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An Examination of Chinese Private College Students'

Intercultural Competence

A Dissertation by

Li Li

Chapman University

Orange, CA

Attallah College of Educational Studies

Submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Education

May 2021

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April 2021

An Examination of Chinese Private College Students' Intercultural Competence

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As I finish this dissertation and reach the end of my doctoral journey, I am so excited that tears fill my eyes. The path to a doctoral degree was very tough when I had to work full time, take the challenges from a new job position, and take care of two kids. The journey was arduous but full of achievements. I cherished the opportunity of returning to the campus after working at a Chinese private university for 14 years. I am proud that I had the courage to start this journey and persist in finishing it.

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ABSTRACT

An Examination of Chinese Private College Students' Intercultural Competence

by Li Li

With globalization being a focus of the 21st century, the primary approach for responding to global challenges for higher education institutions is to adopt an internationalization strategy and accelerate the internationalization pace. To cultivate “global-ready” graduates, developing students' intercultural competence (IC) has become one of the core missions of international and Chinese higher education institutions. Given the scarcity of quantitative studies on Chinese private college students' IC and inconsistent findings on the relationships between foreign language capability, international experience, and IC in the extant literature, a quantitative study was conducted in a Chinese private college to explore 1,983 undergraduate students' IC characteristics, examine IC differences across different groups, and investigate the relationships between their English language capability, international experiences, intercultural contact experiences, and IC. Findings revealed students' IC levels were slightly above average, scoring highest on the Attitude subscale and lowest on the Knowledge of Others subscale. All groups' differences were statistically significant with a small strength of difference in the College English Test Band 4 (CET-4) and overseas duration groups, and medium strength of difference in the frequencies of intercultural contact groups. All factors examined in the study (i.e., CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses) were positively related to IC, but the magnitudes of the association were small.

This study suggests directions for improving students' IC through foreign language education, provides pathways for increasing intercultural contact domestically and internationally, encourages students to participate in cross-border activities, and recommends

combining these methods to have a more effective impact on students' IC.

This research has some limitations in the generalizability of the results, one-time survey, self-report data, time gap between variables, and incomplete coverage of variables. In future research, a longitudinal mixed-method design with samples from diverse cultures in different public or private colleges is recommended to have a more comprehensive study on Chinese college students' IC.

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
AGFI	Adjusted Goodness-of-Fit Index
AIC	Assessment of Intercultural Competence
AIC-CCS	Assessment of Intercultural Competence of Chinese College Students
ANOVA	Analysis of Variance
AT	Attitude
AW	Awareness
BASIC	Behavioral Assessment Scale for Intercultural Communication
BRI	Belt and Road Initiative
CAB	Cognitive, Affective, and Behavioral
CECR	College English Curriculum Requirements
CET-4	College English Test Band 4
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CQS	Cultural Intelligence Scale
DMIS	Developmental Model of Intercultural Sensitivity
DV	Dependent Variable
EFL	English as Foreign Language
FLT	Foreign Language Teaching
GENE	Generalized Ethnocentrism Scale
GFI	Goodness-of-Fit Index
GPI	Global Perspective Inventory
IBAI	Intercultural Behavioral Assessment Indices
IC	Intercultural Competence
ICC	Intercultural Communication Competence

ICCICCS	Intercultural Communicative Competence Self Report Scale
ICCSRS	Intercultural Communicative Competence Self Report Scale
IDI	Intercultural Development Inventory
IRB	Institutional Review Board
IS	Intercultural Sensitivity
ISS	Intercultural Sensitivity Scale
IV	Independent Variable
KN-A	Knowledge of Self
KN-B	Knowledge of Others
M	Mean
MOE	Ministry of Education
MPQ	Multicultural Personality Questionnaire
MPQ - SF	Multicultural Personality Questionnaire – Short Form
NFI	Normed Fit Index
NNFI	Non-Normed Fit Index
OECD	Organization for Economic Cooperation and Development
RMSEA	Root Mean Square Error of Approximation
RMSR	Root Mean Square Residual
SD	Standard Deviation
SEM	Structural Equation Modeling
SK-A	Intercultural Communicative Skills
SK-B	Intercultural Cognitive Skills
TEFL	Teaching English as a Foreign Language
TEM-4	Test for English Majors Band 4
UNESCO	United Nations Educational, Scientific, and Cultural Organization
YOGA	Your Objectives, Guidelines, and Assessment

CHAPTER 1: INTRODUCTION

This study is about the intercultural competence (IC) of Chinese private college students. Through this study, I explored the characteristics of students' IC and examined relationships of English language capability, international experiences, and intercultural contact experiences with IC at a private university in China. In Chapter 1, I introduce the study's background, including the internationalization of higher education, the importance of developing students' IC in international higher education, and the necessity of cultivating students' IC in Chinese higher education. Then I discuss the problem, the purpose, the research questions, and the study's significance. I review IC theoretical models and assessment instruments, and then focus on the theoretical models for this study in Chapter 2. I also examined studies about relationships between foreign language capability, international experiences, intercultural contact, and IC. In Chapter 3, I discuss the research methodology of this study, which included a web-based survey and quantitative data analyses. Results are presented in Chapter 4, and the discussion of results, implications, strengths, limitations of the study, and future research directions are discussed in Chapter 5.

Background of the Study

The background of the study was discussed in this section. I introduced the internationalization of higher education, the importance of developing students' IC in international higher education, and the necessity of developing students' IC in Chinese higher education. This section lays the foundation for the research problem and the study purpose.

Internationalization and Intercultural Competence in Higher Education

With globalization being a focus of the 21st century, higher education institutions have been adopting internationalization development strategies and accelerating the pace of internationalization as primary approaches for responding to globalization challenges.

Internationalization is defined as “the process of integrating an international, intercultural, or

global dimension into the purpose, functions or delivery of postsecondary education” (Knight, 2003, p. 2). The three terms *international*, *intercultural*, and *global* are used as a triad for internationalization. The term international is about the relationship between nations and cultures; intercultural addresses the diversity of cultures within countries, communities, and institutions, and global provides the sense of worldwide scope. Together, the three terms reflect the breadth and depth of internationalization.

At the institutional level, internationalization is considered a process where the international, intercultural, and global dimensions are integrated into the institution’s teaching, learning, and service functions (Knight, 2004). The internationalization process is comprised of activities such as study abroad, curriculum and academic programs, institutional linkages and networks, development projects, and branch campuses. Internationalization includes two types of activities: *internationalization at home* and *internationalization abroad*. Internationalization at home focuses on home-campus-based activities, such as the intercultural and international dimensions in the curriculum, teaching and learning processes, research, extracurricular activities, and relationships with local cultural and ethnic community groups (Wachter, 2003). Internationalization abroad brings attention to the cross-border delivery of education to other countries in different ways and through various arrangements. The desired outcomes are developing student competencies and more international partnership agreements, branch campuses, and research projects.

Within the complexity and diversity of internationalization, college and university leaders are more concerned about students having the competencies to respond to internationalization challenges. At the core of mission statements from higher education is the notion of preparing “global-ready” graduates in the 21st century who will be able to address global challenges and live in an increasingly interconnected society (Deardorff & Hunter, 2006). Intercultural competence development has become a central student learning outcome

in international higher education. Deardorff (2009) described IC as a range of cognitive, affective, and behavioral skills that lead to effective and appropriate communication with people of other cultures. The importance of developing IC is also emphasized by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Organization for Economic Cooperation and Development (OECD). The UNESCO (2009) stated intercultural competence could be seen as part of a broad toolkit of worldviews, attitudes, and competencies young people acquired for their lifelong journey. The Program for International Student Assessment, sponsored by the OECD (2018), included global competence, a synonym for intercultural competence, as a new domain. Given the growing importance of IC in higher education, colleges and universities must examine students' IC closely.

Intercultural Competence in Chinese Higher Education

In China, with the accelerating internationalization of higher education and the increasing exchanges with other countries, colleges and universities are entrusted with cultivating international talents with a global vision and high-level IC. China has become the world's third largest destination for inbound international students, with a total number of 492,185 in 2018 (Ministry of Education of the People's Republic of China [MOE of China], 2019c), accounting for 9% of the entire international student population in higher education worldwide (Institute of International Education, 2019). The total number of Chinese students studying abroad in 2018 was 662,100 (MOE of China, 2019b). Developing students' IC is necessary to help Chinese students who study abroad and local students who study with peers from other cultures in China become well prepared for intercultural interaction and adaptation.

China launched the Belt and Road Initiative (BRI) in 2013. BRI is a top-level development strategy of the Chinese central government involving infrastructure development and investments in 152 countries and international organizations in Europe,

Asia, the Middle East, Latin America, and Africa (Kuo & Kommenda, 2018). Chinese enterprises have started international trade and economic cooperation with the Belt and Road countries. Under the guidance of BRI, the MOE of China (2016) issued the policy titled, *Promoting the Co-construction of The Belt and Road Education Action*, which set the following essential tasks: (a) to encourage countries along the Belt and Road to cooperate with Chinese universities to establish their language programs in China and (b) to make China a popular destination for international students and encourage more Chinese students to study in the countries along the Belt and Road. The accomplishment of these tasks demands high-level IC. Therefore, strengthening intercultural education has become urgent in China.

China's State Council and MOE issued two key educational reform policies, emphasizing the importance of developing IC among Chinese people. The policy "Some Opinions on Doing Well in the Educational Opening-Up in the New Era" (State Council of China, 2016) set the following critical tasks: (a) to improve services for Chinese students to study abroad; (b) to enhance the education quality to China's inbound international students and build the brand of "Study in China"; and (c) to expand language exchanges between China and other countries. The document "National Medium- and Long-Term Program for Education Reform and Development (2010–2020)" (MOE of China, 2010) set enhancing intercultural awareness and cultivating intercultural communication competence as an essential goal of talent cultivation in China. The MOE of China (2010) stated higher education should: (a) meet the needs of national economic and social opening-up; (b) cultivate a large number of international talents with global visions, a good knowledge of international rules, and capability of participating in international affairs and international competition; (c) strengthen international understanding education; (d) promote cross-cultural exchanges; and (e) enhance students' understanding of different countries and cultures. Thus,

international talents with global visions, familiarity with international rules, and high-level IC are in significant demand in China.

IC has been a focus of foreign-language teaching (FLT) and teaching English as a foreign language (TEFL) programs (Y. A. Wang et al., 2017). Under the guidance of three key documents issued by China's MOE, foreign language teaching requires strengthening the IC cultivation of both foreign-language majors and non-foreign-language majors. The cultivation of English majors' IC is emphasized in the document "National English-Teaching Syllabus for English Majors in Colleges and Universities" (MOE of China, 2000). The MOE of China (2000) has required English majors to know how to use the English language accurately and have intercultural sensitivity, tolerance, and flexibility in real intercultural contexts. In the document "College English Curriculum Requirements (CECR)" (MOE of China, 2017), an intercultural communication course is set as one of the compulsory courses in college English education, aiming to (a) provide intercultural education; (b) help students to understand the differences in worldviews, values, and ways of thinking between Chinese and non-Chinese; and (c) cultivate students' intercultural awareness and improve their IC. Intercultural competence was listed as a core competency for all foreign language majors in the document, "National Standards for the Quality of Undergraduate Teaching of Foreign Language and Literature Majors" (MOE of China, 2018), and the Intercultural Communication course was required as one of the core courses for all foreign language majors. To conclude, IC is one of the core competencies Chinese foreign language educational leaders aim to cultivate in students.

Statement of the Problem

In the previous section, the importance of developing Chinese college students' IC was expounded from the internationalization of higher education and IC in international and Chinese higher education. China has a strong need for developing students' IC. For this to

happen, students' IC characteristics first need to be identified. However, empirical studies on Chinese college students' IC are limited. W. Z. Hu (2010) stated IC studies in China had long been limited to foreign language education. From 2003 to 2012, 80% of the 6,942 papers published on IC or intercultural communicative competence (retrieved from the database of China National Knowledge Infrastructure) were papers on developing IC through foreign language education. Quantitative studies in this field were scarce, and even fewer IC studies included Chinese private college students. Several studies assessed IC (Fan et al., 2013; Peng & Wu, 2017; Q. Y. Zhang, 2017) and examined relationships between IC and foreign language capability, international experiences, and explored intercultural contact experiences in Chinese public universities (Deng, 2015; Y. C. Gao, 2016; Y. S. Hu, 2020; Y. B. Huang et al., 2019; Peng & Wu, 2018; Sun, 2017; H. L. Zhang, 2012). In these studies, all participants were from public universities, and no participants were from private universities. This problem identified a gap in the extant research to explore IC characteristics in Chinese private college students.

My study focused on Chinese private college students because they are an essential part of the Chinese college student population. China's private colleges started in 1992 and have grown rapidly since then. In 2018, students in private colleges accounted for 22.95% of the total student number of higher education institutions (MOE of China, 2019a). There are 64 colleges and universities in Shanghai, 19 of which are private (MOE of China, 2019d). Therefore, in terms of student and college numbers, private colleges are an indispensable part of China's higher education. Regarding financial supports, public colleges are funded by tuition fees and government grants; private colleges are only financed by tuition fees. Although tuition fees are much higher for private colleges than public colleges, private colleges have much less total funding than public colleges. Given the significant difference in funding, I want to explore whether there is any difference between public and private colleges

in cultivating students' IC in future research. The current study provides a foundation for future research further to examine IC differences between public and private colleges.

Deardorff and Jones (2012) stated, "Higher order intercultural competence assumes both deep cultural knowledge and the ability for interlocutors to communicate with one another in ways that incorporate the nuances of the culture" (p. 286). An intercultural competent person must combine language fluency with knowledge, skills, and attitudes. Studies on the relationship between foreign language capability and IC have produced inconsistent findings. Y. C. Gao's (2016) investigation identified students' College English Test Band 4 (CET-4) had a positive relationship with their intercultural communicative competence. Sun's (2017) study on first-year undergraduates found no significant association between intercultural communicative competence and foreign language capability. Zeng (2014) investigated the intercultural sensitivity of Chinese undergraduates, and results showed no positive relationship between the English proficiency score and intercultural sensitivity. Prior researchers' inconsistent findings left a gap for my study. I wanted to explore further whether the relationship between English language capability and IC existed in a Chinese private college student sample and how IC differed across the CET-4 groups.

OECD (2004) classified the internationalization of higher education into four categories: (a) student mobility, (b) academic mobility, (c) program mobility, and (d) institution mobility. Studying abroad is considered an effective way to improve students' IC. Y. C. Gao (2016), Y. S. Hu (2020), and Y. Y. Huang (2014) conducted their research in Chinese public universities and reported positive effects of study abroad on IC. However, increased intercultural experiences do not necessarily lead to increased IC (Lyttle et al., 2011). Lai (2006) and Rabo (2011) found no relationship between intercultural experiences and IC. These inconsistent findings left a gap for my study to examine further whether

international experiences impacted Chinese private college students' IC and how IC differed across the overseas duration groups.

Intercultural contact is one of the impact factors studied in this research. Kormos and Csizer (2007) defined intercultural contact as “both direct and indirect contact with native and non-native speakers of the target language as well as contact with cultural products (mainly different types of electronic and printed media) in the target language” (p. 245). Accordingly, Peng and Wu (2018), H. J. Wang (2018), and Duan (2019) researched college students' intercultural contact in public universities of China. They found consistent results in the positive impact of intercultural contact on IC. As public colleges have been examined, it is time to conduct similar research on private colleges. The scarcity of research on private college students' intercultural contact also left a gap for my research to examine whether intercultural contact impacted college students' IC in a Chinese private university context and how IC differed across intercultural contact groups.

Given gaps in the research on students' IC in the Chinese higher education landscape, I conducted a quantitative study to explore students' IC characteristics, examine IC differences across groups, and investigate how English language capability, international experiences, and intercultural contact experiences were related to students' IC in a private university of Shanghai. I chose Shanghai because it is a highly internationalized city. The internationalization of Shanghai sets a higher IC requirement for people who study and work in Shanghai. This requirement makes my research more necessary and meaningful.

Definitions of Key Terms

For this study, I used the key terms of internationalization, intercultural competence, English language capability (CET-4), international experience, and intercultural contact experience. Some terms use general definitions, and others have specific meanings in this study. The definitions and implications of these terms are illustrated next.

Internationalization. Internationalization is “the process of integrating an international, intercultural, or global dimension in the purpose, functions, or delivery of postsecondary education” (Knight, 2004, p. 11).

Intercultural competence. Intercultural competence is a range of cognitive, affective, and behavioral skills that lead to effective and appropriate communication with people of other cultures (Deardorff, 2009).

English language capability. In this study, College English Test Band 4 (CET-4) scores were used to represent students’ English language capability. The national standardized CET-4 began in 1987 and is sponsored by the MOE of China. The purpose of CET-4 is to test Chinese college students’ English language capabilities in listening, speaking, reading, writing, and translating. Chinese students are required to take CET-4 during their college years. The total score of CET-4 is 710, and the passing score is 425. The relationship between CET-4 score and IC was examined in this study.

International experiences. International experiences refer to international activities or work, including studying or taking an internship abroad, traveling or working abroad, undertaking international volunteer services, or participating in international competitions, conferences, and summer or winter schools. In this study, the overseas duration of such experiences was examined in relation to IC.

Intercultural contact experiences. Intercultural contact is the contact between different groups with diverse cultural backgrounds. In this study, intercultural contact experiences refer to communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses. Frequencies of such experiences were examined in relation to IC in this study.

Purpose of the Study

The purpose of this quantitative study was to research a Chinese private university in Shanghai—named S University—to (a) identify undergraduate students' IC characteristics and examine IC differences across different groups, and (b) investigate the relationships between students' English language capability, international experience, intercultural contact experiences, and IC. The dependent variable was the intercultural competence overall score and its six subscores (attitude, awareness, knowledge of self, knowledge of others, intercultural communicative skills, intercultural cognitive skills) across four dimensions (attitude, awareness, knowledge, skill), as measured by the Assessment of Intercultural Competence of Chinese College Students scale (AIC-CCS; Wu et al., 2013). The independent variables were CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses.

Research Questions

Based on the research purpose, the research questions for this study were:

Research Question 1: What are the characteristics of the intercultural competence of students in a Chinese private university?

Research Question 1a: Are there any differences in students' IC scores for groups of students with different CET-4 scores? Which groups are significantly different from each other? What are the magnitudes of differences in the IC scores between the groups that are found to be significantly different?

Research Question 1b: Are there any differences in students' IC scores for groups of students with different overseas duration? Which groups are significantly different from each other? What are the magnitudes of differences in the IC scores between the groups that are found to be significantly different?

Research Question 1c: Are there any differences in the IC scores for groups of students with different frequencies of communicating with native English speakers? Which groups are significantly different from each other? What are the magnitudes of differences in the IC scores between the groups that are found to be significantly different?

Research Question 1d: Are there any differences in the IC scores for groups of students with different frequencies of engaging in intercultural activities? Which groups are significantly different from each other? What are the magnitudes of differences in the IC scores between the groups that are found to be significantly different?

Research Question 1e: Are there any differences in the IC scores for groups of students with different frequencies of contacting cultural products and taking cultural courses? Which groups are significantly different from each other? What are the magnitudes of differences in the IC scores between the groups that are found to be significantly different?

Research Question 2: What factors are associated with students' IC? How much of the variance in the IC score can be explained by each of the factors?

Research Question 2a: Are students' CET-4 scores associated with the IC score? How much of the variance in the IC score can be explained by this factor?

Research Question 2b: Are students' overseas duration associated with the IC score? How much of the variance in the IC score can be explained by this factor?

Research Question 2c: Are students' frequencies of communicating with native English speakers in English in the home country associated with the IC score? How much of the variance in the IC score can be explained by this factor?

Research Question 2d: Are students' frequencies of engaging in intercultural activities to understand English culture in the home country associated with the IC score? How much of the variance in the IC score can be explained by this factor?

Research Question 2e: Are students' frequencies of contacting the cultural products and taking cultural courses to understand English culture in the home country associated with the IC score? How much of the variance in the IC score can be explained by this factor?

Significance of the Study

This study aimed to fill the gap in exploring the characteristics of Chinese private college students' IC and IC differences across groups. Examining relationships between English language capability, international experiences, and intercultural contact experiences in a private Chinese college context can contribute to the extant literature. It can provide directions to college policymakers, faculty, and administrators on developing students' IC in different contexts and informing students of the pathways to develop IC.

