in a global context. PaSoua advocated for all courses, not just honors courses, to include some global context for the issues that faculty discussed in the classroom. Pa indicated that it was important for medical field professionals to know how health care issues are addressed in other countries. Unfortunately, however, not many Hmong American participants in this study were offered classes that discussed local issues in a global context. Kevin was the only student who took the kinds of classes that PaSoua and Pa were advocating for. This is what Kevin said about his classes:

> I took like the botany class, zoology class. Those classes not only they go just through the aspect of point of biology or the animal biology. But it goes really above and beyond to see to some problems out in the real world that affecting the decline of animals, extinction rate, or the same things with the plants: the movement of different kinds of plants. It's because of the global warming, the trend that has been seen plants going a little bit further north, things like that. The studies they showed throughout those classes kind of enhances or give me more background on the topic that I really can go back in my middle school years.

In Kevin's words, not only did these college classes cultivate his global civic engagement but they also built on his prior knowledge and made the new knowledge more relevant. For global citizens to be able to have their knowledge and skills enhanced during their two-year college studies, faculty need to develop course activities and materials that apply global contexts to local needs.

Sub-attribute: Faculty encourage Hmong American students to share their personal life experiences related to social responsibility and global civic engagement

The Hmong American participants I interviewed have rich and diverse experiences with social responsibility before entering college. These prior-to-college experiences helped them to engage in various ways to address local and global issues. Because two-year colleges aim to develop their graduates as global citizens, faculty can encourage all students to share their experiences with social responsibility and global civic engagement. This helps Hmong American students to get engaged in the classroom and share their experiences as a veteran, an interpreter in the community, a refugee, a wife of a church priest, an active community member, a child in a Hmong family – to name a few. This also helps other students learn about various local and global issues and various opportunities to engage.

The Hmong American participants in this study stated that they were willing to share their experiences when they were asked. Yet, not many had been asked. When they talked about it, they also suggested that these missed opportunities did a dis-service to the majority of the students in the class because they have a limited understanding of diversity in communities and their unique needs. Pang was one of the Hmong American participants in the study who tried to share her knowledge of community needs during her clinical experience. She used to volunteer as an interpreter and later worked for a non-profit agency that provided services to low-income families. She applied the knowledge she received as a result of her prior-to-college experience in her studies and wanted to share it with other students in her class: "I was able to apply [my prior experience] to my studies and I was able to share with [other students in the class] that not only [do] we help people in this clinical and we can do different things out in the community as well." When I asked her whether students in her class understood what she meant, Pang responded:

> I think some of them may know what I was referring to, and some would because when we were doing studies that there is different age I think that the younger generation didn't really know, but I think the older generation knew what I was referring to. Because I think they have gone through that. They are at that stage of life already, so they are able to understand more.

Pang concluded, "So that's how we, we help each other. We bring other issues to the clinic setting and try to help them understand, not only clinicals, but also other issues in different setting."

Adult students have rich experiences before they enter colleges. The Hmong American participants in this study developed the knowledge and skills related to social responsibility and global civic engagement as a result of their experiences in refugee camps, resettlement, and under the influence of many people in their lives. Other students in a classroom can benefit from learning about these experiences. Faculty should design activities that will encourage all students to share their relevant personal life experiences to enhance their development as global citizens.

Sub-attribute: Faculty offer research opportunities on STEM issues in global context to Hmong American students

Because the Hmong American participants in this study have a need to help others and are passionate about certain local and global issues, they are interested in developing deeper knowledge about STEM issues in the global context, whether it is in health care, environment, or engineering, to be more effective in providing help when tackling a problem. They were interested in examining real problems in their classrooms, problems that were connected to the real world. They shared that they benefited a great deal from course activities that encouraged them to research a particular problem.

The Hmong American participants described some research activities they did as a part of various courses. For example, some faculty members asked students to identify a topic they wanted to research and report on it. This type of project included reviewing printed and electronic sources to describe the problem and existing solutions. Tina decided to choose a certain type of leukemia for the topic of her research paper. This was the disease she was battling herself, and she felt it was important for her to learn as much as possible about it. Tina also thought that it could help other students too:

> [The faculty] told me after she introduced a project that if I wanted I could do it on my own disease, and that's what I did. And when I gave my speech to the class, uh – it was very hard not to cry [smile]. But it was personal and for some reason I don't mind now telling it because I think people out there need to know the story so that they have the courage to go on….

By researching her disease and what treatment is available in the world, Tina helped herself to build strength to face a serious disease. She also showed understanding and compassion to other people who might be experiencing similar situations but do not know how to move on from the experience. Through her own example, she hoped to help others.

Similar to Tina's class, PaSoua described that her professor had also given the option for students to choose a topic. However, this topic was supposed to be on resources available in the community to address certain issues. PaSoua said that she decided to choose one of the non-profit local clinics in her home city that was serving low-income, minority populations. She felt that it was important to do a research project on that clinic because it was meeting the unique health care needs of diverse groups in the community.

Another student had an opportunity to examine the connection of local environmental issues and global warming during his classes. He shared that this knowledge prompted him to do more research on these issues outside of the classroom. However, some Hmong American participants were not exposed to research opportunities at all, and when they did have opportunities, like this student, they felt they did not engage with the problems in depth. One of the participants, Wilson, found a way to continue studying the area he had been passionate about on his own when not given these opportunities in his classes. Wilson collected manuals for different cars in order to study engines. He said that he also hoped to learn Japanese and visit Japan because of all the knowledge about engines that he learned from reviewing magazines and manuals for Japanese-made cars. Wilson hopes that someday engineers will design highly efficient engines that will not need oil. These dreams led him to pursue his engineering degree; at the present time, he studies space shuttle engines in a four-year institution.

During interviews I learned about many issues that the Hmong American participants who took part in my study were passionate about. These issues ranged from pollution to oil dependency, health insurance, cures to diseases, women's rights, economic slavery, and education access. The Hmong American participants discussed these problems in local and global contexts and knew how those contexts intersected. Problematically, they were not given the opportunity to do more research on these issues during their two-year studies in order to engage more deeply with these problems. Knowing the impact of research opportunities on developing knowledge about local and global issues, faculty need to design more activities that will incorporate examining a certain problem – individually and in teams –in and outside of their classrooms.

Sub-attribute: Faculty offer Hmong American students an opportunity to analyze and make connections among various local and global issues

The collected data from the interviews shows that the Hmong American participants are able to connect knowledge about their local community to global contexts and vice versa. Because many Hmong Americans continue to live in clans and close communities, as well as having had prior experiences of social responsibility and global civic engagement, I learned that faculty can go a long way in assisting them in enhancing their understanding of the interconnectedness and intersection of local and global responsibilities As result, while in college, they gain knowledge and skills that allow them examine problems in their intersectionality and develop a deeper understanding of how various local and global issues are connected. Even though there were not many examples that the participants shared, the ones that they shared are worth describing.

One of the students remembered discussing pain during one of her nursing classes. Tina said that the instructor was teaching students in her class how to look for non-verbal cues for pain because different cultures perceive pain differently and there are some cultures where people "don't like to complain about pain because in their culture it might perceive as a weak thing." This prompted Tina to reflect on how Hmong people perceive pain, and she shared her reflection with the group. She also remembered that they had discussed euthanasia in their class: "I think we did one project on controversial issues in healthcare, and my group, we did euthanasia. And I remember we use[d] our culture perspective and beliefs into that practice as well." Tina shared that she thought that it was beneficial to learn how this practice was viewed in other countries and apply their perceptions to the situation in the United States and her own culture.

Another student, Kevin, took several honors courses that examined various concepts in depth and allowed students to analyze and make connections among various local and global issues. All these courses were offered outside of regular classrooms and students traveled together with faculty to a special location. This is what Kevin said about the classroom setup and the learning opportunities it provided:

> [I]t was credit, three classes for three weeks. It's nine credits for three weeks, but it's … intense nine credits for three weeks, every, you know, from 8 till 4 it's all classes. You know I would say it was the most intense studying, or more intense classroom type that I got, but it's really, really more relaxing unlike classroom style in the college when you go into the building, in the classroom. It's classroom outside of a classroom, when you actually go outside into the woods, and start looking at the trees: "Wow, you are doing the learning!" So it's a hands-on, you can say, hands-on experience on classroom, on the books. So I don't know if the other two-year colleges have that, but that one was actually very good for myself. It brings you out into the real world of what you are studying. … It is actually 150 miles from the campus. So we actually go and live at this camp. So the camp has cabins, and every day we go to a sort of a classroom, but it's not like type of a classroom you see in a class. It is more like a cabin and everybody seats around and talk. At the same time, you are learning and talking. And your lunch, you know, is like you are going out camping, this kind of deal. That kind of learning, I think it is much better than a classroom type. You look at the screen or a blackboard or things like that. It is a relaxed state of learning. Where you, like I said before, it is all in the real world. You learn what you see. It's not on books only, you know. At that time I did not feel connected to the world. I mean you are in your own little world. In your little camp. You are, basically you

> are on vacation. You know a vacation out somewhere. And I feel like it is a really intense learning …. I probably learned more in that three weeks than I learned in the whole semester. Just because of the interactions you have, it's a hands-on type, so you are not connected to the world. You do not see grocery stores, you don't see cars running by, you do not see, you know, you do not hear cops driving by. It is just you are in your own little world, in your own little space. The knowledge expands, you know, but the experience is very isolated. But the knowledge you learn could apply to pretty much anywhere in the world, such as how the interactions of the microbes in the lake, how they interact with macro, fishes, the birds, and all that. That relationship could apply anywhere else. So the knowledge you learned is applicable to the world, not just that area.

This intense out-of-the-formal-classroom learning opportunity provided Kevin with the space to learn, engage with the course material in its real-world context, and make connections among various local and global issues. When another class structured along similar lines was offered, Kevin immediately took advantage of it. Another five-credit course allowed him to continue analyze local environmental problems and make connections to global warming.

One of the participants took a class that engaged him in analyzing women's issues. He admitted that it was something that he had never studied, but because he had his own family and because, as he said it in his own words, "I usually just look at that as the way to help the community," he decided to sign up. Yang made an interesting observation about who took the class: "Most there are woman. They tell you woman more, but as guys, they don't know that guys – I think they – they are the one that cause it, but I think it actually can be either way." Yang said that the class helped him better understand women's issues, especially from a global perspective. Violence against women was one of the main topics in this class. Yang thought it

was important to discuss this problem in both local and global contexts because he would be able to teach younger generations about it. He added: "[Violence] was one of the harder topics to discuss." Knowing the challenges that women face in local communities and how the economy impacts them, and analyzing the issues from a global perspective, was an important learning experience for Yang.

