

DISSERTATION

COLLEGE SATISFACTION AND STUDENT ENGAGEMENT OF ETHNIC AND HAN
FIRST YEAR STUDENTS IN CHINA

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ABSTRACT

COLLEGE SATISFACTION AND STUDENT ENGAGEMENT OF ETHNIC AND HAN FIRST YEAR STUDENTS IN CHINA: MIXED METHODS

Although student engagement is positively associated with student success, studies have largely focused on white population in the United States. Research on student engagement among diverse student groups remains limited. Several studies have explored engagement among Chinese college students, but there is a lack of research examining ethnic minority students in China. This explanatory sequential mixed methods study uses a three-article format to explore the student engagement of first year Chinese college students, with a focus on those from ethnic minority backgrounds. The study was grounded in Kuh's theory of student engagement (2003, 2009).

This study consists of three parts: a quantitative study, a mixed methods study, and a literature review. The first part of the study analyzed data from China College Student Survey (2017–2019) to examine how students' attributes and engagement related to college satisfaction during their first year in college. Specifically, the study explored whether ethnicity, gender, generational status, one-child status, and student engagement were associated with students' satisfaction with their college. The findings revealed first year college students in China reported a low satisfaction level. Higher college satisfaction was observed among male students, Han students, non-first generation students, and those from one-child families. Findings also indicated a positive correlation between students' satisfaction and engagement factors, including

relationships with teachers and advisors, learning motivation, interest in academic programs, and institutional support.

The second manuscript employed a mixed methods approach to investigate differences across five areas of classroom engagement. It used quantitative data from the China College Student Survey (2017–2019) and incorporated qualitative insights from the perspectives of first year ethnic minority college students. Quantitative findings suggested ethnic minority students were less engaged in classroom activities compared to their Han counterparts. Qualitative findings indicated language barriers, cultural differences in educational values, and underprepared academic preparation contributed to differences in classroom engagement in first year college students of ethnic minority backgrounds.

The third manuscript examined literature on the relationship between student engagement and academic achievement with an emphasis on the role of race and ethnicity on the influence of student engagement (Xue & Gloeckner, 2023). This review offered a sociocultural perspective to deepen the understanding of student engagement. Specifically, it examined Chinese student engagement from the perspective of Confucian ideology, which emphasized hierarchical relationships and defined role responsibilities. Within this sociocultural framework, students were expected to show respect for their teachers and to fulfill their academic roles. This article suggests relying on Western-centric measures of engagement may result in misleading conclusions, often misrepresenting Chinese students as less engaged.

The final chapter of the dissertation presented the study's limitations, outlined implications for Chinese higher education institutions, offered recommendations for future research, and reflected on the research process. Drawing on the findings from the three research articles, this chapter proposed several intervention programs and educational practices aimed at

improving academic success and college satisfaction of first year college students in China- particularly those of ethnic minority backgrounds. Regarding future research, the author recommends a more focused examination of individual ethnic minority groups to provide deeper insights into the engagement of diverse college students.

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and caring people. Special thanks go to my participants and to Tsinghua University for providing the data!

DEDICATION

This dissertation is dedicated to my mother and my daughter. To my mother, who left school to support her family—thank you for ensuring I had the opportunities you did not. Your sacrifice laid the foundation for everything I have achieved. To my daughter—may you always remember you stand on the shoulders of two generations of resilient women. Rise even higher!

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CHAPTER 1 OVERVIEW OF THE STUDY

“The diversity of the Han Chinese culture has been widely recognized nationwide and international- wide. However, rarely discussed are the 55 officially recognized ethnic minority groups, which consist of approximately 110 million people, though together, the communities only account for 8.89 % of China’s overall population.” (Liang, 2023, p. 134)

“Education has the potential of being socially and economically transformative for individuals; however, systemic problems of equity, access, and success must first be addressed in higher education before the goal becomes reality.” (Martinez, 2018, p. 1)

“Limited or poor educational background opportunities are additional casual factors of inequality. Often the poor performance of ethnic minority students in higher education is a direct consequence of long-term inequality in China.” (Jacob et al., 2011, p. 41)

“Student satisfaction was the most significant factor in closing the achievement gap for minority students.” (Frazier, 2016, p. v)

As emphasized in these quotes, improving access to higher education and fostering success for ethnic minority college students in China are essential for reducing inequalities as ethnic minorities students in China have been overlooked (Liang, 2023; Lin & Jackson, 2022; Yu & Zhao, 2024). Jacob et al. (2011) identified three major barriers hindering access to higher education for ethnic minority students in China: underprepared educational backgrounds, insufficient government funding, and low scores on the National College Entrance Exam. In addition, completion of undergraduate education for ethnic minority students has proven to be a challenge (Clothey et al., 2018, Wang, 2021). Taken together, evidence shows ethnic minority students face numerous challenges in pursuit of higher education in China. Low academic achievement and dissatisfaction with higher education have been reported (Chen et al., 2021; Huang et al., 2025; Huang & Li, 2017; Wang, 2007; Wang, 2021; Wang, 2022; Wu et al., 2023; Wu et al., 2016; Yang, 2017). As a result, researchers have called for improvement of academic performance and satisfaction for ethnic minority students in China to mitigate academic suspensions or dropouts (Wang, 2022; Wu et al., 2016; Wu et al., 2023; Zhao et al., 2022).

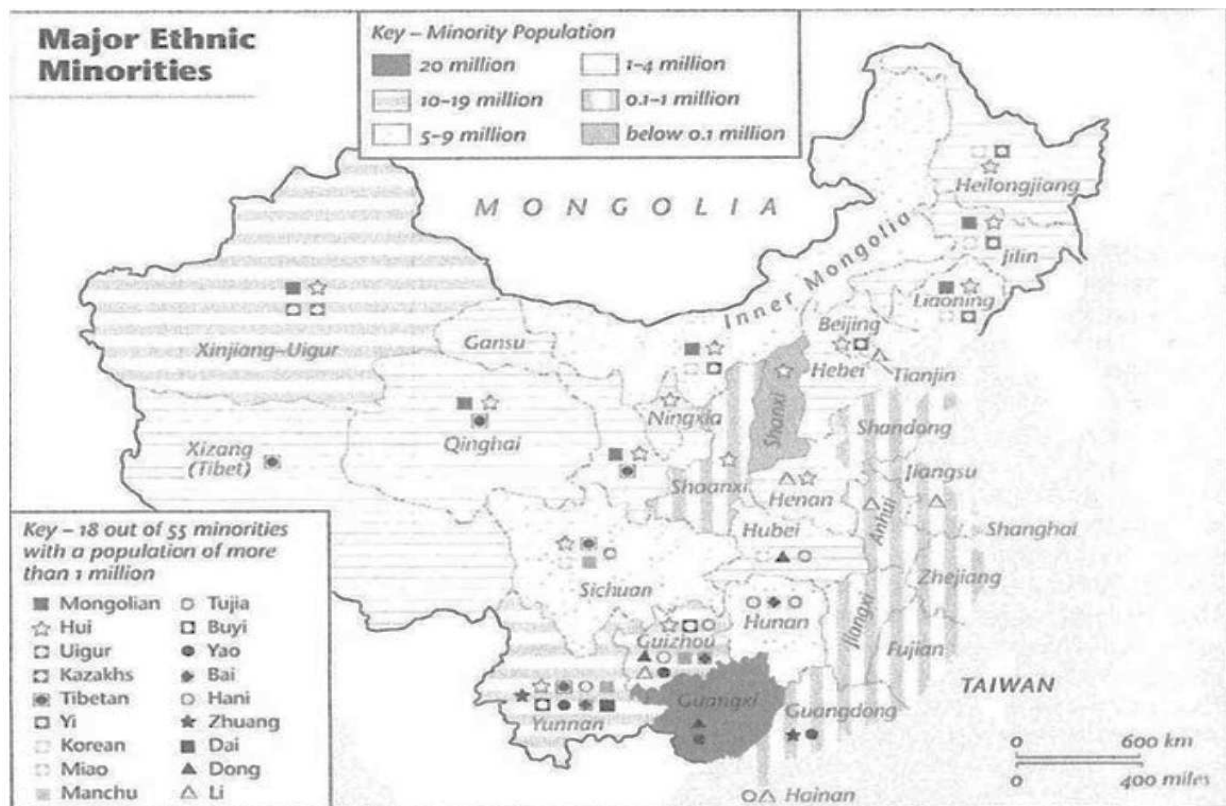
This study focuses on supporting ethnic minority students in Chinese higher education. Specifically, it examines whether students' engagement and individuals' attributes influence satisfaction among first year college students of ethnic minority backgrounds. It investigated barriers contributing to differences in classroom engagement between Han and ethnic minority first year students. Through an explanatory sequential mixed methods design, incorporating analysis of a national dataset and focus group interviews, this study contributes to the literature on first year ethnic minority students in China.

Background

China is a culturally diverse nation, comprised of 56 nationalities (Mackerras, 2005; Wu & Ingram, 2019; Yang et al., 2019; Yang & Wu, 2009). As of the 2020 census, the national population surpassed 1.4 billion, with Han representing the majority and the 55 ethnic minority groups making up of 8.89%. (National Bureau of Statistics of China, 2021). The 55 ethnic minority groups primarily live near national borders or underdeveloped areas, including the five autonomous regions of Xinjiang Uyghur, Tibet, Ningxia Hui, Guangxi Zhuang and Inner Mongolia (Garcia, 2016; Wu et al., 2023; Zhu, 2010). Figure 1.1 illustrates the geographic locations of ethnic minorities of China.

Figure 1.1

Hutchings (2001) Map of Ethnic Minority Dispersion in China (Used with written permission from Graham Hutchings, personal communication, July 03, 2024)



Ethnic minority college students are “Chinese who migrate from ethnic minority-dominant areas to Han-dominant areas to attend college” (Chen et al., 2021, p. 1). In 2022, ethnic minority representation in higher education was 9.85% for undergraduates and 5.94% for graduate students, as in Table 1.1 (Ministry of Education of the People’s Republic of China, 2024), which marked an approximate 4% increase compared to the year 2000.

Table 1.1

Numbers and Percentage of Ethnic Minority Students in Chinese Higher Education Institutions, 1990-2021

Year	Number	%
1990	137,900	6.68
1995	187,600	6.46
2000	319,900	5.75
2005	953,200	6.10
2010	1,508,300	6.76
2015	2,142,946	8.16
2022	1,936,478	9.85

Statement of the Problem

Since the ethnic classifications in 1954, gaps persist as educational attainment of ethnic minority students lagged behind their Han peers at all education levels (Chia & Hruschka, 2023; Hong, 2010; Huang et al., 2025; Kong & Yu, 2019; Lee, 1998; Wang, 2007; Wang et al., 2013; Xu et al., 2022; Zhao, 2014). For example, in 2015, the percent of adolescents aged 10 to 19 who were not on track to complete the nine-year compulsory education was minimal among majority Han adolescents—1.70 %, but higher among minority youth—7.20% (Hannum & Wang, 2022).

Around 12% of Uyghur attained undergraduate degrees, compared to the national average of about 20% (Clothey et al., 2018).

Additionally, academic achievement of ethnic minority students in higher education continue to fall behind that of Han counterparts (Huang & Li, 2017; Wang, 2007; Wu et al., 2023; Wu et al., 2016). Ethnic minority college students in China demonstrated lower average grades and class rankings with a higher proportion in the bottom 20% (Wu et al., 2016). Wang (2022) found, on average, ethnic minority students had 0.13 points lower than their Han counterparts in GPAs based on a sample of 9,084 undergraduates from one Chinese university. Further, maladjustments and low levels of college satisfaction were found in ethnic minority college students in China (Chen et al., 2021; Garcia, 2016; Xu et al., 2017).

One avenue for improving student success is through fostering student engagement in college (Culver et al., 2024; Hu & Wolniak, 2013), which is widely acknowledged as a crucial factor correlated with academic achievement (Bingham & Okagaki, 2012; Chang et al., 2016; Fuller et al., 2011; Ing & Victorino, 2016; McCain, 2021; McCloud et al., 2018; Milmine, 2021; Peck, 2017; Webber et al., 2013), persistence (Brown, 2020; Hughes & Pace, 2003; Luciano-Wong & Crowe, 2019; Njenga, 2023; Shinde, 2010; Walton et al., 2020) and students' satisfaction (Hwang & Wao, 2021; Johnson, 2017; Peck, 2017; Strayhorn et al., 2014; Tessema et al., 2017). What is more, student engagement has been found to be especially beneficial for minorities in the United States (Carini et al., 2006; Kinzie et al., 2008; Kuh et al., 2008; Lundberg & Schreiner, 2004; Martinez, 2018; Shi et al., 2023; Strayhorn et al., 2014).

Although student engagement is positively linked to student success, with benefits being more pronounced for minority students, it is important to note earlier studies predominantly featured white population in the United States (Martinez, 2018; Means & Neisler, 2023), and the

literature examining student engagement from diverse ethnic backgrounds is limited (Brown, 2024). Kuh (2009) pointed out that unless student affairs programs possessed sufficient data systems to assess student engagement from diverse backgrounds, race/ethnicity, gender, and first generation status, the potential to drive institutional change to enhance student success was constrained. While limited research has been conducted on Chinese student engagement (Yin, 2018; Yin & Wang, 2016), even fewer studies focus specifically on ethnic minority college students in China. This gap highlights the importance of this study.

According to Morgan et al. (2020), a research problem investigates the relationship between two or more variables. This study's problem examines relationships between student engagement and college satisfaction, as well as differences in classroom engagement between Han and ethnic minority first year students in higher education institutions in China. The overarching research question examines how student engagement correlates with college satisfaction among first year students of ethnic minority groups and what barriers contribute to differences in classroom engagement. This was addressed through a mixed methods research design.

Purpose and Study Overview

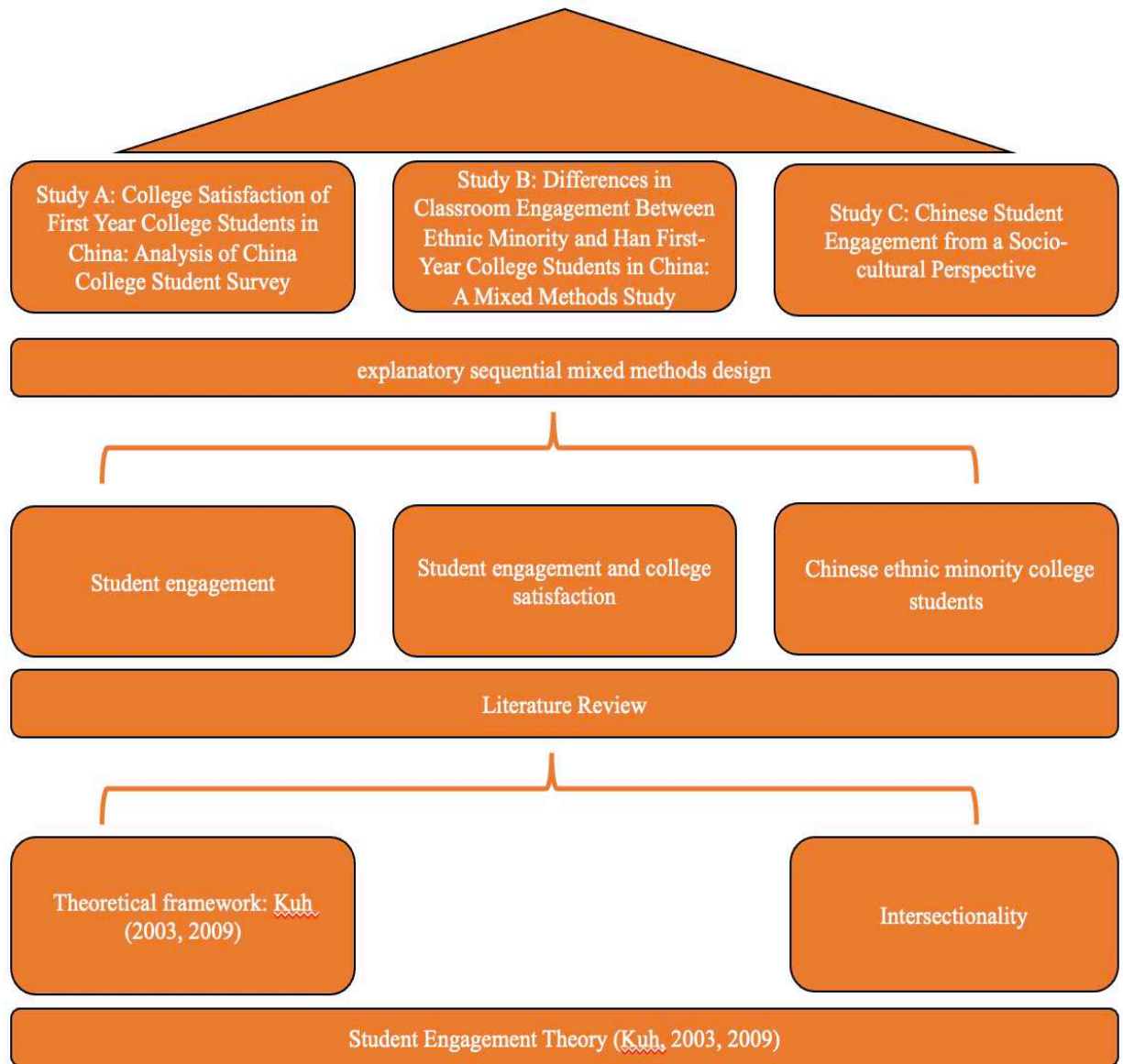
While research on Chinese student engagement is limited (Yin, 2018; Yin & Wang, 2016), there is an even less information available on ethnic minority college students. This is problematic given students from ethnic minority groups account for 9.85% of undergraduate enrollment in Chinese higher education (Ministry of Education of the People's Republic of China, 2024). Evidence suggests they have faced greater challenges and need stronger institutional support (Jacob et al., 2011). Therefore, the purpose of this study was to address the research gap concerning student engagement of first year ethnic minority students in China.

To answer the overarching research question of “How does student engagement correlate with college satisfaction among first year college students from ethnic minority backgrounds in China and what barriers contribute to differences in classroom engagement between Han and ethnic minority groups”. The following were considered: (a) how college satisfaction was associated with student engagement and individuals’ attributes—ethnicity, generational status, one-child status, and gender; (b) how classroom engagement differed between Han and ethnic minority students, and what barriers first year ethnic minority college students in China faced to classroom engagement; (c) how student engagement related to academic achievement and how to understand the engagement of Chinese students from a socio-cultural perspective.

This study used explanatory sequential mixed methods design (Creswell & Plano Clark, 2018). In Study A, a quantitative study, multiple regressions and independent *t* tests were used to analyze the data from 2017-2019 Chinese College Student Survey (CCSS). The preliminary analysis considered whether respondents’ demographics—ethnicity, gender, one child status and generational status along with student engagement, influenced satisfaction of Chinese first year students. Study B explained the quantitative findings of differences in classroom engagement between ethnic minority first year college students and their Han counterparts with qualitative data. In Study C, a literature review, the relationships between student engagement and academic achievement, particularly among students of color in the United States, was examined. Considering conflicting findings on the relationships, this paper emphasized the importance of understanding students' engagement through a sociocultural perspective (Xue & Gloeckner, 2023). An organizational chart of the overall dissertation study is in Figure 1.2.

Figure 1.2

Organizational Chart of the Study (Adapted from “Conception map of the research design” , Archibeque-Engel, 2014, p. 4). Used with written permission (S. Archibeque-Engel, personal communication, January 06, 2025).



Operational Definitions

Terms used in this study include academic achievement, ethnicity, ethnic minority college students, first-generation status, one-child status and student engagement.

Academic achievement is measured by grade point averages (GPA).

Ethnicity is categorized into ethnic minority and Han.