Another significance of this study is its contribution to test the applicability of AIC-CCS (Wu et al., 2013) in a different context. There is a scarcity of Chinese local IC measures. Wu et al. (2013) translated and modified AIC-CCS from Fantini's (2000, 2006) Your Objectives, Guidelines, and Assessment (YOGA) intercultural competence questionnaire and the Assessment of Intercultural Competence (AIC) questionnaire. The AIC-CCS has not been used widely yet, only by a small number of studies in Chinese public universities. I used it to assess Chinese private college students' IC. The reliability and validity of the AIC-CCS were further proved in a different context.

Chapter Summary

In this chapter, I discussed the study's background, the problem statement, purpose, and significance. Additionally, the research questions and definitions of key terms were explained. In the next chapter, I reviewed the IC theoretical models and assessment instruments in English and Chinese literature and then focused on this study's theoretical models. Related studies about the impact of English language capability, international experience, and intercultural contact experiences were examined.

CHAPTER 2: LITERATURE REVIEW

In this study, I investigated the characteristics of Chinese private college students' intercultural competence (IC), the IC differences in groups, and the relationship between English language capability, international experiences, intercultural contact experiences, and IC. This chapter consists of four sections. In the first section, I introduce the historical background of IC research. I discuss the theoretical frameworks of IC, including the theoretical models and instruments for this study and other influential IC theoretical models and instruments in the second section. In the third section, I briefly discuss the intercultural contact theory, which grounded the three variables of this study (i.e., communicating with native speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses). Finally, relevant studies about the relationships between foreign language capability, international experiences, intercultural contact experiences, and IC are reviewed. This chapter includes theoretical and empirical research articles, master's theses, and doctoral dissertations in English and Chinese.

Historical Background of Intercultural Competence Research

Much of the literature on IC originated from the United States, beginning in the 1960s (Arasaratnam-Smith, 2017). In the late 1970s, the *International Journal of Intercultural Relations* publication provided an academic platform for scholars to share their scholarly work on intercultural relations. In the 1980s, researchers focused on the IC assessment instruments. A special issue of the journal in 1989 focused on intercultural communication competence. In the 1990s, various theories of IC were published, which continued into the 2000s. In 2015, another special issue of the journal was published focused on IC. This timeline and progression of publications suggest research in IC has matured into a vibrant interdisciplinary field.

Intercultural competence research in China started about 25 years later than it did in the United States. Chi and Lin (2014) summarized three development stages of IC in China: 1983–1994, 1995–2002, and 2003–present. The 1983–1994 stage featured the introduction of intercultural communication studies from the United States to China, which resulted in offering intercultural communication courses in several Chinese universities. The second stage, 1995–2002, was characterized by the founding of the China Association for Intercultural Communication in 1995, which initiated a new era in the study of Chinese intercultural communication. The third stage, 2003–present, was characterized by the construction of theories and models of intercultural communication competence with Chinese characteristics, the publication of the journal, *Intercultural Communication Research*, more frequent academic dialogues between Chinese and international scholars, and outstanding achievements in the study of intercultural business communication (Chi & Lin, 2014).

Given the different historical backgrounds of IC research and different cultural roots and social environments of the United States and China, I conducted a systematic review of the IC theoretical models and assessment instruments in English and Chinese literature. According to the research purpose and questions of this study, four compositional cognitive, affective, and behavioral (CAB) models were used as the theoretical basis of this research: Byram's (1997) intercultural competence model, Deardorff's (2006) pyramid model of intercultural competence, Y. C. Gao's (2014) knowing and doing model, Zhong and Fan's (2013) intercultural communicative competence model.

Theoretical Frameworks of Intercultural Competence

In the United States, much of the literature related to IC was first published in the 1960s (Deardorff & Arasaratnam-Smith, 2017). White (1959) first referred to competence as “an organism's capacity to interact effectively with its environment” (p. 297). American anthropologist, Edward T. Hall, was the early key contributor to intercultural studies. Hall

(1959) first used the term intercultural communication and defined it as communication between persons of different cultures. More recently, IC was defined as the appropriate and effective interaction in intercultural situations between people who represented divergent cognitive, affective, and behavioral orientations to the world (Deardorff, 2004; Spitzberg & Changnon, 2009).

According to the OECD's (2005) Definition and Selection of Competencies project, intercultural competence stresses both: (a) knowledge and comprehension of one's own culture and other cultures and (b) an attitude of openness, curiosity, respect, and inclusion, which are the skills one may acquire based on this knowledge and the internal and external outcomes that result. Although there has not been an agreed-upon definition of IC, the overarching meaning of IC refers to the ability to interact appropriately and effectively with people from different cultures, emphasizing cognitive, affective, and behavioral abilities. Some influential IC theoretical models in Western and Chinese contexts are introduced next to give a general understanding of IC, followed by a focus on the theoretical models for this study.

Intercultural Competence Models in Western Contexts

One comprehensive discussion on the theoretical frameworks of IC includes five types of models: compositional, co-orientational, developmental, adaptational, and casual path (Spitzberg & Changnon, 2009). Compositional models (Byram, 1997; Deardorff, 2006; Howard-Hamilton et al., 1998; Hunter et al., 2006; Ting-Toomey & Kurogi, 1998) identify personal characteristics and skills as the components of IC but do not specify the relationships among those components. Co-orientational models (Byram, 1997; Fantini, 1995) emphasize communicative mutuality and shared meanings. Developmental models (Bennett, 1986; Gullahorn & Gullahorn, 1962; King & Baxter Magolda, 2005) take a dominant role in the time dimension of intercultural interaction and emphasize the process of

progression over time. Adaptational models (Berry et al., 1989; Kim, 1988) emphasize the process of multiple interactants' mutual adaptation, which is a criterion of IC. Casual path models (Arasaratnam, 2008; Deardorff, 2006; Hammer et al., 1998; Ting-Toomey, 1999) specify the interrelationships among components in the development of IC. Additionally, with the increasing trend of globalization, some mixed models have also emerged, which combine personal traits, attitudes/worldviews, and capabilities (Bird et al., 2010; Hunter et al., 2006).

Hammer (2015) proposed compositional CAB models and developmental models were the mainstream IC models. The traditional CAB models have dominated the IC research field for over 50 years. They focus on personal characteristics, addressing the question, "What are the personal characteristics that comprise intercultural competence?" (Hammer, 2015, p. 13). The models proposed by Byram (1997), Howard-Hamilton et al. (1998), Ting-Toomey and Kurogi (1998), Deardorff (2006), and Hunter et al. (2006) are classified as CAB frameworks. Developmental models emerged after 1989 as alternatives to the CAB models. They focus on individual progression, addressing the question, "How do individuals experience intercultural competence?" (Hammer, 2015, p. 13). The models constructed by Bennett (1986), King and Baxter Magolda (2005), and Gullahorn and Gullahorn (1962) are developmental models. This study chose two compositional models in Western contexts as the theoretical basis: Byram's intercultural competence model and Deardorff's pyramid model of intercultural competence. Prior to the models of Byram and Deardorff, some other key compositional models are selected for further review next to present a whole picture of all existing compositional models.

Howard-Hamilton et al.'s Intercultural Competence Model

Howard-Hamilton et al. (1998) identified attitudes, knowledge, and skills as essential dimensions of IC. The attitude dimension is composed of factors such as valuing group equality, risk taking, and the life-enhancing role of cross-cultural interactions. The knowledge

dimension consists of understanding cultural identities, knowledge of similarities and differences across cultures, and the effects of cultural differences on communication processes. The skill dimension includes factors such as self-reflection, articulation of differences, perspective-taking, and communicating cross-culturally.

Ting-Toomey and Kurogi's Facework-Based Model of Intercultural Competence

Ting-Toomey and Kurogi (1998) addressed three IC dimensions: motivation, knowledge, and skills. Knowledge and skills are emphasized more than motivation. The knowledge dimension consists of: (a) an understanding of differences in individualism and collectivism, (b) large or small power distance, (c) negotiating self or other face models, and (d) facework communication styles. The skill dimension includes: (a) mindful listening and observation, (b) facework management, (c) trust-building, and (d) collaborative dialogue. A unique feature of this model is that it integrates the face element into the knowledge and skill dimensions.

Hunter et al.'s Global Competencies Model

Hunter et al. (2006) identified three layers of global competencies. The inner layer encompasses openness, recognition of others and differences, diversity, and nonjudgmental reactions. The middle layer is comprised of understanding world history and engaging in a globalized world. The competencies within the inner and middle layers can help prepare a person to gain the outer layer of competencies (i.e., identification of cultural differences to compete globally, effective participation both socially and in business generally, collaboration across cultures, and ability to assess intercultural performance).

Byram's Intercultural Competence Model

As aforementioned, Byram's (1997) IC model is the theoretical framework primarily used in this study. It delineates intercultural communicative competence with intercultural competence, linguistic competence, sociolinguistic competence, and discourse competence

(see Figure 1). Intercultural competence comprises five dimensions: (a) attitudes, (b) knowledge, (c) interpreting and relating skills, (d) discovering and interacting skills, and (e) critical cultural awareness. Attitudes refer to (a) motivation, curiosity, and openness, (b) readiness to suspend disbelief, and (c) readiness to suspend belief. Knowledge refers to social groups in their own culture and other cultures and the general interaction process. Skills are delineated into two categories: interpreting/relating and discovering/interacting skills. Critical cultural awareness encompasses identifying criteria for evaluation and evaluating perspectives, practices, and products from multiple cultural perspectives. Byram (1997) believed IC was the communicator's ability to coordinate different language and cultural systems, including the components of knowledge, attitude, skill, and critical cultural awareness. This model emphasizes that foreign language capability is required for successful intercultural communication and plays an important role in intercultural communication.

Deardorff's Pyramid Model of Intercultural Competence

Deardorff's (2006) pyramid model of intercultural competence is also the theoretical framework for this study. Deardorff used a Delphi method to build the pyramid model of intercultural competence. The model represents the three dimensions of attitudes, knowledge, and skills and incorporates context within these dimensions (see Figure 2). The pyramid model has four layers. The lowest layer is requisite attitudes, including elements of respect, openness, curiosity, and discovery. The second layer is knowledge, comprehension, and skills. The knowledge and comprehension dimension comprises elements of: (a) cultural self-awareness, (b) deep understanding and knowledge of one's own culture and other cultures, (c) cultural-specific information, and (d) sociolinguistic awareness. The skills dimension includes listening, observing, interpreting, analyzing, evaluating, and relating skills. The combination of attitudes, knowledge, and skills results in desired internal and external outcomes at higher layers.

Figure 1

Intercultural Competence Model

Note. Intercultural competence model. Reprinted from *Teaching and Assessing Intercultural Communicative Competence*, by M. Byram, 1997, Multilingual Matters. Copyright 1997 by Multilingual Matters.

Figure 2

Pyramid Model of Intercultural Competence

Note. Deardorff pyramid model of intercultural competence. Reprinted from “Identification and assessment of intercultural competence as a student outcome of internationalization,” by D. K. Deardorff, 2006, *Journal of Studies in International Education*, 10(3), p. 254 (<https://doi.org/10.1177/1028315306287002>). Copyright 2006 by the Association for Studies in International Education (United States).

Summary of Models in Western Contexts

There are compositional, co-orientational, developmental, adaptational, casual path, and mixed models in the IC field. The theoretical frameworks for this study are Byram (1997) and Deardorff (2006). They are classified as compositional models. This section reviewed some influential compositional models in detail. In the next section, IC models were reviewed in the Chinese context.

Intercultural Competence Models in the Chinese Context

There are two kinds of IC models in China. Some models were learned from the Western compositional models and others integrated Chinese cultural elements into the models. Learning from Deardorff (2006), Y. C. Gao (2014) constructed the knowing and doing model. Following Byram (1997), Zhong and Fan (2013) developed an intercultural communicative competence model with an emphasis on foreign language competence. The two models in the Chinese context formed the theoretical frameworks for this study.

Chinese philosophy played an influential role in the formation of IC theoretical models in China. Some models with Chinese cultural characteristics were proposed, such as Y. H. Gao's (1998, 2002) concepts of *dao* (road) and *qi* (tool), Xiao and Chen's (2009) idea of *gan yin* (act on and respond), G. M. Chen and An's (2009) combination of *shi* (right time), *wei* (environment), and *ji* (trace of movement), Y. A. Wang and Kulich's (2015) thought of *xin tai* (heart and attitude), G. M. Chen's (2016) idea of *zhong* (centrality), and Dai and Chen's (2015) interculturality model of intercultural communication competence. The main features of each model are reviewed next.

Y. H. Gao's Concepts of Dao and Qi

Y. H. Gao (1998) used two Chinese traditional philosophical concepts, *dao* and *qi*, to suggest two dimensions of intercultural communication competence: (a) personal traits and values and (b) knowledge and skills. The Chinese literal meaning of *dao* is a road, representing people's traits, attitudes, value orientation, and moral awareness. The Chinese literal meaning of *qi* is a tool, representing knowledge and skills. *Dao* is internal and not easy to change. *Qi* is external and may change depending on object, purpose, and environment of communication. Following this study, Y. H. Gao (2002) proposed two levels of intercultural communication competence development: (a) going across (*qi*) and (b) going beyond (*dao*).

Going across (*qi*) focused on the increase of target language culture proficiency. Going beyond (*dao*) focused on the gaining of cultural awareness and reflective, tolerant attitudes.

Xiao and Chen's Concept of Gan Ying

Xiao and Chen (2009) adopted a Confucian perspective to study communication competence and moral competence. Communication competence consisted of internal moral competence and external behavioral competence. The study elucidated the philosophical foundations of communication competence. The Confucian perspective approaches communication as an ethical and spiritual process. This ethical and spiritual approach lay in an understanding of the world as an organic whole, interconnected by a universal feeling of humanity. This universal feeling was called *gan ying* (act on and respond) in Chinese. The Confucian concept of communication competence should be examined within the *gan ying* framework. The study proposed communication competence should be cultivated in association with moral education.

Chen and An's Leadership Competence Model

Based on the Chinese philosophical assumptions, G. M. Chen and An (2009) outlined the Chinese model of leadership competence. The foundation of this model included three assumptions that guided Chinese behaviors: (a) human communication is a changing and transforming process, (b) human communication is changing according to the endless but orderly cycle of the universe, and (c) human communication is never absolutely completed or finished. The model was composed of self-cultivation (i.e., sensitivity and creativity), context profundity (i.e., multicultural mindset and environmental mapping), and action dexterity (i.e., interaction adroitness and coordinating *shi, wei, ji*). *Shi*, as the temporal contingency, demanded leaders know the temporal relations and behave appropriately at the right time. *Wei*, as the spatial contingency, demanded leaders determine what and where the appropriate space was for having an action. *Ji* encouraged the leader to sense what was hidden and what

was evident in the process of interaction. Harmony was highly valued in Chinese culture. It was always used as a bridge to connect leaders.

Wang and Kulich's Concept of Xin Tai

Y. A. Wang and Kulich (2015) identified an indigenous Chinese list of 10 attributes of IC, most of which fit into the traditional CAB paradigm. The central indigenous theme emerging from the study was the concept of *xin tai*. In Chinese, *xin tai* means state of mind, which is a psychological and emotional attitude. In communication, face (*mian zi*) and relationship (*guan xi*) are two critical concerns Chinese people need to care about. Chinese people might feel anxious and wanted to maintain face and good relationships in intercultural communication. Therefore, a peaceful and decent *xin tai* is required for successful intercultural communication.

Chen's Concept of Zhong

G. M. Chen (2016) applied *zhong*—literally meaning centrality—to the cultivation of IC. The concept of *zhong*, which has dominated Chinese philosophy for more than 2,000 years, means the interplay of *yin* and *yang* motivated by *chi*. In Taoism, *yin* is a negative force and *yang* a positive force. *Yin* and *yang* dictate a holistic ontological assumption, stipulating heaven, earth, and humans are united as a great whole. All elements in the universe are a transitional and ongoing process due to the movement of *chi* embedded in *yin* and *yang*. To reach a balanced state, Chinese philosophers believe only through *zhong* can the goal of harmony be reached. G. M. Chen used *zhong* as the foundation for examining Chinese communication competence. Nurturing *zhong* is thought to be the most effective way of cultivating self-competence and the key to successful social interaction in China.

Dai and Chen's Interculturality Model

Dai and Chen's (2015) interculturality model of intercultural communication competence emphasized the dynamic cultural process by conceptualizing IC from the

perspective of interculturality. Interculturality approaches intercultural communication as a dialogical process in which two or more culturally different individuals endeavored to negotiate their desired identities and reduce the cultural distance to achieve intercultural agreement and a harmonious relationship. Within the framework of interculturality, intercultural communication competence refers to the ability to reach reciprocity and mutuality to establish harmonious relationships across cultures. The researchers proposed intercultural communication competence had the affective, cognitive, behavioral, and moral dimensions, with the affective, cognitive, and behavioral abilities regulated by moral principles of mutual respect, sincerity, tolerance, and responsibility.

Y. C. Gao's Knowing and Doing Model

Y. C. Gao's (2014) knowing and doing model was one of the theoretical frameworks in the Chinese context used for this study. In conformity with the traditional Chinese concept *shan* (the unity of knowing and doing), and learning from Byram's (1997) and Deardorff's (2006) models, Y. C. Gao proposed the knowing and doing model (see Figure 3) for developing Chinese college students' intercultural communication competence. Knowing refers to the knowledge system, and doing refers to the behavior system. The knowledge system is comprised of knowledge of surface and deep culture, awareness of global culture, local culture, and self-identity, and critical thinking (e.g., logical thinking and analytical thinking). The behavioral system is composed of attitudes (e.g., openness, tolerance, and flexibility), skills (e.g., verbal and nonverbal skills, interactivity, and adaptability), and strategies (e.g., code-switching, collaboration, and empathy). Knowing comes from doing, and doing is guided by knowing. Knowing and doing are closely interrelated. The unity of knowing and doing is vital to the cognitive and behavioral activities in intercultural communication.

Figure 3

Knowing and Doing Model

Note. Knowing and doing model. Reprinted from “Developing a conceptual framework for assessing Chinese college students’ intercultural communication competence,” by Y. C. Gao, 2014, *Foreign Language World*, 4, p. 86. Copyright 2014 by Shanghai Foreign Language Education Press.

Zhong and Fan’s Intercultural Communicative Competence Model

Following Byram (1997), Zhong and Fan (2013) constructed a Chinese localized intercultural communicative competence model (see Figure 4). This model was used as the other theoretical framework in the Chinese context. According to Zhong and Fan, intercultural communicative competence comprises communicative competence and intercultural competence. Communicative competence includes linguistic competence, sociolinguistic competence, discourse competence, and strategic competence. Intercultural competence is comprised of knowledge, skills, attitudes, and awareness. This model stressed the importance of foreign language competence in IC.

Figure 4

Intercultural Communicative Competence Model

Note. Intercultural Communicative Competence Model. Reprinted from “A theoretical framework for the construction of intercultural communication competence of Chinese college students,” by Zhong and Fan, 2013, *Foreign Language Education in China (Quarterly)*, 6(3), p. 24. Copyright 2013 by Foreign Language Teaching and Research Press.

Summary of Models in the Chinese Context

In the Chinese context, two IC theoretical models guided this study: Y. C. Gao’s (2014) knowing and doing model and Zhong and Fan’s (2013) intercultural communicative competence model. They learned from Byram’s (1997) and Deardorff’s (2006) models but were localized in the Chinese context. Some other Chinese IC models were influenced by the Chinese philosophy of Confucianism and Taoism, and the moral principles of respect, sincerity, harmony, tolerance, and responsibility. Knowing about these models is valuable for scholars to study IC from Chinese cultural perspectives.

Summary of Theoretical Models of Intercultural Competence

This section reviewed the theoretical frameworks of IC for this study in the Western and Chinese contexts. Deardorff’s (2006) pyramid model of intercultural competence and Y. C. Gao’s (2014) knowing and doing model within the CAB framework, and Byram’s (1997)

intercultural competence model and Zhong and Fan's (2013) intercultural communicative competence model with an emphasis on foreign language competence, formed the basis for this study. They informed the research questions and guided the selection of the instrument. Some other influential IC theoretical models in the Western and Chinese contexts were also reviewed to identify a range of competencies individuals needed to acquire in intercultural settings from Western and Chinese perspectives.

Theoretical models underpin the assessment instruments used in quantitative research on IC. Understanding IC theoretical models helps researchers to understand IC measurement tools. The next section reviewed some of the key assessment instruments to assess IC from general and multidimensional perspectives.