The Hmong American participants in this study recognize that issues do not exist alone: they usually intersect with other problems both in local and global contexts. To develop more knowledgeable global citizens, faculty need to design learning opportunities that encourage students to analyze and make connections among various local and global issues.

Attribute 2.3: Faculty genuinely engage with Hmong American students in order to stimulate social responsibility and global civic engagement

Relationships play an important role in the lives of Hmong Americans. This can be explained by the closeness of their communities and families and by the fact that many of them continue living in clans. Participants in this study indicated that having relationships with faculty was important for them to be engaged and to have a feeling of belonging in a classroom and in college. These relationships also impacted their development as global citizens. Kevin, one of the study participants, suggested that faculty who knew their students helped them build their global leadership skills. Pa also emphasized the importance of faculty having genuine interest in and engagement with Hmong American students. Unfortunately, her experience in a two-year college did not leave a positive mark. This is what Pa shared about her faculty:

> [T]here was no Hmong instructors. So I didn't get that. I didn't get someone who understands my culture, who, you know, went through what I went through. And so, then you know, there was really hard, really tried to, you know, explain, or I guess to express

> your feelings or your emotions because, simply because of your cultural background. And so then, you know, I wish I could say that the professors would be more culturally sensitive as well because, you know, for the Hmong, in the Hmong community, you know, Hmong students, they have obligations, responsibilities to their family as well. They have to run errands, they have to take care of their siblings, they even have to translate for their parents. And for some they even have to contribute to the household income. So then they have to work, you know, part-time job, even if they go to school. So … they have a lot of responsibility. And then, you know, there can be somebody that the professor try to understand because sometimes an assignment can be missed simply because they were too busy doing other things.

As a result of her experience when she did not have instructors who would understand her challenges, Pa started being very critical of herself. She recalled an internship that she was looking forward to. She hoped to develop the necessary skills for her future career by building on her prior experience and knowledge. This is what Pa shared:

> [T]hen there was that internship that was done that really helped, you know, kinda build on that skills after you know you finish college, but that was pretty much it. [pause] I didn't really – [pause] to be honest – I didn't enjoy that internship at all because it … was more like just things, that learning basic things to me. It did not challenge me enough, and so then I was learning the same things that I learned in class, so then I felt really – like – I don't know if, whether it is because I am Hmong that maybe they feel like I need to go through basic again or something, but I feel like it didn't challenge me enough and I just kinda went through that internship and just tried to get over with it, even if I hated it [laugh].

Because Pa's instructors did not know her and did not know about her experience and her aspirations, they were not able to meet her expectations. It was not until Pa transferred to a four-year college that she experienced faculty that were interested in knowing her and learning about her experience and goals. During the interview, Pa reflected on her experience in a two-year college and suggested that she would have a different experience should she have had a faculty member who was genuinely interested and engaged with her to enhance her learning and global citizenship development. The sub-attributes below describe how faculty can genuinely engage with Hmong American students in order to stimulate their social responsibility and global civic engagement.

Sub-attribute: Faculty take time to know Hmong American students and their background

The Hmong American participants in this study recognize the hard work of faculty in the two-year colleges they attended. While higher education aims to provide equal support and treatment to all students, this approach does not work well for these Hmong American participants because it does not meet their unique needs. As a result, they hope that faculty will take the time to know them and their needs in order to support, challenge, and encourage these students during the learning process.

The participants in this study suggested that it was important that faculty reach out to students and develop relationships not only in the classroom but also outside of the classroom. Kevin commented on a lack of strong relationships with faculty: "Not much as far as interactions in the community, it is more just course related work." However, another student shared that the personal relationship with the faculty that she experienced in her two-year studies helped her to face various challenges and move forward.

Tina was diagnosed with leukemia when she was in her second semester in college. She shared that she developed very close relationships with some faculty: "[T]here are a few that know me personally. There are actually even a few that visited me when I was being, you know, hospitalized." These relationships were very valuable and encouraging for Tina when she was battling her disease and the divorce that followed her recovery. Tina recalled: "I would say there … wasn't an instructor which I did really like …. [N]ot every instructor knows my background history, or why I am part-time. But the ones that do pay attention do know." And even though not every instructor developed a personal relationship with her, the support from the ones that made the effort helped Tina return to school part-time and finish her degree. In fact, that support was critical for her completion of her degree.

I want to make it clear: the Hmong American participants did not ask for special treatment. They just want to be noticed, paid attention to, as Tina said, and have a relationship with faculty. There is rich empirical evidence that suggests that close relationships with faculty results in a higher level of engagement by students in their learning process. Hmong American students benefit from this type of relationship with their instructors, and faculty need to make the effort and take the time to know all their students and their backgrounds.

Sub-attribute: Faculty embody and practice compassion in their interaction with Hmong American students

The Hmong American participants in this study have gone through many tragic events in their lives that have impacted who they are and how they interpret the world around them. Since they continue living in clans and in close communities where everybody shares these prior experiences, these Hmong Americans know what compassion is and practice it in their own circles as well as when they interact in larger communities. They view compassion as an

important quality for faculty to have because they work with students with different backgrounds and abilities. Several students shared that their faculty showed compassion and support to them during their time in college, while others did not have that experience. PaSoua was one of the students who wished her instructors knew her unique needs and showed more understanding and support in helping her succeed. Perhaps this can best be summed up in an old proverb, which states: "Walk a mile in my moccasins to learn where they pinch." This is what PaSoua shared:

> Seems like they are understanding, but they are not in your position that they understand, well, you know, because there are things you can't really – it's hard to be in your own shoes and explain to the others, see what you are in, you know. Because it is also cultural differences too. Learning like the nursing world is like a third language to us. Because of the terminology, it's harder, but there are some teachers that do pushes you and encourages, and there are teachers that kinda say: "This is not right for you." And you kinda like: "I am here to learn. Why wouldn't you teach me so that I can learn instead of pushes me away." You know, and things like that? There is also one that says: "Your English is not good enough," and I am just – in front of all my clients and other employees – and I was like: "This is not professional," you know. But you know, you keep going: people pushes you down, and you keep going. Because there aren't perfect people there all the time.

Even though this student experienced humiliation and discouragement from faculty, she found the strength to keep on going. In spite of these negative experiences, the student persisted and successfully graduated from that college. She is now working in her field and shares her knowledge with other professionals. But what if her instructors had showed compassion and support, how much more could she have achieved during her years in college?

Several other students were fortunate to have some faculty who did practice compassion. One of the students recalled instructors who would have conversations with him about his future goals and encourage him to pursue his dream and keep on going. Yang described the encouragement he received from his Math professor that led him to continue pursuing his dream. His interaction with another faculty member was no less influential:

> [My Professor] is Geology. He is always like: "No, you have to know your people. No, you have to know your country. You have to go and be your history and know your country. And study the ground, the plants, and trees," like stuff. He is a Geologist. So I read one of his books. He wrote about Rib Mountain. About rocks formations and wow …. [The Professor] is – I had him for – as a Professor as a freshman seminar. He teaches freshman seminar. He teaches how to succeed and stuff, how to read a book, and how to pick a book. He just teach you how to – to actually succeed in your first year. And then into your second year, and we can go into a four year, and go on to, go on to get your master's and go on to get your doctorate, go on. It does not matter how many degrees you've got. As long as you have heart and you do everything right, you know. So he is always – if you have – for me, I have questions, you know. As a vet and as a parent I always have some questions like: "If I can't this done what can I?" He's like: "Talk to your professor, talk to your professor." I always talked to my professors.

These conversations with his instructors helped Yang not only with his questions about identity and who he was, but also to develop effective study skills. Yet if his Professors had not shown compassion to Yang's unique needs and did not reach out to him, he would probably not have developed this knowledge and skills.

Another student was touched by the attention of her instructors. Tina had a lot of tragic life experiences when she went to college. Being a refugee, struggling through resettlement, marrying young and having children before graduating from high school, being diagnosed with cancer in her first year of college, and going through divorce – all these experiences impacted her ability to attend college. She recalled that many instructors showed compassion to her and this encouraged her to persist. She tells this story about one of her instructors:

> And then fourth semester, there was one instructor, she would be like my simulation instructor, she will be like last instructor I had before I could, you know, walk down the aisle. The whole time, she didn't know, and then our last project, was to write a paper as to what our plan was after graduation, and what, you know, what our goals was and I kind of wrote it there and nothing. We didn't talk person to person, and just her reading the story how I struggled for six years to finish nursing school I came as, I came in to do my last simulation, which we call capstone and, honestly, I think I did bad [laugh]. I think I did bad but she said I did good, and the first thing she did she walked around the table, to the back, and give me a hug and cried and said: "I am so happy for you, I am so proud of you." And that's like touched my heart, the instructor to cry for me [crying]. I don't think many instructors do that because they have so many students, but it meant a lot and I always will remember that moment.

A simple hug made a world of difference for Tina. This expression of compassion impacted her life.

As I discussed earlier, the Hmong American participants in this study have experienced tragic events in their lives, and they have many responsibilities every day. They bring all of these challenges into the classroom. Their stories show that they benefit from faculty who understand

their unique needs and embody and practice compassion in their interactions with Hmong American students.

Sub-attribute: Faculty challenge Hmong American students and have high expectations for their engagement and involvement on campus

The Hmong American participants in this study demonstrated the characteristics of adult learners and were responsible students. They recognized the importance of building deeper knowledge in their areas of their interest, which were predominantly in STEM fields. Several students shared that, even though they appreciated getting basic knowledge, they wanted to examine more complex, global issues to that they could develop deeper learning. They wanted to be challenged by their faculty. But the majority of the participants did not experience that and they felt that their instructors had low expectations for them. I described Pa's experience with her internship earlier. Because she did not feel challenged, she said that she even hated her internship experience. She did not engage with the learning process and she did not learn anything new. Other students shared similar experiences when their faculty would not encourage them to get involved. As a result, many students were involved outside of campus and only a few were involved in activities on campus.

The students who did get involved on campus were mainly involved in multicultural clubs. Yang described his involvement with such a club:

> So I am, I am trying to volunteer my time with anybody at the Multicultural Resource Center. So they say they have to pay me, but I say, no. I am just volunteer my time. And if you guys need help with History, Math or anything else I will help. If you guys are struggling and you guys call me I will come and help. But I cannot be here now because I have a newborn.