Ethnic minority college students in China are those who relocate from regions predominantly inhabited by ethnic minorities to areas where Han Chinese pursue higher education (Chen et al., 2021).

First-generation status refers to both parents have an education level below a bachelor's degree.

One-child status is self-reported.

Student engagement is “the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities” (Kuh, 2003, p. 25; 2009, p. 683).

Theoretical Framework

This study used Kuh's theory (2003, 2009) of student engagement. According to the theory, engaged students find resources, seek help when needed, collaborate with peers, and build interactions with faculty, each of which contributes to their learning outcomes (Zepke & Leach, 2010). Conversely, students who are less engaged may miss classes, neglect assignments, and do not participate in academic activities. This low engagement may result in lower grades and decreased satisfaction with college. Greater student engagement is linked to improved learning outcomes while lower engagement relates to poorer outcomes. This study examined the classroom engagement of ethnic minority first year college students in China, focusing on their classroom activities including answering questions, presenting in class, and collaborating with Han peers, helping or asking help for course contents. This study also investigated differences in

classroom engagement compared to their Han counterparts during their first year of college and identified barriers contributing to these differences.

Intersectionality also served as a theoretical framework for this study. Intersectionality is a framework exploring how various social identities including race, gender and ethnicity intersect and interact to create unique experiences of disadvantage (Crenshaw, 2013). Intersectionality provides a ‘gathering place for open-ended investigations of the overlapping and conflicting dynamics of race, gender, class, sexuality, nation, and other inequalities’ (Cho et al., 2013, p. 788). Research has consistently demonstrated how the intersection of gender, geographic locations, and ethnicity shapes the experiences and outcomes of ethnic minority students in China. Clothey et al. (2018) suggested the experiences of ethnic minorities in rural regions differed from those of their counterparts in urban areas. Specifically, Uyghur students from rural Xinjiang encountered greater challenges when entering higher education compared to their more affluent ethnic peers from urban areas. Li et al. (2021) found intersection of rural backgrounds and gender placed female students in China at a disadvantage in their college experience. Wang (2017) suggested rural females attending urban higher education had multi-dimensional experiences and analyzing their experiences through a single lens was problematic as it failed to capture the complexity.

Recognizing the complexities and nuances of experiences faced by ethnic minority students in China, Zhu (2023) proposed intersectionality as a framework to better understand how overlapping identities: ethnicity and gender interacted to influence ethnic minority students in China. My dissertation draws from this theoretical lens to acknowledge and examine intersecting identities of gender, ethnicity, generational status and one child status in relation to college satisfaction.

Epistemologically, this study was grounded in pragmatism. According to Creswell and Plano Clark (2011), pragmatism is pluralistic and centered on practical solutions and effectiveness. Pragmatism emphasizes gaining knowledge by engaging in practical activities and reflecting on those experiences (Biesta, 2010). Given pragmatism uses practical methods (Biesta, 2010), I presents a three-article dissertation using different approaches to address the research problem, drawing on quantitative and qualitative data.

Researcher Positionality

As a Han Chinese raised in a region inhabited by the Mongolian ethnic minority, I had the opportunity to gain exposure to cultural diversity from an early age. My father, a high school teacher fluent in both Mandarin and Mongolian, devoted his career to educating many Mongolian students. Even decades after their graduation, I recall his students visiting him, addressing him respectfully as "lao shi" –the Chinese word for teacher, which carries profound reverence. Through my father's example, I developed a deep appreciation for the teaching profession. More importantly, witnessing his Mongolian students' respect and connection with him instilled a passion for teaching in me.

I completed my Bachelor of Arts in elementary education in China, followed by a Master's degree in educational psychology in the United States. I began teaching English as a foreign language to college students across various regions of China. A unique aspect of this role was the opportunity to teach the same group of students over two consecutive academic years, as English was a mandatory course for the first two years of college. The students I had the privilege of engaging with were diverse from numerous states and backgrounds. They were divided into three proficiency groups: A, B, and C, based on their English scores from college entrance exams. While I was given the choice to teach the advanced "A" group, I intentionally

opted for the "C" group. My rationale stemmed from a belief that focusing on the students facing the greatest challenges could achieve more impactful growth. I realized many of the "C" group students came from ethnic minority communities including Tibetans and Mongolians. This experience revealed their distinct identities, cultural and linguistic nuances, and educational backgrounds that had shaped their journey as English language learners. This experience fueled my passion for creating an inclusive classroom environment for all students regardless of their backgrounds.

Beyond my professional experiences teaching ethnic minority college students in China, my master's and doctoral degrees overseas enriched my understanding of and support for students from marginalized backgrounds. My journey as a master's and doctoral student in the United States cultivated relevant insights. As an international student for whom English was not my native language, immersing myself in the culturally diverse environments of U.S higher education allowed me to share similar experiences and connect with students navigating linguistic and cultural transitions.

My shared lived experiences offer a unique perspective through which to study the challenges and barriers faced by ethnic minority students in China. Having undergone acculturation, identity negotiation, and barriers to access, I approach this research with a sense of empathy. Unlike my master's program, my doctoral program fostered greater engagement and peer support leading to higher satisfaction. My own journey exemplifies how an engaging and inclusive environment empowers students from diverse backgrounds to thrive. These experiences catalyzed my commitment to conduct research to elevate the experiences of underserved populations. However, I recognize I do not share the same cultural and religious backgrounds as these students, which may have affected how they interacted with me in the focus groups.

Literature Review

Student engagement has been a prominent topic in higher education, with a growing body of evidence highlighting its pivotal role in enhancing students' learning (Kahu, 2013). It is acknowledged as a crucial factor in students' success in higher education (Culver et al., 2024; Harper & Quaye, 2009; Kao, 2019; Kinzie et al., 2008; Kuh et al., 2007; Pascarella & Terenzini, 2005; Quaye & Harper, 2015; Zhao & Kuh, 2004). According to Kuh (2009), student engagement revolved around time dedicated to tasks, quality of effort, involvement, integration into social and academic aspects, as well as adherence to seven principles for good undergraduate education.

The National Survey of Student Engagement (NSSE) was developed in 1998 by a team of scholars (Kuh, 2009). It is used to measure student engagement at four-year higher education institutions in North America. According to Kuh (2003), NSSE uses five benchmarks: 1) level of academic challenge; 2) active and collaborative learning; 3) student-faculty interaction; 4) enriching educational experiences; and 5) supportive campus environment. As highlighted by McCormick and McClenney (2012), NSSE elevated the national conversation on college quality as it shifted focus away from institutional factors like reputations and resources, emphasizing students' experiences, particular activities and behaviors were empirically linked to learning. The following sections highlight relevant literature on the topics of student engagement with academic achievement and satisfaction, NSSE-China project, and ethnic minority college students in China.

Student Engagement and Academic Achievement of First Year College Students in the United States

A notable study investigating the relationship between student engagement and academic achievement among first year university students was conducted Kuh et al. (2008). The study

used three years of data from multiple institutions ($N = 6,193$) to investigate and assess the degree to which student engagement contributed to GPAs. The study also considered individuals' backgrounds and prior academic performance on their GPAs. The findings showed students' demographic characteristics and high school academic performance accounted for 29% of the variance in their first year GPAs. Incorporating measures of student engagement led to an additional 13% of the explained variance ($R^2 = 0.13, p < 0.001$).

Another study using a substantial sample ($N = 55,184$) was conducted by Pike et al. (2008). Acknowledging the inherent complexity and potential biases associated with cluster sampling and the sample size, the researchers implemented a stringent threshold for statistical significance: a p value less than 0.0001 and a t value greater than 4.00 to reject the null hypothesis. Examining data from 55,184 students attending 392 four-year colleges or universities, the findings identified a statistically significant and positive association between four of five NSSE benchmarks and self-reported grades. Of the four benchmarks, which exhibited a positive connection with grades, the most notable associations were with active collaborative learning ($r = .11, p < 0.0001$) and frequency of student and faculty interactions inside and outside the classroom ($r = .05, p < 0.0001$).

While both studies provided insights into the relationships between student engagement and academic achievement, neither offered information about the ethnic and racial composition of their samples. As a result, the extent to which these findings can be generalized across diverse racial and ethnic groups remains unclear. For example, in a study conducted by Greene et al. (2008) investigated differences in student engagement and academic achievement among African American, white, Asian American, and Hispanic college students. The study used a set of variables, including engagement factors derived from a previous factor analysis to explore

differences. Greene et al. (2008) concluded African American students tended to receive lower grades and were less likely to pass courses compared to their white peers, as indicated by an effect size of $d = 0.15$ and an odds ratio (OR) of .73. Hispanic students exhibited lower course grades and Asian Americans were less likely to pass courses compared to white students, as evidenced by an odds ratio of .68. Further, African Americans received lower grades compared to those in the other groups in developmental and gatekeeper courses, for example freshman composition skills and algebra, with effect sizes of $d = -.13$ and $d = -.07$, respectively.

These findings contradict outcomes discussed earlier and raise questions about students' engagement relevance to different ethnic groups. These findings led Kuh (2003) to conclude

The good news from NSSE is that the results suggest students of color engage in effective educational practices to a comparable degree. However, despite putting forth about the same amount of or more effort, African American students report lower grades. white students generally get the highest grades, followed by Asian and multi-racial students and Latino and Native American students. Why students of color get lower grades for comparable academic effort is not clear, given that GPA is positively related to all five benchmark scores and nearly all of the effective educational practices represented on the NSSE survey. (p. 27)

The relationship between student engagement and academic achievement is complex (Bingham & Okagaki, 2012). While numerous studies have demonstrated a positive correlation between high levels of engagement and improved academic outcomes, this relationship is not consistent across all student populations. For example, greater engagement does not always translate into better academic gains for students from minority backgrounds. Therefore, ethnicity and race need consideration when examining how student engagement contributes to academic achievement.

Student Engagement and Satisfaction among College Students in the United States

Students' satisfaction is the degree to which learners experience a sense of contentment, fulfillment, and positive sentiment regarding their overall educational experiences (Pandita &

Kiran, 2023). According to Kuh et al. (2007), student satisfaction is an essential component of the overall success of students, thus, a multitude of studies have been conducted to explore it in higher education. Hwang and Wao (2021), Kandiko Howson and Matos (2021), and Korobova and Starobin (2015) highlighted students' satisfaction with their college was influenced by how engaged they were.

Research has shown higher levels of engagement in curricular activities contributed to students' satisfaction with their college (Webber et al., 2013) and female and full-time students who invested more time preparing for class or engaging in academic tasks reported greater satisfaction. In another study (Johnson et al., 2017) focused on senior college students, findings indicated each of the 10 engagement indicators had a positive correlation with students' satisfaction. Multiple regression revealed a combination of three engagement indicators—quality of interactions, supportive environment, and effective teaching practices—explained a significant portion of the variance ($R^2 = .334$) in students' college satisfaction.

Despite the positive association between student engagement and satisfaction, studies identifying students from diverse backgrounds have yielded inconsistent findings. For example, research study conducted by Zilvinskis (2019) suggested faculty feedback on coursework was correlated with students' satisfaction, but a positive association was not found among African American students. For STEM students of African American and Hispanic American backgrounds studying at Predominantly White Institutions (PWIs), their satisfaction was positively related to the time spent preparing for class and the frequency of interactions with faculty members on the topic of future careers (Strayhorn et al., 2014).

In studies of student engagement and satisfaction, student-faculty interaction emerged as a strong predictor of students' college satisfaction (Browne et al., 1998; Griffith, 2011; Peck,

2017, Zhang et al., 2018). However, Cole (2007) suggested categorizing different types of student-faculty interactions as not all interactions with faculty yielded positive results for students of minority backgrounds. While mentorship or career guidance, can be beneficial, others, particularly those focused on coursework, may not have the same positive impact for minority students. Earlier, Lundberg and Schreiner (2004) suggested satisfaction with faculty relationships differed based on race, with white students indicating the highest levels of satisfaction. These conflicting findings led Patton et al. (2015) and Zilvinskis (2019) to argue not all experiences uniformly foster positive growth for each student, and implementing standardized practices across the board may not be equitable to all students. Cole (2007) emphasized "for students of color, racism or feelings of racial tension can play a significant role in the type, nature, and quality of student-faculty interactions and thus result in differential educational gains by race" (p. 251). In conclusion, the collective body of literature indicates ethnicity and race are important factors in understanding the influence of engagement on students' academic achievement and college satisfaction.

NSSE-China Project

NSSE, a student engagement survey instrument, has been administered by the Center for Postsecondary Research at Indiana University–Bloomington since 2000. Nearly 1,700 four-year colleges and universities participated and 6.5 million students have completed the survey in the United States and Canada (NSSE, 2022). With the popularity of NSSE as a valid and reliable assessment tool in North America, it has attracted attention in other countries.

Contacts for permission to translate and/or adapt the NSSE instrument to local contexts have come from 14 countries, and even more have expressed interest. The Australasian Survey of Student Engagement (AUSSE, 2010) and the South African Survey of Student Engagement (SASSE, 2009) are among the examples that have contextualized and institutionalized the NSSE survey outside North America, so is NSSE-China. (Cen, 2012, p. 19)

The NSSE-China project is a research collaboration between Indiana University (U.S) and Tsinghua University (China). Prior to the introduction of full survey administration in June 2009, which involved 27 Chinese four-year universities, the NSSE-China research project did translation and contextualization processes in 2007 (Luo et al., 2009). Building upon the 2007 version of NSSE in the United States, China College Student Survey (CCSS) was localized and developed. CCSS was tailored to the unique needs and characteristics of college students, ensuring relevance and applicability in the Chinese higher education landscape (Luo et al., 2009).

By the conclusion of 2022, more than 195 four-year colleges and universities have participated in the CCSS with 1.2 million students completing the survey (CCSS, 2022). CCSS collects three categories of data from participants: 1) observable learning behaviors of college students; 2) psychological variables (e.g., motivation, interests of learning), self-reported learning attainments and educational satisfaction; and 3) social and economic status and pre-college educations. Most of the items in the first category were adapted from the NSSE after a culturally-cognitive revision (Shi et al., 2014).

The data obtained through CCSS holds potential to assist higher education institutions in undertaking self-evaluation of their teaching and enhancing the overall quality of Chinese education (Tu et al., 2013). According to Coates et al. (2022), CCSS research team have contributed to the academic literature by publishing about 90 journal articles, book chapters, books, and theses at the master's and doctoral levels. While NSSE-China project has engendered a heightened level of interest in investigating student engagement in Chinese institutions of higher education, the literature on student engagement of ethnic minority students in China is limited.

Ethnic Minority College Students in China

The education of ethnic minority groups in China has progressed since the establishment of China in 1949. Policies such as preferential admissions, reduced school fees, boarding schools, and introduction of remedial programs have been implemented to improve their educational opportunities (Sautman, 2013). Ethnic minority undergraduate representation in higher education increased from 5.75% in 2000 to 9.85% in 2022 (Ministry of Education of the People's Republic of China, 2024).

However, differences in education between ethnic minority and Han students persist. For example, research has consistently uncovered pronounced differences in educational attainment between ethnic minority students and their Han counterparts (Chow, 2002; Myers Jr. et al., 2013). Specifically, ethnic minorities had a 29% lower likelihood of completing junior high school, a 25% lower likelihood of finishing high school, and a 31% lower likelihood of attaining a college education compared to Han students (Rong & Shi, 2001). Urban Han male youth from poor counties were 12 times more likely to take the college entrance exam compared to their rural, female, minority peers from similarly poor counties (Li et al., 2015). There is a persistent academic achievement difference between ethnic minority and Han students in China (Bai, 2017; Chen & Hao, 2008; Rong & Shi, 2001; Wang, 2022; Wu et al., 2016; Yang et al., 2015; Yi & Wang, 2012). Factors contributing to these achievement differences have been related to language barriers and cultural differences (Clothey, 2024; Wang, 2021).

According to Sun (2004), the 55 ethnic groups speak more than 120 distinct languages, with 30 of these groups having their own written scripts (Wang & Gesang, 2020). These languages are distinct from Mandarin Chinese, the most widely spoken language in China. For some ethnic minority groups, Mandarin Chinese is not their first language, posing significant

challenges in understanding and participating in academic activities. Adamson and Feng (2009) found a considerable number of ethnic minority students faced a proficiency deficiency in Mandarin Chinese. Language barriers made it challenging for them to understand the material taught in college classes (Qing & Song, 2010; Yi & Wang, 2012; Zhang et al, 2018) so they experienced marginalization in the classroom (Cui & De Costa, 2024; Han et al., 2016; 2019; Liang, 2023; Sun et al., 2024; Zhao, 2014).

In addition to language barriers, cultural differences pose challenges. From a cultural anthropology standpoint, the cultural environments in which people from various regions and ethnic groups raised are distinct (Qing & Song, 2010). Before coming to Han-dominated regions, most students grew up in ethnic minority regions, where they were surrounded by their native languages, writing systems, art forms, customs, and lifestyles (Wang et al., 2022). When they pursued higher education in the Han region, they experienced culture shock (Bai, 2006; Zhang et al., 2018). Irwin (2007) defined culture shock as the emotional and psychological distresses individuals encounter when they undergo travel or relocation to different social and cultural environments. Hence, acculturative stress of ethnic minority college students led to maladjustments and low levels of satisfaction with college (Chen et al., 2021; Garcia, 2016). They feel a lack of belonging at the university (Liu, 2023; Yi & Wang, 2012). Unfamiliarity with the cultural norms also created feelings of isolation and inferiority (Cui et al., 2024; Han et al., 2016; Wang & Gesang, 2020; Xu et al., 2022; Yang, 2017; Yi & Wang, 2012; Zhao, 2014).

In conclusion, ethnic minority students in China encounter significant challenges when pursuing higher education in Han-dominated areas. These challenges include limited proficiency in Mandarin, which hinders communication and academic participation, and cultural differences that contribute to feelings of isolation and a lack of belonging. These compounded challenges

underscore the need for programs for higher education institutions to address the experiences of ethnic minority students.

This dissertation study focuses on first year ethnic minority college students in China. The decision to concentrate on first year population was grounded in evidence highlighting the pivotal nature of the first year. Researchers as Barr (2007), Baik et al. (2019), Reason et al. (2006), and Ehlers (2014) underscored how the first year of university serves a dual purpose—fostering knowledge acquisition while establishing a critical foundation for academic success, retention, and persistence. Concurrent with intellectual growth, data from institutions across the United States indicated during this formative year students underwent the most pronounced transformations (Flowers et al., 2001). First year students, in particular, faced unique stresses navigating the multifaceted transitions to academic expectations, forging social connections, and immersing themselves in the cultural environment of university life (Baik et al., 2019; Ribeiro et al., 2019; Zhang, 2021).

Beyond the pivotal role of the first year for college students' development and growth, research has indicated a gap in understanding differing predictors of college satisfaction across various class levels (Schreiner & Nelson, 2013). For example, factors influencing first year students' satisfaction may differ from those affecting second year students. This underscores the importance of disaggregating data by class level to better understand factors driving college satisfaction in the first year.

Methodologies and Three Articles

Research on student engagement has primarily relied on quantitative data (Ghasemi et al., 2018; Museus, 2013; Zepke & Leach, 2010), thus, Green (2022) suggested future research should implement a mixed methods approach. My dissertation addresses this call by employing

an explanatory sequential mixed methods design with three articles. This study lessens gaps in the literature on Chinese student engagement—particularly among first year students of ethnic minority backgrounds. This section outlines each of the three articles, interpretation of the studies, and limitations.

The first research article, "Satisfaction of First Year College Students in China: Analysis of China College Student Survey 2017-2019", investigates how student engagement influenced college satisfaction of first-year individuals while exploring how demographics, gender, ethnicity, generational status, and one-child status related to their college satisfaction. The study uses secondary data from 2017-2019 CCSS. Confirmation from the Colorado State University IRB noted this data set did not constitute human subject research.