Assessment Instruments of Intercultural Competence

IC assessments have played a crucial role in helping educators understand and improve students' intercultural capacities, providing an empirical basis for tracking development, motivating learning, examining outcomes, and indicating areas for instructional improvement (Sinicrope et al., 2007). A variety of instruments are available for measuring IC. Since the 1970s, scholars have developed more than 100 instruments for assessing IC (Fantini, 2012). In this section, I reviewed some important instruments assessing the IC in general, IC behavioral and affective aspects, and developmental stages of intercultural orientations. A review of these instruments was critical in guiding the selection of an appropriate tool for this study.

Intercultural Behavioral Assessment Indices

Ruben's (1976) Intercultural Behavioral Assessment Indices (IBAI) is the pioneering measurement of intercultural communicative competence. This instrument was designed to evaluate participants on seven dimensions: the display of respect, interaction posture, orientation to knowledge, empathy, self-oriented role behavior, interaction management, and

tolerance for ambiguity. The rating method was to indicate with 4- and 5-point Likert scales. The factor analysis of the scales described three types of participants: Types I, II, and III. Type I participants were described as competent cross-cultural communicators; Type III participants were described as individuals who had difficulties in intercultural communication (Ruben, 1976). Cronbach's alpha of this instrument was not available.

Behavioral Assessment Scale for Intercultural Communication

Koester and Olebe's (1988) Behavioral Assessment Scale for Intercultural Communication (BASIC) was built on Ruben and Kealey's (1979) work, rewriting the IBAI scales to make them more comprehensible for less tutored participants. BASIC has eight scales, including the display of respect, interaction posture, orientation to knowledge, empathy, task-related roles, relational roles, interaction management, and tolerance for ambiguity.

BASIC was administered in three empirical studies among 263 college students in 1985–1987 in the United States, identifying essential skills required for intercultural communicative competence. A factor analysis was done on eight scales, producing one factor of intercultural communication effectiveness, with each subscale loading at an acceptable level (see Table 1). The total BASIC score had a higher correlation (.62) with the measure of intercultural communication effectiveness. The factor analysis showed all eight subscales of BASIC measured intercultural communication effectiveness. BASIC had strong reliability of Cronbach's alpha of .82.

Table 1*Loading Index of BASIC*

Subscale	Loading Index
Display of respect	.75
Interaction posture	.59
Orientation to knowledge	.50
Empathy	.76
Task-related roles	.65
Relational roles	.69
Interaction management	.66
Tolerance for ambiguity	.47
Eigenvalue	3.85
% of the total variance	48.1%

Multicultural Personality Questionnaire and MPQ-SF

Van der Zee and Van Oudenhoven (2000) developed the Multicultural Personality Questionnaire (MPQ) to measure multicultural effectiveness. MPQ has seven scales and 91 items: cultural empathy (14 items), open-mindedness (13 items), emotional stability (13 items), orientation to action (12 items), adventurousness and curiosity (12 items), flexibility (12 items), and extraversion (15 items). The validity and reliability of MPQ were examined in a study among 257 students. The internal consistencies of the scales were high, except for open-mindedness and flexibility. Factor analysis supported the subdivision of MPQ into four factors: openness (e.g., cultural empathy and open-mindedness), emotional stability, social initiative (e.g., extraversion and orientation to action), and flexibility (e.g., flexibility and adventurousness).

Van der Zee et al. (2013) developed a short form of MPQ among 511 participants. In one study among 260 participants, principal component analysis and rigorous item selection criteria were used to extract a 40-item short-form (MPQ-SF) from the original 91-item MPQ. In another study among 251 participants, confirmatory factor analysis was conducted, resulting in a good fit for the 40-item version.

Cultural Intelligence Scale

Ang et al. (2007) defined cultural intelligence as the capability to function effectively in culturally diverse settings. They reviewed the literature on intelligence and intercultural competencies supplemented with interviews from eight executives with extensive experience working overseas. Cultural Intelligence Scale (CQS) has four dimensions: metacognitive, cognitive, motivational, and behavioral. Fifty-three items were drafted, and the 10 best items were retained for each dimension (Ang et al., 2007). Then the 40-item CQS was given to 576 Singaporean undergraduates and finalized as a 20-item scale. Several studies using CQS reported Cronbach's alphas of metacognitive (four items), cognitive (six items), motivational (five items), and behavioral (five items) dimensions at .70–.86, which showed the high reliability of CQS. Factor structure validity was examined with confirmatory factor analysis, and the result demonstrated an acceptable fit.

Generalized Ethnocentrism Scale

Neuliep and McCroskey (1997) created the Generalized Ethnocentrism Scale (GENE) with 21 items to measure generalized ethnocentrism. The initial version of GENE was administered among 396 participants, and participants needed to indicate their responses on a 5-point scale. Exploratory factor analyses were conducted on GENE. Factors were separated with a minimum loading of .40. A modified version of GENE of 18 items was administered to 369 participants. Scores based on the 18 items with high loadings on either of the factors were computed and used for computing correlations with the criterion variables. The reliability for the revised 18-item GENE scale was high, as determined by Cronbach's alpha was .92. The tests supported that the GENE scale had high reliability and predictive validity.

Intercultural Sensitivity Scale

Chen and Starosta (2000) developed the Intercultural Sensitivity Scale (ISS) to address the affective aspects of IC. Initially, the authors developed 73 items that represented

six components of the measurement of intercultural sensitivity. Chen and Starosta asked 168 first-year students to answer the questionnaire. Forty-four items with $> .50$ loading were identified. Then, 414 U.S. college students were invited to complete the 44-item version of intercultural sensitivity. An exploratory factor analysis was performed to generate a 24-item scale with five factors covering interaction engagement (seven items), respect for cultural differences (six items), interaction confidence (five items), interaction enjoyment (three items), and interaction attentiveness (three items). ISS demonstrated strong reliability with Cronbach's alpha .86. To examine the concurrent validity of ISS, the researchers invited 162 participants to complete another seven scales related to intercultural sensitivity. The results of the moderate correlations between ISS and the seven measures supported the validity of ISS.

Intercultural Development Inventory

Hammer et al. (2003) constructed the Intercultural Development Inventory (IDI) based on Bennett's (1986) Developmental Model of Intercultural Sensitivity (DMIS) framework. The DMIS described two types of orientation with six stages toward cultural difference, including the ethnocentric orientation with stages of denial, defense, and minimization, and the ethnorelative orientation with stages of acceptance, adaptation, and integration. The IDI proposed five main dimensions, such as the Denial and Defense (DD) scale, the Reversal (R) scale, the Minimization (M) scale, the Acceptance and Adaptation (AA) scale, and Encapsulated Marginality (EM) scale, totaling 50 items using Likert 5-point response scoring system (1 = *disagree* to 5 = *agree*). This measure has been translated into 12 languages and applies to people from various cultural backgrounds.

The IDI was administered among 591 college students. Confirmatory factor analysis and reliability test validate that the IDI is a valid and reliable measure of IC development. The five main dimensions of the DMIS are internally consistent with the Cronbach's alphas of each dimension (see Table 2).

Both the content and construct validity of the IDI were examined. The content validity was addressed through in-depth interviews with people from various cultural backgrounds, and with raters and a panel of experts. To examine the construct validity, the IDI was compared to two other related constructs: world mindedness and intercultural anxiety. The results confirmed the presupposed relationships between the IDI and the two constructs.

Table 2

Cronbach's Alphas of IDI Scales

Dimension	Scale	Number of items	Cronbach's alpha
DD	Denial and Defense	13	.85
R	Reversal	9	.80
M	Minimization	9	.83
AA	Acceptance/Adaptation	14	.84
EM	Encapsulated Marginality	5	.80
Total		50	

The researchers conducted a confirmatory factor analysis to measure if the DMIS fit the data collected from the IDI. A series of statistical procedures were run to test the adequacy of the fit. The result supported the five-dimensional model and suggested the five-dimensional model fit the IDI data better.

Intercultural Communication Competence

Arasaratnam (2009) developed the Intercultural Communication Competence (ICC) scale to measure IC in general. Arasaratnam invited 302 graduate and undergraduate students from various cultural backgrounds from a large university to participate in a study to test the reliability and construct validity of ICC. Multiple regression, factor analysis, and correlation analysis were used. The result indicated not all the 15 original items performed well in factor analysis, resulting in the final ICC version of 10 items. The final 10-item version has three items in the cognitive dimension, four items in the affective dimension, and three items in the

behavioral dimension. The Cronbach's alpha of the final ICC scale was .77, which was acceptably reliable.

Your Objectives, Guidelines, and Assessment

Fantini (1995, 2000) designed the YOGA form, which stands for “Your Objectives, Guidelines, and Assessment,” to help respondents evaluate their IC development by themselves. There are five scales with 98 items in this form, including awareness (21 items), attitude (18 items), skills (24 items), knowledge (23 items), and language proficiency (12 items). Four developmental levels have been posited in this form: Level I (Educational Traveler—participants in short-term exchange programs for 4–6 weeks); Level II (Sojourner—participants with longer cultural immersion); Level III (Professional— staff who works in an intercultural or multicultural context); and Level IV (Intercultural/Multicultural Specialist). Klara Kostkova (2013) used the YOGA form in a study of 18 students' intercultural communicative competence. The Cronbach's alphas of the knowledge, attitudes, skills, and awareness scales were .861, .880, .933, and .947, respectively. This evidence suggested that the YOGA form was reliable. Fantini's (1995, 2000) YOGA is one foundation for Wu et al.'s (2013) instrument Assessing Intercultural Competence of Chinese College Students (AIC-CCS) used in this study.

Assessment of Intercultural Competence

Fantini (2006) reported findings in the research project “Exploring and Assessing Intercultural Competence” of the Federation of The Experiment in International Living, funded by the Center for Social Development at Washington University in St. Louis, Missouri, United States. The Assessment of Intercultural Competence (AIC) instrument was used. The AIC survey has seven components, including respondent's information (37 items), respondent's characteristics (32 items), motivation and options (18 items), language proficiency (15 items), communication styles (47 items), intercultural areas (12 items), and

intercultural abilities in knowledge (11 items), attitude (13 items), skills (11 items), and awareness (19 items). To identify the reliability and validity of the instrument, Fantini reported Cronbach's alpha scores .70 or above and factor loadings .60 or above for each question on each of the dimensions of IC (i.e., knowledge, attitude, skills, and awareness). Fantini's AIC is the other foundation for Wu et al.'s (2013) instrument of AIC-CCS for this study.

Intercultural Communicative Competence Self Report Scale

Based on the theoretical models proposed by Byram (1997), Wen (1999), and Zhong and Fan (2013), Zhong et al. (2013) constructed the Intercultural Communicative Competence Self Report Scale (ICCSRS). This instrument has two scales, eight subscales, and 63 items (see Table 3), using the Likert 1–5. The ICCSRS was administered to 264 college students to test its validity and reliability. Exploratory factor analysis was conducted with principal component analysis and varimax orthogonal rotation method. Results show the ICCSRS has good construct validity. The reliability of ICCSRS is high, with Cronbach's alpha .901 for the overall scale, .869 for the subscale of communicative competence, and .794 for the subscale of IC.

Table 3

ICCSRS Scales

ICCSRS Scale	Subscale	Number of Items	Cronbach's alpha
Communicative Competence	Linguistic Competence	13	.789
	Sociolinguistic Competence	6	.852
	Discourse Competence	7	.678
	Strategic Competence	8	.511
Subtotal		34	.869
Intercultural Competence	Knowledge	13	.775
	Skills	5	.417
	Attitude	8	.687
	Awareness	3	.498
Subtotal		29	.794
Total		63	.901

Intercultural Communication Competence Inventory for Chinese College Students

Based on Deardorff's (2006) and Byram's (1997) IC models, and Y. C. Gao's (2014) knowing and doing model, Shen and Y. C. Gao (2015) constructed the Chinese localized Intercultural Communication Competence Inventory for Chinese College Students (ICCICCS). This inventory has two scales, six subscales, and 51 items (see Table 4), using the Likert 1–5. The ICCSRS was administered to 470 college students from various academic backgrounds. The results reported ICCICCS has good validity and reliability. The overall Cronbach's alpha is .956, and the Cronbach's alphas of the six items range from .761 to .878.

Table 4

ICCICCS Scales

ICCICCS Scale	Subscale	Number of Items	Cronbach's alpha
Knowledge System	Knowledge	8	.846
	Awareness	7	.805
	Critical Thinking	10	.761
Subtotal		25	
Behavior System	Attitude	10	.878
	Skills	8	.824
	Strategies	8	.809
Subtotal		26	
Total		51	.956

Assessment of Intercultural Competence of Chinese College Students

The Assessment of Intercultural Competence of Chinese College Students (AIC-CCS) was used for this study. Wu et al. (2013) constructed the AIC-CCS, based on Byram's (1997) intercultural competence model, Fantini's (1995, 2000) YOGA intercultural competence self-evaluation questionnaire, and Fantini's (2006) AIC questionnaire. Wu et al. modified the English versions of YOGA and AIC into the Chinese version of AIC-CCS. The AIC-CCS was finalized with 28 items that fell under six factors across four dimensions. The four dimensions are: (a) knowledge dimension—knowledge of national and foreign lifestyles and values, basic knowledge of cultural and intercultural communication concepts; (b) attitude

dimension—willingness to tolerate foreigners' different values, dietary habits, and taboos; (c) skills dimension—using body language or other nonverbal behaviors to communicate, avoiding stereotypes to foreigners, avoiding privacy topics in communication, sensitivity to cultural differences, using multiple perspectives to look at other countries' politics, economy, and religion; and (d) awareness dimension—being aware of the difference between one's own cultural identity and the other's cultural identity. The six factors are Knowledge of Self (KN-A), Knowledge of Others (KN-B), Intercultural Communicative Skills (SK-A), Intercultural Cognitive Skills (SK-B), Attitude (AT), and Awareness (AW). All items are scored on a 6-point Likert scale, from 0 (*not at all*) to 5 (*very high*). Wu et al. reported the AIC-CCS's overall Cronbach's alpha was 0.913, and the Cronbach's alphas of the six factors were between 0.734 and 0.91. More details about AIC-CCS were explained in Chapter 3.

Summary of Assessment Instruments of Intercultural Competence

All instruments reviewed in this section fall into the categories of measuring CAB aspects of IC, measuring IC in general, and measuring the developmental processes of IC. Based on the research purpose and research questions, this study chose Wu et al.'s (2013) AIC-CCS instrument. There are two reasons for this choice. First, the AIC-CCS measures the IC from the cognitive (awareness and knowledge), affective (attitudes), and behavioral (skills) dimensions, which is consistent with the theoretical framework of this study. Second, the AIC-CCS was translated from English into Chinese and modified scientifically, its validity and reliability have been proved high, and the Chinese texts are more understandable for Chinese students. The next section is about the intercultural contact theory, which guided the research questions regarding intercultural contact experiences.

Intergroup Contact Theory

This study used Allport's (1954) intergroup contact theory as a broad framework for the relationship between intercultural contact experiences and IC. This theory informed

Research Questions 1c-1e and 2c-2e, which examined the group differences in IC, and relationship between IC and intercultural contact experiences in communicating with native speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses. This section discussed Allport's intergroup contact theory and its subsequent studies.

Allport (1954) first proposed the intergroup contact theory, also called the contact hypothesis, in the book *The Nature of Prejudice*. The theory contended contact between different groups, under favorable conditions, could reduce prejudice and promote intergroup relations. The theory stressed four favorable conditions for optimal intergroup contact: equal group status within the situation, common goals, intergroup cooperation, and the support of authorities, law, and custom (Pettigrew, 1998). Equal status meant group contact should be conducted equally within the situation. Prejudice reduction through contact should be agreed on as a common goal. Interdependent efforts should be made to reduce prejudice through intergroup cooperation. Support of authorities, law, and custom can guarantee the positive effect of intercultural contact on prejudice reduction. Pettigrew (1998) suggested four processes of change through intergroup contact: learning about the outgroup, changing behavior, negating affective ties, and ingroup reappraisal.

Pettigrew and Tropp (2006) conducted a meta-analytic test of intergroup contact theory. It investigated the relationship between intergroup contact and prejudice. The study revealed, with 713 samples and 1,383 individual tests from 515 studies, 94% of the studies showed a negative relationship between intergroup contact and prejudice, and intergroup contact typically reduced intergroup prejudice.

Following Allport's (1954) contact hypothesis, Kormos and Csizer (2007) interviewed 40 Hungarian students to explore what types of intercultural contact they might experience in Hungary and its role in language learning in a foreign language environment. Kormos and

Csizer (2007) defined intercultural contact as “both personal direct and indirect contact with native and non-native speakers of the target language as well as contact with cultural products (mainly different types of electronic and printed media) in the target language” (p. 245).

According to Kormos and Csizer, intercultural contact involved direct and indirect contact. Direct contact referred to direct spoken contact and direct written contact, including oral communication with native speakers in a target language and text communication with native speakers in a native language through social media, letters, or emails. Indirect contact referred to indirect personal contact and indirect cultural products contact, including family relations, films, newspapers, magazines, and books in a target language. Indirect contact with cultural products was the most frequent way for students to get information about people and the culture of a target country.

Using Kormos and Csizer (2007) as the theoretical base, Peng and Wu (2016) explored the intercultural contact pathways of Chinese college students and constructed a model of Chinese college students’ intercultural contact. The model was comprised of direct and indirect dimensions with six factors (i.e., domestic social media, foreign social media, domestic intercultural communication activity, foreign intercultural communication activity, cultural products, multimedia, and courses).

Intergroup contact theories proposed by Allport (1954), Pettigrew (1986), Pettigrew and Tropp (2006), Kormos and Csizer (2007) contended intergroup contact could reduce prejudice. Intergroup contact theories are helpful to understand students’ intercultural contact pathways and frequencies in the home country or abroad in relation to IC improvement. The intergroup contact theory provides a guiding framework for this research to study the effects of Chinese students’ communicating with native English speakers, participating in intercultural activities, and contacting cultural products and taking cultural courses in China on their IC.

This section expounded on the IC theory and briefly discussed the intergroup contact theory. The two theories formed the theoretical foundations for this study. In the next section, relevant studies about the impact of foreign language capability, international experiences, and intercultural contact experiences on IC were reviewed. The review of prior studies provided a basis and guidance for this study.

Relevant Studies on Intercultural Competence

This section reviewed the studies related to the relationships between students' foreign language capability, international experiences, intercultural contact experiences, and IC in English and Chinese literature. Some studies had consistent findings, but others did not. Implications drawn from the review were utilized for this study.

Intercultural Competence and Foreign Language Capability

Individuals with higher order intercultural competence are equipped with deep cultural knowledge, high language fluency, and the ability to communicate with one another in ways that incorporate cultural knowledge (Deardorff & Jones, 2012). The relationship between foreign language capability and IC was explored in both English and Chinese literature. In English literature, scholars studied the relationship between bilingualism or multilingualism and IC. In Chinese literature, scholars studied the relationship between CET-4 and IC.

Western researchers studied the relationship between foreign language capability and IC from the perspective of bilingualism or multilingualism. Researchers reported inconsistent findings. Some studies found a positive relationship between foreign language capability and IC, but others did not. Hismanoglu (2011) studied 35 students and observed positive relationships between linguistic proficiency and IC regarding grammatical and pragmatic competence. When working abroad, if a person could not speak the host language fluently, expatriates faced social isolation and frustration (Paige, 1993). Arasaratnam-Smith (2016)

indicated a person was able to engage in more effective and appropriate communication with people of other cultures if proficient in more than one language. In H. Y. Chen's (2008) mixed-method study, the quantitative part did not find a significant relationship between linguistic capability and IC. In the qualitative part, participants reportedly felt more comfortable with a higher level of foreign language proficiency to communicate with native speakers.

Results from some doctoral dissertations completed in English reported no relationship between foreign language capability and IC. This finding was supported by Lai (2006) in a study of 44 international instructors in Taiwan exploring the relationship between the length of previous living experience overseas, the length of studying Mandarin, the frequency of interaction with Taiwanese, and intercultural sensitivity. Park (2006) also identified no relationship between intercultural sensitivity and linguistic competence in 104 English-as-foreign-language (EFL) preservice teachers in Korea. Developing linguistic competence might not necessarily improve IC, and vice versa.