Even when he had a newborn baby in his family, Yang was trying to be involved. He was getting encouragement to get involved from one of his professors. Yang added, "I guess he always, they always say, do your stuff, take care of yourself, and help others people to get to where you are. Maybe this will get you even further than where you are." These examples of encouraging Hmong American students to get involved still show marginalization: they are encouraged to be a part of a Multicultural Club or a Diversity group on campus. It seems like the institutions perceive that Hmong American students could only belong and contribute to those student organizations. When faculty challenge students and have high expectations for their involvement and engagement on campus, they need to be inclusive in their intentions and not marginalize diverse groups.

Attribute 2.4: Practices that nurture and advance social responsibility and global civic engagement in Hmong American students

Higher education institutions, including two-year colleges, offer various practices to develop global citizens. These practices include study abroad, service learning, and research opportunities. However, as I discussed earlier, the participation of Hmong American students in these opportunities is very low. The participants in this study did not participate in study abroad programs, and research and service learning opportunities were very limited. Still, they shared their ideas about these and other practices that they think can nurture and advance social responsibility and global civic engagement, even though they had not necessarily participated in them themselves. Their ideas inform this attribute.

Sub-attribute: Academic advisors demonstrate genuine interest in and support of Hmong American students' academic and career goals and global citizenship aspirations

Academic advising plays an important role in students' success in college. Academic advisors help students develop academic plans, choose courses, manage challenges, and navigate college. Unfortunately, the majority of the participants felt that they had not been offered adequate academic advising. As a result, it took longer for the Hmong American participants in this study to navigate college because they had to figure it out by themselves. It looked as if academic advising was available, but these Hmong students did not benefit from it because advising did not go further than just registering for classes. But the students indicated that they needed help with navigating the whole college process and finding ways to address challenges. This made some students feel that colleges wanted them for numbers: Two-year institutions were reaching out to Hmong Americans to recruit them, but then they left them on their own as soon as these students enrolled. This is what Pa shared:

> To be honest – no. There was nobody. I don't even remember if I truly had an advisor. I mean I had somebody who helped me, you know, to sign up for courses and stuff, stuff like that. But not someone who would actually sit down with me and say: "What is your vision? What is your goal? What do you want to do in the future?" And you know: "What are your some if the courses that you can take that can really, you know, help you with those future goals." There was no one like that. I guess then I had to really kinda figure it out myself for most part. And so yeah, it's very unfortunate but I didn't have anyone – although we did have two Hmong working in that school. But you know they were involved in other things, so then they were not able to help, you know, and educate us, who never went to college, you know, who didn't have that college experience to really sit down and say: "OK, what is your future goals, and we really want to tailor this program so that you could meet your future goals." Then it was really unfortunate. Then I

> did that most of then I thinking I had by myself, and you know … it was hard because you have never had this experience before, and you know you don't know what kind of course, you know, or what classes will really help cultivate that, you know, this experience, or that skills.

As Pa indicated, it was unfortunate that no academic advisor in her college showed genuine interest in helping her. As a result, Pa had to change her major several times before she finally graduated with a degree. Even though she had many negative experiences during her time at a two-year college, Pa built resilience. Immediately after finishing her two-year degree, she pursued a bachelor's degree, and now she is working on her master's. It was not until Pa got to a four-year institution that she experienced what good advising is and how it could help students like her succeed. Her academic advisor made an effort to reach out to her, encouraged her to get involved, and challenged her. During the interview, Pa's voice got softer when she talked about her advisor. She also added that our conversation made her think how much she would have achieved should she have had a good academic advisor in her two-year college.

Unlike Pa and other students, PaSoua was the only participant in this study who had access to academic advising while at a two-year college and benefitted from it. PaSoua was receiving support as a participant of the federal TRIO program. Through this program, she received various services, including advising. She was also reached out to by an advisor who was a Hmong American. This is what PaSoua shared:

> [He] was the advisor for the Multicultural club at [the college] and he is the one who reached out to me to participate, get involved, and there was not just Hmong, there were like Indian? Indian, other ethnicity too, I just don't remember the number. But it's

> basically all getting involved and helping out in the community. Or getting to know each other as far as different race.

The support from her academic advisors helped PaSoua to stay on track as far as her studies were concerned. It also helped her to get involved on campus, even though the opportunities she was directed towards marginalized ethnically diverse students on campus. It is important to note that even the academic advisor who was Hmong American, according to PaSoua, was encouraging her to join the Multicultural Club rather than any other clubs.

Academic advisors in two-year colleges perform an important role in assisting students to navigate college and directing them to resources that can help them succeed. Effective academic advisors demonstrate genuine interest in and support of Hmong American students' academic and career goals and global citizenship aspirations and encourage them to persist in their STEM field studies.

Sub-attribute: Study abroad offers students international experience

The Hmong American participants in this study did not participate in any study abroad programs. They identified financial constraints and family as the reasons why they did not take advantage of international opportunities offered on their campuses. This is consistent with several studies that suggested money and family pressures as the main reasons not to participate in study abroad programs among ethic minority students.

Even though these participants did not partake in study abroad, they knew the value of these programs and thought it would be important that other students considered studying abroad. This is what Yang shared:

> My Chinese professor, she actually said that they have a study abroad where if you are a first-year student you can go and study Chinese in China. But the downfall you have to

> pay by yourself. Sometimes if you can't pay then the school try to find grant so to help for you. Not all of it, but maybe certain amount of it. But for me I want to go, but for me the downfall is my kids and my wife. If I leave what they gonna do, you know. Because it's not short, like two week, it's either for a month or for the whole summer. Because it is like a summer course when you go, and you actually, it's like Winterim, they call it Winterim, or summer class. So it's between those two – the Winterim class or the summer class – that you go. So usually when they have it it's in the Winterim. So that's like a month. And that's too long to be away from your family, and there is no income to help them. So that's why I usually don't go, but I always tell the younger, the youngers: "Hey, if you have an opportunity: go! That will expand your mind, expand your knowledge."

Even though Yang could not travel to study abroad, he encouraged others to do that. It is worth mentioning that Yang is a veteran. Yet, his military experience abroad has never been brought up in his classes, nor had anyone at his college suggested that because of his military service abroad he met requirements for global awareness learning outcomes.

Study abroad programs offer an important international experience that contributes to students' development as global citizens. Since only a few minority students, including Hmong Americans, participate in these programs, two-year colleges have an opportunity to discuss and review the purpose of their study abroad programming, their outreach approaches, and what constitutes global and international experience.

Sub-attribute: Service learning opportunities allow Hmong American students to learn about and engage with the local community

Helping others and engaging in the community is important for Hmong American students. Unlike some studies that have found that minority students do not positively view service learning, the Hmong American participants in this study found that these opportunities allowed them to learn more about the communities where they lived and get involved with them. Some participants engaged in service learning through their courses and some through clubs on campus.

Yang shared that his instructor included service learning in their course expectations, and he knew that they would have to develop a project that would address a local or global issue. This is what he recalled about his class:

> One of the classes in Speech, I think they – we touched on the subject of a just community wise. So but they wanted us to go and talk to the community. ... Trying to get school out and get the community work, telling them, hey, even though it is a small school here, raking lawns, plough snow, or shoveling snow; that's one of the things we were trying to do to engage our students in to do helping in the community.

Yang suggested that even that small help mattered, and it was important for students to engage with local communities to address various needs.

PaSoua, unlike Yang, participated in service learning through her campus club. In her words,

> I did join the Multicultural group at [the college] and that also involved me in the community doing fundraisings, helping out in the community, like raking, and things like that too. Doing egg roll sells. Also doing volunteering at Hmong Association, Hmong New Year. What else did we do? You know, activity like that also helps me to realize that the community needs volunteer people like us too instead of everything is money,

> money, money, you know. [laughs]. So we do little things like this it gives a lot of, it gives us a lot of appreciation. Such as raking, or fundraising or doing trying to get a scholarship for somebody. You know, things like that.

The idea of helping with "little things" was echoed in PaSoua's reflections. She felt that students could learn about their communities and engage in a meaningful way by volunteering.

The Hmong American participants in this study recognized that service learning is an important practice. Since many of them were still searching for a way to belong, service learning opportunities help them learn about communities they live in and engage in meaningful ways. Two-year colleges should continue expanding these activities and identify not only local but also global opportunities.

Sub-attribute: Research experience opportunities allow students to examine local and global problems

As discussed earlier, the Hmong American participants in this study benefit from research opportunities. They help them to develop deeper knowledge about the areas these students are interested in, build relationships with faculty and peers when working on projects, and get experience with examining real problems. As one of the students noted, research opportunities allow them to see a bigger picture.

A few participants in this study participated in some form of research experience. For example, Kevin took courses that examined local and global environmental issues outside of the classroom setting. Tina and PaSoua had to research a problem and examine it from a global perspective. Another student was not exposed to any research opportunity in her studies, but she was invited to participate in one later in her life. Pang described her experience of being a part of a research team after she graduated from her two-year college. She said that it was a great

opportunity to work with different people in researching a solution for a health problem. This kind of research experience can and should be replicated in a college setting. It will satisfy the needs of many students who are looking for opportunities to enhance their global citizenship skills as well as other competencies.

During the interview, the Hmong American participants gave multiple ideas for how research opportunities benefit their development. Even though their two-year colleges did not offer many opportunities for these students to engage in research, research contributes to nurturing and advancing social responsibility and global civic engagement for all students, especially if projects focus on examining local and global problems.

Sub-attribute: Writing helps Hmong American students reflect on life experiences and their place in the world

During my research project, the Hmong American participants spent a lot of time reflecting on their prior-to-college experiences. These reflections informed who they are and how they practiced their global citizenship skills. They told personal stories of living in refugee camps, the period of resettlement, and the challenges they faced in education. All these experiences as well as the influence of their families and the community helped them develop themselves as global citizens. Unfortunately, according to the study participants, two-year colleges did not encourage these students to share their rich and diverse experiences in the classrooms. But many students chose to write about their lives as part of writing assignments in English courses. While they were concerned about their English when completing their assignments, some of the students shared that their instructors had been impressed with the content of the papers and encouraged students to take time to work on grammar. Kevin said that his English professor asked him to give her permission to use his paper in the future as an

example of a well-written assignment. Kazoua shared that she was keeping all her papers for her children. She said that the assignment was an opportunity for her to write down her story, and she wants to preserve it for future generations.

All Hmong American participants in this study shared that they practice reflection when analyzing various events in their lives. Writing helps to record their experiences and preserve them. It can be used as a powerful tool to encourage students to revisit their prior experiences and reflect on their place in the world while developing a habit of thinking and writing as a global citizen.