The research questions for this study included:

1. What are the mean, mode, and median of students' satisfaction with college and what percentage of the survey respondents would definitely recommend their college?
2. Are there significant differences in satisfaction with college based on ethnicity, gender, generational status, and one-child status in the population of first year college students in China?
3. Do ethnicity and generation status each have a statistically significant "effect" on students' satisfaction with college, and do the "effects" of generational status on satisfaction depend on the person's ethnicity?
4. How are engagement indicators associated with the satisfaction of first year college students in China?

Analysis from simultaneous multiple regressions suggested the combination of variables explaining college satisfaction were learning motivation, student and teacher/advisor

relationship, institutional support, and interest in the academic major ($F(4, 38650) = 1752.16, p < .001$). The adjusted R^2 was .13, indicating 13% of the variance in college satisfaction was explained by the model. According to Cohen (1988), $R^2 = .13$ was a medium effect size. Additionally, satisfaction with college among first year students in China was low. Higher satisfaction levels were observed among males, Han, non-first generation students, and individuals from one-child families. Conversely, female students, ethnic minority students, first generation students, and students from non-one child families showed lower college satisfaction in their first year. Further, the findings indicated a statistically significant main effect of ethnicity and generational status on students' college satisfaction, $F(1, 10,495) = 18.66, p < .001$. Eta for generational status was .05, which is a small effect (Cohen, 1988). Specifically, the findings suggested first generation college students from ethnic minority backgrounds ($M = 47.90$) reported lower levels of college satisfaction compared to their counterparts from Han background ($M = 50.83$). By presenting an analysis of first year Chinese college students' satisfaction and examining how intersecting attributes, ethnicity and generational status, influenced their college satisfaction, this study contributed to the literature on college satisfaction among first year students in China, particularly those of ethnic minority backgrounds.

As quantitative analysis drew upon an existing national dataset, several limitations must be acknowledged. The researcher had no control over the original data collection procedures, measurement validity, or sampling strategies, which may introduce bias or limit representativeness. Additionally, because the dataset reflects responses from 2017-2019, the findings may not be generalized across different institutional contexts. Some demographic categories were also broad (e.g., grouping 55 minority groups into a single category), limited the ability to distinguish variability within ethnic minority students.

The second research article is “Differences in Classroom Engagement Between Ethnic Minority and Han First Year College Students in China: A Mixed Methods Study”. An explanatory sequential mixed methods design was used involving analyzing secondary quantitative data and explaining quantitative findings from qualitative focus groups. Specifically, first, it quantitatively analyzed five classroom engagement areas, including answering questions, presenting in class, collaborating with peers, helping or asking help for course contents. Then, two focus groups with first year ethnic minority college students in China were conducted and these differences in classroom engagement were explained from the perspective of ethnic minority students. I examined the findings of the quantitative and qualitative in relation to Kuh’s (2003) engagement theory.

This study addresses the research question of what barriers led to the unengagement of ethnic minority college students in the classroom. The research questions for this study included:

1. Are there statistically significant differences between ethnic minority and Han first year college students regarding asking questions or having discussions in class (AQHD)?
2. Are there statistically significant differences between ethnic minority and Han first year college students on making presentation in class (MPIC)?
3. Are there statistically significant differences between ethnic minority and Han first year college students in their collaboration with peers on assignments (CWPA)?
4. Are there statistically significant differences between ethnic minority and Han first year college students in asking peers about course content (APCC)?
5. Are there statistically significant differences between ethnic minority and Han first year college students in helping peers with course material (HPCC)?

From the perspective of first year ethnic minority college students in China:

1. how do they view their engagement in the classroom?
2. how do they view the relationship between classroom engagement and academic achievement?
3. What are barriers impacting their engagement?

A pilot study was conducted, involving a virtual interview with two ethnic minority first year students in China from two universities. The pilot study was conducted in Mandarin Chinese. Both participants identified as male and had completed their first semester in college. The two pilot participants provided feedback on the focus group's length, clarity of the questions, timing, and technology. They indicated a one-hour focus group was appropriate and the questions were clear. Both students suggested scheduling the focus group in the evening, as they typically had classes during the day. In terms of technology, it was noted VooV could not be recorded directly, needing to explore screen-recording options on a MacBook. The two students also shared language barriers to classroom engagement. This finding from the pilot study suggested a need for more in-depth discussion during focus groups.

Upon IRB approval, participants were recruited through a university in China, which approved the study (Appendix A). I reached out to several faculty members to distribute an advertisement to recruit students (Appendix B). Participation criterion included being a first year college student from an ethnic minority background. Interested students scanned the QR code provided in the advertisement and connected with me via WeChat, a communication platform in China.

After analyzing the quantitative data and identifying differences in classroom engagement between Han and ethnic minority first year college students, interview questions

(Appendix C) were designed to explore the barriers of these differences from the perspective of ethnic minority students. Focus groups were conducted at participants' convenience using VooV (the Chinese version of Zoom). Two focus groups, each lasting approximately 45-60 minutes, were held in Mandarin Chinese and video recorded with the consent of six participants.

The recordings were transcribed verbatim in Mandarin Chinese and then translated to English. All identifying information, including names, was removed from the transcripts to ensure participant confidentiality. Data-driven inductive thematic analysis was used to examine the translated interview transcripts. “Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 79). The analysis adhered to the guidelines: 1) familiarize yourself with the data; 2) generate initial codes; 3) search for themes; 4) review themes; 5) define and name themes; 6) produce a report (Braun & Clarke, 2006).

This study had limitations and delimitations. A limitation of this study was focus-group participants were not the same students who completed the original survey. As the survey data were collected before the pandemic, and those respondents had graduated by the time the focus groups were conducted. Another limitation was the presence of missing data in the quantitative dataset, which may have reduced the reliability of the analyses. Two key delimitations should be noted for the qualitative phase of this study. First, the participant sample was limited to six voluntary first year students of the Mongolian ethnic minority background. Thus, it restricted the transferability of findings to other ethnic minority populations in China. Second, only five areas of classroom engagement were examined, and these areas were chosen because they were represented in the secondary dataset. Conclusions must be interpreted with caution, as other aspects of classroom engagement were not included in this study.

Quantitative findings suggested classroom engagement differences between ethnic minority and Han first year college students. Specifically, Han students reported higher levels of engagement across five areas: asking questions or participating in class discussions (AQHD), making presentations in class (MPIC), collaborating with peers on assignments (CWPA), asking peers for help with course content (APCC), and helping peers with course content (HPCC). These findings suggested ethnic minority students were less engaged in classroom activities compared to their Han counterparts. To further understand these differences, two focus groups were conducted, providing insights from the perspectives of ethnic minority students. Findings from the qualitative data indicated language barriers, cultural differences in educational values, and underprepared academic preparation contributed to the low engagement in the classroom.

The findings of this study have implications for higher education institutions in China. First, the results underscored the need for academic preparation programs that support first year ethnic minority students as they transition into university. In particular, offering Mandarin Chinese language courses is critical for students whose first language is not Mandarin, as language proficiency affected their ability to understand course contents and engage in classroom activities. Second, the findings highlighted a need for professional development that prepared faculty to teach diverse student populations. Teacher training programs should incorporate culturally inclusive practices that help instructors recognize and respond to the linguistic, cultural, and educational backgrounds of ethnic minority students. Institutions would benefit from strengthening faculty hiring practices, including intentional efforts to recruit instructors who share cultural or linguistic backgrounds with ethnic minority students. Representation among faculty not only affirms students' identities but can also enhance student engagement through mentorship and role modeling.

The third article, authored by Xue and Gloeckner (2023), has been published in the *Journal of Student Affairs*. The article, first, provided an overview of student engagement and its relationships with academic achievement and college persistence for white students in the United States. The article also reviewed student engagement of non-white students, with a focus on Chinese students' engagement. While global engagement measures may characterize Chinese students as not engaged, the article argued for examining Chinese student engagement through a socio-cultural lens, specifically Confucian ideology, which emphasized hierarchical relationships and role responsibilities. In this context, students culturally were obliged to respect their teachers and fulfill their student roles. Even this oversimplified portrayal of Chinese culture suggested assessing Chinese student engagement using commonly employed Western-centric measures may reveal lower levels of the narrowly defined "engagement" compared to students in other cultural contexts (Shcheglova, 2018). These interpretations corroborated the conclusions drawn by Hagel et al. (2012) who asserted "without conducting research from different ideological perspectives, it is unlikely student engagement and the contribution it makes to important outcomes including learning, progression and retention can be fully understood" (p. 484).

In conclusion, this dissertation includes three articles. Each article uses a distinct research design and methodology to examine research questions related to Chinese student engagement, with an emphasis on first year ethnic minority students. The overarching goal was to understand how student engagement correlates with college satisfaction among first year ethnic minority college students in China, and what barriers contribute to differences in classroom engagement between Han and ethnic minority groups. By identifying the barriers that influenced their engagement in classrooms, the study seeks to inform the development of institutional practices to

better support their classroom engagement and college experiences. Together, the three articles centered on ethnic minority students in China—an overlooked population.

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CHAPTER 2 SATISFACTION OF FIRST YEAR COLLEGE STUDENTS IN CHINA: ANALYSIS OF CHINA COLLEGE STUDENT SURVEY

Abstract

While research has been conducted on students' college satisfaction, there is a gap in the literature concerning satisfaction of first year college students in China. This study used China College Student Survey (CCSS) data to investigate the influence of students' attributes—gender, ethnicity, one-child status, and generational status—on their college satisfaction. Additionally, it explored relationships between student engagement indicators and college satisfaction. Findings indicated first year students' satisfaction with college in China was low. Higher satisfaction levels were observed among males, Han students, non-first generation students, and students from one-child families. The findings indicated a positive correlation between students' satisfaction and engagement indicators, including relationships with teachers and advisors, learning motivation, interest in their academic major, and support provided by the institution. This study contributes to the literature by offering an analysis of first year Chinese students' college satisfaction and examining how intersecting attributes, ethnicity and generational status, influence college satisfaction. The implications for Chinese higher education institutions are discussed.

Key words: student engagement, satisfaction with college, first year Chinese college students, China College Student Survey (CCSS)

Students' satisfaction refers to the degree to which learners experience a sense of contentment, fulfillment, and positive sentiment regarding their overall educational experience (Pandita & Kiran, 2023). It is a critical factor in evaluating the overall quality of undergraduate education and often neglected (Burgess et al., 2018; Kuh et al., 2006). Its significance cannot be overstated (Zhou & Cole, 2017). Recently, it has been designated as one of the five benchmarks for assessing the quality and development of higher education in China, along with social demand adaptation, college-running conditions, fulfillment of education goals, and effectiveness of quality assurance (Chinese Ministry of Education, 2016).

Consistent findings have shown a positive correlation between students' satisfaction and academic performance (Bean & Bradley, 1986; Martirosyan et al., 2014; Nastasić et al., 2019; Pike, 1993; Tian et al., 2021) and persistence (Pascarella & Terenzini, 1991; Schreiner & Nelson, 2013; Shoulders et al., 2020; Tessema et al., 2012; Van Rooij et al., 2018). Shoulders et al. (2020) found a one standard deviation increase in students' satisfaction with college linked to a 70% higher chance of graduating in six years. Schreiner and Nelson (2013) found satisfaction explained an extra 35% to 37% of the variances observed in how likely students would be to choose the same college if they were to make their enrollment decision again.

Using a nationally representative sample of 67,182 students, Luo et al. (2019) found a little more than half of the Chinese students (56.67%) expressed satisfaction with their college experience. Similarly, Huang et al. (2016) reported college students' satisfaction in China was approximately 60 of 100, indicating students' satisfaction with college was low. Thus, it has become crucial to study college students' satisfaction in China (Gu & Lu, 2023), and researchers called to improve it to mitigate dropouts (Zhao et al., 2022).

However, most research on factors influencing students' satisfaction originates from Western countries, with limited studies conducted in China (Zhou et al., 2015). There is a need for research that examines college satisfaction among Chinese students. The first year of college is widely recognized as a pivotal period for student retention and persistence in higher education (Braxton et al., 2014; Jach & Trolan, 2022; Kuh et al., 2007; Tinto, 1993). This study added to the literature on the satisfaction of Chinese first year college students by using a national dataset.

Review of Literature

This review of literature examined factors influencing students' satisfaction with college, including gender and race/ethnicity. It also synthesized research on the relationship between student engagement and college satisfaction. In addition, the review underscored the importance of the first year of college, a developmental period in which students form foundational knowledge, relationships, and identities. Together, these bodies of research provided an overview of students' college satisfaction while suggesting limited attention has been given to the college satisfaction of first year students in China.

Individuals' Attributes and Students' Satisfaction with College

Research on individual factors influencing students' college satisfaction has examined demographic attributes such as gender and race. Webber et al. (2013) found gender was related to students' satisfaction. Specifically, women were more likely to rate their college experience as "Fair," "Good," or "Excellent" compared to "Poor." The odds were 3.78 times higher for females than males. Women were also more likely than men to rate their experience as "Good" or "Excellent" compared to "Poor" or "Fair." The odds were 2.48 times higher for females. Tessema et al. (2012) found gender linked to college satisfaction, with females reporting higher levels of satisfaction with their college compared to males.

Ko (2011) highlighted differences in satisfaction among racial and ethnic groups. Warmack (2011) found African American/Black students exhibited lower levels of satisfaction compared to other minority students, which aligned with the findings reported by Kim et al. (2014) and Zilvinskis (2019). Specifically, Zilvinskis (2019) suggested the satisfaction score for Black students was lower than the baseline by -0.02 ($SE = 0.08$).

These studies provided insights into gender and racial differences in students' college satisfaction, but limited attention has been given to aspects of students' backgrounds, family structure or generational status, and how these factors may influence students' satisfaction (Li et al., 2024). Addressing this through research is important for enhancing college satisfaction of diverse student populations.

Student Engagement and College Satisfaction

Student engagement, an extensively studied construct, has been found to be linked to students' satisfaction (Zhao & Kuh, 2004). Kuh (2003, 2009) defined student engagement as the amount of time and effort students devoted to educationally purposeful activities. Hwang and Wao (2021), Kandiko Howson and Matos (2021) and Korobova and Starobin (2015) pointed out students' satisfaction with college was influenced by how engaged they were in their college experience. Tessema et al. (2014) found five benchmarks of National Survey of Student Engagement (NSSE) accounted for approximately 27 % ($R^2 = .27$) of the variation in students' satisfaction. Johnson et al. (2017) indicated the ten indicators of NSSE had significant positive correlations with students' satisfaction. Luo et al. (2019) suggested fostering student engagement was a way to enhance satisfaction among Chinese students.

While student engagement and satisfaction with college are positively correlated, research examining how this relationship varies across class levels remains limited. Most

research aggregates data across all class levels, though satisfaction during the first year may differ from that of upperclass students due to transitional challenges associated with entering college. Researchers have emphasized the need for studies to investigate satisfaction factors specific to each class level. Schreiner and Nelson (2013) highlighted the factors influencing sophomore students' satisfaction may differ from those of first year individuals, underscoring the need for a more nuanced examination of each group.

First Year College Students

The first year of university is a pivotal period that lays the groundwork for both academic achievement and persistence, as emphasized by scholars Barr (2007), Baik et al. (2019), Reason et al. (2006) and Ehlers (2014). This stage facilitates knowledge acquisition and shapes the foundation for retention and success throughout a student's academic journey. However, navigating the complexities of this transition—marked by interconnected academic and social experiences (Al-Sheeb et al., 2018; Dong et al., 2021) and the challenges of living away from home—can be overwhelming for many students. As Ang et al. (2019) and Murphy (2010) highlighted, this period represents a peak time for dropping out, underscoring the importance of institutional supports and interventions to help first year students.

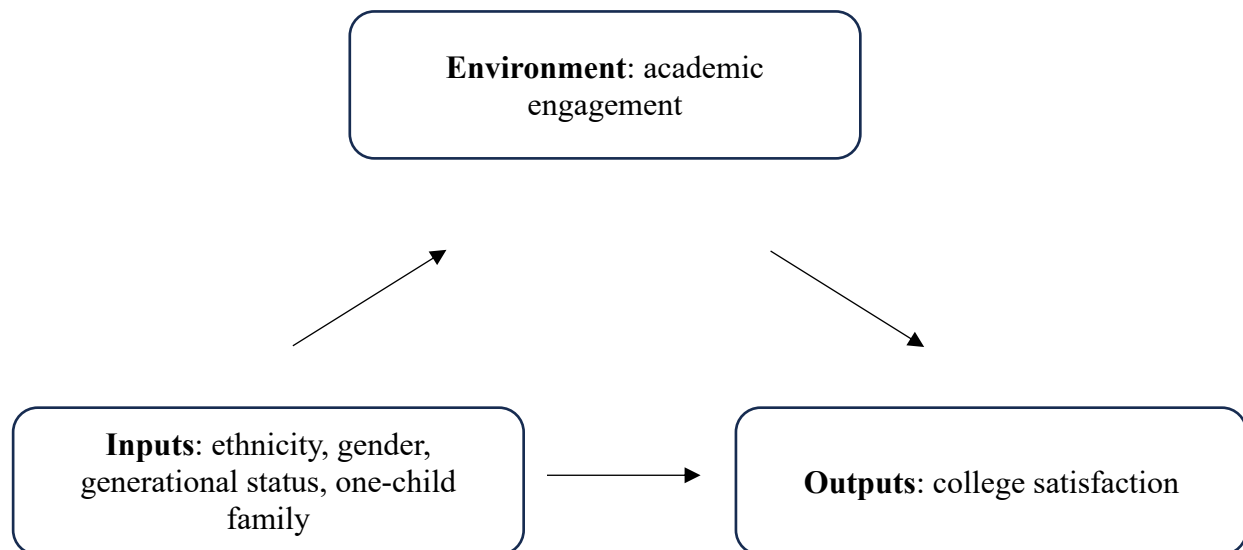
In light of the importance of the first year experience and the gaps in research on first year college satisfaction, this study focused on first year Chinese college students' satisfaction. Specifically, the study examined the role of student engagement as well as individuals' attributes, including gender, ethnicity, only-child status, and generational status. In the Chinese context, the one-child policy created a unique family structure, yet little is known about how being from a one-child versus non-one child family influenced students' satisfaction with college.

Conceptual Framework

This study was guided by the Input-Environment-Outcome (I-E-O) model developed by Astin and Antonio (2012). The I-E-O model is a framework used to understand student development in higher education. In this model, inputs refer to students' background characteristics (e.g., demographics, prior experiences), environment refers to their college experiences, and outputs are the outcomes of their development, such as learning gains, satisfaction, or persistence. In this study, input factors included student attributes of ethnicity, gender, generational status, and one-child status while the output was students' satisfaction with college, which was influenced by both inputs and the environment. The environment included student engagement in academics, which was also influenced by input characteristics. Figure 2.1 illustrates the framework. The research problem was to examine first year students' satisfaction with their college, specifically exploring whether individual attributes and student engagement were associated with their college satisfaction.

Figure 2.1

Adopted from I-E-O Theoretical Framework



Purpose and Research Questions

This study used data from CCSS (2017-2019) to examine how first year students' individual attributes and engagement were associated with college satisfaction in China. Specifically, it conducted an analysis to examine how survey respondents' gender, ethnicity, generational status, one-child family status, and engagement factors impacted their satisfaction with college. Through this analysis, the study sought to provide an understanding of college satisfaction among Chinese first year students. The following research questions were examined:

1. What are the mean, mode, and median of the students' satisfaction with college and what percentage of the survey respondents would definitely recommend their college?
2. Are there significant differences in satisfaction with college based on ethnicity, gender, generational status, and one-child status in first year college students in China?
3. Do ethnicity and generation status each have a statistically significant "effect" on students' satisfaction with college, and do the "effects" of generational status on satisfaction depend on the student's ethnicity?
4. How are academic engagement indicators associated with the satisfaction of first year college students in China?