In Chinese literature, there are limited studies on the relationship between foreign language capability and IC. In the extant literature, most studies used CET-4 scores to represent English capability and studied the relationship between CET-4 and IC. CET-4 is an English proficiency test to evaluate Chinese college students' English language skills. There are contradictory findings regarding the relationship between foreign language capability and IC. Some studies reported a positive relationship between CET-4 and IC (Y. C. Gao, 2016; H. Lin, 2012; Wu et al., 2013), but the correlation strength is small. Other studies found no relationship between CET-4 and IC (Y. C. Sun, 2017; B. H. Wang, 2006; Yang, 2016; Zeng, 2014; Zhou, 2013).

Y. C. Gao (2016) used the ICCICCS to find the positive relationship between CET-4 and IC in a sample of 2,156 undergraduate students from 16 Chinese universities. When

comparing different CET-4 score groups, there were significant differences in IC overall score and the subscores of knowledge, critical thinking, attitude, and strategy. This finding was consistent with Wu (2013), who reported a small, positive association between CET-4 and IC overall score and IC subscores of knowledge of other cultures, attitude, intercultural communicative skills, but found no correlation with knowledge of self, intercultural cognitive skills, and awareness. H. Lin (2012) further confirmed a positive relationship between CET-4 and IC with a small correlation.

Some other Chinese researchers, however, reported different findings of the relationship between CET-4 and IC. Y. M. Yang (2016) found they had no relationship, but CET-4 had a small correlation with one of IC elements (i.e., emotion regulation). B. H. Wang (2006) observed no relationship either between IC and CET-4 for 50 non-English majors or between IC and the Test for English Majors Band 4 (TEM-4) for 50 English majors. Ninety percent of the students thought they mostly gained foreign language skills not much about foreign language culture from foreign language classes. According to Zhou (2013), there was no significant relationship between CET-4 and IC in a sample of 200 non-English majors.

Intercultural sensitivity (IS) is one of the core IC components. Some studies explored the relationship between CET-4 and IS, and the findings were different. L. Lin (2012) observed small positive correlations between CET-4 and IS, as well as its subscales of communication engagement, communication confidence, and communication attentiveness, but no correlation with the subscales of communication identity and communicative language. Y. C. Sun (2017) examined the association between CET-4 and three IC components: intercultural awareness, intercultural effectiveness, and IS. Although no correlation was found between CET-4 and intercultural awareness or intercultural effectiveness, there was a small correlation between IC and IS, a moderate correlation with the IS elements of cultural differences, and a large correlation with the IS elements of

intercultural confidence. Zeng (2014) reported no relationship between IS and English tests (i.e., CET-4, College English Test Band 6, and International English Language Testing System).

Summary of Studies on Intercultural Competence and Foreign Language Capability

By reviewing Chinese and English literature on the relationship between foreign language capability and IC, consistent and inconsistent findings were reported depending on different samples in various contexts. With few studies on the impact of foreign language capability on IC in a Chinese private college context, this study aims to understand if Chinese private college students' foreign language capabilities have a relationship with IC; and if the relationship exists, to what extent they are related and what are the IC differences between different CET-4 score groups.

Intercultural Competence and International Experiences

International experiences can be obtained in a variety of pathways. Individuals usually get intercultural experiences through studying or taking an internship abroad, traveling or working abroad, undertaking international volunteer services, or participating in international competitions, conferences, and summer/winter schools. It was well documented that previous international experiences were conducive for IC development and positively related to IC (Y. C. Gao, 2014; X. Li, 2013; Rust et al., 2013; Stebleton et al., 2013). Studies discussed in this section examined the relationship between intercultural experiences and IC, and what effects students' international experiences had on their IC and IC elements, such as intercultural sensitivity and intercultural engagement.

There is overlap in finding positive effects of international experiences on IC or intercultural sensitivity in some studies. Engle and Engle (2004) found students in the full-year programs experienced the greatest IC gains compared to those in the semester-long programs. Rust et al. (2013) observed a statistically significant increase in IDI scores after

study abroad; intercultural coursework combined with a study abroad experience had an impact on intercultural development. Three groups of students in a semester-length and faculty-led study abroad program were examined on their intercultural sensitivity by Anderson and Lawton (2011) using the IDI and Global Perspective Inventory (GPI). The results supported that participation in semester-length study abroad programs yielded a significant increase in the students' intercultural sensitivity for the IDI and GPI scores.

Stebbleton et al. (2013) further discovered study abroad had a high positive impact on students' IC development in the aspects of understanding global complex issues, applying disciplinary knowledge to a global context, having linguistic and cultural competency in another language, and feeling comfortable working with people from other cultures. Results of a multiple regression analysis of 291 self-reported responses suggested service duration, cultural immersion, guided reflection, and contact reciprocity were all positively associated with IC; and guided reflection appeared to moderate the relationship between service duration and IC (Lough, 2011). Using the Intercultural Effective Scale to measure 55 U.S. students' IC who participated in eight short-term study abroad programs before, immediately after, and 3 months following the study abroad experience, Nguyen (2017) found significant gains in students' IC and identified the need for reflective and engaging activities to improve IC.

A mixed-method study on changes in the intercultural sensitivity of students at the University of Maryland who studied abroad in two programs in Mexico (Medina-Lopez-Portillo, 2004) suggested program duration significantly impacted intercultural sensitivity development: the longer the program, the more interculturally sensitive students became. In a study of 86 students from seven Minnesota colleges and universities who participated in a study abroad program, Paige et al. (2004) noted a study abroad experience had a positive impact on students' IC, more frequent use of listening and speaking strategies for language learning, and increased use of interpreting culture, nonverbal communication, culture shock

and coping strategies for culture learning. In a study of 136 participants, Gibson and Zhong (2005) demonstrated a positive relationship existed between international experience and IC. Participants who lived outside the United States for more than 3 months demonstrated a higher level of IC than those who had an international period from 0–3 months.

Results from some doctoral dissertations were consistent with the previous findings. In a sample of 1,163 students in the Georgetown University Consortium Project, Nichols (2011) discovered students who had no previous experiences living in another culture gained significantly more than those with such experiences. In a study of 86 educational leaders, El Ganzoury (2012) explored the association between intercultural sensitivity and experiences living in another country. Those who had previous experiences living in another country scored higher on accepting cultural differences and adapting themselves to different cultural contexts than those who never lived abroad.

Some other dissertations examined the effect of overseas duration on IC or intercultural sensitivity. Palsa (2010) observed participants with more than 3 months' international experiences got higher scores in the ethnorelative stages of intercultural sensitivity. A similar overseas duration (a full semester) was identified by Pierson (2010) to make the difference in intercultural sensitivity between the study abroad participant group and nonstudy-abroad participant group. Castles (2012) reported students who had more than 12 months' international experiences scored higher on IC than students with no experience or less than 1 month of experience. The 12-month overseas duration made a difference in IC.

The influence of international experiences on IC was also examined quantitatively in Chinese studies (Y. C. Gao, 2014, 2016; Y. S. Hu, 2020; Y. Y. Huang, 2014; X. Li, 2013; X. Zhang & Zhou, 2019). All provided positive evidence for the impact of international experiences on IC. Y. C. Gao (2014) examined how study abroad experiences improved students' performance in the affective and cognitive aspects of IC. Students' worldviews

changed through understanding cultural differences and accepting multiculturalism. Their communication ability increased. Y. C. Gao (2016) found students with study abroad experiences were significantly different in IC overall score and the subscores of knowledge, critical thinking, and strategy than those without study abroad experiences. Study abroad experiences and IC were positively correlated. X. Li (2013) suggested study abroad duration had a positive impact on students' IC at the cognitive, affective, and behavioral aspects. The influence of a study abroad experience on the emotional aspect of IC was examined by Y. Y. Huang (2014). The results showed such an experience could help students reduce cultural bias and anxiety, and was conducive to cultivating positive attitudes and empathy in intercultural communication.

The intercultural adaptability was enhanced through study abroad in Y. S. Hu's (2020) study on 100 Teaching Chinese as a Second Language (TCSL) majors at Southwest Forestry University of China. X. Zhang and Zhou (2019) explored the association between different types of interventions and IC development, trying to find effective means of helping individuals enhance their IC. They reviewed relevant studies published between 2000 and 2018. Based on 31 studies, they found overseas immersion and pedagogical interventions were the two major types of effective interventions. Pedagogical interventions referred to culture-based teaching materials, classroom activities, teaching strategies, and integrated intercultural programs. The findings reported overseas immersion had a larger effect on IC development than other types of interventions.

Though a multitude of studies have reported international experiences had positive effects on IC, increased intercultural experiences do not necessarily lead to increased IC (Lyttle et al., 2011). Several studies concluded international experiences and IC had no relationship. Lai (2006) and Rabo (2011) found no relationship between intercultural experiences and IC in small samples (i.e., 30 in Lai and 22 in Rabo). This result might be

from a low statistical power due to the small sample size. The results of a longitudinal study on study abroad and intercultural development by Rexeisen et al. (2008) did not conclude that study abroad resulted in a long-term significant increase in IC.

When exploring differences in IC developmental orientation scores among overseas duration groups, Kruse et al. (2014) found no statistically significant differences. If someone who lived in another culture for many years still had a monocultural mindset, did not learn about local culture, or did not participate in cultural immersion activities, international experiences could not help to develop IC. Helmer (2007) found a negative correlation between the number of years living abroad and intercultural sensitivity if a person was abroad for more than ten years. As in most cases, people living abroad for more years are older than those living abroad for a shorter length of time; this study finding could be explained by age as an intervening factor. Pedersen (2010) found significant differences from pre to post IC scores in the study abroad group with intercultural training, but no differences in the study abroad group without such training. Study abroad without intercultural courses or training might not necessarily improve students' IC.

Summary of Studies on Intercultural Competence and International Experiences

This section reviewed the studies on the relationship between international experiences and IC. Quantitative or mixed-method studies were included. Most findings suggested international experiences had a positive relationship with IC, which provides an empirical foundation for this study to examine (a) how international experiences are related to Chinese private college students' IC, (b) to what extent the length of international experiences impact students' IC, and (c) how students' IC differs depending on length of international experiences.

Intercultural Competence and Intercultural Contact Experiences

Intercultural contact refers to (a) spoken or written communication with native speakers of a target language face-to-face or through social media; (b) participating in intercultural activities; (c) taking language or cultural courses, reading printed or digital newspapers, magazines, or books, and watching films or listening to music in a foreign language, either in the home country or abroad. The positive relationship between intercultural contact and IC has been well documented in English and Chinese literature.

In a study of 1,027 Chinese students, Y. C. Gao (2016) found significant differences in IC overall score and subscores of awareness, attitude, skills, knowledge, critical thinking, and strategy between the groups with or without intercultural contact experiences. Intercultural contact experiences and IC had a positive relationship. Students who participated in intercultural communicative activities made a significant difference in IC from those who did not. This finding was identified by H. J. Liao and Y. J. Li (2017). The group who participated in intercultural communicative activities had a higher IC than the group without such experiences. Similar results were revealed between the group who participated in social research or practice and the group who did not. Y. P. Zhang (2012) reported effective intercultural communication was facilitated by contacting as many foreigners as possible, establishing close relationship with foreigners, and using impression management tactics (e.g., focus on others, active explanation, identity monitor, and ingratiation) in intercultural communication.

Increasing intercultural contact while living abroad is an effective way to develop IC. Pedersen (2010) compared the pre and post IDI scores for three groups of students and found the group participating in extracurricular activities abroad showed a significant difference in the post IDI scores compared to the group not involved in the activities and the group who stayed home. In a short-term study abroad program, Cubillos and Ilvento (2018) found

sustained interpersonal contact with the host community, not sporadic encounters, were required to improve IC. Increasing intercultural contact in the home country also proved to be a beneficial way to improve IC. In a study of 15,807 samples across nine public universities in the United States, Soria and Troisi (2014) suggested students' participation in on-campus international activities, such as communicating with international students, taking international coursework, and attending lectures or conferences on international topics, would bring students more benefits than study abroad for IC development. Meng et al.'s (2017) finding was consistent with Soria and Troisi's, supporting that students' experiences of communicating with foreigners in campus activities and enrolling in international coursework were predictive of Chinese students' global competence.

According to the different pathways, Kormos and Csizer (2007) proposed direct and indirect intercultural contact. Deng (2015) revealed Chinese college students' direct spoken and written intercultural contact had significant positive effects on IC and its six elements (i.e., cultural knowledge, foreign cultural knowledge, intercultural communicative skills, intercultural cognitive skills, attitudes, and awareness). Most students' indirect personal contact and indirect contact with books, magazines, music, and movies, or participating in English activities, taking English courses or lectures, had a positive impact on IC and its six elements. Peng and Wu (2016) constructed a scale to measure Chinese college students' intercultural contact through four pathways of direct intercultural contact and two pathways of indirect intercultural contact. Direct intercultural contact was obtained through domestic social media, foreign social media, domestic intercultural communication activity, and foreign intercultural communication activity. Intercultural indirect contact referred to the contact with cultural products and multimedia and courses. Peng and Wu (2018) used this scale to investigate 1,350 Chinese college students' intercultural contact, and found both direct and indirect intercultural contact were beneficial for developing students' IC.

J. Wang (2018) showed indirect contact was positively correlated with IC and its six elements but clarified different direct contact pathways had different effects on IC. Direct contact through domestic social media (QQ) and domestic and foreign intercultural communication activities had positive effects on native cultural knowledge, intercultural communicative and cognitive skills, and intercultural awareness. Direct contact through foreign social media (Skype) and domestic social media (Wechat) had negative effects on native cultural knowledge. Ding (2006) found using Skype is effective in improving participants' intercultural communication competence. Y. B. Huang et al. (2019) confirmed intercultural contact pathways were among the main factors influencing IC.

Reducing stereotypes or prejudice is crucial for IC cultivation. Stangor et al. (1996) studied changes in stereotypes and attitudes within a sample of U.S. college students who spent one year studying abroad. When students had more contact with host country members, their attitudes and stereotypes toward host country members were more positive. The extent to which students had meaningful direct contact with host country members was the key to the success of study abroad programs. Y. Y. Huang (2012) found intergroup contact was conducive to reducing cultural prejudice and anxiety, cultivating greater empathy, and strengthening participants' positive attitudes toward the host cultures. The impact of intergroup contact on cultural prejudice and anxiety was the strongest, followed by empathy and attitude. The impact of intergroup contact on the affective element of IC was the strongest, followed by cognitive and operational elements.

The positive relationship between intercultural contact and IC was also supported by studies on teachers and school administrators. Cui and Wang (2016) found competence in nonnative language or culture, frequency of interacting with people of diverse backgrounds, and teaching experience were significant predictors of preservice teachers' levels of IC. When the frequency of interacting with people of diverse backgrounds increased, preservice

teachers' IC increased. Tinkham (2011) confirmed through the study of secondary school administrators that previous sustained contact with another culture led to greater intercultural awareness. Like students, indirect contact was also the main intercultural contact pathway for foreign language teachers in a Chinese university; almost all direct and indirect aspects of intercultural contact were positively related to IC (H. J. Wang, 2018).

Summary of Studies on Intercultural Competence and Intercultural Contact Experiences

This section reviewed the studies on the relationship between intercultural contact experiences among students, teachers, and school administrators. The positive relationship between direct or indirect contact and IC was widely supported by English and Chinese studies. Increasing intercultural contact—either in home country or abroad—was effective in developing IC. Increasing intercultural contact could reduce stereotypes and prejudice, which was beneficial for IC cultivation. This part provided a foundation to examine the extent intercultural contact experiences impact IC and how IC differs in groups of students with different frequencies of intercultural contact.

Chapter Summary

This chapter reviewed some influential IC theoretical models and assessment instruments in English and Chinese literature. The theoretical frameworks for this study were discussed. It also reviewed relevant studies about the effects of foreign language capability, international experiences, and intercultural contact experiences on IC. Some conclusions are summarized.

First, the IC models proposed by Western scholars are mainly within the compositional (i.e., cognitive, affective, and behavioral) and developmental frameworks. These types of models focus on the personal characteristics or the progression process of IC development. With the trend of globalization, several comprehensive models have emerged, adding intercultural mindset and world citizenship to IC frameworks. Many IC models

proposed by Chinese scholars follow the Western models and then were adapted for the Chinese context. There are, however, some models constructed from Chinese cultural perspectives. China's Confucianism and Taoism are incorporated into the IC framework, focusing on the moral or ethical factors, spiritual process of communication, appropriateness of interaction, and harmonious relations between interactants. Studying IC from multicultural perspectives is conducive for scholars to broaden their research scope.

Second, the IC theoretical frameworks and intergroup contact theory were elaborated on as the basis of this research. The IC theoretical models used for this study are within the compositional framework: Byram's (1997) intercultural competence model, Deardorff's (2006) pyramid model of intercultural competence, Y. C. Gao's (2014) knowing and doing model, and Zhong and Fan's (2013) intercultural communicative competence model. The AIC-CCS instrument for this study is based on Byram (1997). There is strong evidence for the reliability and validity of this measure.

Finally, results from reviewed studies on the impact of foreign language capability, international experiences, intercultural contact experiences, and IC were inconsistent. These varying results left gaps to fill. My study provided additional evidence in a Chinese private college context.

Although the review of studies enables researchers to understand the relationships between English language capability, international experiences, intercultural contact experiences, and IC in Western contexts and Chinese public universities, it is uncertain what the results are in a Chinese private college context. This kind of research is scarce in China, and this study aims to fill up this gap. In the next chapter, the research methodology for this study is presented.

CHAPTER 3: RESEARCH METHODOLOGY

This chapter presents the research methodology for this study. The purpose of this study is to: (a) identify Chinese private college students' characteristics of intercultural competence (IC) and (b) examine the relationships between English language capability, international experience, intercultural contact experiences, and IC. Based on the research purpose, a quantitative research design with a web-based survey and comparison and correlation analysis methods were proposed.

Research Questions

Based on the research purpose, the research questions for this study are:

Research Question 1: What are the characteristics of the intercultural competence of students in a Chinese private university?

Research Question 1a: Are there any differences in students' IC scores for groups of students with different CET-4 scores? Which groups are statistically different from each other? What are the magnitudes of differences in intercultural competence scores between the groups that are found to be significantly different?

Research Question 1b: Are there any differences in students' intercultural competence scores for groups of students with different overseas durations? Which groups are statistically different from each other? What are the magnitudes of differences in intercultural competence scores between the groups that are found to be significantly different?

Research Question 1c: Are there any differences in the intercultural competence scores for groups of students with different frequencies of communicating with native English speakers in English in the home country? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 1d: Are there any differences in the intercultural competence scores for groups of students with different frequencies of engaging in intercultural activities to understand English culture in the home country? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 1e: Are there any differences in the intercultural competence scores for groups of students with different frequencies of contacting cultural products and taking cultural courses to understand English culture in the home country? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 2: What factors are associated with students' intercultural competence? How much of the variance in the intercultural competence score can be explained by each of the factors?

Research Question 2a: Are students' CET-4 scores associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2b: Are students' overseas durations associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2c: Are students' frequencies of communicating with native English speakers in English in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2d: Are students' frequencies of engaging in intercultural activities to understand English culture in the home country associated with intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2e: Are students' frequencies of contacting cultural products and taking cultural courses to understand English culture in the home country associated with intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

The Quantitative Paradigm

I used a quantitative methodology for this study. In the research process, I acted as an objective observer and tried to separate myself from the investigation problem. The research process was deductive, beginning with specific research questions, and then I formulated hypotheses. I collected data with a web-based survey and analyzed the data with IBM Statistical Package for the Social Sciences 26 (SPSS 26) software. The data analysis results allowed me to learn broadly about the characteristics of the sample and the relationships between variables. Then, I either rejected or supported the hypotheses to identify objective, measurable, and actual results. Based on this information, a quantitative research design was appropriate to construct my knowledge about Chinese private college students' IC characteristics and the relationships between English language capability, international experience, intercultural contact experiences, and IC.

Research Design

This study employed a quantitative research design using a web-based survey on the Questionnaire Star platform. Descriptive statistics and comparison and correlation methods were used for analysis. Next, I discuss each of these elements.

Survey Method

The survey method investigates and reports on the status of a population based on numeric data (Terrell, 2015). From a survey, I could thoroughly explore the potential for gathering information from existing records (Fowler, 2013). I used a web-based survey method for this study. Research comparing web-based to paper-and-pencil questionnaires has shown the two survey formats are equally reliable and provide the same results (McMillan, 2015). Results from a web-based survey can be quickly gathered after participants submit their responses.

Comparison Method

The comparison method compares the mean differences of a variable across groups. I used this method to explore: (a) if IC scores are statistically different across groups of foreign language capability, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses; (b) the magnitude of differences; and (c) the effect size of the comparison.