Grounded Theory 3: Overview of the Grounded Theory of Outside-of-College Experiences that Cultivate Social Responsibility and Global Civic Engagement in Hmong American Students Who Majored in STEM in Two-Year Colleges

The data collected from the interviews show that the Hmong American participants in this study had very limited opportunities to enhance their social responsibility and global civic engagement on campus or in the classroom. It is worth noting that the views of the study participants varied regarding the role a college should play in developing students' capabilities as global citizens. Their responses ranged from statements that this does not have to be a part of what the college does (Sue); to claims that the college does not have to develop but should enhance student's global citizenship skills (Kevin); to assertions that suggested that colleges should do more to engage students and develop them as global citizens (Pa). Problematically, these students intrinsic need to help others and work on addressing various local and global issues was not met by their colleges and, because of the lack of opportunities their colleges offered them, these global citizens had to seek these opportunities for themselves outside of college. They joined existing civic organizations, and some even initiated their own. These

outside-of-college experiences continued to cultivate their social responsibility and global civic engagement. I will describe these attributes below.

Attribute 3.1: Hmong American students are involved in social organizations, which demonstrates their glocal civic activism

Sub-attribute: Hmong communities engage Hmong American students in their activities

Hmong Americans in the Midwest continue to live in close communities. Even though their 18 clans have their own distinct traditions that members are expected to follow, they all share common goals of preserving their language and culture and helping others in need. Sue indicated that this is only way that the Hmong can ensure that their traditions live on. He described various social events that his Hmong community organizes to involve its members in cultural practices. One of the important functions of these events is to draw in young Hmong Americans. Sue shared that his community would have various local and global projects for the young people to engage in. Some projects were related to increasing awareness of the Hmong people's contribution to the U.S. or identifying resources for Hmong American individual's needs. Other projects focused on raising funds for Hmong people in Thailand and Laos to fight poverty. These types of activities and involvement are similar to the ones that all Hmong American participants in this study experienced while they attended college: their communities engaged them in both local and global activities during the time these participants studied in two-year institutions.

It is worth noting that when I asked participants about their level of engagement in college most of them indicated that the reason they were not actively involved on campus was because they had to focus on academics, take care of their families, and many of them worked. However, these reasons were not an obstacle to being actively engaged in social organizations or

projects through their close communities. Pang shared: “I know that sometimes we try to put ourselves out there [in college], but with family it’s like an obstacle for us. So truthfully, you know, I should be more involved in the community besides just a club and besides going to school, but I think it’s us, the community of parents, to get involved with the community. ” The Hmong American participants suggested that because they live in clans or in groups, this keeps them together when they get involved and that being engaged like this in their communities becomes their norm. Because the Hmong participants in this study did not get many opportunities to engage on campus and because they lived in clans or close groups, their communities engaged them in various activities to address local and global needs.

Sub-attribute: Churches engage Hmong American students in their activities

As discussed earlier, faith plays an important role in the lives of the Hmong American participants I interviewed. Some are very active in Christian churches while others continue to practice the religious rituals of animism and shamanism that they learned from their elders. This has been a part of their life since they were children and now, as adults, some of them are more involved in religious practices than others. Yang, for example, is very active in his Christian church. He is even considering making serving God his future calling, even though he majored in Math while in college. He explains why: “[B]ecause I love to talk to people about God and about the world, what can save them…. And I always wanted to help people. That’s my calling to be a pastor. And I wanted to go back to Thailand or Laos and try to help them out. ” By serving as a pastor, Yang hopes he will be able to help more people, including communities in Thailand and Laos.

Other students shared that they were active in their churches and became involved in various projects through them. These projects focused on multiple issues that ranged from local

(e.g., language classes for non-English speakers, food pantries, presentations on mental health, etc.) to global (e.g., poverty, youth education, clean water, etc.). Because everybody in their close circles attended religious services, it was easy for these Hmong American participants to follow that example and be engaged. The churches were also interested in keeping people involved, and they organized various meaningful activities to meet their needs, especially as they related to enhancing their glocal civic activism.

Sub-attribute: Involvement increases Hmong American students' knowledge of local and global needs

The Hmong American participants in this study did not have many opportunities to engage on campus during the time they spent studying at two-year colleges. Their understanding of how engagement contributes not only to solving local problems but also global challeng enhances their knowledge of the needs that these communities face. The participants of this study were seeking a chance to get involved. This helped them in their future careers and prepared them to serve their communities better. Pang had been working with a non-profit agency before she entered college. This opportunity contributed to Pang's knowledge of a broader community where she lived and the problems that community was facing.

In her position with this non-profit agency, Pang was an advocate and a resource person for the diverse families this organization served. This experience was very beneficial for her because she saw first hand what it means to be a low-income family, when one "cannot pay for their rent or – get food and stuff." When she attended college she continued to be involved with the community and its needs by serving as an interpreter. All of these experiences prepared Pang for her career in the medical field where she serves people from diverse backgrounds. But it was her knowledge of local needs developed outside of college that made her effective in helping

others and referring them to other resources: “I think that with the medical field not going to their home visit them, but when they come and tell their stories that they don’t have food or they … don’t have money that’s when you tell them that there are resources out there. And I think it’s the matter of just reaching out to them.” Knowing the needs of local communities and connecting them to available resources makes global citizens effective in solving local problems.

Similarly, knowing the needs of global communities and connecting them to available resources makes global citizens effective in solving global problems. Through her involvement in local and global initiatives, PaSoua knows about the needs of people in Thailand and Laos. She shared:

> I do questions myself: “Why there?” My reason is that because our people like lacking in education of like the American ways, you know. They live there, they are so poor that they don’t know anything, they don’t have anything. There are some people who are rich, they live in Bangkok, things like that, or bigger city. But most of them are still poor: Farmings, living in those houses. I don’t know if you have seen them before.…We call it “dang” house, I don’t know [laughs], kinda like a straw house, but – uh – I think that the only place that we know is back there.

PaSoua is also aware of the global problems, like poverty, that many other countries face. She talked about “poor kids, starving, you know, needing medical assistance” and she feels that her knowledge of these global needs, which comes from her involvement in various agencies, contributes to her ability to work with others to address these issues:

> [I]t’s kinda planted … in me that I want to go back and educate my community, my Hmong people, this is how we are USA, and this what we learn here and giving back to you, you know. But there is other place we could help, but I don’t know why I choose

> that place, I mean, I just don't know why other people don't get that implanted in them as well. I guess this is where we hear the most about, because we still have relatives there who live in the Hills, you know things like that. They don't know anything; they don't know how to eat curry noodle, and things like that. "What? Really? They don't know that?" Yeah, they just eat rice and veggies, this is all they know. So it's that we have been, this is how I grew up. It has always been a dream that I will go back and give something back, you know. As far as Africa, like I said, I see commercials about it, fundraisings about. I mean I really feel bad about these people. In Africa, it's like a hot country. They don't have much either as well.

Through her engagement with local organizations that address problems in Thailand and Laos, PaSoua developed understanding about issues that other countries face and potential solutions, especially to fight poverty. She hopes to get engaged in projects that address global problems faced in African countries. She was interested in getting engaged in international initiatives when she was in school:

> I did also plan in high school. I wanted to be in like an army where I could go off and be an army nurse, something like that, where I can help out, organizations, like Red Cross, across the country, helping people who are hurt, injured, but never got that chance because I got married, got my kids, my family. You can't really leave – yeah [laughs]. Some dreams are crushed and done.

Even though PaSoua was not able to pursue her dreams of international engagement, she contributed to global efforts through her involvement in various organizations and projects. This involvement continues to enrich her knowledge about local and global issues, and she still hopes to join an international organization some day to help people abroad.

The Hmong American participants in this study sought opportunities to get involved outside of college since there were limited opportunities for them to engage in college. Most often, they would find an outlet for their civic engagement through their close communities because they have an established personal relationship with them. These close communities led them to both local and global involvement that enhances their understanding and knowledge of the diverse problems and needs that exist in the world.

Sub-attribute: Perception of social responsibility as a norm leads Hmong American students to practice civic activism

All Hmong American participants in this study did not view their social responsibility and global civic engagement as something extraordinary. They would not even call themselves global citizens, despite significant evidence to the contrary. Rather than viewing themselves as special or unusual, they suggested that their communities believed that being socially responsible and globally engaged is a norm of life. Pang shared her view on being socially responsible:

> I think it's just – it's a normal – it a norm. It's a normal thing for us to just do that. I think if we have to do something else different then we just, we would say, oh yeah, we would recognize that it will show a change.

Later she added:

> [W]hen I came here, I came to the States growing up. Basically I was really close to my parents and even though if I have my two other siblings and stepsiblings who are older my dad had, my parents used me as their interpreter. I went everywhere with them, interpreting for them. So I think it's just become a norm for us. It's just a thing that we automatically do.

Because Pang, like other study participants, views social responsibility as a way of living she is able to readily identify opportunities to practice civic activism. There are multiple settings for these opportunities: high school, college, work, or in her personal life.

Another student shared that committing to helping others leads to opportunities to be involved. Like many of these Hmong American participants in this study, Yang had to learn how to navigate college. Now he uses his experience to help others:

> And during my two years there I always tried to find the ways to help me and help my, other people. That goes to that two-year school, to know that I am there. I always wanted – let me see – the most interesting is, as minority, I want to help out minorities to get them to school. No matter what state that is. I know about it. I try to help. Like one example: I heard there is one family, they wanted to go to school. They want to go to college. But they don't know English that well. And two-year college won't take them because, because they don't know English. When they take their entrance exams they couldn't get them because their English portion. I would tell them to go to [a technical college] and to go there for a while and take course in summer, and take an English course. It will not count towards their credits, but it will help them progress their English. So there was a group that came here in 2004, 2005, so they were like the third wave that came… So – I am trying to … help [them] to get in to the school.

Yang became an informal advocate for those students who want to get into college. He said that he has been successful with his efforts because the individuals to whom he provided advice about navigating the application process had successfully started their studies. He said that although he was successful, he applied several times to the local two-year college to work with minority students but he did not even get a chance to interview. He feels that he is discriminated

against in the hiring process, but this does not stop him from continuing to help the ones who need him. He feels that educational institutions do not provide them with the help they require.

The Hmong American participants in this study showed that they did not have to wait to be asked to engage: they simply did it. They were influenced by their families, close communities, peers, and their personal experiences to help others and become involved with formal and informal projects that aimed at addressing local and global issues. This view of social responsibility as a norm leads these Hmong American students to practice civic activism in their every day lives.