Methods

Instrument

CCSS (2017-2019) is a survey built upon the 2007 version of National Survey of Student Engagement (NSSE) in the United States (Luo et al., 2009). Prior to the introduction of survey administration in June, 2009, the NSSE-China research project underwent translation and contextualization (Luo et al., 2009). CCSS was tailored to the needs and characteristics of

Chinese college students, ensuring its relevance and applicability within Chinese higher education (Luo et al., 2009).

Participants

The cases with responses to all four attribute variables (gender, ethnicity, one child status, generational status) and the dependent variable (satisfaction with college) were included. At the first year level, 10,495 responses were included in the analysis. Table 2.1 shows the characteristics of the survey respondents based on gender, ethnicity, one-child status and generational status.

Table 2.1
Characteristics of First Year Survey Respondents of CCSS, 2017-2019

Respondent Characteristics		<i>n.</i>	%
gender	males	5,553	53
	females	4,942	47
ethnicity	minority	1,177	11
	non-minority	9,318	89
one child status	one child	5,384	51
	not one child	5,111	49
first generation status	first generation	8,472	81
	non-first generation	2,023	19

Variables

Independent variables consisted of individual characteristics, with prior literature guiding the selection of the variables included in this study. Ethnicity was in terms of minority and Han. China has 56 nationalities, among which Han, the majority group, is the largest (Mackerras,

2005). The remaining 55 nationalities are classified as ethnic minority. Gender had two levels: males and females. If both parents did not hold a bachelor's degree, the student was classified as first generation status. One-child status was self-reported.

An examination involving 41 student engagement items was conducted, with the responses measured using a Likert scale. Dependent variable satisfaction was worded: *Would you recommend your institution to others*. In this analysis, the survey item “Would you recommend your institution?” was used as a proxy for students’ satisfaction. Responses were measured on a seven-point Likert scale, ranging from “definitely no” to “definitely yes.” Pedro et al. (2018) used a questionnaire to study 719 students in Portuguese public universities, focusing on satisfaction and recommendation. Their findings indicated student satisfaction was a key factor influencing the likelihood that students will recommend their institution to prospective students.

Data Analyses

Descriptive statistics were conducted for the first research question. For the second research question, *t* tests were conducted to analyze differences in students' satisfaction based on gender, ethnicity, one-child status, and generational status. For the third research question, two-way ANOVA was used. For the final question, a total of 41 items of student engagement were regressed one at a time to identify which ones were significant predictors for first year students’ college satisfaction. Afterward, simultaneous multiple regression was used to find the best model for explaining first year students’ college satisfaction.

Findings

Research Question 1 Mean for Students’ Satisfaction

The mean for students’ satisfaction with college was 51.22. The mode and the median were both 50.00. The frequency table of students’ satisfaction was in Table 2.2. Approximately

12.50 % of survey respondents ($n = 1,317$) indicated they would "definitely" recommend their colleges, while 19% ($n = 2,012$) responded with a definitive "no." The cumulative percentages indicated 75.3% of respondents rated their satisfaction at 50.00 or lower. This distribution suggested a skew toward moderate to low satisfaction levels among the survey respondents.

Table 2.2

Students' Satisfaction Frequencies (Scores of .00, 16.70, 33.30, 50.00, 66.70, 83.30 and 100.00, correspondence to the seven-point Likert scale 1-7)

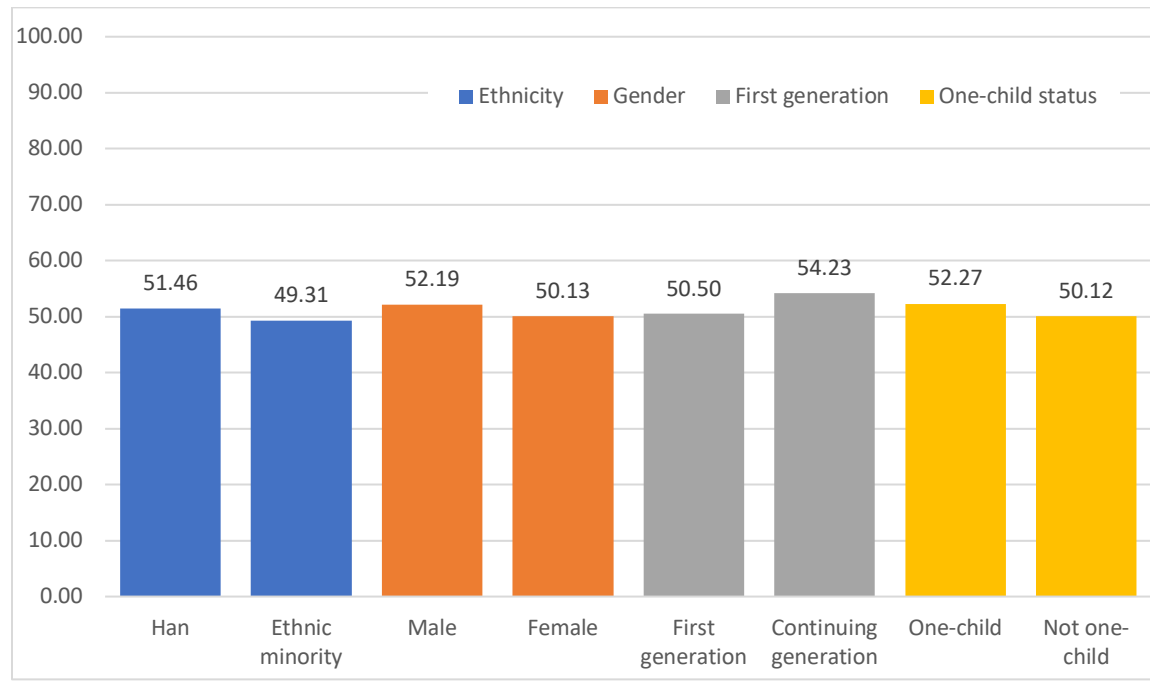
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	2,012	19.2	19.2	19.2
	16.70	467	4.4	4.4	23.6
	33.30	953	9.1	9.1	32.7
	50.00	2,286	21.8	21.8	54.5
	66.70	2,181	20.8	20.8	75.3
	83.30	1,279	12.2	12.2	87.5
	100.00	1,317	12.5	12.5	100.0
	Total	10,495	100.0	100.0	

Research Question 2 Students' Satisfaction and Ethnicity

Table 2.3 indicated college satisfaction was significantly higher for Han first year college students ($M = 51.46$) compared to ethnic minorities ($M = 49.31$), with a mean difference of 2.15 points ($d = .07$). Male students ($M = 52.19$) were more satisfied than female students ($M = 50.13$), with a mean difference of 2.06 points ($d = .06$). First generation students ($M = 50.50$) reported lower satisfaction than non-first generation students ($M = 54.23$), with a mean difference of 3.73 points ($d = .16$). Students from one-child families ($M = 52.27$) had higher college satisfaction than those from non-one child families ($M = 50.12$), with a mean difference of 2.15 points ($d = .07$). According to Cohen (1988), these effect sizes were small.

Table 2.3

Satisfaction Levels of the Students Based on Gender, Ethnicity, Generational Status, and One Child Status



Research Question 3 Students' Satisfaction and Generational Status

Since 81% of the first year students in the dataset identified as first generation and 11% belonged to ethnic minority backgrounds, a two-way ANOVA examined the interactions between generational status and ethnicity on the likelihood of recommending the university. Table 2.4 shows the means and standard deviations for college satisfaction with the generation status and ethnicity. Table 2.5 shows there was not a significant interaction between generational status and ethnicity on students' satisfaction with college ($p = .09$). There was, however, a statistically significant main effect of generational status on students' satisfaction, $F(1, 10,495) = 18.66$, $p < .001$. Eta for generational status was .05, which, according to Cohen (1988), is a small effect. The findings suggested first generation college students from ethnic minority backgrounds ($M = 47.90$) reported lower levels of college satisfaction compared to their Han counterparts ($M = 50.83$).

Table 2.4

Means, Standard Deviations, and n for Students' Satisfaction with College as a Function of Generational Status and Ethnicity

	Han			Ethnic Minority			Total	
Generational Status	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
First Generation	7511	50.83	32.38	961	47.90	34.28	50.50	32.61
Continuing Generation	1807	54.07	32.07	216	55.58	32.55	54.23	32.12
Total	9318	51.46	32.34	1177	49.31	32.13	51.22	32.55

Table 2.5

Analysis of Variance for Students' Satisfaction as a Function of Generational Status and Ethnicity

Variable and source	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Ethnicity	1	326.77	.31	.58	.00
Generational status	1	18,654.96	17.65	< .001	.002
Ethnicity x generational status	1	3,074.82	2.91	.09	.00
Error	10,491	1,056.78			

Research Question 4 Students' Satisfaction Model

To answer the fourth research question, the analyses had two stages. In the first stage, 41 items from CCSS were examined with correlation analysis to identify significant predictors of students' satisfaction. The student-teacher/advisor relationship was found as the predictor with the highest statistical significance ($F(1, 10,491) = 846.90, p < .001$). The identified equation to understand this relationship was students' satisfaction = $.36 \times (\text{student-teacher /advisor}$

relationship) +26.63. The adjusted R^2 value was .08, which indicated 8% of the variance in students' satisfaction was explained by student and teacher/advisor relationship. According to Cohen's (1988), this was a medium or typical effect.

In the second stage, the CCSS items with an effect size (adjusted R^2) below .05 were eliminated, resulting in 4 remaining items, learning motivation, student and teacher/advisor relationship, institutional support, and interest in the academic major for further analysis.

Simultaneous multiple regression was conducted to find the best model for explaining students' satisfaction. The means, standard deviations, and intercorrelations were shown in Table 2.6. The combination of variables to predict satisfaction from learning motivation, student and teacher/advisor relationship, institutional support, and interest in the academic major was statistically significant, $F(4, 10,479) = 381.59, p < .001$. The beta coefficients were presented in Table 2.7. All four variables significantly predicted students' satisfaction when all were included. The adjusted R^2 value was .13, indicating 13% of the variance in college satisfaction was explained by the model. This was a medium effect size according to Cohen (1988).

Table 2.6

Means, Standard Deviations, and Intercorrelations for Students' Satisfaction and Predictor Variables (N = 10,484)

Variable	<i>M</i>	<i>SD</i>	Learning motivation	Student- teacher/advisor relationship	Institutional support	Interest in academic major
Satisfaction	51.20	32.55	.24	.27	.21	.23
Predictor variables						
Learning Motivation	62.26	23.18		.36	.23	.33
Student- teacher/advisor relationship	68.75	24.88			.28	.23
Institutional support	70.24	20.70				.25
Interest in academic major	63.28	23.75				

$P \leq .001$

Table 2.7

Simultaneous Multiple Regression Analysis Summary for Learning Motivation, Student and Teacher/Advisor Relationship, Institutional Support, and Interest in the Major Predicting Satisfaction (N=10,484)

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Learning motivation	.16	.01	.11	11.05	<.001
Student-teacher/advisor relationship	.23	.006	.18	17.28	<.001
Institutional support	.17	.01	.11	10.95	<.001
Interest in academic major	.18	.01	.13	13.01	<.001
Constant	2.78	1.32			
$R^2 = .13$	$F(4, 10,479) = 381.59$			$p < .001$	

Discussion

The finding suggested college satisfaction level of first year students in China was low, indicating a need for improvement. This aligns with the findings of Huang et al. (2016), Luo et al. (2019), and Zhang et al. (2011), who similarly emphasized the importance of addressing students' satisfaction in China. Since 2019, higher education in China has entered the stage of universalization, and the gross enrollment rate in higher education had risen to 57.8% by 2021, with a total of 44.3 million students enrolled, making it the largest globally (Gu & Lu, 2023). This swift growth has sparked concerns about the quality of and satisfaction with Chinese higher education (Wang, 2023).

The findings indicated all four variables, ethnicity, generational status, gender, and one-child status significantly influenced whether or not a student was satisfied with their college. Specifically, ethnic minority first year college students in China ($M = 53.00$) had lower level of satisfaction compared with Han counterparts ($M = 55.24$). These findings were consistent with studies conducted by Chen et al. (2021). To pursue higher education, ethnic minority college students migrate to areas dominated by Han nationality. The process of cultural adaptation might result in acculturative stress, leading to difficulties in adjustment and diminished levels of satisfaction (Chen et al., 2021).

Additionally, as the first to navigate the complexities of higher education, first generation college students indicated lower levels of satisfaction compared with non-first generation college students. This finding was consistent with the findings of research conducted by Dennis et al. (2005), Jenkins et al. (2013), and Qu et al. (2022). It may be attributed to several factors, including limited social interactions and fewer extracurricular activities, as well as support and access to resources from the institution (Zhang et al., 2022).

A difference in satisfaction levels was observed between male and female first year college students, with male students demonstrating higher satisfaction compared to their female counterparts—a finding that contrasts with studies examined in the literature review. Zeng et al. (2014) conducting a meta-analysis of 167 studies, concluded gender inequality persists in China. Luo et al. (2021) revealed persistent inequality based on social and economic segments influenced Chinese female college students, which may result in a low level of college satisfaction. Likewise, Guo et al. (2024) found female students reported lower learning gains and college satisfaction and emphasized a need to support female students' college education.

First year college students from one child families reported higher levels of satisfaction compared to those from families with more than one child. Chu et al. (2015) reached a similar conclusion, suggesting one-child families often have greater financial resources to invest in their child's education, resulting in lower stress and higher satisfaction. In contrast, students from non-one-child families were more likely to come from smaller cities, experience higher stress, and report lower satisfaction with their college.

Zhu (2023) proposed an intersectionality framework to explore the complexities within the diverse population of Chinese college students. This study examined how ethnicity and generational status interacted to influence students' college satisfaction. The findings revealed first generation college students from ethnic minority backgrounds reported lower satisfaction, with a 2.93 point difference compared to first generation Han students. This difference suggested ethnic minority first generation students may face additional challenges that impacted their satisfaction with college. According to Matthews et al. (2023), navigating higher education was difficult for students with multiple identities, and the difficulty was intensified by the added complexities of being first generation.

The findings of this study also suggested student engagement had an impact on students' college satisfaction. In the analyses, four engagement indicators emerged as significant predictors of students' satisfaction. Among the four, the relationship between students and teachers/advisors played a crucial role in determining students' college satisfaction. The finding was in line with what previous studies found (Astin, 1984; Browne et al., 1998; Griffith, 2011; Peck, 2017). Learning motivation served as another contributor to students' college satisfaction in this study. When students were motivated to learn and excel in their studies, they tended to be more satisfied with their educational experience (Yin & Wang, 2016). Nowell (2017) demonstrated individuals who exhibited motivated tendencies reported higher levels of satisfaction.

The findings of this study indicated the degree of interest students had with their academic program influenced their college satisfaction. Hunter and Meshkati (2022) reported students exhibited high levels of satisfaction when they perceived a strong alignment between their interests with academic programs. Finally, support offered by the institution directly influenced first year college students' satisfaction. Morosanu et al. (2010) pointed out support was crucial to assist with learning and help first year students integrate into higher education.

Limitations

This study had limitations. First, this study used an existing dataset, which had missing data. As a result, the findings were limited in their generalizability to the broader population. Besides, this study assessed first year students' college satisfaction based on responses to a single item. Despite research indicating satisfaction was a major predictor of whether students would recommend their college to others (Clemes et al., 2013), it remains a multifaceted construct (Gruber et al., 2010; Nastasić et al, 2019; Richardson, 2005; Xiao & Wilkins, 2015). Students'

satisfaction evolves over time, making it essential for research to be an ongoing process (Wong & Chapman, 2023).

Conclusion

The findings of this study have important implications for institutions of higher education in China. First, students' college satisfaction is low, highlighting the importance of enhancing it. Beyond the four engagement indicators identified in this study, other areas associated with students' college satisfaction need explorations. For instance, Gu and Lu (2023) identified seven dimensions to improve students' college satisfaction: institutional reputation, campus environment, personal development opportunities, organizational management, logistical support services, teaching quality, and tuition coupled with financial aid. Considering anticipated decline in the 18–22 age population and the resulting shortage of traditional higher education students by 2039 in China (Yue et al., 2025), universities need to enhance student satisfaction to retain students.

The findings inform institutions of higher education in China to consider ways to improve satisfaction among specific student groups, particularly female students, students from ethnic minority backgrounds, first generation students, and those from non-one-child families. This study highlighted the intersectionality of ethnicity and generational status, suggesting students who hold multiple identities may face additional challenges that influenced their college satisfaction. For example, Jaijairam (2016) and Murphy (2010) identified first year seminars and learning communities as strategies for promoting student engagement and increasing satisfaction among students with shared identities. These structured environments foster peer support, enabling students to build community, support one another, and develop a sense of belonging.

Finally, institutions can enhance students' college satisfaction by strengthening the four identified areas of engagement: teacher/advisor and student relationship, learning motivation, interest in their academic programs, and institutional support. In particular, the teacher/advisor relationship emerged as the most influential factor. However, the student–teacher ratio in China remains a challenge, particularly in underdeveloped regions where institutions struggle to attract and retain qualified faculty.

Future research should continue to examine how gender, ethnicity, and first generation status intersect to influence students. Such work is important in the Chinese context, where social and educational inequalities persist across demographic groups. For example, Wang et al. (2013) found ethnic minority and rural female students remain consistently underrepresented and encounter structural barriers that limit their opportunities. Understanding intersecting identities can help institutions design more equitable support systems to address the satisfaction of these student populations.

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CHAPTER 3 DIFFERENCES IN CLASSROOM ENGAGEMENT BETWEEN ETHNIC MINORITY AND HAN FIRST YEAR COLLEGE STUDENTS IN CHINA: A MIXED METHODS STUDY

Abstract

This study explores the classroom engagement of ethnic minority first year college students in China using a mixed methods explanatory sequential approach. The study first analyzed quantitative data from China College Student Survey (CCSS, 2017–2019) to identify differences in classroom engagement between first year Han and ethnic minority students. The differences were further examined through two focus groups, offering insights from the perspectives of ethnic minority students themselves. Findings suggest language barriers, cultural differences in education, and underprepared educational backgrounds contributed to those differences. By using a mixed methods approach, this study addresses the classroom engagement of ethnic minority college students in China, a population often overlooked. Implications for Chinese higher education institutions, emphasizing the need for academic preparation programs, teacher training, and enhanced support systems are discussed.

Considering limited research on Chinese student engagement (Yin & Wang, 2016; Yin, 2018) and overlook of ethnic minorities in China (Liang, 2023; Lin & Jackson, 2022; Yu & Zhao, 2024), examining student engagement of ethnic minority first year students is important. Student engagement is defined as the extent to which students invest their time and effort in educational activities linked to desired college outcomes (Kuh, 2003, 2009). It has been a prominent topic in higher education, with a growing body of evidence highlighting its pivotal role in enhancing students' learning (Kahu, 2013). Consistent findings have demonstrated its positive correlations with academic achievement (Chang et al., 2016; Fuller et al., 2011; Milmine, 2021; Peck, 2017; Webber et al., 2013), students' satisfaction (Huang & Wao, 2021; Johnson, 2017; Peck, 2017; Strayhorn et al., 2014; Tessema et al., 2014), and college persistence (Hughes & Pace, 2003; Njenga, 2023; Shinde, 2010). Extensive evidence and research have established the value of student engagement as Trowler and Trowler (2010) stated its significance is no longer a matter of debate or skepticism.

While student engagement has been positively linked to student success in higher education, it is important to recognize that earlier studies primarily focused on white students in the United States (Martinez, 2018; Means & Neisler, 2023). A gap exists in the literature regarding the engagement of students from diverse backgrounds (Brown, 2024). Kuh (2009) stated that unless student affairs programs possessed sufficient data systems to assess student engagement from diverse backgrounds, the potential to drive institutional change to enhance student success would be constrained. Within research of Chinese higher education, engagement of ethnic minority students remains largely underexplored.