Correlation Method

The correlation method examines the relationships between variables. I used this method to determine: (a) if relationships existed between CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, frequency of contacting cultural products and taking cultural courses, and IC; (b) the strength of relationship; and (c) the effect size of the correlation.

Setting

This study was conducted in a private university named S University in Shanghai, China. Established in 1990s, it is one of 19 private colleges and universities in Shanghai (MOE of China, 2019). S University has eight colleges (College of Business, College of

Management, College of Information Science and Technology, College of Mechanical and Electrical Engineering, College of Foreign Languages, College of Art Design and Media, College of Medical Technology, and College of Education). There are 41 undergraduate programs. The total undergraduate enrollment is 14,292 (Academic Affairs Office of S University, 2019).

Internationalization is one of the development strategies of S University. According to its International Exchange and Cooperation Office data, S University has established partnerships with around 100 partners in 23 countries. In 2019, 212 X students studied in partner institutions in the United States, Germany, the Netherlands, Finland, Japan, Taiwan, and other countries or regions; the duration of programs ranged from two weeks to one year. There were 49 international students from 13 countries, including four undergraduate students and 45 interschool exchange students from Germany, Finland, the Netherlands, Russia, Japan, Korea, Thailand, and other countries. The University received eight short-term student groups in 2019, with 93 students from Japan, Russia, the United States, the Netherlands, Finland, and other countries. S University had 50 full- and part-time foreign teachers in 2019. Seventy-seven S University's faculty and administrators traveled abroad to study, train, and lecture. A university such as S University is an appropriate site for my study on students' IC because the University attaches great importance to the internationalization strategy.

Participants and Sampling

I conducted this research among 1st- through 4th-year students coming from eight colleges of S University. There were 14,292 undergraduate students in total. The numbers and percentages of the population by college are shown in Table 5.

Table 5*Student Population by College, Discipline, and Program*

No.	College	Discipline	Program	Number of students	Total number of students	Percentage
1	College of Business (9 programs)	Economics	Finance	655	4,004	4.58%
		Economics	Finance (CFA program)	184		1.29%
		Economics	International Economics & Trade	644		4.51%
		Economics	International Economics & Trade (international joint program)	194		1.36%
		Management	Accounting	640		4.48%
		Management	Financial Management	576		4.03%
		Management	Financial Management (CIMA program)	176		1.23%
		Management	Marketing	497		3.48%
		Law	Law	438		3.06%
2	College of Art Design and Media (8 programs)	Fine Arts	Environmental Design	304	2,436	2.13%
		Fine Arts	Visual Communication Design	339		2.37%
		Fine Arts	Product Design	248		1.74%
		Fine Arts	Fashion Design	338		2.36%
		Liberal Arts	Fashion Communication	118		0.83%
		Management	Fashion Marketing	86		0.60%
		Liberal Arts	Journalism	515		3.60%
		Liberal Arts	Internet & New Media	488		3.41%

No.	College	Discipline	Program	Number of students	Total number of students	Percentage	Total percentage
3	College of Management (6 programs)	Management	Public Administration (Human Resource Management)	353	2,197	2.47%	15.37%
		Management	Labor and Social Security	205		1.43%	
		Management	Project Management	463		3.24%	
		Management	Tourism Management	424		2.97%	
		Management	Hospitality Management	536		3.75%	
		Engineering	Food Quality and Safety	216		1.51%	
4	College of Information Science and Technology (4 programs)	Engineering	Computer Science and Technology	840	1,871	5.88%	13.09%
		Engineering	Software Engineering	253		1.77%	
		Management	E-Commerce	581		4.07%	
		Management	Information Management and Information System	197		1.38%	
5	College of Foreign Languages (6 programs)	Liberal Arts	English	736	1,691	5.15%	11.83%
		Liberal Arts	Japanese	433		3.03%	
		Liberal Arts	Spanish	228		1.60%	
		Liberal Arts	Russian	44		0.31%	
		Liberal Arts	Korean	105		0.73%	
		Liberal Arts	Translation	145		1.01%	
6	College of International Medical Technology (3 programs)	Medical Science	Nursing	751	1,277	5.25%	8.94%
		Medical Science	Rehabilitation Therapy	286		2.00%	
		Education	Health Education	240		1.68%	
7	College of Education (3 programs)	Education	TCSOL (Teaching Chinese to Speakers of Other Languages)	141	460	0.99%	3.22%
		Education	Early Childhood Education	125		0.87%	

		Education	Primary Education	194		1.36%	
No.	College	Discipline	Program	Number of students	Total number of students	Percentage	Total percentage
8	College of Mechanical and Electrical Engineering (2 programs)	Engineering	Mechatronics	234	356	1.64%	2.49%
		Engineering	Construction Electricity & Intelligence	122		0.85%	
	Total		41	14,292	14,292	100%	100%

Note. Data were provided by the Academic Affairs Office of S University on December 31, 2019.

Effective sampling involves “finding a way to give all (or nearly all) population members the same chance of being selected and using probability methods for choosing the sample” (Fowler, 2013, p. 4). A good representative sample will reflect its percentage in the sample like those in the population (Terrell, 2015). To identify a sample that represents the population as accurately as possible, I used a convenience sampling method. Every one of the 14,292 students had an equal chance of being selected into a sample; participation was voluntary. It is hard to define the response rate for an online survey, as the whole student population was only presented by the survey, not really invited. Therefore, I did not select a response rate, but set 2,000 responses as my goal. This sample size was large enough to allow for equal representation of the characteristics identified as important. The large sample size can lessen the likelihood of sampling error (Terrell, 2015).

I sought assistance from the Student Affairs Office of S University and eight colleges’ class counselors to draw the sample. The student management model at S University involves 30–40 students assigned to a class, and each class counselor manages six classes, assisted by three to five student representatives in every class. S University has 91 class counselors. Table 6 shows the number of class counselors by campus and college. Each class has a WeChat group (a popular Chinese social media tool), and student representatives manage each group. I sent the online survey link to the WeChat groups for each class through class counselors, inviting students to participate in the survey. Following this, I asked the counselors and student representatives weekly to remind students to complete the online survey.

Table 6*Class Counselors by Campus and College*

College	Number of counselors		
	Jinhai campus	Jiashan campus	Total
College of Business	18	5	23
College of Art Design and Media	9	5	14
College of Management	9	6	15
College of Information Science and Technology	8	3	11
College of Foreign Languages	5	10	15
College of International Medical Technology	5	3	8
College of Education	2	1	3
College of Mechanical and Electrical Engineering	1	1	2
Total	57	34	91

Note. Data were provided by the Student Affairs Office of S University on December 31, 2019.

Instruments

My research purpose and questions call for data that can only be obtained through a survey. I used the Questionnaire Star platform (www.wjx.cn) to distribute the survey in Chinese (see Appendix A, see the English translation in Appendix B) and collect responses. The survey had two parts. The first part was about participants' demographic data such as gender, age, place of origin, college, discipline, program, year of study, and parents' education levels. Some other questions in this part included questions such as participants' self-reported CET-4 score, international experience (i.e., oversea duration, the purpose of going abroad), and intercultural contact experiences (i.e., pathways and frequencies of communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and courses). The second part of the survey asked participants to evaluate their IC levels using the Assessment of Intercultural Competence of Chinese College Students (AIC-CCS; Wu et al., 2013) with 28 items scored on a 5-point Likert scale from 1 (*very low*) to 5 (*very high*). At the end of the survey, participants were asked if they were willing to participate in subsequent individual or focus-group interviews in a follow-up study. The survey was estimated to take 20–30 minutes to complete.

Introduction to AIC-CCS

AIC-CCS is based on the multidimensional models of intercultural competence (i.e., knowledge, skills, awareness, and attitude) proposed by Byram (1997), Fantini's (2000, 2006) Your Objectives, Guidelines, and Assessment (YOGA) intercultural competence self-evaluation questionnaire (22 items), and the Assessment of Intercultural Competence (AIC) questionnaire (43 items). Wu et al. (2013) translated and modified the English versions of YOGA and AIC into the Chinese version of AIC-CCS. The modification was completed in multiple steps. First, all YOGA and AIC items were put together and classified into attitude, awareness, knowledge, and skills. A panel of experts with three experienced IC experts was invited to check the content validity through cognitive interviews and modify the scale as needed.

Additionally, Wu et al. (2013) distributed the new scale to some students and interviewed several of them. They asked students to discuss the scale in groups and choose the items that fit them best. Second, based on experts' and students' opinions, unimportant and repeated items were deleted, and the scale with 60 items was constructed. Finally, through a small-scale trial test on some Chinese college students, factor analysis was used to extract key factors. The scale was revised again, and the AIC-CCS was finalized with 28 items that fell under six factors across four dimensions, as shown in Table 7. The four dimensions are: (a) knowledge dimension—knowledge of national or foreign lifestyles and values, basic knowledge of cultural and intercultural communication concepts; (b) attitude dimension—willing to tolerate foreigners' different values, dietary habits, and taboos; (c) skills dimension—using body language or other nonverbal behaviors to communicate, avoiding stereotypes to foreigners, avoiding privacy topics in communication, sensitivity to cultural differences, using multiple perspectives to look at other countries' politics, economy, and religion; and (d) awareness dimension—being aware of the difference between one's

own cultural identity and the other's cultural identity. The six factors are Knowledge of Self (KN-A), Knowledge of Others (KN-B), Intercultural Communicative Skills (SK-A), Intercultural Cognitive Skills (SK-B), Attitude (AT), and Awareness (AW). All items are scored on a 5-point Likert scale, from 1 (*very low*) to 5 (*very high*).

Table 7

The AIC-CCS Scale

Scale	Dimension	Factor	Number of items
AIC-CCS	Knowledge	KN-A (knowledge of self)	3
		KN-B (knowledge of others)	7
	Skill	SK-A (intercultural communicative skills)	9
		SK-B (intercultural cognitive skills)	3
	Attitude	AT	3
	Awareness	AW	3
Total			28

The weight of each factor was determined with the Delphi method. More than 20 experts on intercultural studies in China were invited to select each factor's weight independently. Their selections were then sorted out and analyzed. Finally, the weights of all the factors were determined (see Table 8).

Table 8

Weight Index of AIC-CCS Factors

	Knowledge		Attitude	Skill		Awareness	Total
	KN-A	KN-B	AT	SK-A	SK-B	AW	
Weight Index	0.05	0.30	0.19	0.25	0.06	0.15	1

Note. Adapted from “A Comprehensive Evaluation on Chinese College Students’ Intercultural Competence,” by W. P. Wu, 2013, *Unpublished doctoral dissertation*, p. 82.

The key indicators of an instrument's quality are the reliability and validity of the measures (Kimberlin & Winterstein, 2008, p. 2276). Wu et al. (2013) sent 447 questionnaires, and 331 valid questionnaires were collected. The collected data were used to

examine the validity and reliability of the AIC-CCS. Factor analysis and Cronbach's alpha were conducted for this purpose.

Factor Analysis for Validity of AIC-CCS

Wu et al. (2013) used the data collected from 331 questionnaires to analyze the construct validity through exploratory factor analysis (EFA), identifying key factors of Chinese college students' intercultural competence and the associations between the key factors and intercultural competence. These authors then conducted an exploratory factor analysis to extract six key factors influencing the intercultural competence of Chinese college students and the degree of association between each key factor and the observed variable of intercultural competence. The six key factors are KN-A, KN-B, AT, SK-A, SK-B, and AW. The total variance of the cumulative interpretation of the scale is 63.02%. The factor KN-B is the most important, explaining 30.79% of the total variance. SK-A is the second most important factor of AIC-CCS, explaining 13.28% of the total variance. The factor AT explains 5.75% of the total variance. The factor KN-A explains 4.79% of the total variance. SK-B explains 4.34% of the total variance. The factor AW is the least important factor of AIC-CCS, explaining 4.08% of the total variance. The factor loadings of all items are between 0.479 and 0.859, indicating the six key factors comprehensively reflect the contents of the four dimensions of attitude, awareness, knowledge, and skills.

Second, confirmatory factor analysis (CFA) was conducted to evaluate the model fitting degree of the AIC-CCS using AMOS. The model fitting indexes in Table 9 were obtained through the CFA hypothesis model validation. All the model fitting indexes of chi-square ratio of degrees of freedom (χ^2/df), normed fit index (NFI), non-normed fit index (NNFI), comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root mean square residual (RMSR), and root mean square error of

approximation (RMSEA) were within the acceptable limits and conformed to the structural equation modeling (SEM) evaluation criteria of the adaptability of the whole model.

Table 9

The Model Fitting Indexes of AIC-CCS

Indicator	χ^2/df	NFI	NNFI	CFI	GFI	AGFI	RMSR	RMSEA
Standard Index	1-3	>0.80	>0.90	>0.90	>0.90	>0.90	<0.08	<0.08
Index	2.14	0.82	0.91	0.92	0.91	0.93	0.07	0.03

Note. $\chi^2/df p = 0.000 < 0.001$. Reprinted from “An analysis of the assessment tools for Chinese college students’ intercultural communicative competence,” by W. P. Wu, W. W. Fan, & R. Z. Peng, 2013, *Foreign Language Teaching and Research*, 45(4), p. 587 (<http://doi.org/cnki:sun:wjyy.0.2013-04-012>). Copyright 2013 by Foreign Language Teaching and Research Press.

Cronbach’s Alpha for Reliability of AIC-CCS

Reliability is used to evaluate: (a) the stability of measures at different times to the same individuals or using the same standard and (b) the equivalence of sets of items from the same test (internal consistency) or of different observers scoring a behavior or event using the same instrument (interrater reliability; Kimberlin & Winterstein, 2008). The most widely used method for estimating internal consistency reliability is Cronbach’s alpha (Kimberlin & Winterstein, 2008). DeVellis (2016) suggested the Cronbach’s alpha ranges for research scales were as follows: below .60, unacceptable; between .60 and .65, undesirable; between .65 and .70, minimally acceptable; between .70 and .80, respectable; between .80 and .90, very good; and much above .90, the scale should be shortened. Wu et al. (2013) reported the AIC-CCS’s overall Cronbach’s alpha was 0.913 (see Table 10), and the Cronbach’s alphas of the six factors were between 0.734 and 0.91. These coefficients indicate the AIC-CCS has high reliability and strong internal consistency.

Table 10*Cronbach's Alphas for AIC-CCS*

Factor	KN-A	KN-B	AT	SK-A	SK-B	AW	Overall
Cronbach's alpha	0.734	0.910	0.863	0.873	0.779	0.878	0.913
Number of items	3	7	3	9	3	3	28

Note. Reprinted from “An analysis of the assessment tools for Chinese college students’ intercultural communicative competence,” by W. P. Wu, W. W. Fan, & R. Z. Peng, 2013, *Foreign Language Teaching and Research*, 45(4), p. 587

(<http://doi.org/cnki:sun:wjyy.0.2013-04-012>). Copyright 2013 by Foreign Language Teaching and Research Press.

The Chinese version of AIC-CCS was translated and modified from Fantini's (1995, 2000, 2006) YOGA and AIC questionnaires. The AIC-CCS has four dimensions, six factors, and 28 items. Exploratory factor analysis, confirmatory factor analysis, and Cronbach's alpha were conducted to examine the validity and reliability of the AIC-CCS. The results reported the AIC-CCS had high validity and reliability, and it was effective in evaluating Chinese college students' intercultural competence.

Research Procedures

This study's procedures started from the approvals by S University Ethical Review Board and Chapman University Institutional Review Board (IRB). Upon getting the approvals, I conducted a pilot test among 12 students to see if they could understand and respond to the survey items. Data collection was completed successfully with the assistance of class counselors. Due to voluntary participation, follow-up contacts were necessary until the goal of 2,000 responses was reached.

Access

Once I passed the dissertation proposal defense, I submitted a proposed protocol to the S University Ethical Review Board and Chapman University IRB. Upon receiving their approval, I wrote a site entry email to the President of S University, stating my research topic, purpose, and plan. Upon the President's approval, I wrote a similar email to the eight

colleges' deans to get their permission for my study among students from their colleges. After getting their permission, I wrote a third similar email to all counselors of the eight colleges, seeking their assistance in helping me distribute the online survey to students. Last, I wrote a recruitment email to invite students to participate in the survey.

Pilot Test

Before collecting data, I conducted a pilot test with 12 students randomly selected at S University to make sure the instructions, questions, and scale items were clear. I invited the students to complete the survey online. After they finished the survey, I interviewed them in an online focus group to find how they well understood each question. Based on the responses from the focus group, it was clear students understood most questions and responded to them appropriately. Based upon students' feedback from the pilot test, I adjusted the questions slightly in the first part of the survey. The AIC-CCS scale in the second part of the survey was not changed as it had been validated for use.

Data Collection

At the beginning of the questionnaire, I provided informed consent. If students agreed, they could press Agree and started the survey. Otherwise, they could press Disagree to end the survey. The informed consent form included (a) the purpose of the study; (b) what participation would involve; (c) potential risks and benefits; (d) how their participation decisions and information they provided would be protected; (e) what rights they had as research subjects; (f) how the results would be presented; (g) how much time needed to complete the study; and (f) the option to quit at any time.

I created a survey on the Questionnaire Star platform, and the survey QR code was formed to collect data. I sent the survey QR code to class counselors, and they sent it to the WeChat groups of all classes, inviting students to complete the survey voluntarily. Students could answer the questions on their mobile phones, Pads, or computers. All students had the

same access to the survey, and students could voluntarily choose whether to answer the questions. To help keep the response rate high, I prepared raffles of 20 Starbucks gift cards, each worth RMB100. A goal of 2,000 participants was established with the advise of my committee members. Data collection began on July 3, 2020, and completed on July 24, 2020, lasting three weeks. A total of 2,048 responses were received, including 1,804 responses by the end of the first week, 2,038 responses by the end of the second week, and 2,048 responses by the end of the third week. When the goal of 2,000 responses was reached, I stopped collecting data. Among 2,048 responses, 1,983 participants agreed to the informed consent, so they were selected for analysis.

Data Analysis Plans

I used IBM SPSS 26 to analyze the data. The collected data were first converted into SPSS format. I prepared a codebook to define and label all variables and assign numbers to all responses (Pallant, 2016). Each item in the questionnaire had a unique variable name, and each response was assigned a numerical code. After entering the data into SPSS, I looked for values that fell outside the range of possible values for a variable by inspecting each variable's frequencies. Once I had a clean data file, I began the analysis process. The data analysis began with preliminary descriptive analyses and then main analyses by comparing group differences and exploring relationships among variables. The hypotheses were tested using an alpha value of .01; p values less than the alpha value resulted in rejecting the null hypothesis. The effect size measures were computed in both the comparison and correlation methods to determine the effect of IVs on DV.

Preliminary Analyses

Before answering the research questions, I conducted preliminary analyses of the demographic, independent, and dependent variables. To obtain descriptive statistics for categorical variables, I computed their frequencies, which informed me of the numbers and

percentages of participants who indicated each response. I also calculated descriptive statistics for all continuous variables, including mean, median, minimum, maximum, skewness, kurtosis, standard deviation, and variance, to check all assumptions for planned analyses (e.g., ANOVA, correlation) had been met. Mean and median scores were used to measure the central tendency and provide information about an entire distribution of scores, and skewness and kurtosis values describe the normality of scores. These were important to consider as ANOVA and correlation analysis are based on the normal distribution of scores (Pallant, 2016).

Research Question (RQ) 1

What are the characteristics of the intercultural competence of students in a Chinese private university?

RQ 1a–1e: Are there any differences in students' intercultural competence scores for groups of students with different (a) CET-4 scores; (b) overseas duration; (c) frequency of communicating with native English speakers; (d) frequency of engaging in intercultural activity; (e) frequency of contacting cultural products and taking cultural courses? Which groups are statistically different from each other? What are the magnitudes of differences in intercultural competence scores between the groups that are found to be significantly different?

Hypotheses. The null hypotheses are that there are no differences in students' intercultural competence scores for groups of students with different CET-4 scores, overseas durations, and frequencies of communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses. The alternative hypotheses are that there are differences in students' intercultural competence scores for groups of students with different CET-4 scores, overseas durations, frequency of

communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses.