Attribute 3.2: Hmong American students self-organize in civic groups

Sub-attribute: Leadership skills lead Hmong American students to self-organize in civic groups

Personal experiences and the influence of people in their lives led the Hmong American participants in this study to develop the necessary leadership skills to be effective agents of change. Most of these global citizens had limited opportunities to be civically engaged on campus and, as a result, they sought out ways to engage outside of college. They still recognized that the knowledge they obtained in the classroom helped them with their efforts to self-organize. This knowledge contributed to their ability to identify unmet needs and look for solutions, to plan events, to find resources to sustain their efforts, and to communicate their achievements with close communities.

During interviews, the study participants shared that even though they were viewed as leaders they did not feel like leaders. They just wanted to help others and solve urgent issues. In Yang's words:

> I want to be the doer: not the guy who tell what to do. Like for me I am the chair for the wise men. So when it comes down to hands down my title is gone. I am just a normal

person, like me and you. I am just working here. You know, like in the assembly line, just me – even though you are a manager, I am helping you. That's just me.

It was not just Yang: all of the other Hmong American participants in this study knew their place and role in helping others and addressing problems on local and global levels. Even though they show characteristics of leaders, they did not want to stand out from others and be perceived as exceptional. They wanted to be "doers." This was their leadership style. Because they wanted to make a difference, many of them had to initiate self-organized groups to work on addressing various issues because there were no existing organizations that would address these particular issues.

When these students self-organized, it was important for them to keep shared governing principles. They all participated in decision-making, and they all executed the planned tasks. This approach self-motivated the members of the self-organized group and, without top-down directions, they were flexible in identifying their priorities and approaches.

While there were various organizations and groups outside of college that Hmong American students could engage with, they found that they were not able to address the multiple unique needs that existed in the community both in the local and global context. The leadership skills that they developed before and during college led these Hmong American students to self-organize in civic groups to identify the needs that were not met and work on addressing and solving them.

Sub-attribute: Knowledge of community needs leads Hmong American students to self-organize in civic groups

There are various civic organization and groups that the Hmong American participants in this study became involved with because their colleges had limited opportunities for them that

focused on social responsibility and global civic engagement. Some study participants observed community needs that were not met even with the support of these existing agencies, and they decided to organize their own groups.

Some of these self-organized groups were established by friends and peers to address needs in the community. They were more exclusive. I described Kevin's youth group that he was involved in during his college years in detail earlier. Other participants created groups that engaged different members from the community that were more inclusive. Tina described how members from her close community organized such a group that worked on educating Hmong American youth on how to manage cultural pressures in families, especially when parents divorce. She said that this problem is serious and results in a large number of mental health issues and even suicide among teenagers.

Another participant, PaSoua, observed that young girls were not learning Hmong traditions, but most troubling for PaSoua was the fact that the girls did not have goals for their future. Besides, there is a new tendency for older Hmong people to go to nursing homes or independent living centers instead of continuing to live with their children, which is a part of their tradition. PaSoua organized a group of young girls with the goal of engaging these girls in meaningful experiences that would teach them their traditions and address the lack of interaction among people of different generations. This is how she described her group:

> I got a bunch of girls. First it was supposed to be… Yang and Xiong clan. First it was supposed to be Xiong group. So I called all the Yang girls, Xiong girls, and we do meetings, we can actually start a real club, or an organization, getting them like going to visit college, touring, things like that. Doing community involvement, so I started that Hmong youth group. It's – we call it HMONG, Help Making of Next Generation. Stands

> for HMONG. But then it didn't go because I was so busy – but when I was in that club I gathered some girls in like a dancing group and they dance in the community as well volunteering like New Year, company events, banquets, things like that. And also at the nursing home. Just for the elderly to see dresses, the fashions in the dancing styles. So they enjoy that too.

Because PaSoua had to manage various commitments during her time in college, she was not able to continue leading this group after several years of its existence. She was happy to learn that another young woman took over the leadership of that group.

In addition to these self-organized groups the Hmong American participants established for others, there were also groups that these global citizens set up for themselves to interact and discuss solutions to various problems. Tina, for example, shared that issues of economic disparities in other countries are a concern to many Hmong women. Tina said that these issues were not discussed in the classroom or in college in general. But because she knew these issues first hand she found a way to discuss them outside of the classroom. She joined a women's group that met on a regular basis. This is how she described her group: "Like nobody in particular like professionally or anything like that. But we have our women time when we share and express, that's pretty much it." During their meetings, they talked about inequalities that push girls and young women into "basically selling your body to get to wherever you want to be." Tina said: "I want to go and talk to these women, and say, 'you don't have to do that'."

Tina shared that this group had helped her personally a great deal because she had been facing numerous pressures in the family, especially related to girls' upbringing and expected behavior. This group was a way for Tina and other Hmong American women to express their voices and be heard:

> I am very outspoken. And those who know me knows that, from what I have been through. And sometimes my Dad hates me for that because we are taught like women, or like girls we are supposed, you know, to be quiet, calm. I am very outspoken and sometimes my Dad hates it, but I think he got to the point that he accepted it. You see it's not just I speak but it's not always bad. I mean I have points. Nobody in my family particularly has done that. But we do, we talk of the subject and so my family understands exactly how I feel about this subject. Other than that it's like a normal women's community when you have family, when you have gatherings when you have little talks, you know, that is just when I am expressive particularly to the subject if it is not me then it is another woman in the family, you know, have to deal with that.

Tina suggested that these conversations educate women about their rights and opportunities. She had observed changes happening not only with her but other women who participate in this group. The larger community is not aware of all of the challenges that Hmong American women face, and by self-organizing in such groups it allows these women to have a safe space to discuss their issues and the issues facing other women around the globe.

Communities where Hmong Americans live have a lot of resources that are offered to diverse groups, but even they cannot meet all of the unique needs of various groups in the community. Because participants in this study are actively engaged in their communities, they have first hand understanding of the needs that are not addressed. This knowledge leads Hmong American students to self-organize in civic groups to work on solving various local and global problems.

Summary

The three grounded theories that emerged from my conversations with 10 Hmong American students from two-year colleges that majored in STEM are connected to each other through an important thread: a local context of global citizenship. The participants' local view on global citizenship is informed by their experiences prior to, college, and outside of college where they are confronted with race in a new way that they had not known until their resettlement in the United States. By examining these experiences through lenses of Critical Race Theory and Identity Negotiation Theory the notion of global citizenship itself should be re-defined and examined in the local context. It will also allow moving away from the contested definitions of this concept that are dominated by white majority values and practices.

The three grounded theories are also connected by the notion that practices institutionalized by colleges and universities to develop global citizens do not work the same way for everybody. To be transparent, I do not want to suggest that experiences of the ten Hmong American students, who came to the United States as refugees, that led to their development as global citizens can be generalizable to other generations of Hmong American students, to other Asian groups, other refugees, or other racially/ethnically underrepresented populations. Within the lenses of Critical Race Theory and Identity Negotiation Theory, we are reminded that study abroad, research experiences and service learning were developed with white students in mind and even though they show high impact on students in general, the outcomes among racially/ethnically underrepresented students show a different picture, including the much lower number of students participating in these opportunities. CRT in particular emphasizes that prior experiences matter and because Hmong American students cannot

negotiate their values and norms with offerings on campus where they often feel disconnected they go off campus to search for global citizenship development opportunities.

And finally, all three grounded theories are connected by the position of these ten Hmong American students regarding STEM and how their choice of studies and careers is related to social responsibility and global civic engagement. All participants in this study emphasized the importance their decision being conscious to choose to study for a future career as a commitment to help other people to solve problems of global context, be it health, environment, or energy efficiency. For the majority of the participants, this started developing when they were in middle or high school where they faced many challenges a racially/ethnically underrepresented student experiences, including language difficulties, cultural clashes, or racism. These participants did not only find a global citizen to be their new identity and a sacred space to belong, but also a way to address their micro-aggressions.

CHAPTER 6: DISCUSSION AND RECOMMENDATIONS

In this chapter I extend the findings from my interviews with Hmong American participants who majored in STEM in two-year colleges and exemplify global citizens. Their stories that became the foundation of three grounded theories of global citizen development have implications and recommendations for higher education and research.

As previously emphasized, the need to develop STEM graduates as global citizens cannot be underestimated. In its "Grand Challenges for Engineering" report, the National Academy of Engineering elaborated:

> As the population grows and its needs and desires expand, the problem of sustaining civilization's continuing advancement, while still improving the quality of life, looms more immediate. Old and new threats to personal and public health demand more effective and more readily available treatments. Vulnerabilities to pandemic diseases, terrorist violence, and natural disasters require serious searches for new methods of protection and prevention. (as cited in Parkinson, 2009, p. 9)

In discussing this report, Parkinson (2009) noted nearly all of these challenges were "global in nature: they cut across ethnic, cultural and national boundaries, and they require cooperation among nations and peoples if they are to be solved." Gardner and Belland (2012), who examined learning experiences of students in biology courses, stated: "Even if they do not become professional biologists, all students will be citizens in a changing world that is increasingly dependent on the work of scientists" (p. 465). They stressed that students have to be prepared to evaluate scientific initiatives and complex problems as well as critically interpret scientific practice and findings (p. 465). These goals for students' preparation challenge not only universities but also two-year colleges, which attract increasingly more diverse populations. The

lack of resources and the pressures to "produce" more STEM graduates has led two-year colleges to adapt practices from four-year institutions related to developing global citizens without critically assessing them. Although this was not the case in this study, more and more two-year colleges adopt study abroad practices from four-year institutions with the expectation that they will develop their students as global citizens. While study abroad opportunities continue to mostly serve the dominant group (white students), two-year colleges, by default, perpetuate the reproduction of these practices that serve the dominant group and marginalize the underrepresented. Critical race theory allows us to ask or revisit such questions as to whom study abroad practices serve and why; what is the purpose of global citizenship education; and how higher education institutions should interpret global citizenship? In light of the growing need for STEM graduates and the racially/ethnically underrepresented populations that have now become a "majority" in higher education as Lundberg put it (2014), Torres (2009) has suggested "that the discussion of citizenship can no longer be treated as a homogeneous identity in search of the exercise of rights and obligations" (p. 95). This study viewed the multicultural complexity of global citizenship through Hmong American realities and practices.

As discussed earlier, my personal interest in this research topic was drawn from my professional life in two-year colleges, working in study abroad and international education. Being both a minority in the country of my birth as well as an immigrant in the U.S., allowed me to see practices and policies dominating two-year education, particularly international education, through a different lens. Critical Race Theory and Identity Negotiation Theory helped me examine these practices and policies and understand the relationships between them and continuing marginalization of certain groups and limited access to opportunities and resources in the higher education.