“Ethnic minority college students in China are Chinese students who migrate from ethnic minority-dominant areas to Han-dominant areas to attend college” (Chen et al., 2021, p. 1). With

consistency, the completion of undergraduate study for ethnic minority students in China has been a challenge with low academic achievement and dissatisfaction with college reported (Chen et al., 2021; Huang et al., 2025; Huang & Li, 2017; Wang, 2022; Wang, 2021; Wang, 2007; Wu et al., 2023; Wu et al., 2016; Yang, 2017). Researchers have called for support of educational improvement for ethnic minority students in China to mitigate academic suspensions or dropouts (Wang, 2022; Wu et al., 2016; Wu et al., 2023, Zhao et al., 2022).

The first year of college is widely recognized as a pivotal period for student retention and persistence in higher education (Braxton et al., 2014; Jach & Trolan, 2022; Kuh et al., 2007; Murphy, 2010; Tinto, 1993). Therefore, this study centers on first year college students, using data from China College Student Survey (2017–2019) to examine differences in classroom engagement between ethnic minority and Han students. Additionally, qualitative data from focus groups were collected and analyzed to explore barriers contributing to these differences. This study contributes to the literature on student engagement among Chinese first year college students with a focus on those from ethnic minority backgrounds using an explanatory sequential mixed methods design.

Review of Literature

This review of the literature explored differences in student engagement between white and racial minority students in higher education in the United States. Specifically, the review aimed to determine whether a difference in engagement existed among these groups. Research on the engagement of minority students in the United States presents mixed findings. For instance, a body of empirical research has consistently demonstrated students who identify as minorities exhibit higher levels of engagement compared to their white counterparts (Bowden, 2014; Fursman, 2012; Gaines, 2022; Greene et al., 2008; Harris & BrckaLorenz, 2017; Kinzie et

al., 2008; Schlinsog, 2010; Wang, 2024). However, their greater engagement does not lead to higher grades (Greene et al., 2008; Schlinsog, 2010; Sontam & Gabriel, 2012). In other words, positive correlation between student engagement and grades has not been observed among minority student populations in the United States.

The opposite has been observed, with minority students demonstrating lower levels of engagement compared to their white counterparts. Specifically, a number of studies indicate minority students exhibited fewer academic interactions with teachers (Thomas & Quinlan, 2023). Hu and McCormick (2012), Kao (2019), and Witkow et al. (2012) observed Asian American students exhibited lower levels of engagement compared to their Hispanic and African American peers. Dong (2019) found Hispanic students experienced a weaker sense of community on campus, which contributed to their lower levels of engagement. Research has further revealed minority students did not have equal access to engagement opportunities compared to their white peers, facing differences in access to certain engagement experiences (Museus, 2020; Seifert et al., 2014).

However, other research has shown student engagement was comparable between white and minority students (Culver et al., 2024; Kuh, 2003; Shi et al., 2023; Taylor, 2013). Specifically, no significant differences were observed between black and white students in terms of student-faculty interactions (Harrison, 2014; Kitchen, 2014). These varied findings highlight the complexity of student engagement in higher education, emphasizing ethnicity may play a pivotal role in understanding student engagement.

Theoretical Framework

This study utilized Kuh's (2003) theory of student engagement. Specifically, engaged students find resources, seek help when needed, collaborate with peers, and build interactions

with faculty, each of which contribute to their learning outcomes. Conversely, students who are less engaged may miss classes, neglect assignments, and not participate in academic activities. Low engagement may result in lower grades. Greater student engagement is linked to improved learning outcomes while lower engagement tends to result in poorer grades. This study examines the classroom engagement of ethnic minority first year college students in China, focusing on activities such as answering questions, presenting in class, collaborating with Han peers, helping or asking for help with course contents. This study also investigates potential differences in classroom engagement between ethnic minority students and their Han counterparts during their first year of college and identified barriers that contributed to these differences.

Purpose and Research Questions

This study explores the differences in classroom engagement between ethnic minority and Han first year college students in China and identified barriers contributing to differences by using an explanatory sequential mixed methods approach. For the quantitative part, secondary data from China College Student Survey (CCSS, 2017–2019) were analyzed to determine whether differences in classroom engagement existed between the two groups. For the qualitative part, two virtual focus groups were conducted to explore the barriers that may underlie differences from students' perspectives. This research addressed the following questions:

Quantitative Research Questions

1. Are there statistically significant differences between ethnic minority and Han first year college students in regard to asking questions or having discussions in class (AQHD)?
2. Are there statistically significant differences between ethnic minority and Han first year college students on making presentations in class (MPIC)?

3. Are there statistically significant differences between ethnic minority and Han first year college students in their collaboration with peers on assignments (CWPA)?
4. Are there statistically significant differences between ethnic minority and Han first year college students in asking peers for course contents (APCC)?
5. Are there statistically significant differences between ethnic minority and Han first year college students in helping peers with course contents (HPCC)?

Qualitative Research Questions

From the perspective of first year ethnic minority college students in China:

1. How do they view their engagement in the classroom?
2. How do students view the relationship between classroom engagement and academic achievement?
3. What barriers are impacting their engagement?

Methods

The National Survey of Student Engagement (NSSE) may not fully capture the complexity and multifaceted nature of student engagement (Kuh, 2009). Prior research has predominantly relied on quantitative methods (Ghasemi et al., 2018; Zepke & Leach, 2010), highlighting the need for additional research approaches. This study used an explanatory sequential mixed-methods approach (Creswell & Plano Clark, 2018). Figure 1 illustrates the mixed methods approach used.

Figure 3.1

Explanation of the Mixed Methods Approach Used in This Study



Quantitative Data Analysis

Instrument

The NSSE-China project is a research collaboration between Indiana University (U.S) and Tsinghua University (China). Prior to the introduction of full survey administration in 2009, which involved 27 institutions across China, the NSSE-China survey research project underwent translation and contextualization processes in 2007 (Luo et al., 2009). Building upon the 2007 version of NSSE in the United States, China College Student Survey (CCSS) was indigenized and developed. CCSS is tailored to the needs and characteristics of Chinese college students, ensuring relevance and applicability in the Chinese higher education (Luo et al., 2009).

Participation in the study was voluntary. Tsinghua University provided the dataset and the researchers had no access to any re-identifiable information about the participants. This study was exempt from Institutional Review Board oversight. This exemption was confirmed by staff at Colorado State University Human Research Protection Program.

Variables

The independent variable was categorized into two groups: ethnic minority and Han. Five dependent variables, asking questions or having discussions in class (AQHD), making presentations in class (MPIC), collaborating with peers on assignments (CWPA), asking peers

for course contents (APCC), and helping peers with course contents (HPCC) were measured using a 4-point Likert scale, with responses ranging from 'never (1)' to 'very often (4).' The responses were converted into scores of .00, 33.30, 66.70, and 100.00.

Analysis

To see the patterns of missing data for the variables used and to better determine whether it was reasonable to consider data missing at random, missing values analysis was conducted. There were 22 different patterns of missing data. One variable had missing data for more than 30% of the sample, and one pattern, in which all six variables were all missing, was shown by about 20% of the sample. The analysis suggested multiple imputation would be undesirable. After excluding cases with the missing ethnicity value, the sample size was reduced to 28,572. *T* tests were conducted to compare the five areas of classroom engagement between Han and ethnic minority first year college students.

Qualitative Data Collection and Analysis

Participants and Settings

All six participants completed informed consent prior to joining the focus group. The sample consisted of six Mongolian ethnic minority students, all of whom had received instruction in their native language prior to entering college. At the time of the study, they were first-year students of similar age attending the same university. Table 3.1 describes the demographic characteristics of the participants. Two focus groups were conducted via VooV (the Chinese version of Zoom), with four participants in the first group and two in the second.

Table 3.1
Participants' Demographics (Pseudonyms were used)

Participants	Gender	Ethnicity	First language	Academic Major
Li	male	Mongolian	Mongolian	business management
Dou	male	Mongolian	Mongolian	civil engineering
Wang	male	Mongolian	Mongolian	accounting
Zhang	female	Mongolian	Mongolian	international business
Bai	male	Mongolian	Mongolian	finance
Guo	female	Mongolian	Mongolian	accounting

Collection

Following the quantitative analysis, permission to conduct the focus groups was obtained from Colorado State University's Institutional Review Board and a higher education institution in China agreed for participant recruitment. A pilot focus group with two students was conducted to ensure the interview questions were clear and the timing was appropriate. Recruitment flyers were distributed by faculty members in the classroom, and participation was voluntary. Each participant meeting the eligibility criteria provided informed consent prior to the virtual focus groups and was contacted via WeChat to schedule the focus group session. Two virtual focus groups were conducted with six ethnic minority first year college students to explore potential explanations for the observed differences in classroom engagement. Each session lasted one hour on VooV, with participants using pseudonyms in the focus groups.

The two 60-minute semi-structured focus groups were conducted in Mandarin Chinese and video recorded. A set of 12 questions focused on the participants' experiences in classroom engagement, including responding to questions, participating in discussions, and collaborating

with peers. Additionally, follow-up probing questions were posed to ensure clarity and understanding. The recordings were transcribed verbatim before being translated to English.

The questions were centered on understanding the participants' engagement experiences and identified barriers to their classroom engagement. The questions guided the research process, shaping the inquiry and interpretation of data gathered. Data-driven inductive thematic analysis was used to examine the translated interview transcripts. "Thematic analysis is a method for identifying, analyzing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). The analysis adhered to guidelines provided by Braun and Clarke (2006): 1) familiarizing yourself with your data; 2) generating initial codes; 3) searching for themes; 4) reviewing themes; 5) defining and naming themes; 6) producing the report.

Analysis

The video recordings were reviewed, and the transcripts were read twice to ensure familiarity with the data. During the initial coding phase, 73 codes were generated using the 'Comments' function in Microsoft Word. The codes were then organized in an Excel spreadsheet. Column 1 contained direct quotes from the participants, while Column 2 identified the participant who provided each data item. Column 3 included the corresponding coded data item, and Column 4 listed the initial codes. Columns 5 and 6 documented iterative revisions of the coding process, representing the second and third iterations. Finally, Column 7 had colored codes to prepare for theme development. A thematic map was then developed to visualize the themes.

Findings

Quantitative Results

To compare the differences in five classroom engagement areas between Han and ethnic minority first year college students, *t* tests were conducted. For asking questions or having

discussions in class (AQHD), Table 3.2 shows Han students were significantly different from ethnic minority students, $t(3,880) = 3.17, p = .002$. Inspection of the two group means indicated the average AQHD score for Han students ($M = 42.77$) was significantly higher than the score ($M = 41.32$) for ethnic minority students. The difference between the means was 1.45. The effect size d was .06, which was small.

Table 3.2

Students Belonging to Ethnic Minority and Han Students on AQHD ($n = 25,413$ Han students and 3,031 ethnic minority students)

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
AQHD			3.17	3,880	.002	.06
Han students	42.77	24.95				
Ethnic minority students	41.32	23.65				

In terms of making presentations in class (MPIC), Table 3.3 shows Han students were significantly different from ethnic minority students, $t(3,847) = 6.55, p < .001$. Two groups means indicated the average MPIC score for Han students ($M = 40.27$) was significantly higher than the score ($M = 36.71$) for ethnic minority students. The difference between the means was 3.56. The effect size was approximately .12, which was small.

Table 3.3

Students Belonging to Ethnic Minority and Han Students on MPIC ($n = 25,413$ Han students and 3,031 ethnic minority students)

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
MPIC			6.55	3,847	.001	.12
Han students	40.27	29.15				
Ethnic minority students	36.71	28.09				

For collaboration with peers on assignments (CWPA), Table 3.4 shows Han students were significantly different from ethnic minority students, $t(28,393) = 3.20, p = .001$. The average score for Han students ($M = 64.29$) was higher than the score ($M = 62.74$) for ethnic minority students. The difference between the means is 1.55. The effect size was approximately .06, which was small.

Table 3.4

Students Belonging to Ethnic Minority and Han Students on CWPA ($n = 25,370$ Han students and 3,025 ethnic minority students)

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
CWPA			3.20	28,393	.001	.06
Han students	64.29	29.15				
Ethnic minority students	62.74	28.09				

Regarding asking peers for course contents (APCC), Table 3.5 shows Han students were significantly different from ethnic minority students, $t(28,403) = 4.18, p < .001$. Two groups means indicated the average score for Han students ($M = 63.49$) was significantly higher than the score ($M = 61.44$) for ethnic minority students. The difference between the means was 2.05. The effect size was .08, which was small.

Table 3.5

Students Belonging to Ethnic Minority and Han Students on APCC ($n = 25,379$ Han students and 3,026 ethnic minority students)

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
APCC			4.18	28,403	.001	.08
Han students	63.49	29.15				
Ethnic minority students	61.44	28.09				

Table 3.6 shows Han students were significantly different from ethnic minority students on in helping peers with course contents (HPCC), $t(3,820) = 11.48$, $p < .001$. Inspection of the two groups means indicated the average score for Han students ($M = 53.94$) was higher than the score ($M = 48.34$) for ethnic minority students. The difference between the means was 5.6. The effect size is .22, which was medium.

Table 3.6

Students Belonging to Ethnic Minority and Han Students on HPCC ($n = 25,376$ Han students and 3,024 ethnic minority students)

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
HPCC			11.48	3,820	.001	.22
Han students	53.94	25.93				
Ethnic minority students	48.34	25.30				

Ethnic minority students consistently had lower levels of classroom engagement, with statistically significant differences observed in each measure. However, the differences in mean scores were small, with effect sizes ranging from .06 to .22, indicating they were not substantial.

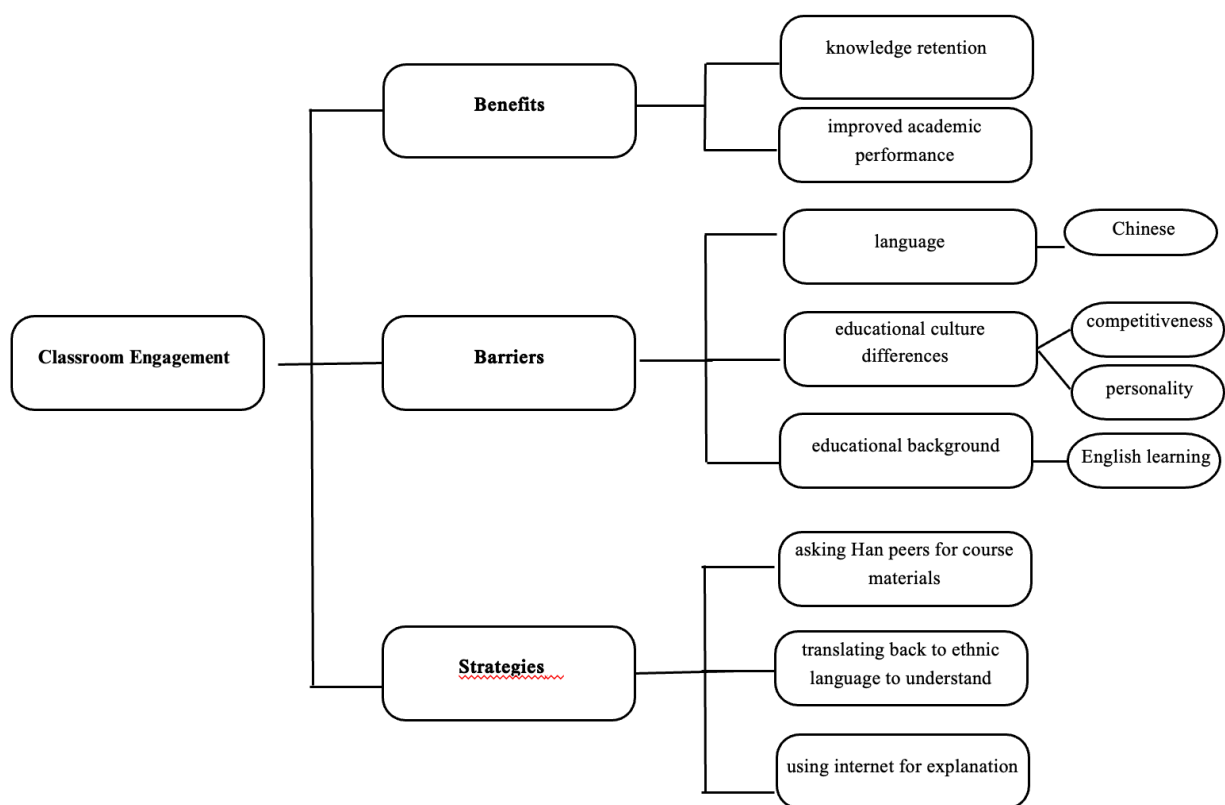
The largest effect size, .22, was observed in in helping peers with course contents indicator, suggesting a moderate difference, while the remaining indicators exhibited small effect sizes. To better understand these quantitative findings, focus groups were conducted.

Qualitative Results

The participants' responses provided insights into how language, culture, and educational backgrounds may contribute to differences in classroom engagement compared to their Han peers. From the data, three themes were constructed regarding the classroom engagement of ethnic minority first year college students in China: classroom engagement benefits, classroom engagement barriers, and strategies to engage in class. Figure 3.2 represents the themes identified in the analysis.

Figure 3.2

Thematic Map Developed for the Focus Groups



Benefits of Classroom Engagement

The first theme reflected the participants' shared belief in the value of classroom engagement, particularly its role in strengthening knowledge retention and enhancing exam performance. Participants emphasized classroom engagement—as participating in discussions, asking questions, and engaging with course materials—helped them understand and remember content. They also indicated increased engagement contributed to improved exam performance. Participants explained participating in class—through discussions and asking questions—helped them develop a deeper understanding of the material, which made it easier to recall and apply concepts during exams. For example, Doudou (pseudonym) responded

Answering questions, class discussions, group work, and answering questions can deepen my impression of the knowledge and improve my grades. Discussions with classmates will deepen my mastery of knowledge, and I can get higher scores in the final exam.

Bai (pseudonym) further explained

I think participating in discussions and answering questions in class has a few benefits. First, we need to focus our attention on the class. After all, we need to listen carefully in order to answer the questions. It helps us stay concentrated and prevents distractions. Also, it helps us better understand the content of the course.

Guo (pseudonym) added

I think answering questions in class can improve your memory of at least the content taught in that class, making it less likely to be forgotten and easier to review. Then, just like last semester, the teacher in the Military Theory class asked our group to answer questions, and I made some mistakes when I answered the questions and the teacher corrected me. At the final exam, this question happened to come up, and I could immediately think of the key points.

Barriers to Classroom Engagement

Language Barrier. Six participants expressed Mandarin Chinese used in classes was a primary factor contributing to their low engagement in the classroom. They encountered challenges in understanding lectures, participating in discussions, and understanding course materials, which made it difficult for them to stay engaged. Four participants mentioned their struggles were most pronounced during the first two months, as they tried to adapt to Mandarin as the language of instruction. Dou (pseudonym) shared “I am a Mongolian student. I speak Mongolian in elementary school, junior high school, and high school. All exams, including the college entrance examination, were in Mongolian.” Bai (pseudonym) responded “It’s mostly because, in high school, our textbooks were entirely in Mongolian. Now, everything is in Mandarin, so it required an adjustment to switch between the two languages.”

Additionally, when instructors spoke Mandarin with an accent, it added another layer of difficulty for students, who were already struggling with Mandarin Chinese adaptation. The variations in pronunciation and tone made it more challenging for students to understand lectures, follow instructions, and engage in classroom discussions. Li (pseudonym) shared

Some teachers have accents, which is very confusing. They don't speak standard Mandarin and have dialects. In Python class, when we were learning, there was a teacher at the beginning who spoke Mandarin, and I could still understand a bit. Then we got a teacher, who spoke with a dialect and I couldn't understand a word, and the class was very big.