Planned Analysis. To answer this question and the following subquestions, I used one-way between-groups analysis of variance (ANOVA), calculating the overall F ratio, running post-hoc tests, and calculating the eta squared value. The IVs are CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses. The DV is the IC score. The CET-4 score and IC score are continuous variables. The overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses are ordinal variables. For CET-4, 425 is the official passing score, and 500 is widely recognized as a high score. I used 425 and 500 scores as the cut-off points to divide CET-4 scores into three groups, i.e., Low Score group (1–424), Medium Score group (425–499), and High Score Group (500–710). There are four groups for overseas duration: no overseas duration, less than 1 month, 1–3 months, 4 or more months. Frequencies of communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses were categorized into three groups: None or a Little, Some, and Much. The IC variable results in an overall score and six subscores.

One-Way Between-Groups ANOVA. The purpose of the one-way between-groups ANOVA is to compare the mean scores of two or more groups of one IV on one DV to see if the group means are significantly different from each other. I compared the mean scores of three CET-4 score groups, four overseas duration groups, and three frequencies of intercultural contact groups (IVs) on IC (DV) to see if the variability in mean scores within each group was significantly different from each other. The ANOVA produced an F ratio,

which represented the variance between the groups divided by the variance within the groups. A large F ratio indicates more variability between the groups caused by the IV than within each group (Pallant, 2016).

Post-Hoc Tests. The F ratio only tells if there is a significant difference between group means. I wanted to know more about which groups differ from each other significantly. For this purpose, I conducted post-hoc tests. Post-hoc tests allow for comparisons and explore the differences between each of the groups (Pallant, 2016). My analysis started by calculating an overall F ratio. If the F ratio was significant, assuming the same sample variances for the same sample sizes, I continued to perform Tukey HSD (honestly significant difference) post-hoc tests to identify where these differences occurred.

Effect Size (Eta Squared). After knowing which groups differed significantly in IC scores, I wanted to learn more about the magnitudes of differences between them. I used *eta* squared or partial *eta* squared value, which was calculated as part of the output from ANOVA. *Eta* squared is used to examine the percentage of variance in the DV explained by the IV in ANOVA. In other words, it allows a researcher to account for the percentage of the variance in IC overall score and subscores that can be attributed to CET-4 score, overseas duration, or frequencies of intercultural contact. The *eta* squared value can range from 0 to 1. Cohen (1988) proposed guidelines for eta squared for group comparisons (see Table 11).

Table 11

Guidelines for Eta Squared

Size	<i>Eta</i> squared (% of variance explained)
Small	.01 or 1%
Medium	.06 or 6%
Large	.138 or 13.8%

Note. Adapted from *Statistical Power Analysis for the Behavioral Sciences*, by J. V. Cohen, 1988, p. 283 Copyright 1988 by Lawrence Erlbaum Associates.

Research Question (RQ) 2

What factors are associated with students' intercultural competence? How much of the variance in the intercultural competence score can be explained by each of the factors?

RQ 2a–2d: Are students' (a) CET-4 scores; (b) overseas duration; (c) frequency of communicating with native English speakers; (d) frequency of engaging in intercultural activities; (e) frequency of contacting cultural products and taking cultural courses associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Hypotheses. The null hypotheses are that there are no relationships between CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, frequency of contacting the cultural products and taking cultural courses, and IC. The alternative hypotheses are CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses are associated with IC.

Planned Analysis. To answer this question and the following subquestions, I used correlation analyses and calculated the coefficient of determination (r^2). The IVs are CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses. The DV is the IC overall score and subscores.

Correlation. The purpose of correlation analysis is to explore the relationships between IVs and DV, and examine how much of the variance in the DV can be explained by the IVs. Pearson and Spearman's correlations were used in this study, depending on the types of variables. The correlation coefficient r (r_s) measures the correlation between IV and DV. The r -squared (r^2) value, coefficient of determination, is the measure of effect size. The r^2

represents the percentage of variance in the DV explained by the IVs (Urdan, 2017). Cohen (1988) proposed guidelines for r for the strength of correlations (see Table 12). I used these guidelines to interpret the results of Research Question 2a. Akoglu (2018) suggested guidelines for r_s to determine the strength of correlations (see Table 13). These guidelines were used to interpret the results of Research Question 2b-2e.

Table 12

Guidelines for Pearson r

Strength of correlations	r (% of variance explained)
Small	.10 – .29
Medium	.30 – .49
Large	.50 – 1.00

Note. Adapted from *Statistical Power Analysis for the Behavioral Sciences*, by J. V. Cohen, 1988, pp. 77-81. Copyright 1988 by Lawrence Erlbaum Associates.

Table 13

Guidelines for Spearman rho (r_s)

Strength of correlations	Rho (r_s) (% of variance explained)
Small	.10 – .30
Medium	.40 – .60
Large	.70 – .90

Note. Adapted from “User’s Guide to Correlation Coefficients,” by H. Akoglu, 2018, *Turkish Journal of Emergency Medicine*, 18(3), p. 92 (<https://doi.org/10.1016/j.tjem.2018.08.001>). CC BY-NC-ND.

Plans for Presenting the Results

All study results were displayed in Chapter 4, and the discussion of the results was presented in Chapter 5. Additionally, as this research was conducted in a “real-world” environment, a summary report describing the study results will be developed and made available to the S University leaders and deans, faculty, administrators, counselors, students,

or any interested third parties. The report will provide empirical data references for S University to develop international talent cultivation curricula and pathways.

Ethical Considerations

Researchers must take full responsibility to ensure any survey must be carried out in an ethical way designed to maximize benefits and avoid costs or risks to participants (Fowler, 2013). I, as a researcher, dealt with participants in an honest way with continuing attention to the details in the data collection process. To ensure I carried out my research ethically, I first submitted a proposed protocol to the S University Ethical Review Board and Chapman University IRB. After getting their approvals, I began to collect data. In the data collection process, I informed participants of the research topic and purpose, assured them participation was voluntary, and alerted respondents to skip any questions they did not want to answer. Data from all participants were anonymous, and no participants would be identified in any manner during or after the study. I let participants know the research results would be used only for research purposes. I protected participants' confidentiality and did not share participants' responses with anyone outside the research team. All data were digitally saved in a safe place that required a password to access. To keep a high response rate, I provided raffles of Starbucks gift cards, but I ensured the prices of gifts were not high enough to undermine the principle that participation was a voluntary act. I conducted this research at the site where I work. This site may cause an ethical concern. The teacher-student relationship may make participants feel they are obliged to participate in my study. To make them feel comfortable, I provided opportunities to opt-out of the study.

Chapter Summary

This chapter detailed the research methodology of my study. The study employed a survey research design with comparison and correlation analysis methods. The purpose of the analyses was to investigate characteristics of students' IC in a Chinese private university,

determining the differences in students' IC scores across groups of CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses. A random sample of participants at S University was invited to participate in the study. The measure of AIC-CCS and the web-based Questionnaire Star platform were used to collect data. I gathered 2,048 responses and selected 1,983 for analysis, as these participants agreed to the informed consent. IBM SPSS 26 was used to descriptively analyze the data and conduct inferential analyses (i.e., ANOVA and correlation analysis) to test the hypotheses. Upon completion of data analysis, the results are presented in Chapter 4, and a discussion and conclusion drawn from this study are presented in Chapter 5. A summary report of study results will be prepared for S University leaders and deans, faculty, administrators, counselors, students, or interested third parties.

CHAPTER 4: RESULTS

This chapter presents the findings of this quantitative study in which I examined college students' intercultural competence (IC) at a private university in China. The results are organized into two parts. The first part is the preliminary analysis of the data obtained from the AIC-CCS. The second part is the main analysis related to the two research questions. For the first research question, one-way between-groups analysis of variance (ANOVA) was used to investigate the differences in students' IC between five different groups. For the second research question, correlation analysis was used to explore the relationships between five independent variables and IC. Details of the findings of preliminary analyses and main analyses are reported herein.

Research Purpose and Research Questions

The purpose of this study is to examine the differences in students' IC and explore the relationships between five factors and IC at a private university in China. There are two research questions, each of which has five subquestions:

Research Question 1: What are the characteristics of intercultural competence of students at a Chinese private university?

Research Question 1a: Are there any differences in the intercultural competence scores for groups of students with different CET-4 scores? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 1b: Are there any differences in the intercultural competence scores for groups of students with different overseas durations? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 1c: Are there any differences in the intercultural competence scores for groups of students with different frequencies of communicating with native English speakers in English in the home country? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 1d: Are there any differences in the intercultural competence scores for groups of students with different frequencies of engaging in intercultural activities to understand English culture in the home country? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 1e: Are there any differences in the intercultural competence scores for groups of students with different frequencies of contacting the cultural products and taking cultural courses to understand English culture in the home country? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Research Question 2: What factors are associated with students' intercultural competence? How much of the variance in the intercultural competence score can be explained by each of the factors?

Research Question 2a: Are students' CET-4 scores associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2b: Are students' overseas durations associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2c: Are students' frequencies of communicating with native English speakers in English in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2d: Are students' frequencies of engaging in intercultural activities to understand English culture in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Research Question 2e: Are students' frequencies of contacting the cultural products and taking cultural courses to understand English culture in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Preliminary Analyses

Preliminary analyses were conducted to describe the characteristics of the demographic variables, independent variables, and dependent variable. For categorical variables, the frequencies and percentages were calculated. For continuous variables, the mean, standard deviation, maximum, minimum, skewness, kurtosis were calculated. In this section, I presented the results of the descriptive statistics.

Demographic Variables

The demographic variables in the study include the variables about participants' demographic characteristics (i.e., gender, age, area of origin, father's education, mother's education), academic background (i.e., year of study, college, discipline category), overseas experience (i.e., with or without overseas experience, purpose of going abroad), and intercultural contact experience. Most of the variables are categorical, and some of the

variables are ordinal. Frequencies and percentages were calculated and are presented for each variable.

Demographic Characteristics

The demographic breakdown of participants is included in Table 14. A total of 1,983 participants were included in the study. The sample was comprised of 1,312 females (66.2%) and 628 males, which matched the gender characteristics of the university. Most participants (92.3%) reported their age as being between 18 and 22 years of age, and 7.3% were 23 or older. In terms of area of origin, 73.4% of participants were from the East of China, 8.3% from the Southwest, 6.2% from the Middle, and the remaining 4.2%, 3.5%, 3.4%, 1% were from the Northwest, the North, the South, and the Northeast. For parental education levels, participants reported fathers completed middle school (27.3%), high school (22.6%), and bachelor's degree (19.2%) as the most common highest levels of education the fathers completed. For participants' mothers, the most common highest levels of education were middle school (32.2%), high school (20.3%), and junior college (17.1%). It is found that participants' parental education levels are similar.

Table 14*Demographic Characteristics of Participants (N = 1,983)*

Characteristic	<i>n</i>	%
Gender		
female	1312	66.2
male	628	31.7
non-binary/third gender	1	.1
prefer to self-describe	17	.9
prefer not to say	25	1.3
Age		
younger than 18	6	.3
18	82	4.1
19	399	20.1
20	693	34.9
21	426	21.5
22	233	11.7
23 and older	144	7.3
Area of origin		
East	1455	73.4
North	70	3.5
Middle	122	6.2
South	67	3.4
Southwest	165	8.3
Northwest	84	4.2
Northeast	20	1
Father's education		
Middle school	542	27.3
Secondary vocational school	154	7.8
High school	448	22.6
Junior college	341	17.2
Bachelor	380	19.2
Master	31	1.6
Doctor	5	.3
Not applicable	82	4.1
Mother's education		
Middle school	639	32.2
Secondary vocational school	161	8.1
High school	403	20.3
Junior college	339	17.1
Bachelor	303	15.3
Master	17	.9
Doctor	5	.3
Not applicable	116	5.8

Academic Background

The academic background of participants is included in Table 15. In the sample, 35.1% of participants were enrolled in their 1st year of study, 34.8% in their 2nd year, 21.7% in their 3rd year, and 8.4% in their 4th year. Participants represented eight academic colleges, including 23.7% from the College of Business, 21.2% from the College of Information Science and Technology, 17% from the College of Management, 13.7% from the College of Foreign Languages, 11% from the College of Art Design and Media, 6.1% from the College of International Medical Technology, 5.0% from the College of Education, and 2.4% from the College of Mechanical and Electrical Engineering. Participants were enrolled in one of eight disciplines: 41.9% in management, 21.7% in liberal arts, 11.2% in engineering, 9.1% in economics, 5.1% in art, 4.5% in education, 4.4% in medicine, and 2.0% in law.

Table 15

Academic Background of Participants (N = 1,983)

Characteristic	<i>n</i>	%
Year of Study		
1st Year	696	35.1
2nd Year	690	34.8
3rd Year	431	21.7
4th Year	166	8.4
College		
Business	469	23.7
Information Science and Technology	420	21.2
Management	337	17.0
Foreign Languages	272	13.7
Art design and media	218	11
International Medical Technology	120	6.1
Education	99	5.0
Mechanical and Electrical Engineering	48	2.4
Discipline Category		
Management	830	41.9
Liberal Arts	431	21.7
Engineering	223	11.2
Economics	181	9.1
Art	101	5.1
Education	89	4.5
Medicine	88	4.4
Law	40	2.0

Overseas Experience

As shown in Table 16, 711 (35.9%) participants reported they had been abroad, and 1,272 (64.1%) reported they had not been abroad. The numbers of students with overseas experience classified by grade were: 261 in the 1st year, 242 in the 2nd year, 148 in the 3rd year, and 60 the 4th year. Students with overseas experience accounted for 37.5%, 35.1%, 34.3% and 36.1% of the students in the same grade in this study, respectively. Regarding purposes of going abroad, 88.61% went abroad for travel, 18.85% for study, 16.03% for summer or winter camp. The other purposes for going abroad were competitions, internships, volunteering, and conferences, all of which accounted for 7.46% of those who went abroad. Most participants (96.2%) thought studying abroad could help develop IC. When compared between the group that did or did not go abroad, 98.5% of those who went abroad and 95% of those who did not go abroad believed studying abroad can help develop IC.

Table 16

Overseas Experience of Participants (N = 1,983)

Overseas experience	<i>n</i>	%
Go Abroad (<i>N</i> = 1,983)		
Yes	711	35.9
No	1272	64.1
Grade of students who went abroad (Percentage = number of students who went abroad / total number of students in the same grade for this study)		
First Year	261	37.5%
Second Year	242	35.1%
Third Year	148	34.3%
Fourth Year	60	36.1%
Purpose of going abroad (<i>N</i> = 711)		
Travel	630	88.61
Study	134	18.85
Summer/winter camp	114	16.03
International competition	19	2.67
Internship	14	1.97
Volunteer with international organizations	12	1.69
International conference	8	1.13
Other	22	3.09
Going abroad can improve IC (<i>N</i> = 1,983)		
Agree	1908	96.2
Not Agree	75	3.8
Going abroad can improve IC. (<i>N</i> = 1,983)		

Went abroad and Agree	700	98.5
Went abroad and Not Agree	11	1.5
Did not go abroad and Agree	1208	95
Not go abroad and Not Agree	64	5

Intercultural Contact Experience

Participants' intercultural contact experience within their home country is presented in Table 17. Participants reported that they communicated with native English speakers in texts (74.08%) or through voice or videos (35.65%) through QQ, WeChat, Twitter, Facebook, Skype, and LinkedIn in China. They also reported other ways in which they communicated with native English speakers in China (see Table 17). Among participants, 54.41% and 45.99% reported they understood English culture by participating in foreign teachers' English training courses or by having free conversations with foreign teachers in China. Participants also reported they were able to gain an understanding of English culture in China through English movies (78.01%) and English songs (70.5%). In addition, 64.09% of the participants believed they could enhance their understanding of English culture through participating in college English courses.

Table 17*Intercultural Contact Experience in the Home Country (N = 1,983)*

Category	Measure	<i>n</i>	%
Pathways of communicating with native English speakers in English	Text communication with native English speakers	1469	74.08
	Voice or video communication with native English speakers	707	35.65
	Letters or emails with native English speakers in China	480	24.21
	Other pathways	153	7.72
	No communication with native English speakers in English	246	12.41
Intercultural activities to understand English culture	Foreign festival celebrations	727	36.66
	Foreign cultural communication day	570	28.74
	International study exhibition	326	16.44
	Foreigners' cultural lectures	363	18.31
	Foreign teachers' English training courses	1079	54.41
	Free conversations with foreign teachers	912	45.99
	Conversations and activities with international students	376	18.96
	Other activities	46	2.32
Cultural products and courses to understand English culture	No intercultural activities	197	9.93
	Online course	1071	54.01
	Printed books	865	43.62
	E-books	839	42.31
	Printed newspaper and magazines	484	24.41
	E-newspaper and E-magazines	554	27.94
	English movies	1547	78.01
	English songs	1398	70.5
	College English courses	1271	64.09
	Others	16	0.81
	No such cultural products and courses	54	2.72

Independent Variables

There are five independent variables for the main analyses in this study. The characteristics of these variables are listed in Table 18. The descriptive statistics presented for each variable differ based on their variable types.

Table 18*Characteristics of Independent Variables*

Independent variable	Variable type	Variable value	Descriptive statistics
	Continuous	Score ($0 < \text{score} \leq 710$)	Mean, standard deviation, maximum, minimum, skewness, kurtosis
CET-4 score			
	Ordinal	1 = low 2 = medium 3 = high	Frequency and percentage
Overseas duration	Ordinal	0 = no overseas duration 1 = less than 1 month 2 = 1–3 months 4 = 4 or more months	Frequency and percentage
Frequency of communicating with native English speakers	Ordinal	1 = none or a little 2 = some 3 = many	Frequency and percentage
Frequency of engaging in intercultural activities	Ordinal	1 = none or a little 2 = some 3 = many	Frequency and percentage
Frequency of contacting the cultural products and courses	Ordinal	1 = none or a little 2 = some 3 = many	Frequency and percentage

CET-4 Score

Among the 1,983 participants, 902 did not provide the CET-4 total scores and were excluded from the descriptive and main analyses. The remaining 1,081 participants were included. The CET-4 total score was used as a categorical variable in ANOVA to answer the first research question and used as a continuous variable in the correlation analysis to answer the second research question.

Used as a categorical variable for ANOVA, the CET-4 total scores were recoded into three groups, using the 425 and 500 scores as the cut-off points (i.e., 425–499 as passing scores and 500–710 as excellent scores). The three groups were as follows: scores of 1–424

became the Low group, scores of 425–499 became the Medium group, and scores of 500–710 became the High group. The characteristics of these groups are presented in Table 19. Among the 1,081 participants who provided the CET-4 total scores, 32.7% of the scores were high, 56.2% of the scores were medium, and 11.1% were low.

Table 19

Characteristics of Students' CET-4 Scores (N = 1,081)

Variable	Low: 1–424		Medium: 425–499		High: 500–710	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
CET-4 score	120	11.10	608	56.24	353	32.65

Used as a continuous variable for the correlation analysis, the mean, minimum, maximum, standard deviation, skewness, and kurtosis of the CET-4 score were calculated (see Table 20). Participants' CET-4 total scores range from 100 to 710, with a mean of 475.34 and standard deviation of 55.57. The negative skewness value (-.715) indicates a clustering of scores at the high end. The positive kurtosis value (5.71) indicates the distribution is rather peaked, with long thin tails. With the skewness value of -.715, the data were assumed to have a normal distribution. The normality of the CET-4 score was also examined with a Q-Q Plot (see Figure 5).

Table 20*Descriptive Statistics of Students' CET-4 Scores*

CET-4 Score		Statistic	Std. error
Mean		475.34	1.690
95% Confidence Interval for Mean	Lower Bound	472.03	
	Upper Bound	478.66	
5% Trimmed Mean		475.90	
Median		474.00	
Variance		3088.455	
Std. Deviation		55.574	
Minimum		100	
Maximum		710	
Range		610	
Interquartile Range		73	
Skewness		-.715	.074
Kurtosis		5.714	.149

Figure 5*Normal Q-Q Plot With Normally Distributed CET-4 Score* ***Overseas Duration***

All participants were asked if they had participated in any international travel, and for the duration of that experience. Approximately 64% (64.1%) reported they had no overseas duration, 21.1% had less than 1 month, 10% had 1–3 months, 1.9% had 4–6 months, 1.1% had 7–9 months, 0.7% had 10–12 months, and 1% had more than 12 months. Used as a categorical variable in ANOVA, the overseas duration was recoded into four groups: (a) no

overseas duration, (b) less than 1 month, (c) 1–3 months, and (d) 4 or more months. The number of participants for each overseas duration group is presented in Table 21. It was found that 64.1% of participants had no overseas duration, 21.1% had less than 1 month, 10% had 1–3 months, and only 4.7% had 4 or more months.