When I began my research, I viewed myself as one of my participants because of the similarities in our experiences, as well as our challenges, in both education and in the United States. However, during my interviews I was reminded by some participants of the privilege I hold because I am white. When PaSoua was describing pressures she, as a Hmong American woman, experienced, she said, "For you, Caucasians, it's different." I had to stop and reflect: this is probably how all minorities perceive me – white. I know this is how I am perceived by other whites. Until I start talking and they hear my accent, I am included in the dominant group. But after I speak my place in their world changes: I often become one of the others for them. Still, in my study with the Hmong American participants, I was perceived as a representative of the dominant culture. I want to use my white privilege to tell stories of this study's participants, their roles as global citizens, and what we can learn from them. Higher education continues to perpetuate practices that were designed to serve the majority group, such as study abroad, service learning, and research experiences, and the voices of these participants help us to understand the needs of underrepresented minorities and give them a "seat at the table." I also want to use my white privilege to invite everybody to start a discussion on what global citizenship is and for whom it exists and how it can be defined from the perspective of racially/ethnically underrepresented groups.

I want to give voice to Hmong Americans for two reasons. First, the stories collected from the study participants open a window into overlooked or different realities and provide counterstorytelling and a cure for silencing (Delgado & Stefanic, 2012). The Hmong American participants' stories open a window into ignored or alternative realities by suggesting that prior-to-college and outside-of-college experience matters when preparing students for global citizenship. By sharing the study participants' voices I assert that a student does not necessarily

have to participate in a study abroad program to develop as a global citizen. The compelling stories of the Hmong American participants suggest alternative ways that two-year colleges can improve their practices in meeting these students' needs as both students and as global citizens. The Hmong American participants' stories also provide counterstorytelling because they are "[a]ttacking embedded preconceptions that marginalize others or conceal their humanity is a legitimate function of all fiction" (p. 48). In particular, through the participants' voices, we reject stereotypes of Hmong Americans as gang members or hunters. We hear stories of individuals who are compassionate and active citizens and fully practice their social responsibility and global civic engagement. Finally, the Hmong American participants' stories offer a cure for silencing – silencing that is imposed by the majority group as a result of several factors. For the participants of my study, English is a second language; often seen in a predetermined stereotypical role as an Asian person, who is often viewed by the White majority as shy and soft-spoken. This covers up the racial discrimination that Hmong Americans experience. By giving voice to these participants through their stories, I hope to add to the "process of correction in our system of beliefs and categories by calling attention to neglected evidence and reminding readers of our common humanity" (pp. 49-50).

Second, the stories collected from the study participants call on us to re-examine the widely-used practices in two-year colleges and STEM fields and suggest areas that are not emphasized, but should be, as approaches to developing global citizenship skills in all students. Hmong people do not have a written language; they learn their past through stories. It is symbolic that, by applying the critical race theory lens, their stories give "voice" to Hmong Americans and allow for the interpretation of the realities of their global citizenship development.

Hmong American students are a part of the rapid change in student population – "the new majority" in higher education. Lundberg has asserted that all students enter college with certain expectations and aspirations. Academic goals are important because they predetermine how much time and effort a student will spend studying and persisting. Expectations are not less important, but they are, as Lundberg called them, "plastic" (p. 282). He explained,

> As they [students] interacted with others with similar or different aspirations, their own goals—and in turn their behaviors—changed and in many cases became more explicit and self-conscious. (p. 282)

This explains why the majority of Hmong American participants in my study sought opportunities for social responsibility and global civic engagement outside of college when they could not find it on campus. Their stories and voices are important because they do not only shed light on these Hmong American students' development as global citizens but also their overall experience in two-year colleges where they majored in STEM. Their experience during their studies and their questioning of identity during that time are greatly intertwined with their global citizenship development.

Similar to Lundberg's study, the participants in my project had two sets of goals: the first set of goals related to obtaining knowledge and skills for their future career and the second to continue to enhance their knowledge and skills as global citizens. The data collected in this study suggests that even though the two-year colleges, where the participants of this study majored in STEM tried to prepare them for future careers, there was an almost non-existent effort on the colleges' part to prepare them as global citizens. Problematically, while the colleges offered study abroad opportunities, none of the participants in my study were able to take part in these opportunities. Some mentioned a prohibitive cost that they could not afford without financial

support. Others mentioned the length of the program as obstacle because they could not travel for a month or more due to family obligations. Some participants indicated they had not simply heard that study abroad opportunities were even offered on their campus. Pa, for example, was very critical about the lack of availability of information about what was happening at the college during her studies. She shared that she had learned more about her own two-year college and what it offered after she transferred to a four-year institution than when she was actually there – especially as it related to the presence of international students and the opportunities to study abroad that were provided on her campus. I argue that these colleges did not make an effort to reach out to their underrepresented students or the offerings did not meet their particular needs, since they were not designed with this population in mind. During one of my site visits to a study abroad location in a European country, a Hispanic student shared his story of choosing a particular program. He said that the study abroad office on his campus was trying to recruit him to a program in Mexico because he could speak Spanish and knew the culture. He was, on the contrary, interested in traveling to a "foreign" country because he had regularly traveled to Mexico since his extended family lived there. He did not see how he could benefit from a study abroad trip to country he often visited. This anecdote illustrates the whiteness of our current practices and the ways that these practices limit colleges' understandings of the needs of their underrepresented students. This is the logic that Delgado and Stefanic (2012) so extensively criticized:

> [I]f racism is embedded in our thought processes and social structures as deeply as many crits believe, then the "ordinary business" of society – the routines, practices, and institutions that we rely on to do the world's work – will keep minorities in subordinate positions. (p. 27)

For this reason we – educators, professionals, and researchers – have to revisit the practices that dominate colleges and universities and ask about their intentionality. Rhoades (1998) emphasized the importance of an intentional effort and suggested that college offerings should have to "link students' experiences to larger social issues and a hope that the project might inspire them to become agents of social change" (p. 45). He mostly discussed service learning, but his suggestions are relevant to other practices, such as study abroad and research opportunities:

> The importance of intentionality in planning the community service components of academic service learning cannot be stressed enough. To ignore the possible connections between course material and the service experience will result in two failures: A lack of intentionality will not help students to connect course work to community service, and it likely will not foster the kind of connection students need to make between theory and practice. (p. 45)

I argue that if colleges design study abroad, service learning, and research opportunities with intentionality and knowledge of the needs of racially/ethnically underrepresented students, then there will be a larger number of students from diverse groups who will participate in those offerings, including students who major in STEM. This will likely also be true for Hmong American students, since the students interviewed in this study indicated that these were important practices; unfortunately, they did not have the chance to take advantage of them.

To conclude, the complexity of developing global citizens is anchored in the contested definition of the meaning of global citizenship. The Hmong American participants in this study who have been nominated by their former professors, community members, and peers as global citizens possess critical skills that help them view global citizenship through lenses of their

personal experiences and identify important features of these experiences before, during and outside of two-year college where they majored in STEM fields that contributed to their development of social responsibility and global civic engagement. These pathways to global citizenship were developed by the participants themselves, on their own terms since access to widely used practices in higher educational institutions, such as study abroad, research experiences, and service learning, -- are limited. The participants bring an important construct to the notion of global citizenship that is often missing in existing definitions and practices employed by higher education. They suggest that global is inseparable from local contexts, whether it be needs, problems, community, or citizenship. This thread of local is woven into how the Hmong American participants refer to "my people": these people are not necessarily individuals who belong to their own ethnic group or clan, they are people of Hmong heritage that have lived and continue living in their small communities, states, America, Thailand, Laos, and other countries around the world. The participants in this study construct social responsibility and global civic engagement in glocal (global and local) context where the boundaries between local and global are very blurred. This important construct of global citizenship that is drawn from the voices of non-dominant Asian group of students cannot be underestimated and should lead to further discussions around redefining the notion of global citizenship.

As I mentioned earlier in this chapter, I will briefly extend the findings from my study and provide recommendations for higher education and research. These recommendations were informed by the Hmong American participants in my study who shared stories about their experiences developing and enhancing social responsibility and global civic engagement as a result of their prior to, during, and outside-of-college experiences. These recommendations are also informed by these students' own view on global citizenship, that includes both local and

global contexts. The recommendations following from these stories are organized into the following sections: implications and recommendations 1) for two-year college administrators; 2) for two-year college faculty; 3) for educational practices; and 4) for educational research. By presenting these recommendations I am calling for action; therefore, these findings and suggestions are organized as actionable bullet points.

Recommendations for Two-year College Administrators

Below are specific recommendations two-year college administrators might take to develop and enhance global citizenship skills and experiences in their students who major in STEM. Even though there is a difference in governing and administration between liberal arts and technical two-year colleges, officials of both types of institutions should be able to identify relevant policies and practices that can be implemented while considering the specific mission of their particular institution.

- When designing campus offerings on campus whether for academic programs or global citizenship development, their impact on Hmong students and their interests and needs as a non-dominant group should be examined.
- When creating policy that pertains to hiring or tenure, include language that indicates that faculty should understand and practice the philosophy of culturally-relevant pedagogy and have prior experience with diverse cultures, e.g. including but not limited to Hmong, Native American, African American and Hispanic.
- Actively recruit Hmong American faculty and student services professionals not only to meet the needs of Hmong American students on campus, but to engage the majority white student population in experiences of working with higher education professionals who are from different backgrounds.

- Encourage faculty by providing support via in-services, field trips, and other experiential training to increase their knowledge and ability to teach diverse groups of students and show empathy to their unique needs. Professional development opportunities should result in changes that lead to a faculty being able to:
  - exhibit a genuine interest in students' goals and aspirations;
  - utilize high expectations for students and challenge them;
  - demonstrate knowledge of demographics of student populations and apply it to culturally relevant pedagogies in the classroom to meet the students' diverse needs;
  - identify challenges students face in the classroom and find solutions to help students succeed (e.g., they can understand cultural pressures these students feel);
  - connect students to resources based on individual needs of students.
- Increase outreach to Hmong American students entering college to identify their goals and aspirations whether academic, personal, career and as global citizens.
- Provide "safe spaces" on campus for Hmong American students to develop a sense of belonging and increase their engagement through professional development with faculty, academic advisors, and counselors.
- Encourage academic advisors and provide support and training to increase their knowledge and ability to support diverse groups of students and demonstrate genuine interest in students' goals and aspirations. In particular, develop professional development opportunities, as a result of which academic advisors will be able to:
  - demonstrate cultural sensitivity in identifying needs and providing academic, career, and personal support to students;

  - connect students to campus and community resources based on the individual needs of students;
  - develop strategies to engage Hmong American students on campus to enhance their sense of belonging.
- Connect and develop relationships with communities that Hmong American students come from, engage with them, and identify common goals.
- Develop dorm (e.g., roommate assignments) and campus (e.g., club participation) opportunities for white students to engage them with racially/ethnically underrepresented students to initiate the process of "sanitizing" their whiteness, so to say, and liberating them from stereotypes and misconceptions that they might have developed about other races and ethnicities.
- Encourage student campus organization to assist and reach out to racially/ethnically underrepresented populations part to join their organizations to enhance and expand their global citizenship understanding.