Despite these initial challenges, some students gradually developed coping strategies to navigate the language barrier. They sought clarification and explanations from their Han peers, utilized online resources to practice contents, and relied on translation tools as dictionaries to convert course materials into their ethnic minority language for comprehension. For example,

I was instructed in Mongolia, so I didn't use Mandarin Chinese much when I was in high school. Then after I got to college, I have almost forgotten some terms, and I just don't understand them. First of all, write down what the teacher said in those classes and then go back and translate it. I tried this method once when I first came here as a freshman, and then I understood the course contents after asking some Han classmates. (Zhang, pseudonym)

Educational Culture Difference. In addition to the language barrier, cultural differences in education also played a role in making it difficult for ethnic minority students to engage in college classes. Three participants found teaching styles, learning environment, and academic values differed from their previous educational experiences, making it challenging to adapt.

Wang (pseudonym) shared,

We are Mongolians, so the teaching methods taught by Mongolian teachers are definitely different from those taught by Han teachers, and the different learning environments will affect different aspects of our study. Sometimes you may not be able to keep up. The level of competitiveness is not that similar, maybe we are not teaching in an intense manner. What I am saying is that teachers and we are the same (both Mongolians) we are relaxed. Han students are competitive in my impression. And their management of time is also very good. We won't be so rush about learning.

Dou (pseudonym) continued:

Han people rely on examinations to become officials thousands of years ago, but the Mongolian people did not pay much attention to grades. If you are not very educated but are capable, then you can become an official if you are qualified. So, when we were young, including when we were studying, our teachers, including parents, valued learning

but not grades. As long as you study, I don't pay too much attention to my grades, so the environment is relaxing and comfortable. I thought this was possible before, but then I went to college and asked the Han students around me. I found that their studies were particularly competitive and there would be pressure from all aspects.

Wang (pseudonym) also explained how individual characteristics influenced learning attitudes, stating, “I feel like it has something to do with me personally. Since I tend to be more relaxed in general, it affects how seriously I take my classes”.

Educational Background. From the perspectives of the participants, their educational backgrounds further compounded their struggles, as it had not prepared them for the academic demands of college classes. Each participant came from under-resourced schools with limited access to high-quality instruction, which left them at a disadvantage when transitioning to higher education. For example, all six participants shared their high school curriculum placed less emphasis on English learning, making it difficult for them to catch up in college. Specifically, Dou shared “In high school, when we were learning English, our teachers did not have to speak English. The time for English could be given to other subjects. We were taught less and we learned less.” Zhang provided an example from a Python class, where a student struggled to understand the material due to a lack of prior exposure to computer science in high school. In contrast, Han students, particularly those from southern China, had begun learning and practicing Python in middle or high school. As a result, they found the college-level Python course much easier as they had strong foundational knowledge.

In conclusion, the participants recognized the benefits of classroom engagement in enhancing knowledge retention and improving academic performance. Their experiences confirmed the positive relationship between student engagement and academic performance. However, due to language barriers, educational culture differences, and underprepared educational backgrounds, these ethnic minority students struggled to engage at the same level as

their Han peers. To overcome these challenges—especially during their first two months of college—they relied on strategies such as using dictionaries for translation, seeking explanations from Han peers, and using online resources for additional study.

Discussion

By examining classroom engagement between ethnic minority and Han first year college students through a mixed methods approach—analyzing quantitative data to identify the differences in classroom engagement, followed by qualitative focus groups to understand those differences from the perspectives of ethnic minority students—this study provided insights into the college experiences of ethnic minority students. Specifically, the quantitative findings suggested ethnic minority first year students exhibited lower classroom engagement in five areas: asking questions or participating in class discussions, giving presentations, collaborating with peers on assignments, seeking help from peers regarding course content, and offering help to peers.

While statistical analysis revealed significant differences, small effect sizes suggested these differences, though real, may not translate into participants' classroom engagement experiences. The small effect sizes highlighted the need for further investigation—particularly through qualitative approaches—to better understand factors driving these statistical differences. Hence, the qualitative data illuminated the barriers contributing to these differences, highlighting challenges related to Mandarin Chinese proficiency, educational culture differences, and underprepared educational backgrounds.

In 2002, the PRC State Council directed minority elementary schools to strengthen Mandarin instruction and to begin offering Chinese classes starting in the first grade. According to Wang and Gesang (2020), one monolingual Chinese education model and three distinct

bilingual models have been established in ethnic minority regions in China. The “first bilingual model” primarily uses the minority language as the medium of instruction, with Mandarin Chinese taught as a separate required subject. In contrast, the “second bilingual model” delivers all subjects in Mandarin Chinese, except for a minority language course. The “third bilingual model” combines elements of the first two models, employing both Mandarin Chinese and the minority language as mediums of instruction depending on teaching resources.

All participants in the two focus groups were from Inner Mongolia and were educated under the first bilingual model before college, with all school subjects taught in the Mongolian language. Mandarin Chinese was a required subject and English was the third language they learned prior to higher education. Research has shown with consistency ethnic minority students face a deficiency in their proficiency of Mandarin Chinese (Adamson & Feng, 2009). As they face language challenges to understand the material taught in class (Qing & Song, 2010; Yi & Wang, 2012; Zhang et al., 2018), they experience marginalization in the classroom (Cui & De Costa, 2024; Han et al., 2016; 2019; Liang, 2023; Sun et al., 2024; Yang & Xu, 2022; Zhao, 2014), which may lead to their less engagement.

Moreover, when competing with Han Chinese peers, ethnic minority students perceive themselves as being at a disadvantage and feel less competitive (Wang & Gesang, 2020) in that Chinese education system has long been associated with achieving high scores on standardized exam (Ross & Chen, 2015). This educational culture, rooted in Confucianism, emphasizes studying to achieve high scores as a pathway to social advancement, a tradition that originated with the imperial examination system (Wu, 1994), and continues to influence modern Chinese society (Zhao, 2023). In contrast, Mongolians have made the prairie their home, cultivating a

culture that is deeply rooted in the grassland way of life (Bayar, 2014; Han, 2011; Yu et al., 2019).

In addition to language and educational culture differences, educational backgrounds played a crucial role in influencing the learning experiences and development of college students from ethnic minority backgrounds (Huang et al., 2025). Specifically, Wu et al. (2023) argued that while preferential policies expanded educational access for ethnic minorities, they did not enhance the quality of their earlier education due to shortages of qualified teachers and insufficient resources. Consequently, when ethnic minority students enter higher education, they often lack foundational knowledge, making it difficult for them to engage and succeed in the classroom.

Limitations

This study had limitations. First, the existing dataset had missing data, and the analysis and conclusions were constrained to the survey respondents who completed the questionnaire. Second, the students who participated in the focus groups were not the same individuals who initially completed the survey, limiting the findings to the original dataset. Lastly, conducting the focus groups in Chinese rather than the participants' native languages, along with translation between Chinese and English, may have resulted in some loss of nuance in participants' original expressions.

Implications for Institutions of Higher Education in China

This study highlighted ethnic minority first year college students in China exhibited a lower level of classroom engagement, facing challenges including Mandarin Chinese barriers, educational culture differences, and underprepared academic backgrounds. These factors contributed to a difficult transition to college life for ethnic minority students compared to their

Han counterparts. Given these findings, it is crucial for higher education institutions in China to implement programs to support these students.

First, universities should establish preparatory programs to better prepare ethnic minority students for college life. According to Wu et al. (2023), over 80% of higher education institutions have implemented preparatory classes for ethnic minority students. A one-year preparatory program would allow students from ethnic minority backgrounds to familiarize themselves with the college environment and adjust to Mandarin Chinese instruction before integrating into their degree programs. Liu (2023) concluded enrolling in preparatory classes positively contributed to fostering integration between Han and ethnic minority students while promoting educational equity.

Second, institutions should hire more bilingual minority faculty members to provide academic and emotional support for students. Huang et al. (2025) argued teachers were among the most influential factors in the development of ethnic minority students. On one hand, Kong and Yu (2019) found a lack of knowledge and awareness by Han teachers regarding the cultures of ethnic minority groups after examining a critical discourse analysis of educational laws and policies from 1982 to 2012 in China. Wang (2022) pointed out teacher education programs in China lacked training in equipping educators to support culturally diverse students. Liu et al. (2024) emphasized Han teachers' perceptions of ethnic minority students through a deficit lens continued to be an issue.

On the other hand, ethnic minority teachers constitute 5.93% of the total faculty in higher education institutions. Their representation in private higher education institutions is much lower, at 0.86% (Wu et al., 2023). This difference highlights a notable shortage of ethnic minority educators in higher education (Wan & Jun, 2008). Lee (2016) proposed the key to enhancing the

educational experiences of ethnic minority students lies in training teachers who either are of ethnic minority backgrounds or are committed to teaching ethnic minority students. Research has shown with consistency that students benefit from having teachers who share their cultural and linguistic backgrounds (Gardner, 2019; Kleen et al., 2019).

Third, support system remains a critical challenge, and Wu et al. (2023) stressed the need for more culturally responsive approaches and stronger support systems to improve education for ethnic minority students in China. Wang and Phillion (2009) argued culturally responsive teaching fostered a supportive learning environment for minority students by recognizing and accommodating their diverse learning styles. For example, ethnic minority students often face additional difficulties because Mandarin Chinese is their second language and English may serve as a third or even fourth language (Nguyen & Hamid, 2016; Uju, 2021; Wang & Li, 2023). Garcia (2016) pointed out higher education institutions in China did not offer academic and social support to ethnic minority students, as a result, ethnic minority students experienced a decline in academic confidence and feelings of discouragement due to their limited proficiency in English and Mandarin Chinese. Hence, universities need to address these differences to foster an inclusive learning environment where ethnic minority students can thrive academically and socially.

In conclusion, addressing these challenges needs a multi-faceted approach that includes strengthening academic preparation programs for ethnic minority college students, providing teachers with training in culturally responsive education, and developing institutional support systems that promote culturally inclusive practices in higher education. By implementing these measures, higher education institutions in China can foster a more equitable and inclusive learning environment, ultimately improving classroom engagement for ethnic minority students.

Future research should continue to explore institutional policies to support ethnic minority college students and enhance their engagement.

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CHAPTER 4 CHINESE COLLEGE STUDENTS' ENGAGEMENT

Abstract

A considerable evidential body indicates college student engagement influences persistence and academic achievement. However, research on student engagement has traditionally focused on white students. When the impact of student engagement has been examined in other ethnic and racial groups, findings have suggested the outcomes are not universal. This paper first provides an overview of student engagement and, for white students, its relationship to their academic success and persistence. This overview is followed by a review of evidence concerning the influence of student engagement on non-white college students. The central focus of this review is on Chinese student engagement, cultural differences in the expectations, and measurements of student engagement in China. Therefore, the present paper aims to increase the understanding of the association between student engagement and Chinese culture, and reduce the perpetuating conceptions of Chinese college student engagement based on faulty, biased, or ethnocentric assumptions.

Introduction

¹Higher education institutions, as primary sites for cultivating talents, are significant to students' development. Higher education institutions provide students environments for learning and create educational programs and activities to engage students and to foster learning. These rather obvious statements, however, do not entail the assumption of being in a higher education institution ensures all students will succeed. Instead, students, as the prominent participants in the education process, are another major factor deciding learning outcomes. Extensive research has

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documented individual differences in college. These individual differences, in turn, determine students' success.

"The time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities" is defined as student engagement by Kuh (2003, p. 25; 2009b, p. 683). Students engage by committing time and energy to educationally purposeful activities, which lead to positive educational outcomes. On the other hand, higher education institutions provide resources, create conditions, and engage students to foster learning. Therefore, according to Kuh (2003), engagement was generated by the interactive dynamics between students and higher education institutions. Student engagement was primarily built on time on task, quality of effort, involvement, social and academic integration, and seven principles for good practice in undergraduate education (Kuh, 2009b).

Educational psychologist, Tyler, pioneering service studies conducted to investigate the relationship between time on schoolwork and its effects on learning, provided the foundation for a program of research, which continues to influence contemporary theories and research (Merwin, 1969). Pace explored Tyler's time on task to develop the College Student Experiences Questionnaire (CSEQ) (Pace, 1980). Pace (1990) suggested students, as active participants in the education process, learn more when they invest time and energy into effective educational activities, as studying, participating in educational programs, interacting with peers and faculty, and applying knowledge to practical situations. This was termed as quality of effort. In other words, students determine how much they commit to school resources and academic opportunities, and their quality of efforts directly influences their success. Thus, if students want

to grow and achieve academic success, they need to devote time and efforts to education-related activities.

Proposed by Astin (1984), student involvement also laid a theoretical foundation for the conceptualization of student engagement. According to Astin (1984), student involvement refers to the amount of physical and psychological energy students devote to the academic experience. For example, a highly involved student is one who devotes energy to study, spends time on campus, participates in student organizations, and interacts with faculty and other students (p. 297). A less involved student spends little time on study, academic activities, or student organizations. They typically are not proactive in interaction with their teachers and peers. In Astin's view, involved students show their efforts and time in study and exhibit passion, interest, and motivation in learning. Therefore, optimal student involvement is viewed as a combination of variables in the levels of behavior and emotion. Stating "effectiveness of any educational practice is directly related to the capacity of that policy or practice to increase involvement" (p. 298), Astin (1984) underscored the vital role of institutions to implement policies or practice to promote student involvement.

Another theoretical ground for student engagement is Tinto's social and academic integration. Tinto (1993) explained students' voluntary departure from higher education institutions from the perspectives of social and intellectual experiences within the institution. According to Tinto, more than 75% of college dropouts resulted from individuals' isolation or incongruence in the social and intellectual levels with the institution. When students integrate in the social and academic life of the institution, they are likely to persist and graduate. Conversely, a less integrated student will have a higher probability of withdrawing. The perception of

viewing voluntary student departure as partially attributed to institutional influence sheds light on the significance of establishing social interaction between faculty and students.

To achieve effective learning outcomes, seven principles of good practice by Chickering and Gamson (1987) emphasized the importance of the interaction between faculty and students. This also informed the development of student engagement theory. The seven principles synthesized from 50 years of educational research are: 1) student-faculty contact; 2) cooperation among students; 3) active learning; 4) providing prompt feedback; 5) emphasizing time on task; 6) communicating high expectations; and 7) respecting diverse talents and ways of learning. In addition, the effective approaches to carry out these seven principles were discussed, as freshmen seminars on topics taught by senior faculty, group learnings created by course instructors, active learning driven by structured exercises, peer evaluations, internships, independent study, contract learning, and computer-assisted learning.

In sum, evolving over 70 years, the construct of student engagement drew on the essences of time on task, quality of effort, involvement, social and academic integration, as well as seven principles of good practice in undergraduate education. In 1998, supported by a grant from the Pew Charitable Trusts and built on CSEQ, a survey instrument (National Survey of Student Engagement, NSSE) was drafted to measure college student engagement. A team consisting of Alexander Astin, Gary Barnes, Arthur Chickering, Peter Ewell, John Gardner, George Kuh, Richard Light, and Ted Marchese and with input from C. Robert Pace developed the survey. According to McCormick and McClenney (2012),

National Survey of Student Engagement (NSSE) sought to enrich the impoverished national discourse about college quality by shifting the conversation away from reputation, resources, and the preparation of entering students in favor of the student experience, especially activities and behaviors empirically linked to teaching and learning. (p. 309)

Relations of Student Engagement to the Success of College Students

NSSE measures students' engagement from five benchmarks: level of academic challenge, active and collaborative learning, student–faculty interaction, enriching educational experiences, and supportive campus environment. 1) Level of academic challenge (LAC) examines the expectations of faculty, colleges or universities on student efforts and school work. 2) Active and collaborative learning (ACL) looks at the extent students engage with learning and collaborate with peers, as asking questions in class, and working on group projects. 3) Student–faculty interaction (SFI) measures the frequency and quality of contact between students and teachers, for example, how often students discuss and work with faculty outside of class. 4) Enriching educational experiences (EEE) contains a range of educational activities, including participation in high-impact practices, internships, research projects, and studying abroad. 5) Supportive campus environment (SCE) is a broad collection of campus supports including academic advising and mentorship programs.

Even though NSSE does not measure students' performance from the five dimensions directly, the data NSSE provides can be used to improve undergraduate experiences (Kuh, 2009b). Student success, which according to Kuh et al. (2007), includes academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competences, persistence, attainment of educational objectives, and post-college performance. To determine the relationships between student engagement and student success, a significant body of research regarding student engagement has been conducted, particularly in North America. Many of the studies have focused on two key outcomes: academic achievement and persistence. Most of the early research on student engagement has focused on white students.

For example, Ullah and Wilson (2007) used three years' data collected through NSSE at a midwestern public university to examine the association between academic achievement and students' involvement in learning and relationships with faculty and peers. In this study, academic achievement was defined by students' cumulative grade point averages (GPAs). A total of 2,160 students, including freshmen and seniors, were selected from 2003-2005. Five predictors, age, ACT scores, asking questions or contribution in class discussion, students' relationship with faculty, and students' relationships with peers, were used to determine students' academic achievement. Using linear multiple regression analysis, the model was shown to be significant ($F(5, 1,697) = 39.75, p = 0.00$), and it explained 10% of total variance in academic achievement. In addition to students' ACT scores, which had a significant effect on student academic achievement ($\beta = 0.05, t = 10.67, p < 0.05$), students' relationship with faculty ($\beta = 0.06, t = 4.66, p < 0.05$), and students' active involvement with learning measured by NSSE, as asking questions or contributing to class discussion ($\beta = 0.06, t = 3.35, p < 0.05$) were found to have strong positive impact.

A landmark study using large multi-institution data sets was conducted by Kuh et al. (2008). The study examined NSSE dataset between 2000 and 2003 of 6,193 freshmen from 18 baccalaureate-granting colleges and universities in the United States. One primary research purpose was to determine if engagement during the first year of college impacted the first year grade average point (GPAs) and returning for the second year of college, controlling for student background, pre-college experiences, prior academic achievement, and other first year experiences. Student engagement was represented by three measures from NSSE: time spent studying, time spent in co-curricular activities, and a global measure of engagement in effective educational practices made up of responses to 19 other NSSE items, including student interaction

with faculty, experiences with diverse others, and involvement in opportunities for active and collaborative learning. Using logistic regression, findings indicated students' demographic characteristics, pre-college experiences, and prior academic achievement made up 29% of the variance in first year grades, however, adding student engagement measures increased additional 13% ($R^2 = .13$). Student engagement in educationally purposeful activities alone was found to have a small but statistically significant effect on first year grades ($\beta = .04, p < .001$). Finally, findings indicated student engagement in educationally purposeful activities during the first year of college had a positive statistically significant effect on persistence from the first to second year of college ($\beta = .15, p < .001$).

With regard to persistence in college, Hughes and Pace (2003) explored if freshman responses to NSSE were related to the retention or withdrawal at Humboldt State University. 169 freshmen responded to the survey and findings suggested students who withdrew from their institution had lower level of engagement, as never making a class presentation, and nor working with a classmate on class assignments than those who finished their second year.

Similarly, Shinde (2010), using NSSE survey data, examined the relationship between student engagement and fall-to-fall retention of first year students at Tennessee Technological University (TTU). Performing the analysis of binary logistic regression, social engagement, such as attending an art exhibit, gallery, play, dance, or other theater performance, or participating in physical fitness activities, providing the support you need to thrive socially, and attending campus events and activities, were found to be statistically significant in predicting freshmen retention at TTU ($p = .002$). Besides, overall satisfaction ($p = .005$) was found to be significant to predict freshmen retention at TTU.