Table 21

Characteristics of Students' Overseas Duration (N = 1,983)

Variable	No overseas duration		Less than 1 month		1–3 months		4 or more months	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Overseas duration	1,272	64.1	419	21.1	199	10	93	4.7

Frequency of Intercultural Contact in the Home Country

In this study, intercultural contact refers to communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses in China. Participants were classified into three groups based on their frequency of communicating with native English speakers in their home country. When asked how often they communicated with native English speakers, most participants (72.6%) had little or no such communication, 23.2% had some communication, and 4.1% had much communication (see Table 22). Participants were asked how often they were engaged in intercultural activities. As shown in Table 22, 60.6% of participants did not have or had low participation in intercultural activities to understand English culture in the home country, 32.9% had some, and 6.5% had much participation in intercultural activities. Participants were also asked how often they contacted cultural products and taking cultural courses. As shown in Table 22, 48.5% of participants did not have or had a low amount of contact with cultural products and courses, 39.2% had some, and 12.3% had much contact with the products and courses.

Table 22*Frequency of Intercultural Contact in the Home Country (N = 1,983)*

Variable	None or a little		Some		Much	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Frequency of communicating with native English speakers	1,440	72.6	461	23.2	82	4.1
Frequency of engaging in intercultural activities	1,202	60.6	653	32.9	128	6.5
Frequency of contacting cultural products and taking cultural courses	961	48.5	778	39.2	244	12.3

Dependent Variable

The dependent variable of this study is the IC overall score, which consists of six factors and 28 items in the AIC-CCS. Each factor comprises of the individual's score on its own items. The weighting has to do with how those scores are combined into the overall score. Wu (2013) detailed the composition of the IC factor and overall scores in Table 23. The KN-B (knowledge of others has the largest weight index (.30) and the KN-A (knowledge of self) has the smallest one (.05).

Each item of the scale was scored on a 5-point Likert scale, from 1 (*low*) to 5 (*very high*), to calculate the IC overall score. Each response was assigned a value; the assigned values were: 1 = 0.1, 2 = 0.3, 3 = 0.5, 4 = 0.7, 5 = 0.9. For each response, factor scores and the overall scores were calculated. Factor scores were calculated by multiplying each item's value by its weight and adding these figures together. Each factor's value was multiplied by its weight, and all figures were added together to calculate the overall score. High scores represent high levels of IC.

Table 23*Dimension, Factors, and Items of the AIC-CCS*

Measure	Dimension	Factor	Factor weight	Item	Item weight
AIC-CCS	Knowledge	KN-A (knowledge of self)	.05	U11	.33
				U12	.27
				U13	.40
		KN-B (knowledge of others)	.30	U21	.18
				U22	.18
				U23	.20
				U24	.14
				U25	.12
				U26	.06
	Skill	SK-A (intercultural communicative skills)	.25	U27	.12
				U41	.09
				U42	.18
				U43	.15
				U44	.13
				U45	.09
				U46	.09
				U47	.09
				U48	.09
				U49	.09
		SK-B (intercultural cognitive skills)	.06	U51	.34
				U52	.25
				U53	.41
				U54	.17
	Attitude	AT	.19	U31	.50
				U32	.17
				U33	.33
	Awareness	AW	.15	U61	.40
				U62	.20
				U63	.40
	Overall			28	1

Reliability of the Scale

The Cronbach's alpha measures of each factor and the overall Cronbach's alpha of the IC were calculated to check the reliability of the scale (see Table 24). The Cronbach alphas of the six factors are .902, .951, .881, .938, .919, .944, and the overall Cronbach's alpha is .966. DeVellis (2016) suggested the Cronbach's alpha ranges for research scales were as follows: below .60 (*unacceptable*); between .60 and .65 (*undesirable*); between .65 and .70 (*minimally acceptable*); between .70 and .80 (*respectable*); and above .80 (*very good*). Wu et al. (2013) reported the Cronbach alpha of the measure was .913. In this study,

the Cronbach alpha was .966, suggesting very good internal consistency reliability for the scale with a sample of 1,983 participants.

Table 24

Cronbach's Alpha Measures of IC for This Study

Factor	KN-A	KN-B	AT	SK-A	SK-B	AW	Overall
Cronbach's alpha	0.902	0.951	0.881	0.938	0.919	0.944	0.966
Number of items	3	7	3	9	3	3	28

Descriptive Statistics of Dependent Variable

The IC scores were used as a continuous variable in ANOVA and Pearson correlation for the main analysis. The descriptive results of the 1,983 participants' IC overall scores and subscores are listed in Table 25. As illustrated in Figure 6, the highest score (.64) was obtained on the Attitude scale, followed by the scores of Knowledge of Self, Intercultural Communicative Skills, Awareness, and Intercultural Cognitive Skills. The lowest score (.44) was obtained on the Knowledge of Others scale. Participants' IC overall scores ranged from .00 to .90, with a mean score of .56 and standard deviation of .14. The overall score (.56) was slightly higher than average. The negative skewness value (-.19) indicated a clustering of scores at the high end. The positive kurtosis value (1.08) indicated the distribution was rather peaked, with long thin tails. As the ANOVA and Pearson correlation analysis are based on the normal distribution of scores (Pallant, 2016), the normality of the distribution of the IC overall score was examined. With the skewness value -.19, it was assumed the data had a normal distribution. The normality of the IC overall score was also examined with a Q-Q Plot (see Figure 7).

Table 25*Descriptive Statistics of IC Overall Score and Subscores as a Continuous Variable*

Measure	N	Min	Max	M	SD	Skewness		Kurtosis	
						Statistic	Std. error	Statistic	Std. error
Factor 1 KN_A (Knowledge of Self) score	1983	.00	.90	.6126	.16436	-.409	.055	.498	.110
Factor 2 KN_B (Knowledge of Others) score	1983	.00	.90	.4360	.17710	.244	.055	.382	.110
Factor 3 AT (Attitude) score	1983	.00	.90	.6441	.18558	-.548	.055	.162	.110
Factor 4 SK_A (Intercultural Communicative Skills) score	1983	.00	.90	.5991	.16355	-.425	.055	.562	.110
Factor 5 SK_B (Intercultural Cognitive Skills) score	1983	.00	.90	.5376	.18388	-.164	.055	.329	.110
Factor 6 AW (Awareness) score	1983	.00	.90	.5989	.17852	-.284	.055	.299	.110
IC overall score	1983	.00	.90	.5557	.14320	-.190	.055	1.081	.110

Figure 6*Level of IC Subscores*

Figure 7

Normal Q-Q Plot With Normally Distributed IC Overall Score

The IC overall score was also used as an ordinal variable for Spearman correlation. The mean score .5557 was used as the cut-off point to classify participants into the Low Score group (0 -.5556) and the High Score group (.5557-1). Using these cutoffs, 52.3% of participants had low scores, and 47.7% had high scores (see Table 26).

Table 26

Descriptive Statistics of IC Overall Score as an Ordinal Variable (N = 1,983)

Measure	Low: 0 - .5556		High: .5557 – 1	
	<i>n</i>	%	<i>n</i>	%
IC overall score	1,037	52.3	946	47.7

Participants' IC overall scores were examined in different groups. The results of IC score comparison among the CET-4 score groups were reported in Table 27. With the increase of CET-4 score, the percentage of high IC scores increased from 39.2% to 59.8%.

Table 27*IC Overall Score Comparison Among the CET-4 Score Groups (N = 1,081)*

CET-4 Score	Low: 0 – .5556		High: .5557 – 1	
	<i>n</i>	%	<i>n</i>	%
Low: 1-424	73	60.8	47	39.2
Medium: 425-499	335	55.1	273	44.9
High: 500-710	142	40.2	211	59.8
Total	550		531	

The IC scores were also compared among all participants with overseas experiences, based on duration of travel. As the time spent abroad increased, 31.6% more participants got higher IC scores, and the percentage of low IC scores decreased from 57.4% to 25.8% (see Table 28).

Table 28*IC Overall Score Comparison Among the Overseas Duration Groups (N = 1,983)*

Overseas Duration	Low: 0 – .5556		High: .5557 – 1	
	<i>n</i>	%	<i>n</i>	%
No overseas duration	730	57.4	542	42.6
Less than one month	208	49.6	211	50.4
1–3 months	75	37.7	124	62.3
4 or more months	24	25.8	69	74.2
Total	1,037		946	

Participants' IC overall scores were examined in different groups of intercultural contact. With the increase in frequencies of communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses, the percentages of participants with high IC score increased by 40.5%, 45.4%, and 46.6% (see Table 29).

Table 29*IC Overall Score Comparison Among the Intercultural Contact Groups (N=1,983)*

Variable	Group	Low: 0 – .5556		High: .5557 – 1	
		<i>n</i>	%	<i>n</i>	%
Communicate with English Native Speaker	None or a little	847	58.8	593	41.2
	Some	175	38.0	286	62.0
	Much	15	18.3	67	81.7
	Total	1,037		946	
Engage in Intercultural Activities	None or a little	752	62.6	450	37.4
	Some	263	40.3	390	59.7
	Much	22	17.2	106	82.8
	Total	1,037		946	
Contacting Cultural Products and Taking Cultural Courses	None or a little	633	65.9	328	34.1
	Some	357	45.9	421	54.1
	Much	47	19.3	197	80.7
	Total	1,037		946	

Summary of Preliminary Analyses

In this section, I described the characteristics of the sample and presented the descriptive statistics of the IVs and DV. The sample for this study was comprised of 1,983 private college students in China, with twice as many female students as males. Participants aged at 18–22 accounted for 92.3% of the total sample. Participants from the East of China were represented in the sample much more than those from other areas of China. Their parental education levels ranged from middle school to doctorate, with the most frequently reported parental education level being middle school.

The largest number of participants were studying in the 1st year, followed by the 2nd year, then the 3rd and 4th years. Participants represented eight academic colleges, with the largest number of students from the College of Business, College of Information Science and Technology, and College of Management. Participants were enrolled in eight discipline categories with 83.9% in management, liberal arts, engineering, and economics.

About one third of participants reported overseas experience. The main purposes of their going abroad were travel and study. The majority of participants who did or did not go abroad agreed studying abroad could help develop IC. Regarding participants' intercultural

contact experiences, the main pathways they took to communicate with native English speakers in China were using texts and voice or videos. Many participants reported they understood English culture by participating in foreign teachers' English training courses or having free conversations with foreign teachers in China. English movies and songs, as well as college English courses, were most preferred by participants to improve their understanding of English culture.

The IVs for this study are CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting the cultural products and taking cultural courses. For the ANOVA analysis, all the IVs were used as categorical variables. In the correlation analysis, CET-4 was used as a continuous variable, and the other variables were used as ordinal variables. Results from the descriptive analysis indicated CET-4 scores were normally distributed with a mean of 475.34 (out of 710). Results showed 64.1% of participants had no overseas duration, 21.1% less than 1 month, 10% 1–3 months, and 4.7% had 4 or more months. Additionally, 72.6% of participants reported they had no or little communication with native English speakers in China, and only 4.1% had much communication. Of participants, 60.6% reported they did not have or had minimum experience with engaging in intercultural activities, and only 6.5% reported much experience with such activities. Further, 48.5% of participants did not have or had little contact with cultural products and courses, 32.9% had some, and 12.3% had much contact.

The DV for this study is the IC overall score, which was made up of six subscores with different weights (i.e., KN-A, KN-B, SK-A, SK-B, AT, and AW). Each factor was composed of several items with different weights. The overall Cronbach's alpha of the AIC-CCS scale was .966, which suggested high reliability for the scale with a sample of 1,983 participants.

Used as a continuous variable in ANOVA and Pearson correlation, with the skewness value -.19, the IC overall scores were assumed to be normally distributed. The mean of the IC overall score was slightly above average (.56). Among the IC subscores, participants scored highest for the Attitude scale and got the lowest score for the Knowledge of Others scale. When IC overall scores were used as an ordinal variable, participants were grouped into the High Score group and the Low Score groups. Several comparisons of IC overall scores among different groups were made. The results presented, with the increases in CET-4 score, overseas duration, and frequencies of intercultural contact, the percentage of high IC scores was on the rise.

In this section, I conducted a descriptive analysis to present the characteristics of participants and their IC. Based on the descriptive analysis, positive relations were found between IC score and CET-4 score, overseas duration, and frequencies of intercultural contact. In the next section, I used the inferential statistical methods to explore the differences in groups and the strength of differences and further examined the relationships between IC and five factors.

Main Analyses

There are two research questions in this study. To answer the first question, I conducted one-way between-groups ANOVA. To answer the second question, I ran a correlation analysis. In this section, I reported findings of the ANOVA and correlation analyses by each research question.

Research Question 1

Research Question 1 was: What are the differences in the intercultural competence scores for different groups of students at a Chinese private university?

To answer the five subquestions, I conducted one-way between-groups ANOVA. First, the overall *F* ratio was calculated through SPSS, which revealed if there was a significant

difference between group means. A large F ratio indicates more variability between the groups caused by the IV than within each group (Pallant, 2016). The second step was running a Tukey post hoc test to examine which groups were statistically different from each other. The third step was calculating the effect size of the eta squared value to examine the percentage of variance in IC that was explained by an IV. The eta squared value ranges from 0 to 1. Cohen (1988) proposed guidelines for eta squared for group comparisons (see Table 11).

Research Question 1a

Research Question 1a: Are there any differences in the intercultural competence scores for groups of students with different CET-4 scores? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Hypothesis 1a: There are differences in students' intercultural competence scores for groups of students with different CET-4 scores.

I conducted a one-way between-groups ANOVA to explore the effect of CET-4 scores on levels of IC, as measured by the AIC-CCS. There were 902 participants who did not provide CET-4 scores. They were not included in the analysis. The remaining 1,081 participants were divided into three groups according to their CET-4 scores (Low: 1–424; Medium: 425–499; High: 500–710). The IC mean scores of the three groups were .54, .55, and .59 (see Table 30). There was a statistically significant difference at the $p < .05$ level in IC scores for the three groups (see Table 31): $F(2, 1078) = 11.402, p = .000$. Despite reaching statistical significance, the actual difference in mean scores was quite small. The magnitude of the difference in the IC mean scores between the groups was small. The effect size, calculated using eta squared (η^2), was .02. This meant 2% of variance in IC was explained by a student's CET-4 score. In Cohen's (1988) terms, this is a small effect size. As shown in

Table 32, post hoc comparisons using the Tukey HSD test indicated the mean score for the Low group ($M = .54$, $SD = .13$) was significantly different from the High group ($M = .60$, $SD = .14$). The Medium group ($M = .55$, $SD = .14$) was significantly different from the High group. The Low group was not significantly different from the Medium group. The results supported the hypothesis.

Table 30

Average IC Scores By CET-4 Score

CET-4 score	Low: 1–424			Medium: 425–499			High: 500–710		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
IC overall score	120	.54	.13	608	.55	.14	353	.59	.14

Table 31

One-Way ANOVA for IC Overall Score

	Sum of squares	<i>df</i>	Mean square	<i>F</i> ratio	Sig. (<i>p</i>)	Eta squared (η^2)
Between groups	.451	2	.225	11.402*	.000	.02
Within groups	21.300	1078	.020			
Total	21.751	1080				

Note. * $p < .05$.

Table 32

Post Hoc Tests (Tukey HSD) for IC Overall Score

(I)CET4 total score	(J)CET4 total score	Mean difference (I-J)	Std. error	Sig.	95% CI
Low: 1–424	Medium: 425–499	-.01031	.01404	.743	[-.0433, .0226]
	High: 500–710	-.05163*	.01485	.002	[-.0865, -.0168]
Medium: 425–499	Low: 1–424	.01031	.01404	.743	[-.0226, .0433]
	High: 500–710	-.04132*	.00941	.000	[-.0634, -.0192]
High: 500–710	Low: 1–424	.05163*	.01485	.002	[.0168, .0865]
	Medium: 425–499	.04132*	.00941	.000	[.0192, .0634]

Note. *The mean difference is significant at the 0.05 level.

Research Question 1b

Research Question 1b: Are there any differences in the intercultural competence scores for groups of students with different overseas durations? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Hypothesis 1b: There are differences in students' intercultural competence scores for groups of students with different overseas duration.

I conducted a one-way between-groups ANOVA to explore the impact of overseas duration on levels of IC, as measured by the AIC-CCS. Participants were divided into four groups according to their overseas duration (Group 1: no overseas duration; Group 2: less than 1 month; Group 3: 1–3 months; Group 4: 4 or more months). As shown in Table 33, the IC mean of each group was scored as .54, .57, .60, and .65. There was a statistically significant difference at the $p < .05$ level in AIC-CCS scores for the four groups (see Table 34): $F(3, 1979) = 28.222, p = .000$. Despite reaching statistical significance, the actual difference in mean scores was small. The magnitude of the difference in the IC mean scores between the groups was small. The effect size, calculated using eta squared (η^2), was .04. This meant 4% of variance in IC was explained by a student's overseas duration. As shown in Table 35, post-hoc comparisons using the Tukey HSD test indicated the mean score for Group 1 ($M = .54, SD = .14$) was significantly different from Group 2 ($M = .57, SD = .14$), Group 3 ($M = .60, SD = .13$), and Group 4 ($M = .65, SD = .15$). Group 2 was significantly different from Group 1 and Group 4. Group 3 was significantly different from Group 1 and Group 4. Group 2 did not differ significantly from Group 3. The results supported the hypothesis.

Table 33*Average IC Scores By Overseas Duration*

Overseas duration	No overseas duration			Less than 1 month			1–3 months			4 or more months		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
IC overall score	1272	.54	.14	419	.57	.14	199	.60	.13	93	.65	.15

Table 34*One-Way ANOVA for IC Overall Score*

	Sum of squares	<i>df</i>	Mean square	<i>F</i> ratio	<i>p</i>	η^2
Between groups	1.667	3	.556	28.222*	.000	.04
Within groups	38.974	1979	.020			
Total	40.641	1982				

Note. * $p < .05$.

Table 35*Post Hoc Tests (Tukey HSD) for IC Overall Score*

(I)Your total overseas duration	(J)Your total overseas duration	Mean difference (I-J)	<i>SE</i>	<i>p</i>	95% CI
no overseas duration	less than 1 month	-.03177*	.00790	.000	[-.0521, -.0114]
	1–3 months	-.05731*	.01070	.000	[-.0848, -.0298]
	4 or more months	-.11463*	.01507	.000	[-.1534, -.0759]
less than 1 month	no overseas duration	.03177*	.00790	.000	[.0114, .0521]
	1–3 months	-.02554	.01208	.149	[-.0566, .0055]
	4 or more months	-.08286*	.01609	.000	[-.1242, -.0415]
1–3 months	no overseas duration	.05731*	.01070	.000	[.0298, .0848]
	less than 1 month	.02554	.01208	.149	[-.0055, .0566]
	4 or more months	-.05733*	.01763	.006	[-.1026, -.0120]
4 or more months	no overseas duration	.11463*	.01507	.000	[.0759, .1534]
	less than 1 month	.08286*	.01609	.000	[.0415, .1242]
	1–3 months	.05733*	.01763	.006	[.0120, .1026]

Note. *The mean difference is significant at the 0.05 level.

Research Question 1c

Research Question 1c: Are there any differences in the intercultural competence scores for groups of students with different frequencies of communicating with native English speakers in English in the home country? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Hypothesis 1c: There are differences in students' intercultural competence scores for groups of students with different frequencies of communicating with native English speakers in the home country.

I conducted one-way between-groups ANOVA to explore the impact of frequency of communicating with native English speakers in English in the home country on levels of IC, as measured by the AIC-CCS. Participants were divided into three groups according to their frequency (Group 1: none or a little; Group 2: some; Group 3: much). As shown in Table 36, the IC mean scores ranged from .53, .61, to .69. There was a statistically significant difference at the $p < .05$ level in AIC-CCS scores for the three groups (see Table 37): $F(2, 1980) = 93.178, p = .000$. The magnitude of the difference in IC mean scores between the groups was medium. The effect size, calculated using eta squared (η^2), was .086. This meant 8.6% of variance in IC that was explained by a student's frequency of communicating with native English speakers in English in the home country. As shown in Table 38, post-hoc comparisons using the Tukey HSD test indicated the mean score for Group 1 ($M = .53, SD = .14$), Group 2 ($M = .61, SD = .14$), and Group 3 ($M = .69, SD = .14$) were significantly different from each other. The results supported the hypothesis.