Recommendations for Two-year College Faculty

In the previous section, I provided some recommendations for college administration on how to develop faculty as culturally-relevant pedagogy practitioners. The specific actions that I suggest below are for two-year college faculty who might be interested in exploring ways to develop and enhance opportunities to engage students in social responsibility and global civic engagement in their STEM classrooms. The following recommendations are informed by the stories of the Hmong American participants in this study:

- Learn about all students in the class, including cultural pressures and other challenges these students experience.

- Enrich course content with real problem solving approaches that will explore local issues in a global context.
- Examine problems discussed during the course in global contexts and relate them to minority students' prior knowledge and experience to help them feel a stronger connection to the knowledge they are receiving in a two-year college.
- Engage students in service-learning opportunities during their first year to help them learn about the local community and its needs.
- Use a team-building approach in teaching and learning.
- Intentionally assign students in multicultural teams to work on problem solving assignments.

Recommendations for Higher Education Communities

In this section, I suggest specific actions for higher education communities to consider when they design offerings to engage students in social responsibility and global civic engagement during their studies in STEM. I do not suggest that study abroad, service learning, and research opportunities should be eliminated. At the same time, I encourage educators, professionals, and researchers to ask important questions about these offerings, evaluate their impact on all students, and revisit the content, approaches, and resources associated with the existing practices.

- Examine study abroad, service learning, and research opportunities through a CRT lens to identify gaps between current offerings and racially/ethnically underrepresented students' needs and aspirations.
- Enhance study abroad, service learning, and research opportunities with a focus on STEM fields.

- Enhance intentionality of study abroad, service learning, and research opportunities to increase students' practice of social responsibility and global civic engagement.
- Design practices building on students' prior experiences with social responsibility and global civic engagement.

Recommendations for Further Educational Research

Higher education is working in complex environments that are characterized by increasing expectations, dwindling resources, and changing demographics. These factors impact what policies and practices institutions choose to meet the following mandate: to increase graduates in STEM field and prepare them as socially responsible and civically engaged global citizens. The three grounded theories that emerged in this study describe nine attributes of global citizen development informed by experiences of Hmong American students from two-year colleges where they majored in STEM (see Appendix E for the list of attributes and sub-attributes). These theories provide a starting point for further research that can examine the following opportunities:

- Research the second and third generation of Hmong Americans and their development as global citizens.
- Research other refugee groups and their practices for cultivating social responsibility and global civic engagement.
- Research other minority/underrepresented groups that major in STEM in four-year colleges in relation to their social responsibility and global civic engagement.
- Research the impact of the transformation of conventional learning, e.g. blended or online learning, on developing students who major in STEM as global citizens.

All of the above recommendations for two-year college administrators and faculty as well as for higher education practices and educational research imply that higher education can play an important role as an interrupter of the current practices widely used by colleges and universities to prepare students to become global citizens. Higher education can transform old oppressive structures and discourses (Ladson-Billings, 2009). This will disrupt the eliteness of citizenship under which "Whites know they possess a property that people of color do not and that to possess it confers aspects of citizenship not available to others" (Ladson-Billings, 2009, p. 26). Two-year colleges can contribute to this disruption and strengthen racially/ethnically underrepresented populations' belief in citizenship and increase their social responsibility and global civic engagement.

One of the ways to encourage students to revisit the notion of citizenship and their attitude towards it is through connecting local and global constructs. Rhoades and Szelényi (2011) do not oppose local and global in their research on global citizenship and universities. To the contrary, they argue that "even local action may be considered a form of global citizenship so long as that action is informed by global understandings and concerns" (p. 266). The authors argued that universities provide spaces where students can develop and enact their understanding of global citizenship. Problematically, based on the data I collected, I cannot support that two-year colleges provide such spaces currently, or at least, that students know that these opportunities are available, but colleges can recognize the need for these spaces and improve the current situation.

Historically, two-year colleges have been viewed as institutions that prepare their students for the needs of the workforce. Rhoades and Valadez recognize the role colleges play in

the nation's economy. However, they also strongly believe that colleges have to revisit how they view their students, in particular, underrepresented students:

> Although it is true that community colleges need to prepare students for their life's work, they also must envision students as citizens and community members who have obligations to public life as well. (Rhoades and Valadez, 1996, p. 191)

Critical race theory allows us to view students' differences not as challenges but as benefits. Students like the Hmong American students in my study are learning how to practice their rights and contribute to local and global communities at the same time preserving their culture and traditions. Fox (2013) researched the identity of ethnic minorities around the world and discussed the role of culture as a source of identity and "as a way of organizing resistance to exclusion and discrimination" (p. 142). She stated, "Reference to the culture of origin helps people maintain self-esteem and personal identity in a situation in which their capabilities and experience are undermined" (p. 142). In her research, Fox discussed an essay "on the fear among those in power of losing control through educational change" (p. 139). The author of the published essay, Yuli Tamir, suggested "that to make a successful transformative shift in educational provision, might change the social order, and that could loosen the hegemonic grip of the dominant group over society" (as cited in Fox, 2013, p. 139). I argue that this change is inevitable, and two-year colleges can contribute to making it happen sooner.

With the growing expectations and pressures imposed on two-year colleges in regard to increasing STEM field graduates, they cannot lose sight of another important mission: preparing their graduates as global citizens. Further examining the experiences of Hmong Americans as global citizens and STEM students in two-year colleges will provide higher education with

innovative ideas on how to not only attract and retain diverse students in science and engineering but also to effectively engage students in social responsibility and global civic engagement.

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Appendix A

Study Abroad Outcomes Literature by Targeted Audience and Method

Author	Outcome/Focus	Targeted Audience	Method
Jones et. al., 2012	Student learning and meaning making in short-term immersion programs	University students	Qualitative
Drexler & Campbell, 2011	Student development	Community colleges students	Quantitative
Gullekson, et. al., 2011	Intercultural growth of business students	University students	Quantitative
Horn, et. al., 2011	Civic engagement at research universities among undergraduate students	University students	Quantitative
Houser et. al., 2011	Cognitive learning	University students	Quantitative
Salisbury, 2011	Intercultural competence among undergraduate college students	University students	Quantitative
Savicki & Cooley, 2011	Social identification	University students	Quantitative
Tarrant, 2011	Global citizenship	University students	Qualitative
Foronda, 2010	Thoughts, feelings, and experiences	Associate degree nursing students	Qualitative
Pedersen, 2010	Intercultural effectiveness	University students	Quantitative
Braskamp, et. al., 2009	Global learning and student development	University students	Quantitative
Doyle, 2009	Holistic study abroad experience	College students	Mixed methods
Forray & Woodilla, 2009	Business program students' worldview	University students	Quantitative
Hendershot & Sperandio, 2009	Development of global citizen identity through undergraduate global citizenship program	University students	Mixed methods
Johns and Thompson, 2009	Cultural sensitivity in nursing students	University students	Qualitative
Miller & Gonzalez, 2009	Civic engagement, career goal clarification, and cultural competencies of upper-division undergraduate level pre-service teachers	University students	Quantitative
Vande Berg, 2009	Intercultural and language learning among undergraduate students	University students	Quantitative

Williams, 2009	Intercultural competency	University students	Qualitative
Dolby, 2008	National identity and global citizen identity among undergraduate students	University students	Qualitative
Lenz & Wister, 2008	Impact of short-term volunteer programs	First-generation University students	Qualitative
Malmgren & Galvin, 2008	Study abroad participation and graduation rates	University students	Quantitative
Norris & Gillispie, 2008	Study abroad participation and career impact	University alumni	Quantitative
Norris & Steinberg, 2008	Effect of language instruction on the longitudinal outcomes of study abroad	University alumni	Quantitative
Orahood, et. al. 2008	Career paths of students in business programs	University alumni	Quantitative
Rixeisen, 2008	Intercultural development of business students	University students	Quantitative
Fuller, 2007	Study abroad and cultural sensitivity of graduate theological students	Graduate students	Mixed methods
Magnan & Back, 2007	Social interaction and language learning	University students	Quantitative
Anderson, et al., 2006	Short-term study abroad and intercultural sensitivity	University students	Quantitative
Black & Duhon, 2006	Business study abroad and cultural awareness and personal development	University students	Quantitative
Wood & Atkins, 2006	Cultural immersion and clinical practice of undergraduate and graduate nursing students	University students	Qualitative
Kim & Goldstein, 2005	Intercultural attitudes and study abroad expectations of first-year University students	University students	Quantitative
Lindsey, 2005	Study abroad and values development of social work students in the US and Scotland	University students	Qualitative
Norris & Dwyer, 2005	Impact of two study abroad program models	University alumni	Quantitative
Pennington, 2005	Short-term travel/study and intercultural communication competency	University students	Qualitative
Rundstrom, 2005	Intercultural communication skills	University students	Quantitative
Chieffo &	Student attitudes after short-	University students	Quantitative

Griffiths, 2004	term study abroad program		
Dolby, 2004	National identity	University students	Qualitative
Dwyer, 2004	Impact of study abroad duration	University students	Quantitative
Engle & Engle, 2004	Language acquisition and intercultural sensitivity	University students	Quantitative
Ingraham & Peterson, 2004	Study abroad and students learning	University students	Quantitative
Kitsantas, 2004	Students' goals and the development of cross-cultural skills and global understanding	University students	Quantitative
Medina-Lopez-Portillo, 2004	Intercultural sensitivity and study abroad duration	University students	Mixed methods
Orahood, et al., 2004	Business student's career goals	University students	Quantitative
Sutton & Rubin, 2004	Study abroad learning outcomes	University students	Quantitative
Vande Berg, et al., 2004	Second language learning proficiency, intercultural sensitivity, ad disciplinary learning	University students	Quantitative
Carlson & Widaman, 2003	Attitudes toward other cultures	University students	Quantitative
Paige, et al., 2003	Intercultural sensitivity	University students	Quantitative

Appendix B

Recruitment Email

Hello [Name]:

I hope you remember your instructor of [Subject]. How are your studies/career going?
I am contacting you on behalf of the UW Madison's graduate student Tetyana Schneider who is conducting the study on learning experiences in two-year colleges that contribute to developing global citizens and you met the criteria of the subject pull of people. I will greatly appreciate if you could contact her and let her know whether or not you would be interested to participate in this study.