In sum, this review suggests student engagement is positively associated with academic achievement and college persistence. To put it another way, students who are engaged, such as asking questions or contributing to class discussion, establishing interactions with faculty, spending time studying, spending time in co-curricular activities, applying theories, and completing homework, are likely to have high GPAs. The likelihood to persist in college is also greater for engaged students. Despite the fact many of these findings have been replicated repeatedly, there are serious questions about the extent to which they can be generalized to other ethnicities. The findings are based on research most relevant to the majority group in the United States, white. Concerns over the generalizability of the findings led to several investigations conducted to determine whether student engagement was similar or different for college students of diverse racial and ethnic groups.

Student Engagement, Ethnicity, and Academic Achievement

When student engagement is generalized to college students of diverse ethnicities, one of the most controversial areas concerns academic achievement. In an early investigation of the associations among student engagement, ethnicity, and academic achievement, Greene et al. (2008) collected data from 3,143 Native American, Asian American, African-American, White, and Hispanic students. This study aimed to determine whether students of diverse racial and ethnic groups differed in the amount of time and energy they invested in educationally purposeful activities. Findings suggested African American students reported higher levels of engagement than white students on class assignments ($d = 0.14$), academic preparation ($d = 0.19$), and mental activities ($d = 0.18$). Hispanic students did not differ significantly from white students on the class assignments or academic preparation, but did report higher levels of engagement on mental activities ($d = 0.17$). Asian American students reported higher levels of

engagement than white students on class assignments ($d = 0.26$) and mental activities ($d = 0.21$). Even though the effect sizes were small, there were statistically significant differences. However, regarding academic outcomes, African American students had lower course grades ($d = 0.15$) and were less likely than white students to pass courses ($OR = 0.73$). Hispanic students had lower course grades ($d = -0.08$) but were as likely as white students to pass courses. Asian American students were less likely than white students to pass courses ($OR = 0.68$).

Similar findings were found by Sotnam and Gabriel (2012). Analyzing variance, African American students scored higher than other racial groups in student efforts ($F(1, 1,391) = 7.10$, $p = .008$). On the contrary, their academic challenges were higher. Consistent with these findings, Kuh (2003) stated:

The good news from NSSE is that the results suggest that students of color engage in effective educational practices to a comparable degree. However, despite putting forth about the same amount of or more effort, African American students report lower grades. White students generally get the highest grades, followed by Asian and multi-racial students and Latino and Native American students. Why students of color get lower grades for comparable academic effort isn't clear, given that GPA is positively related to all five benchmark scores and nearly all of the effective educational practices represented on the NSSE survey. (p. 27)

Apart from the difference between academic efforts and academic achievement, Cole (2010b) examined the impact of student-faculty interactions, a subscale of student engagement, on the GPAs of 2,073 students of color, including African American, Asian American, and Latino/Latina. The study identified three types of student-faculty interactions based on the contact nature, course-related faculty contact, advice and criticism from faculty, and establishing a mentoring relationship with faculty. Each of distinctions of student-faculty interaction were significantly correlated with students' GPAs, yet student-faculty interactions were not significantly related to Latino/a students' GPAs when the race or ethnicity variable was disaggregated. Moreover, African American students' GPAs were negatively correlated with

course-related faculty contact, which meant when these students contacted faculty regarding coursework, more contact yielded lower GPAs. These conflicting findings led Cole (2007, 2010a, 2010b) to argue "for students of color, racism or feelings of racial tension can play a significant role in the type, nature, and quality of student-faculty interactions and thus result in differential educational gains by race" (p. 251; p. 10; p. 139).

In addition to academic achievement, persistence is another area where differences lie in among diverse ethnicities in the United States. For instance, Kuh et al. (2008) concluded African American students at the lowest level of engagement in educationally purposeful activities were less likely to persist than their white counterparts, however, they became more likely to return for a second year when their student engagement reached the average. Regarding Asian American students, Hu and McCormick (2012) found they were the least engaged student population on campus. Using the five benchmarks of NSSE for cluster analysis, the study summed a seven-category typology based on the scores of students on the five engagement benchmarks. The seven-type typology were academics, unconventional, disengaged, collegiates, maximizers, grinds, and conventionals. However, accounting for 8.20% of the total sample, Asians were found to be overrepresented among the less engaged (11.30%) and underrepresented among both collegiates and academics (6.70% each). In another study examining one benchmark of NSSE, student-faculty interaction, Cole and Griffin (2013) asserted: "Despite the low quality, and low frequency, sometimes negative interactions Asian American students have with faculty, research has found they are still likely to persist, perform well academically, and succeed in college" (p. 581).

These findings contrast with findings discussed earlier, and raise questions about students' engagement's relevance to diverse ethnic groups. The large sample size of Greene et

al.'s study (2008), coupled with the diverse range of ethnicities represented, added credence to these landmark findings and provided the impetus for the additional theoretical and empirical examinations of student engagement–ethnicity–student success links. Attempting to explain the outcome difference between white students and students of color, Kuh (2009a) provided three plausible explanations. First, some findings may be due to learning productivity of individual students. For example, some students could optimally convert the amount of time and energy into desired outcomes, while some students could not. Second, the implementation of an educational practice varies considerably. Even in one campus, internships, student-faculty research, student teaching takes different forms, durations, and structures. Some of these are effective in fostering student engagement, and some of them may be less effective. As the most widely used measure of student engagement using a short questionnaire, Kuh stated NSSE cannot capture all student behaviors and institutional conditions that influence student engagement.

Regardless of the basis of Kuh's (2009a) explanation, this review suggests the relationships among student engagement, ethnicity, academic achievement, and persistence are not straightforward. Instead, the impacts of engagement may function differently in the overall social, political, and cultural contexts in which students are embedded. For instance, the effects of student engagement may depend on ethnicity, family background, university culture and policies, and staff support. Consistent with this view, Kahu (2013) proposed a sociocultural model may explain the conflicting findings regarding ethnic differences in the influence of student engagement.

In Kahu's (2013) model, student engagement was placed in a wider social context, incorporating the sociocultural perspective. These structural and psychosocial variables, such as

student family background and support, institution policies, and culture, in turn determined student engagement. According to Kahu (2013), “Rather than position the macro influences as simply the first link in the chain, the entire process of student engagement is embedded within these wider social, political and cultural discourses” (p. 768). In this framework, for example, these structural influences, such as students and family, influence students’ motivation, and self-efficacy, which influence how students engage. How students engage, in turn, influences their skills and learning achievements. For example, students of diverse ethnic backgrounds have different family support and values, different motivations. Students attend different institutions with different policies, values, and staff support. These general variables influence how student engage academically and socially. In essence, Kahu provided a framework to examine the relationships among student engagement, academic achievement, and persistence in a socio-cultural context.

Research on Asian College Student Engagement

The preceding literature review indicates, although student engagement may be generalized to diverse ethnic groups, those effects are not necessarily linked to the same outcomes for students from non-white ethnic groups. This leads to the possibility a single "ideal" student engagement may be misleading, and second, the association between student engagement and academic achievement is more complex than early research suggested. Nuances in student engagement disproportionally influence students from diverse ethnicities. Interpreting the impact of student engagement for diverse ethnic groups is further compounded by researchers' tendency to group ethnicities across different cultures. This is evident in research of Asian-American students. Despite the findings Asian-American students are low in engagement, the effects may

differ for students with Chinese or Indian backgrounds. Researchers have classified these students into one, undifferentiated Asian group despite vast differences in cultures and histories.

For instance, Ing and Victorino (2016) concluded East Indian/Pakistani subgroup had higher classroom engagement than the Chinese, Korean, Filipino, and Thai subgroups. However, running Tukey's post hoc comparisons, the researchers found a significant difference in terms of SAT scores. Chinese, East Indian, Pakistani, and Korean students had higher SAT scores than Filipino, Thai, and Vietnamese students.

Shcheglova (2018) conducted a cross-cultural analysis of students' academic engagement from Russian, Chinese, Japanese, American, and British universities. The analysis of variance showed differences in the level of academic engagement. Compared with students of Russian and American, Japanese and Chinese students demonstrated less academic engagement. However, Japanese students scored higher than Chinese students, with a mean difference of -0.0647. To account for the difference in academic engagement between Chinese and Japanese students, the researcher utilized the Power Distance Index, which scored Japan in the medium rank while China in the high to explain the cross-cultural differences between social hierarchies (parent-child, teacher-student). The researcher summarized the differences from the perspectives of cultural traditions of each country.

Findings as these suggest student engagement differs among Asians in different countries. If this supposition is correct, then unambiguous interpretations of influences of engagement on "Asian" Americans are likely impossible; that is, the previously cited studies of the effects of engagement of students of diverse ethnic backgrounds, at least for Asian Americans, confound "ethnicity" (i.e., Asian) with historical background, country of origin. As a preliminary attempt to clarify the effects of engagement, this section focuses on a specific Asian

group, Chinese, and, more precisely, the engagement and the impacts of these ideologies and practices on Chinese student engagement.

Understanding Chinese Student Engagement: Philosophical Underpinnings

Influenced by Confucian ideology, Chinese culture emphasizes harmonious but hierarchical relationships. According to Bond and Hwang (1986), relationships in Chinese culture are structured hierarchically. Consequently, the efficacy of a person is defined by his or her relationships with others; moreover, society's harmonious and orderly nature is maintained because each individual hierarchy fulfills the requirements and responsibilities associated with his or her role. Under the influence of Confucianism, in a Chinese school, teachers are obliged to fulfill their roles by disciplining and training students. Chinese teachers believe they are responsible for 'cultivating students' and promoting development in non-academic areas. Chinese teachers regard teaching and learning as being more holistic than their Western counterparts, and see themselves as 'moral educators' who help students to understand their roles in society (Rao & Chan, 2010, p. 10).

In Chinese characters, *guan* (literally "to govern") represents the concept. Students are obliged to respect their teachers and fulfill their roles as students. Even this simplified presentation of Chinese culture should suggest it is hardly surprising, when student engagement is assessed on commonly used measures, students scored the least engagement than students from other countries (Shcheglova, 2018). Additionally, regarding student and faculty interaction, Ross et al. (2011) found Tsinghua undergraduates reported much less student-faculty interaction compared with their peers in the United States.

Despite the tendency to characterize Chinese students as less engaged on the globally used engagement measures, in attempting to explain these findings, researchers, first, argued

NSSE, focusing mainly on measuring behavioral engagement, such as participation in class discussions, preparation of drafts prior to submitting assignments, did not capture the social and cultural differences respondents were rooted in (Hagel et al., 2012; Kahu 2013; Yin & Wang 2016). For example, the subscales of NSSE, student–faculty interaction, enriching educational experiences, and supportive campus environment, measure the level of behaviors. To measure and understand the interaction between Chinese students and their teachers, the collectivistic nature of Chinese society must be considered. As the traditional Chinese conception that family is society's fundamental unit and teachers are seen as parents; maintaining respect of teachers is a central obligation of students. The interaction between teachers and students may seem passive, but the underlying ideology is respect for teachers. Li (2002) used *hao xue xin*, which means heart and mind for wanting to learn in English, to describe the characteristics of Chinese learners. Cluster analyses of these data showed Chinese learners viewed learning as a process of moral striving called self-perfection. The Chinese model stresses seeking knowledge and cultivating a passion for lifelong learning, fostering diligence, enduring hardship, persistence, concentration, ‘studying hard’ regardless of obstacles, and feeling ‘shame-guilt’ for lack of desire to learn" (p. 248).

In contrast, western culture has been preoccupied with individualism, stressing freedom, individual choice, self-expression, and uniqueness. For example, American students are encouraged to see the world by themselves and tell the rest of the class about what they know. However, Chinese culture is centered on role responsibility and filial piety (Chan & Leong, 1994). Students learn to respect their elders and traditions, and do not challenge their teachers. In addition, students are discouraged from displaying dissatisfaction and aggression. Obedience and obligations are cultivated, and school success is especially emphasized (Kelley & Tseng, 1992).

These interpretations led Hagel et al. (2012) to conclude "without conducting research from different ideological perspectives, it is unlikely student engagement and the contribution it makes to important outcomes such as learning, progression and retention can be fully understood" (p. 484).

Research on Chinese College Student Engagement

Underpinned by philosophies of Confucianism, Chinese students have consistently been found to be academically less engaged based on the measures developed from Western culture. Instead of measuring student engagement with NSSE, Lu et al. (2013) used the Xi'an Jiaotong University Undergraduate Experience Survey, based on the SERU-I (Student Experience in Research University-International) by University of California Berkeley. The SERU-I survey includes three sections. Section A is on core items consisting of academic involvement/engagement, student life, learning objectives, and individual characteristics, while concerning global skills and cognitions. Section B comprises items on techniques. The uniqueness of the SERU-I is Section C, which is designed specifically for Asian countries/universities. Section A and section B were directly adapted to the study, but researchers added contents to Section C to create Xi'an Jiaotong University Undergraduate Experience Survey. The findings indicated the level of undergraduates' academic involvement/engagement was high. The phenomenon of 'lack of engagement' hardly existed (p. 285).

The gist of the previous section is straightforward: researchers may have mischaracterized Chinese students as unengaged when, analyses of Chinese philosophy and beliefs indicate Chinese students are quite different from unengaged. Language and measurements issues—for instance, reliance of questionnaires designed to tap only western

researchers' conceptions of student engagement—may lead to the perception of Chinese students as less involved and less engaged. Clearly, if the arguments in the foregoing section are accepted, failure to understand the history and values of traditional Chinese culture have led to ethnocentric views of student engagement.

Conclusion

The present paper analyzed the relevance of student engagement to Chinese college students and determined whether the engagement had the same impact on Chinese college students as it did for white students. The relationships between student engagement and academic achievement, student engagement and persistence, were the specific focuses of this paper. First, early research indicated student engagement had the same influence on white students, and second because subsequent research yielded inconsistent impacts of student engagement on students of ethnic minority backgrounds. The inconsistency of these impacts led to questions concerning the social and ethnic generality of student engagement. More precisely, theorists and researchers have asked, does the meaning of engagement differ because of social and cultural contexts in which the student is embedded. If the answer to this question is negative, it makes little sense to continue assessing student engagement from a "one size fits all" perspective.

To reiterate, it is assumed the more a student engages, the better learning outcomes are; in brief, student engagement has typically been associated with positive academic achievement. Whether the same can be said of students from ethnic minorities in different countries and cultures, specifically Chinese college students remain controversial. For instance, white students' academic achievement seems to benefit from engagement. By contrast, other studies indicate Asian American students and students of other ethnic minorities do not benefit from engagement

equally as white students. These conflicting findings and questions concerning the engagement are evident when the same instrument is used in Mainland China.

In China, interaction between faculty and students differs from western societies. For instance, although the literal translation of *guan* is "to govern," this translation does not fully capture the meaning of these concepts. The result of misconceptions and oversimplifications of student engagement, particularly by researchers influenced by the western beliefs, that individual development "should" be toward self-direction, individualism, and self-expression and that Chinese students are unengaged. However, the holistic nature of Chinese culture, embedded nature of student development within the school and of the school within a larger school. The implications of these cultural characteristics for both conceptualizations of ideal student engagement and the measurement of student engagement are profound.

The framework proposed by Kahu (2013) indicates an understanding of the influence of student engagement on academic achievement and persistence is unlikely unless researchers assess characteristics of cultural traditions and social structures. Sociocultural views of student engagement emphasize the fit of the impact of student engagement to the larger cultural context in which students are embedded. However, considering unique challenges in generalizing student engagement, more research is needed so more meaningful and more valid findings could be yielded in China.

These unique challenges, including the 55 ethnic minorities living mainly on or near national borders or geographically underdeveloped regions, may further complicate comparisons of the impacts of Chinese student engagement. Specifically, even if research as that suggested above is conducted, the 56 ethnicities may influence student engagement in ways difficult to discern and in ways have not obvious parallels in other countries. In a society constituted by 56

ethnic groups, and each ethnic group with its unique cultures and characteristics. Further, most students from ethnic minorities are first generation in college, and how these students engage in college and how different their engagements are interesting, but under-explored areas for research.

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CHAPTER FIVE CONCLUSION

This dissertation included three articles. The first article examined the college satisfaction of first year students in China using 2017-2019 CCSS data, with a focus on how satisfaction levels varied across demographic groups. Specifically, it explored differences based on ethnicity, gender, generational status, and one-child family background, providing insights into how these factors influenced students' college satisfaction. In addition, the study found engagement items—such as relationships with teachers and advisors, learning motivation, interest in their academic major, and support provided by the institution—were associated with college satisfaction during the first year.

The second article used a mixed methods approach, beginning with a quantitative phase using 2017-2019 CCSS data to measure differences in classroom engagement among Chinese first year students, followed by a qualitative phase in 2024 that explored the barriers contributing to those differences among ethnic minority students. The findings highlighted factors including challenges with Mandarin proficiency, cultural variations in educational values, and underprepared educational backgrounds that influenced classroom engagement of ethnic minority students.

The third article, a review of literature, explored the positive relationship between student engagement and academic achievement, emphasizing ethnicity/race was important to consider when interpreting this relationship. It highlighted the influence of engagement was not universal and may vary for students from diverse backgrounds. Specifically, the article examined Asian students' engagement, focusing on Chinese students, through a sociocultural lens, suggesting students' social and cultural backgrounds shaped how they demonstrated engagement behaviors.

For example, guided by the Confucian values of respect and role responsibility, Chinese students may demonstrate engagement in quieter ways.

This chapter provides a summary of the study's takeaways. It examines limitations, including issues of missing data in the CCSS 2017-2019, timing between quantitative data analysis and qualitative data collection, and selected items of student engagement. Building on these insights, practical implications for Chinese higher education institutions are outlined and provide theoretical contributions to the broader understanding of engagement through sociocultural lens. Finally, it presents recommendations for future studies and the researcher's reflections.

Takeaways

Extensive literature has highlighted the benefits of student engagement, improved academic achievement and increased satisfaction. Positive impact is especially pronounced for students from ethnic minority backgrounds. Yet limited attention has been given to understanding engagement experiences of ethnic minority first year college students in China. To lessen the gap in research concerning engagement of first year ethnic minority college students in China, this study explored their experiences with the goal of informing supportive practices in Chinese higher education. The study included three articles: (1) Analyzing secondary data from China College Student Survey (2017–2019) to examine differences in students' college satisfaction based on ethnicity, gender, generational and one-child status, and the relationships with student engagement; (2) investigating differences in classroom engagement between ethnic minority and Han students, with qualitative insights from ethnic minority students to explain the differences; (3) proposing a socio-cultural approach to understand student engagement—emphasizing students' engagement behaviors shaped by their cultural and social backgrounds.

This study has several takeaways. First, a positive association was found between student engagement and college satisfaction in first year college students in China, indicating higher levels of engagement were linked to greater students' college satisfaction. This finding aligned with research by Johnson et al. (2017), Kuh and Zhao (2004), and Tessema et al. (2014), each study indicated engaged students tended to report higher satisfaction. Specifically, several engagement items in this study were found to be significantly correlated with students' college satisfaction. These items included the quality of relationships with teachers and academic advisors, students' learning motivation, students' interest toward their academic major, and support provided by institutions. These findings suggested when students felt connected with faculty, motivated to learn, interested in their academic program, and supported by institutional resources, they were more likely to report higher college satisfaction.

Second, the level of students' college satisfaction among first year college students in China was low ($M = 51.22$). This finding aligned with research conducted by Luo et al., (2019) and Zhang et al., (2011). Higher college satisfaction levels were observed among male students, Han students, non-first generation college students, and those from one-child families. Compared to Han students, ethnic minority students reported lower levels of classroom engagement and college satisfaction, which was consistent with what research had indicated (Chen et al., 2021; Huang et al., 2025; Luo et al., 2019). Findings from the focus groups in this study with ethnic minority students suggested factors contributing to these differences, including Mandarin Chinese barrier, cultural differences in educational values, and underprepared academic backgrounds. Language barrier, aligned with what Clothey et al. (2018) and Wang (2021) found, was identified as a major obstacle for ethnic minority students engaging in classrooms. To sum up, Mandarin Chinese language barrier, different cultural values toward

education, and underprepared academic backgrounds may contribute to the lower engagement of ethnic minority students in the classroom, and this lower level of engagement can, in turn, explain lower college satisfaction.