I am not involved in the study and cannot answer questions about it, but please refer any questions to Tetyana. She will provide you with more details on the project. Please email her at toschneider@wisc.edu .

Look forward to hearing from you! Let me know if you will be visiting our campus some time soon.

Sincerely,

Name

Appendix C

Interview Protocol and Questions

INTERVIEW 1 PROTOCOL

Before I ask you about your experiences in the two-year college where you majored in STEM and how they contributed to your development as a global citizen, I want to share the definition of global citizenship that is guiding my study.

> For the purpose of this study, *global citizenship* is viewed as a multidimensional construct that hinges on the interrelated dimensions of social responsibility and global civic engagement (Morais & Ogden, 2011, 449).

1. Now that we are clear about the definition of global citizenship, can you tell me about your experience in the two-year college that contributed to your development as a global citizen in respect to social responsibility and global civic engagement?

> a) Do you need a definition for social responsibility? (Help: Social responsibility is one of the dimensions of global citizenship. Interconnectedness and interdependence; concern to others, to society and to the environment; and personal responsibility constitute this dimension.)
> b) Can you tell me what may have stimulated your embracing of social responsibility? Who or what cultivated this?
> c) What kinds of course activities or extracurricular assignments are the most likely to have engaged you in developing your social responsibility?
> d) What topics that addressed social responsibility have been of particular interest to you? Did you do any additional research on your own to learn more about it?
> e) What activities on campus or outside of campus did you participate in that helped you develop a deeper appreciation for social responsibility? Did you develop any other skills necessary for a global citizen as a result of these activities?

INTERVIEW 2 PROTOCOL

Today we will discuss how your experiences in the two-year college contributed to your development as a global citizen in regard to global civic engagement. But before I start asking you some questions do you want to add anything else after our first interview in relationship to how you developed social responsibility?

2. Do you need a definition for social responsibility? (Help: Global civic engagement is another dimension of global citizenship. It is defined as the demonstration of action and/or predisposition toward recognizing local, state, national, and global community issues and responding through actions such as volunteerism, political activism, and community participation.)

> e) Can you tell me what may have stimulated your global civic engagement development? Who or what cultivated this?
> f) What kinds of course activities or extracurricular assignments are the most likely to have engaged you in developing your global civic engagement?
> g) What topics that addressed global civic engagement have been of particular interest to you? Did you do any additional research on your own to learn more about it?

h) What activities on campus or outside of campus did you participate in that helped you develop a deeper appreciation for global civic engagement? Did you develop any other skills necessary for a global citizen as a result of these activities?

e) Did you talk about social responsibility and global civic engagement in class with your peers? What triggered conversations with fellow students? Did this contribute to your development as a global citizen?
f) Did you talk about social responsibility and global civic engagement in class with your instructors? What triggered conversations with faculty? Did this contribute to your development as a global citizen?

3. Many colleges and universities offer study abroad, service-learning, and research experience opportunities to develop students as global citizens. Did you participate in any of these opportunities? If yes, how did they contribute to developing your social responsibility and global civic engagement?

4. Is there anything else you want to add about your learning experience in a two-year college and how it prepared you as a global citizen?

Additional questions in the second interview will draw from students' initial responses in the first interview on their experience in two-year colleges where they majored in STEM as they were related to their development as global citizens. Questions will not deviate substantially from submitted sample. If the main theme of the interviews is modified, a change of protocol will be submitted.

Appendix D

Consent Form

UNIVERSITY OF WISCONSIN-MADISON
Research Participant Information and Consent Form

Title of the Study: Learning Experiences in Two-Year Colleges That Contribute to Developing Global Citizens in Respect to Social Responsibility and Global Engagement: A Study of Racially/Ethnically Underrepresented Students Who Majored in STEM

Principal Investigator: Clifton Conrad (phone: Office: 608/263-3411) (email: conrad@education.wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research study about the learning experiences of two-year college students, particularly those who are Native American and Hmong who major in STEM, that contribute to their development as global citizens

You have been asked to participate because you met the criteria of the subject pool of people.

The purpose of the research is to answer the following research question that guides this study: *From the perspective of racially/ethnically underrepresented students in two-year colleges who majored in STEM, what features of their learning experience contributed to their development as global citizens in respect to social responsibility and global engagement?*

This study will include initially ten students from Native-American and Hmong groups who have completed a two-year college and are currently pursuing further degree or career in STEM.

The research will be conducted at a location chosen by and convenient to the participant.

Audio tapes will be made of your participation.

The audio will be recorded only for the transcript purposes. I will be the only one who will hear the audio recordings. The tapes will be kept for the duration of this study before they are destroyed. I will keep data and may use it for additional and non-related research projects.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research you will be asked to participate in two rounds of interviews.

Your participation will last approximately 1 hour per session and will require 2 sessions which will require 2 hours in total.

ARE THERE ANY RISKS TO ME?

We don't anticipate any risks to you from participation in this study.

ARE THERE ANY BENEFITS TO ME?

We don't expect any direct benefits to you from participation in this study.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

This study is confidential. Neither your name nor any other identifiable information will be linked to your interview responses.

If you participate in this study, we would like to be able to quote you directly without using your name. If you agree to allow us to quote you in publications, please initial the statement at the bottom of this form.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after you leave today you should contact the Principal Investigator Clifton Conrad at Office: 608/263-3411.

If you are not satisfied with response of research team, have more questions, or want to talk with someone about your rights as a research participant, you should contact the Education and Social/Behavioral Science IRB Office at 608-263-2320.

Your participation is completely voluntary. If you begin participation and change your mind you may end your participation at any time without penalty.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

Name of Participant (please print):_____

_____ _____

Signature Date

_____ I give my permission to be quoted directly in publications without using my name.

Appendix E

Grounded Theories with Attributes and Sub-attributes

For Hmong American Students Who Attended Two-Year Colleges in the Midwest Where They Majored in STEM, What Experiences Before, During, and Outside of College Contribute to the Development of Global Citizens?

Grounded Theory 1

Prior-to-College Experiences that Contribute to the Development of Social Responsibility and Global Civic Engagement of Hmong American Students Who Majored in STEM in Two-Year Colleges

Attribute	Sub-attribute
1.1. Life experiences of Hmong American students contribute to the development of social responsibility and global civic engagement	
	Life experience in refugee camps leads Hmong American students to reflect on their memories and developing their understanding of disparities
	Life experience of resettlement leads Hmong American students to self-reflect on their need to assume social responsibility and global civic engagement
	Life experience of resettlement leads Hmong American students to self-reflect on their need to assume social responsibility and global civic engagement
	Life experience of conflicts and pressures in school and at home leads Hmong American students to develop self-determination in facing challenges
	Life experience of a mistreatment by education system leads Hmong American students to developing foundation of knowledge of justice
	Life experience of being bullied by peers leads to maturity and development of deep understanding of compassion among Hmong American students
1.2. Diverse people contribute to the Hmong American students' development of social responsibility and global civic engagement	
	Family instills respect for others and the importance of social responsibility in Hmong American students
	Close community instills respect for others and the need to help others in Hmong American students
	Peers and youth groups include Hmong American students in activities aimed at addressing local or global issues

Church instills respect for others and the need to help others in Hmong American students

Mentor or role model helps Hmong American students develop leadership skills

Mentor or role model challenges Hmong American students' worldviews

1.3. Self-selected learning attitudes and practices lead Hmong American students to embrace social responsibility and global civic engagement

Self-motivation leads Hmong American students to help others

Emerging leadership skills of Hmong American students lead them to start self-organizing in groups to help the community

Knowledge of peers' abilities and their strengths leads Hmong American students to depend on them when helping the community

Continuous reflection leads Hmong American students to fully embrace social responsibility and global civic engagement

Intrinsic need to help others leads Hmong American students to feel concern and compassion for all

Intrinsic need to help others leads Hmong American students to choosing STEM field for their future career

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Grounded Theory 2

College Experiences that that Can Cultivate Social Responsibility and Global Civic Engagement of Hmong American Students Who Majored in STEM in Two-Year Colleges

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Attribute Sub-attribute

2.1. Colleges build on Hmong American students' interest in STEM as a motivator for cultivating their social responsibility and global civic engagement

Course content and activities include opportunities for social responsibility and global civic engagement

All courses (STEM and non-STEM) focus on connecting global issues and coursework with local community and its needs

2.2. Pedagogical practices in the classroom cultivate and stimulate social responsibility and global civic engagement in Hmong American students

Faculty invite Hmong American students to discuss global issues in and outside of the classroom

Faculty apply global contexts to local issues

Faculty encourage Hmong American students to share their personal life experiences related to social responsibility and global civic engagement

Faculty offer research opportunities on STEM issues in global context to Hmong American students

Faculty offer Hmong American students an opportunity to analyze and make connections among various local and global issues

2.3. Faculty genuinely engage with Hmong American students that stimulates social responsibility and global civic engagement

Faculty take time to know Hmong American students and their background

Faculty embody and practice compassion in their interaction with Hmong American students

Faculty challenge Hmong American students and have high expectations for their engagement and involvement on campus

2.3. Practices that nurture and advance social responsibility and global civic engagement in Hmong American students

Academic advisors demonstrate genuine interest in and support of Hmong American students' academic and career goals and global citizenship aspirations

Study abroad offers students global experience

Service learning opportunities allow Hmong American students to learn about and engage with the local community

Research experience opportunities allow students to examine local and global problems

Writing helps Hmong American students reflect on life experiences and their place in the world

Grounded Theory 3

Outside-of-College Experiences that Cultivate Social Responsibility and Global Civic Engagement in Hmong American Students Who Majored in STEM in Two-Year Colleges

Attribute	Sub-attribute
3.1. Hmong American students' are involved in social organizations, which demonstrates their glocal civic activism	
	Hmong communities engage Hmong American students in their activities
	Churches engage Hmong American students in their activities
	Involvement increases Hmong American students' knowledge of local and global needs
	Perception of social responsibility as a norm leads Hmong American students to practice civic activism
3.2. Hmong American students self-organize in civic groups	
	Leadership skills lead Hmong American students to self-organizing in civic groups
	Knowledge of the community needs leads Hmong American students to self-organizing in civic groups