Finally, examining student engagement solely from a behavioral perspective could overlook nuances, as students' sociocultural backgrounds may influence how they experience engagement. This aligns with the arguments put forth by Guiffida (2006), Hagel et al. (2012), Kahu (2013), and Yin and Wang (2016), all of whom emphasized the multifaceted nature of student engagement. For example, shaped by Confucian values of respect and role responsibility, Chinese students may appear less engaged outwardly compared to students in U.S. studies. However, guided by the cultural emphasis on respect and role responsibility, Chinese students may demonstrate engagement in less obvious ways. While they may not speak or display overt behaviors, they may still be engaged through attentive listening, note-taking, and adherence to classroom expectations. Based on the analysis of the nationally representative 2012 CCSS sample, Luo et al. (2019) argued Chinese students tended to be more emotionally engaged learners.

Limitations

This study has limitations. First, the dataset from Chinese College Student Survey (2017–2019) had a significant amount of missing data, as a result, it posed challenges for analysis, including reductions in sample size, threats to statistical power, and concerns about bias when the missing data were not random. The analysis only included responses from institutions that opted to participate. Thus, the findings were not generalizable to all Chinese higher education institutions. Second, the focus group participants were not the same individuals who completed the survey, as those students had graduated by the time the qualitative data were collected in

2024. Also, the participants in the two focus groups were of Mongolian ethnic background, which limited the ethnic diversity of perspectives and reduced the applicability of findings to other ethnic minority groups. Efforts were made to recruit participants from diverse ethnic minority backgrounds; however, only students of Mongolian ethnic minority agreed to participate.

Further, in the survey, the ethnicity question offered only two options—Han or ethnic minority. This categorization may require refinement, as China has 55 ethnic minority groups, each with different experiences related to education. Grouping all minority populations as one category risks overlooking variations and may limit capturing the full range of engagement experiences across different ethnic groups. Finally, this study focused on five areas of classroom engagement, and caution should be exercised when generalizing the findings or suggestions. Student engagement is a complex and multidimensional construct that may be embedded within socio-cultural contexts.

Implications

Research on student engagement has primarily relied on quantitative data (Ghasemi et al., 2018; Museus, 2013; Zepke & Leach, 2010). Green (2022) suggested future research should implement a mixed methods approach to includes open-ended questions. My dissertation addressed this call by employing an explanatory sequential mixed methods design. Specifically, my study examined the engagement and satisfaction of ethnic minority first year college students in China—an overlooked population—by integrating quantitative and qualitative data. The findings aimed to inform practices and intervention programs for Chinese higher education institutions to enhance college experiences for these students.

First, this study found ethnic minority first year college students in China reported lower levels of engagement and satisfaction compared with their Han peers, which was consistent with what Wang et al. (2021) concluded. To improve ethnic minority students' engagement and satisfaction, Chinese higher education institutions should develop intentional practices and programs to support all students. For example, Murphy (2010) and Jaijairam (2016) suggested first year seminars and learning communities as strategies for fostering student engagement and enhancing satisfaction. Specifically, universities should implement first year seminars designed for ethnic minority students, and offer guidance on classroom engagement, accessing campus resources, and adjusting to university life. Another strategy to enhance engagement and satisfaction among ethnic minority students might be to implement academic advising and establish mentoring relationships connecting students with faculty members (Beasley, 2021; Chen et al., 2014). Findings from this study indicated the quality of relationships between students and teachers or advisors had the strongest impact on ethnic minority students' satisfaction, which was consistent with what Museus and Ravello (2010) and Sweat et al. (2013) concluded.

However, Wang (2022) pointed out college teacher education programs in China lacked training in equipping educators to support culturally diverse students. Liu et al. (2024) also indicated Han teachers' perceptions of ethnic minority students through a deficit lens continued to be an issue. Li and Hou (2024) demonstrated the content taught in schools in China did not reflect the values nor knowledge of ethnic minority communities. Thus, the lack of teacher preparation and culturally relevant content contributed to weak student–faculty relationships and unengaged learning environments for ethnic minority college students.

Research has suggested with consistency that curricula which were diverse and critically reflective enhanced the engagement of racially minoritized students (Thomas & Quinlan, 2023). Huang et al. (2025) found minority-serving institutions in China fostered inclusivity and reduced discrimination by increasing representation of faculty members from ethnic minority backgrounds. Faculty who shared similar ethnic backgrounds with their students enhanced classroom engagement by implementing culturally responsive teaching practices (Castro & Calzada, 2021). These findings highlight the need for systemic changes in teacher education, teaching materials, and hiring practices in Chinese higher education. Universities or colleges should implement training programs to equip Han teachers with culturally responsive practices and recruit more educators from ethnic minority backgrounds to strengthen the relationship with ethnic minority students.

Within ethnic minority group, female first year students exhibited lower levels of engagement and satisfaction compared to their male counterparts, revealing a gender difference. Zeng et al. (2014) conducted a meta-analysis of 167 studies, concluding gender inequality persisted in China. Specifically, females from rural backgrounds, particularly those from ethnic minority groups, pursuing high school education and beyond, encountered additional barriers. Luo et al. (2021) indicted persisting inequality based on social and economic segments affected female college students, which may result in a low level of satisfaction. Gender inequality may contribute to the compounded disadvantages faced by ethnic minority female students in higher education. Without targeted support, such differences are likely to persist, further widening the difference in college satisfaction. Institutions must consider intersectional strategies that address ethnicity and gender to support female students of ethnic minority backgrounds.

In addition, findings from qualitative data indicated several barriers contributed to engagement differences between ethnic minority and Han first year college students. Among these, Mandarin Chinese language barrier, cultural differences in educational values, and underprepared educational backgrounds were identified. Ethnic minority students struggle to participate in classrooms due to limited proficiency in Mandarin Chinese—a barrier that has been consistently suggested in research (Clothey et al., 2018; Wang, 2021). Schools should offer additional Mandarin language training and activities to help students strengthen their Chinese proficiency (Xiao & Chang, 2024). For example, colleges or universities may provide peer tutoring programs and workshops. The preparatory program, which provides one to two years of foundational education for ethnic minority college students, could be further strengthened by incorporating more Mandarin Chinese instruction (Liu, 2023). Yet access to preparatory program remains a concern, as ethnic minority students from more advantaged socioeconomic backgrounds and certain minority groups received preferential treatment, leading to unequal opportunities in the program’s implementation in China (Liu, 2021; Wu et al., 2023).

Differences in educational values and expectations can create obstacles to student engagement. Zhu (2010) concluded ethnic minority groups possessed unique cultural and linguistic backgrounds, which often shaped ways of thinking that differed from those of Han culture. Zhao et al. (2024) indicated distinct cultural backgrounds of ethnic minority students influenced their personalities and shaped their learning motivations. For example, Confucian examination system, which was the method for choosing students and officials, did not address religion. In contrast, certain minority groups—as Muslims and Tibetan Buddhists—treated education as religious training (Wu, 2008). Mongolians have made the prairie their home, cultivating a culture that is deeply rooted in the grassland way of life (Bayar, 2014; Yu et al.,

2019). When these students migrate to Han-dominated areas to pursue higher education, they experienced cultural discontinuities (Bingham & Okagaki, 2012), including differences in language, educational values, and behavioral norms, which interfered with their engagement in classrooms. Given the diversity of students' backgrounds and cultures, Kuh and Love (2000) proposed cultural perspective, arguing student engagement was influenced by their cultural backgrounds. To support ethnic minority students, teachers should understand the cultural barriers they encountered (Museus & Quaye, 2009). Yet, Liu et al. (2024) pointed out Han teachers' perceptions of ethnic minority students through a deficit lens continued.

In regard to underprepared academic backgrounds, students from ethnic minority regions had inadequate access to high-quality primary and secondary education (Li & Hou, 2024). According to Zhu (2010), the majority of ethnic minority groups lived in remote areas of western China, where economic development has hindered access to quality educational resources. English, which serves as a third or even fourth language for ethnic minority college students (Nguyen & Hamid, 2016; Uju, 2021; Wang & Li, 2023), poses challenges for ethnic minority students due to the lack of educational resources (Li & Hou, 2024). A similar conclusion was drawn by Adamson and Xia (2011) that exposure to English for Chinese ethnic minority students was limited and inconsistent due to primary and secondary schools in under-resourced regions. Yang (2005) pointed out limited funding, a low perceived value of English, and the difficulty of acquiring a third language contributed to low English proficiency among ethnic minority students. All six participants in the focus groups shared their struggles with English courses in college. Yet there was limited research on the English language proficiency of ethnic minority students in China (Yang, 2005; Zhao et al., 2024). Feltis (2016) suggested the presence of English teachers who were fluent in the ethnic minority students' native languages, the inclusion

of culturally relevant materials in English textbooks, and teachers' willingness to engage outside the classroom to improve ethnic minority students' English.

Lastly, satisfaction among first year college students in China was found to be low overall, which was consistent with findings from Luo et al. (2019) and Huang et al. (2016). For example, Luo et al. (2019) reported a little more than half of the students (56.67%) were satisfied with their overall university learning experience, with 31.30% indicating they were "rather satisfied," 18.14% "satisfied," and 7.23% "very satisfied." This trend is occurring against the backdrop of higher education in China entering the stage of universalization. By 2021, the gross enrollment rate had risen to 57.8%, with 44.3 million students enrolled nationwide (Gu & Lu, 2023), nearly tripling since the late 1990s. The mass expansion, while advancing access, has strained institutional resources and sparked concerns about the quality of Chinese higher education (Wang, 2023).

This study identified several engagement factors linked to students' satisfaction, including students' relationships with faculty members and academic advisors, motivation to learn, interest in their major, and academic support offered by institutions. Liu and Wang (2024) suggested universities prioritize fostering relationships between students and faculty to enhance students' satisfaction. Lou et al. (2019) emphasized the influence faculty members had on students' satisfaction in China. However, according to a statistical report on China's educational achievement in 2021, the student-to-teacher ratio was 17.90 in undergraduate institutions (Ministry of Education, 2022). Regional and ethnic differences in faculty-to-student ratios remains an issue in China (Ying & Hatta, 2025). Universities in economically developed regions had lower student-to-teacher ratios and more qualified faculty, where schools in less developed areas faced the opposite conditions. Additionally, ethnic minority teachers accounted for 5.93%

of the total faculty in higher education, highlighting a lack of representation in the teaching workforce (Wu et al., 2023). Therefore, higher education institutions should aim to improve faculty-to-student ratios as faculty members play a critical role in students' satisfaction with college. With a better ratio, students may feel more motivated, demonstrate greater interest in their academic programs, and benefit more from institutional support.

Future Research

While this study offers insights into engagement experiences of one ethnic minority first year college students in China, several areas need further exploration. For example, this study examined ethnic minority students as one group, which, may not identify within-group differences. Individuals of diverse racial and ethnic backgrounds may perceive and navigate engagement differently (Museus & Quaye, 2009). Given that China recognizes 55 ethnic minority groups—each with unique languages, educational experiences, and cultural values—treating them as a monolithic category may obscure variations in student engagement. Future research should consider focusing on each particular ethnic minority group to provide a more nuanced and culturally responsive understanding of student engagement. Conaway et al. (2024) emphasized the importance of nuanced views of variations in participants' backgrounds and how engagement may vary from one group to another (Wang, 2024).

In addition, at the time of requesting the data of Chinese College Student Survey (CCSS) in 2023, only data from the years 2017-2019 were available for analysis due to the pandemic. The students who participated in the original survey had graduated by 2023, which limited the ability to follow up with the same individuals for qualitative data collection. This time gap limits the applicability of the findings to the current student population. Future research could enhance the timeliness of findings by conducting follow-up focus groups or interviews with initial survey

participants. Doing so would improve the relevance of the findings and ensure continuity between quantitative and qualitative data.

Further, this study used an intersectional lens to examine how ethnicity and generational status influenced students' satisfaction. Future research should continue to explore how gender, ethnicity, and first generation status intersect to influence students. Such work is important in the Chinese context, where social and educational inequalities persist across demographic groups. For example, female students from ethnic minority backgrounds who are of the first in the families to attend college may face additional challenges that influence their satisfaction. A deeper understanding of these intersecting identities can help institutions develop more equitable support structures to enhance the satisfaction and success of these student populations.

Finally, a limited set of five measures related to students' engagement and satisfaction were explored in this study, which provided a partial view of the students' experience. Moreover, NSSE was primarily designed around behavioral dimensions of engagement (Kahu, 2013). Kahu argued although student engagement from behavioral perspective offered many advantages, it was important to acknowledge the definition of student engagement from a purely behavioral perspective may not be conclusive or universally agreed to. For example, Luo et al. (2019) found Chinese students tended to engage more on an emotional level, demonstrated through behaviors such as attentive listening, note-taking, and following instructions. Their engagement, therefore, was not expressed overtly but reflected an internalized and disciplined forms of participation. Therefore, future research would benefit from refining the CCSS and incorporating a broader set of indicators to better capture the multifaceted nature of engagement among Chinese students, with particular attention to the dimension of emotional engagement.

The integration of behavioral and emotional engagement measures would allow a richer and more culturally relevant understanding of how Chinese students engage in college. This approach could help identify aspects of student engagement that are not easily observable through behaviors alone, as internal motivation. There is a need for a culturally relevant measure of Chinese student engagement that builds upon, yet goes beyond, international instruments such as the NSSE to provide more valid and contextually appropriate insights. While adapting global frameworks can offer useful comparisons, unique features of Chinese higher education—as the emphasis on collective identity and exam-oriented traditions need a localized instrument. Additionally, the development of tailored instruments for diverse ethnic minority students in China also needs to be explored. Each ethnic minority group brings distinct cultural traditions, linguistic practices, and educational experiences that shape how students engage with their studies and their campus environments. Simply applying a one-size-fits-all measure risks overlooking nuanced differences and perpetuating inequities.

Research Process Reflection

Arksey and Knight (1999) warned researchers not to expect their studies to unfold as planned. Throughout this process, I encountered several difficulties—from recruiting participants to conducting virtual focus groups and dealing with technical issues. Each difficulty provided learning opportunities. By sharing these experiences, I hope future researchers can benefit from the reflection and use it to strengthen the design and implementation of international studies.

In social science research, face-to-face interviews are the ideal method for collecting narrative data, while other data collection methods are often considered less ideal (Holt, 2010). I initially planned to conduct face-to-face focus groups with first year ethnic minority students in China. However, due to unpredictable international situations, the focus groups were shifted to

an online format. When the mode of focus group delivery was determined, I contacted a university in China to begin participant recruitment. Institutional approval was required to engage with ethnic minority students in China. After several efforts, only six students consented to participate. Conducting a pilot study was important, given that many Western online platforms are banned in China (Lawrence, 2022). To ensure compliance with local regulations, I utilized a Chinese online platform (VooV) equivalent to Zoom, accessed through my real identification. Participants' internet connectivity, availability, and technological competency were important considerations. Conducting online focus groups during academic breaks was difficult as the participants had returned to their hometowns in ethnic minority regions where internet access was often unreliable or limited. Coordinating a focus group time was further complicated by the different time zones. This added an additional layer of logistical difficulties, as it required careful consideration of participants' availability.

In summary, conducting qualitative studies—especially in international research—needs flexibility (Lawrence, 2022). By sharing my personal research experience, it is hoped to inform researchers about the design and implementation of cross-cultural studies, and the importance of adaptability and flexibility throughout the research process. This includes being open to adjustments in data collection methods and participant recruitment strategies in response to local contexts. In conclusion, embracing flexibility strengthens the rigor of international studies and ensures findings more authentically reflect participants' lived experiences.

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内蒙古科技大学外国语学院文件

[illegible]

#7 Aerding Street
Baotou, Inner Mongolia
China 014010

We have received information that you are planning to talk with 4-12 first-year college students to gain insights into their engagement experiences and cognitive learning. All the first-year students take College English at Inner Mongolia University of Science and Technology. We confirm that you have the permission to talk with students.

Sincerely,

Prof. Wei Geng
Dean
College of Foreign Languages
Inner Mongolia University of Science and Technology



APPENDIX B RECRUITMENT LETTER

Greetings students,

My name is Xia Xue, and I am a researcher at Colorado State University (CSU). I am conducting a study on student engagement of ethnic minority first year students in college in China. I am asking for some of your valuable time and input to help me better understand your college experiences. The result of this study will help to inform policies or guide practices that higher institutions could adopt to improve both your and future students' success in college. The virtual focus group interview will ask your classroom engagement experiences and barriers that affect your engagement.

It is important that your engagement experiences are shared, so I can assess how to make improvement in policies and practices to support your success. I appreciate you taking time and energy sharing your valuable perspectives. Please know that the responses will not be linked to the participants and pseudonyms will be utilized to protect your confidentiality. The focus group will be conducted in Mandarin Chinese. The software uses security encryption to protect data. I will also share the results of this survey with all of you! Please scan the QR code to sign up for the virtual focus groups.



Here are the three major open-ended questions to be asked during the interview: 1) What is your engagement like in the classroom? 2) Based on your experience on answering questions, presentations, discussions, collaboration, and helping others, the five areas of classroom engagement, how do they correlate with your GPAs? 3) What are barriers impacting your engagement in the classroom as a first-year college student from ethnic minority backgrounds?

When you sign up, we will coordinate a suitable time for the focus group interview on VooV platform with 4-8 participants.

Thank you,

Xia Xue

小组访谈招募信

亲爱的同学们：

你们好！我叫薛霞，是科罗拉多州立大学（CSU）的一名研究人员。我们正在开展一项关于中国高校少数民族一年级学生课堂参与情况的调研。我诚挚地邀请您抽出宝贵的时间参与本次研究，分享您在大学中的学习投入性经历。本研究的结果将有助于制定相关政策或指导高校采取更有效的做法，从而提升您及未来学生在大学中的学习经历。

本次线上小组访谈将围绕您的课堂参与经验以及影响您参与度的障碍展开。了解您在课堂中的真实体验对于我们评估并改进相关政策和实践，以更好地支持学生的发展至关重要。我们非常感谢您愿意花时间和精力分享您宝贵的见解。所有资料将与参与者身份无关，并使用化名以保护您的隐私。访谈将以普通话进行，所使用的软件具有数据加密功能，以确保信息安全。我们还将向所有参与者分享本次研究的结果！



请扫描二维码报名参与线上小组访谈。以下是访谈中将重点探讨的三个问题：1) 您在课堂中的参与情况如何？2) 根据您在课堂中回答问题、做演示、参与讨论、协作学习以及帮助他人这五个方面的参与经验，您认为这些方面与您的 GPA 有怎样的关系？3) 作为一名来自少数民族背景的一年级大学生，您在课堂参与中面临哪些障碍？

报名后，我们将在 VooV 协调一个适合 4-8 位参与者共同参与的访谈时间。感谢您的支持与参与！

APPENDIX C INTERVIEW QUESTIONS

1. Classroom engagement items

- 1) Are there opportunities to ask questions or participate in class discussion? If yes, to what extent, are you able to participate? How does answering questions or participating in class discussion relate to your GPAs?
- 2) How do you participate in class presentation?
- 3) Are there opportunities to collaborate with other students in class? How do you believe collaboration contributes to your GPAs?
- 4) What is your experience like assisting others with course contents? Can you share how often you are asked for help others in class regarding course contents?
- 5) What is your experience like discussing schoolwork with classmates after class? How do you believe the experience contributes to your GPAs?
- 6) How do you feel about asking peers for advice on course contents? What makes you feel that way?

2. Based on your experience on answering questions, presentations, discussions, collaboration, and helping others, the five areas of classroom engagement, how do they correlate with your GPAs or class rankings?

3. What are the barriers that affect your engagement in classroom? Language? Cultural? Or others? Can you share an example?