Table 36*Average IC Scores By Frequency of Communicating with English Native Speakers*

Frequency of communicating	None/a little			Some			Much		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
IC overall score	1440	.53	.14	461	.61	.14	82	.69	.14

Table 37*One-Way ANOVA for IC Overall Score*

	Sum of squares	<i>df</i>	Mean square	<i>F</i> ratio	<i>p</i>	η^2
Between Groups	3.496	2	1.748	93.178*	.000	.086
Within Groups	37.145	1980	.019			
Total	40.641	1982				

Note. * $p < .05$.**Table 38***Post Hoc Tests (Tukey HSD) for IC Overall Score*

(I) How frequently do you communicate with native English speakers in English in the home country?	(J) How frequently do you communicate with native English speakers in English in the home country?	Mean difference (I-J)	<i>SE</i>	<i>p</i>	95% CI
none or a little	some	-.07376*	.00733	.000	[-.0909, -.0566]
	much	-.16039*	.01555	.000	[-.1969, -.1239]
some	none or a little	.07376*	.00733	.000	[.0566, .0909]
	much	-.08663*	.01642	.000	[-.1251, -.0481]
much	none or a little	.16039*	.01555	.000	[.1239, .1969]
	some	.08663*	.01642	.000	[.0481, .1251]

Note. *The mean difference is significant at the 0.05 level.

Research Question 1d

Research Question 1d: Are there any differences in the intercultural competence scores for groups of students with different frequencies of engaging in intercultural activities to understand English culture in the home country? Which groups are significantly different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?

Hypothesis 1d: There are differences in students' intercultural competence scores for groups of students with different frequencies of engaging in intercultural activities to understand English culture in the home country.

I conducted a one-way between-groups analysis of variance to explore the impact of frequency of engaging in intercultural activities to understand English culture in the home country on levels of IC, as measured by the AIC-CCS. Participants were divided into three groups according to their frequency (Group 1: none or a little; Group 2: some; Group 3: much). As presented in Table 39, the mean of each group was .52, .59, and .69. There was a statistically significant difference at the $p < .05$ level in AIC-CCS scores for the four groups (see Table 40): $F(2, 1980) = 125.986, p = .000$. The magnitude of the difference in IC mean scores between the groups was medium. The effect size, calculated using eta squared (η^2), was .11. This meant 11% of variance in IC that was explained by a student's frequency of engaging in intercultural activities to understand English culture in the home country. As shown in Table 41, post-hoc comparisons using the Tukey HSD test indicated the mean score for Group 1 ($M = .52, SD = .14$), Group 2 ($M = .59, SD = .13$), and Group 3 ($M = .69, SD = .12$) were significantly different from each other. The results supported the hypothesis.

Table 39*Average IC Scores By Frequency of Engaging in Intercultural Activities Groups*

Frequency of activities	None/a little			Some			Much		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
IC overall score	1202	.52	.14	653	.59	.13	128	.69	.12

Table 40*One-Way ANOVA for IC Overall Score*

	Sum of squares	<i>df</i>	Mean square	<i>F</i> ratio	<i>p</i>	η^2
Between Groups	4.588	2	2.294	125.986*	.000	.11
Within Groups	36.053	1980	.018			
Total	40.641	1982				

Note. * $p < .05$.**Table 41***Post Hoc Tests (Tukey HSD) for IC Overall Score*

(I) How frequently do you have intercultural activities to understand English culture in the home country?	(J) How frequently do you have intercultural activities to understand English culture in the home country?	Mean difference (I-J)	<i>SE</i>	<i>p</i>	95% CI
none or a little	some	-.07274*	.00656	.000	[-.0881, -.0573]
	much	-.16568*	.01255	.000	[-.1951, -.1363]
some	none or a little	.07274*	.00656	.000	[.0573, .0881]
	much	-.09295*	.01304	.000	[-.1235, -.0624]
much	none or a little	.16568*	.01255	.000	[.1363, .1951]
	some	.09295*	.01304	.000	[.0624, .1235]

Note. *The mean difference is significant at the 0.05 level**Research Question 1e**

Research Question 1e: Are there any differences in the intercultural competence scores for groups of students with different frequencies of contacting cultural products and taking cultural courses to understand English culture in the home country? Which groups are significantly different from each other? What are the magnitudes of differences in the

intercultural competence scores between the groups that are found to be significantly different?

Hypothesis 1e: There are differences in students' intercultural competence scores for groups of students with different frequencies of contacting cultural products and taking cultural courses to understand English culture in the home country.

I conducted a one-way between-groups analysis of variance to explore the impact of frequency of contacting the cultural products and courses to understand English culture in the home country on levels of IC, as measured by the AIC-CCS. Participants were divided into three groups according to their frequency (Group 1: none or a little; Group 2: some; Group 3: much). The mean score of each group increased from .51, .58, to .65 (see Table 42). There was a statistically significant difference at the $p < .05$ level in AIC-CCS scores for the three groups (see Table 43): $F(2, 1980) = 127.848, p = .000$. The strength of the difference in IC mean score between the groups was medium. The effect size, calculated using eta squared (η^2), was .11. This meant 11% of variance in IC that was explained by a student's frequency of contacting the cultural products and courses to understand English culture in the home country. As shown in Table 44, post-hoc comparisons using the Tukey HSD test indicated the mean score for Group 1 ($M = .51, SD = .14$), Group 2 ($M = .58, SD = .12$), and Group 3 ($M = .65, SD = .14$) were significantly different from each other. The results supported the hypothesis.

Table 42

Average IC Scores By Frequency of Contacting Cultural Products and Taking Cultural Courses Groups

Frequency of cultural products and courses	None/a little			Some			Much		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
IC overall score	961	.51	.14	778	.58	.12	244	.65	.14

Table 43*One-Way ANOVA for IC Overall Score*

	Sum of squares	<i>df</i>	Mean square	<i>F</i> ratio	<i>p</i>	η^2
Between Groups	4.648	2	2.324	127.848*	.000	.11
Within Groups	35.993	1980	.018			
Total	40.641	1982				

Note. * $p < .05$.**Table 44***Post Hoc Tests (Tukey HSD) for IC Overall Score*

(I) How frequently are you exposed to the cultural products and courses to understand English culture in the home country?	(J) How frequently are you exposed to the cultural products and courses to understand English culture in the home country?	Mean difference (I-J)	<i>SE</i>	<i>p</i>	95% CI
none or a little	some	-.06870*	.00650	.000	[-.0840, -.0535]
	much	-.14137*	.00967	.000	[-.1640, -.1187]
some	none or a little	.06870*	.00650	.000	[.0535, .0840]
	much	-.07267*	.00989	.000	[-.0959, -.0495]
much	none or a little	.14137*	.00967	.000	[.1187, .1640]
	some	.07267*	.00989	.000	[.0495, .0959]

Note. *The mean difference is significant at the 0.05 level

Summary of Research Question 1

To summarize the findings of Research Questions 1a-1e, the F ratios and eta squared values for the IVs are presented in Table 45. In all cases, significant differences were found in this study. Based on the Cohen (1988) guidelines for eta squared, the effect sizes of CET-4 score and overseas duration were small, and the effect sizes of frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses were at a medium level.

Table 45

A Summary of F Ratio and Eta Squared Results for the Variables in RQ1

Variable	F ratio	Eta squared value	Eta squared size
CET-4 score	11.402 ($p = .000$)	.020	small
Overseas duration	28.222 ($p = .000$)	.041	small
Frequency of communicating with native English speakers	93.178 ($p = .000$)	.086	medium
Frequency of engaging in intercultural activities	125.986 ($p = .000$)	.110	medium
Frequency of contacting cultural products and taking cultural courses	127.848 ($p = .000$)	.110	medium

Research Question 2

Research Question 2 was: What factors are associated with students' intercultural competence? How much of the variance in the intercultural competence score can be explained by each of the factors?

The relationships between students' CET-4 score, overseas duration, frequency of communicating with native English speakers in English in the home country, frequency of engaging in intercultural activities to understand English culture in the home country, frequency of contacting cultural products and taking cultural courses to understand English culture in the home country, and IC were investigated through correlation analysis. For the continuous IV and DV, I conducted a Pearson product-moment correlation analysis and calculated the parametric correlation coefficient r . For the ordinal IV and DV, I conducted Spearman's rank order correlation analysis and calculated the nonparametric correlation coefficient ρ (r_s). Cohen (1988) proposed guidelines for r for strength of correlations (see Table 12). Akoglu (2018) suggested guidelines for r_s to determine the strength of correlations (see Table 13). Spearman's r_s is equivalent to Pearson's r (Rupinski & Dunlap, 1996). To examine how much of the variance in the DV was explained by an IV, I calculated the r-squared (r^2) value, coefficient of determination. It is the measure of effect size for correlation analysis. The results generated from this procedure, showing both Pearson and Spearman results, are reported in the subquestions with tables.

Research Question 2a

Research Question 2a: Are students' CET-4 scores associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Hypothesis 2a: Students' CET-4 scores are associated with the intercultural competence score.

I investigated the relationship between a student's CET-4 score and IC scores (as measured by the AIC-CCS) using the Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. The 1,081 participants who provided their CET-4 scores were included in the analysis. There was a small, positive correlation between CET-4 score and IC overall score (see Table 46), $r = .163$, $n = 1,081$, $p < .01$, with higher CET-4 scores associated with higher levels of IC. The CET-4 scores help to explain 2.66% ($r^2 = .0266$) of the variance in participants' IC overall scores. In other words, there is 2.66% shared variance between CET-4 score and IC overall score. The results supported the hypothesis.

The relationships between CET-4 score and IC subscores were examined. As shown in Table 46, the study reported positive correlations between CET-4 and KN-B, AT, SK-A, SK-B, and AW. CET-4 was most highly correlated with SK-B ($r = .156$) and least highly correlated with KN-B ($r = .114$). No correlation was found between CET-4 and KN-A.

Table 46

Pearson Correlation Between CET-4 Score and IC Scores (N = 1,983)

IC Scale	Pearson's r
KN-A (Knowledge of Self)	.032
KN-B (Knowledge of Others)	.114**
AT (Attitude)	.152**
SK-A (Intercultural Communicative Skills)	.143**
SK-B (Intercultural Cognitive Skills)	.156**
AW (Awareness)	.148**
IC overall score	.163**

Note. ** Correlation is significant at the 0.01 level (2-tailed).

Research Question 2b

Research Question 2b: Are students' overseas durations associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Hypothesis 2b: Students' overseas durations are associated with the intercultural competence score.

I investigated the relationship between a student's overseas duration and IC (as measured by the AIC-CCS, used as an ordinal variable) using Spearman's rank order correlation coefficient. There was a small, positive correlation between the two variables (see Table 47), $r_s = .155$, $n = 1,983$, $p < .01$, with longer overseas duration associated with higher levels of IC. The overseas duration helps to explain 2.40% ($r^2 = .0240$) of the variance in participants' IC scores. The results supported this hypothesis.

The associations between overseas duration and IC subscores were reported in Table 47. Overseas duration was positively associated with all IC subscores. The largest correlation was between SK-B and overseas duration ($r = .151$), and the smallest correlation was between KN-A and overseas duration ($r = .058$).

Table 47

Spearman Correlation Between Overall Duration and IC Scores (N = 1,983)

IC Scale	Spearman's ρ (r_s)
KN-A (Knowledge of Self)	.058**
KN-B (Knowledge of Others)	.133**
AT (Attitude)	.107**
SK-A (Intercultural Communicative Skills)	.136**
SK-B (Intercultural Cognitive Skills)	.151**
AW (Awareness)	.119**
IC overall score	.155**

Note. ** Correlation is significant at the 0.01 level (2-tailed).

Research Question 2c

Research Question 2c: Are students' frequencies of communicating with native English speakers in English in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Hypothesis 2c: Students' frequencies of communicating with native English speakers in English in the home country are associated with the intercultural competence score.

I investigated the relationship between a student's frequency of communicating with native English speakers in English in the home country and IC (as measured by the AIC-CCS, used as an ordinal variable) using Spearman's rank order correlation coefficient. There was a small, positive correlation between the two variables (see Table 48), $r_s = .220$, $n = 1,983$, $p < .01$, with high frequency of communicating with native English speakers in English in the home country associated with higher levels of IC. This variable helps to explain 4.84% ($r^2 = .0484$) of the variance in participants' IC scores. In other words, there is 4.84% shared variance between the two variables. The results supported the hypothesis.

The relationships between frequency of communicating with native English speakers and IC subscores were reported in Table 48. There were positive correlations between frequency of communicating with native English speakers and all IC subscores. Frequency of communicating with native English speakers was most highly correlated with KN-B ($r = .266$) and least highly correlated with KN-A ($r = .103$).

Table 48

Spearman Correlation Between Frequency of Communicating With Native English Speakers and IC Scores (N=1,983)

IC Scale	Spearman's ρ (r_s)
KN-A (Knowledge of Self)	.103**
KN-B (Knowledge of Others)	.266**
AT (Attitude)	.134**
SK-A (Intercultural Communicative Skills)	.181**
SK-B (Intercultural Cognitive Skills)	.227**
AW (Awareness)	.152**
IC overall score	.220**

Note. ** Correlation is significant at the 0.01 level (2-tailed).

Research Question 2d

Research Question 2d: Are students' frequencies of engaging in intercultural activities to understand English culture in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Hypothesis 2d: Students' frequencies of engaging in intercultural activities to understand English culture in the home country is associated with the intercultural competence score.

I investigated the relationship between a student's frequency of engaging in intercultural activities to understand English culture in the home country and intercultural competence (as measured by the AIC-CCS, used as an ordinal variable) using Spearman's rank order correlation coefficient. There was a small, positive correlation between the two variables, $r_s = .270$, $n = 1,983$, $p < .01$ (see Table 49), with high frequency of engaging in intercultural activities to understand English culture in the home country associated with higher levels of IC. This variable helps to explain 7.29% ($r^2 = .0729$) of the variance in participants' IC scores. In other words, there is 7.29% shared variance between the two variables. The results supported the hypothesis.

The relationships between frequency of engaging in intercultural activities and IC subscores were examined and the result showed they were all positively related (see Table 49). The largest correlation was between frequency of engaging in intercultural activities and KN-B ($r = .289$), and the smallest correlation was with KN-A ($r = .131$).

Table 49

Spearman Correlation Between Frequency of Intercultural Activities and IC Scores (N = 1,983)

IC Scale	Spearman's <i>rho</i> (rs)
KN-A (Knowledge of Self)	.131**
KN-B (Knowledge of Others)	.289**
AT (Attitude)	.167**
SK-A (Intercultural Communicative Skills)	.216**
SK-B (Intercultural Cognitive Skills)	.224**
AW (Awareness)	.197**
IC overall score	.270**

Note. ** Correlation is significant at the 0.01 level (2-tailed).

Research Question 2e

Research Question 2e: Are students' frequencies of contacting cultural products and taking cultural courses to understand English culture in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this factor?

Hypothesis 2e: Students' frequencies of contacting cultural products and taking cultural courses to understand English culture in the home country associated with the intercultural competence score.

I investigated the relationship between a student's frequency of contacting cultural products and taking cultural courses to understand English culture in the home country and IC (as measured by the AIC-CCS, used as an ordinal variable) using Spearman's rank order correlation coefficient. There was a medium, positive correlation between the two variables (see Table 50), $r_s = .300$, $n = 1,983$, $p < .01$, with high frequency of contacting the cultural products and courses to understand English culture in the home country associated with higher levels of IC. This variable helps to explain 9% ($r^2 = .09$) of the variance in participants' IC scores. In other words, there is 9% shared variance between the two variables. The results supported the hypothesis.

The associations between IC subscores and frequency of contacting cultural products and taking cultural courses were reported in Table 50. There were positive correlations between all IC subscores and frequency of contacting cultural products and taking cultural courses. The largest correlation was with KN-B ($r = .258$) and the smallest correlation with KN-A ($r = .161$).

Table 50

Spearman Correlation Between Frequency of Contacting Cultural Products & Taking Cultural Courses and IC Scores (N = 1,983)

IC Scale	Spearman's ρ (r_s)
KN-A (Knowledge of Self)	.161**
KN-B (Knowledge of Others)	.258**
AT (Attitude)	.202**
SK-A (Intercultural Communicative Skills)	.234**
SK-B (Intercultural Cognitive Skills)	.243**
AW (Awareness)	.196**
IC overall score	.300**

Note. ** Correlation is significant at the 0.01 level (2-tailed).

Summary of Research Question 2

To summarize the findings of Research Questions 2a–2e, the Pearson and Spearman correlation coefficients (r and r_s), and the effect size r^2 values are reported in Table 51.

Results suggested the frequency of contacting cultural products and taking cultural courses explained the most variance in participants' IC scores (9%). Overseas duration explained the least variance in the IC score (2.40%). The other variables can explain 7.29%, 4.84%, and 2.66% variance in IC.

Table 51*A Summary of Pearson's r , Spearman's ρ (r_s) and r -Squared Values*

Variable	Pearson's r	Spearman's ρ (r_s)	r-squared (r^2)
CET-4 score overall score	.163**		.0266
Overseas duration		.155**	.0240
Frequency of communicating with native English speakers		.220**	.0484
Frequency of engaging in intercultural activities		.270**	.0729
Frequency of contacting cultural products and taking cultural courses		.300**	.0900

Note. **Correlation is significant at the 0.01 level (2-tailed).

Summary of Main Analyses

A summary of the research questions, hypotheses, and relevant findings is presented in Table 52. I ran one-way between-groups ANOVA tests to examine the differences in students' intercultural competence for groups with different CET-4 scores, overseas duration, frequency of communicating with native English speakers in English in the home country, frequency of engaging in intercultural activities to understand English culture in the home country, and frequency of contacting cultural products and taking courses to understand English culture in the home country. Findings suggest all hypotheses were supported. For every IV, there was a statistically significant difference at the $p < .05$ level in IC scores for the groups. For the groups of CET-4 scores, the Low group (1–424) and the Medium group (425–499) were significantly different from the High group (500–710), but the Low group was not significantly different from the Medium group. For the groups of overseas duration, each of the four groups differed significantly, except Group 2 (less than 1 month) and Group 3 (1–3 months). For frequency of communicating with native English speakers in English, frequency of engaging in intercultural activities, and frequency of being exposed to the cultural products and courses, all groups were significantly different from each other.

Table 52*A Summary of Research Questions, Hypotheses, Method of Analysis, and Findings*

Research question	Hypotheses	Method of analysis	Support	Findings
Q1: What are the characteristics of intercultural competence of students at a Chinese private university?				
Q1a: Are there any differences in the intercultural competence scores for groups of students with different CET-4 scores? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?	H1a: There will be a significant difference in the intercultural competence for groups of students with different CET-4 score.	ANOVA - <i>F</i> ratio - Tukey HSD Post hoc test - Effect Size (Eta Squared)	Supported	$F(2, 1078) = 11.402$, $p = .000$ Eta squared (η^2) = .02 See Table 31 for details
Q1b: Are there any differences in the intercultural competence scores for groups of students with different overseas durations? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?	H1b: There will be a significant difference in the intercultural competence for groups of students with different overseas duration.		Supported	$F(3, 1979) = 28.222$, $p = .000$ Eta squared (η^2) = .04 See Table 34 for details
Q1c: Are there any differences in the intercultural competence scores for groups of students with different frequency of communicating with native English speakers in English in the home country? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?	H1c: There will be a significant difference in the intercultural competence for groups of students with different frequency of communicating with native English speakers in English in the home country.		Supported	$F(2, 1980) = 93.178$, $p = .000$ Eta squared (η^2) = .086 See Table 37 for details

Research question	Hypotheses	Method of analysis	Support	Findings
Q1d: Are there any differences in the intercultural competence scores for groups of students with different frequency of engaging in intercultural activities to understand English culture in the home country? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?	H1d: There will be a significant difference in the intercultural competence for groups of students with different frequency of engaging in intercultural activities to understand English culture in the home country.		Supported	$F(2, 1980) = 125.986$, $p = .000$ Eta squared (η^2) = .11 See Table 40 for details
Q1e: Are there any differences in the intercultural competence scores for groups of students with different frequency of contacting cultural products and taking cultural courses to understand English culture in the home country? Which groups are statistically different from each other? What are the magnitudes of differences in the intercultural competence scores between the groups that are found to be significantly different?	H1e: There will be a significant difference in the intercultural competence for groups of students with different frequency of contacting cultural products and taking cultural courses to understand English culture in the home country.		Supported	$F(2, 1980) = 127.848$, $p = .000$ Eta squared (η^2) = .11 See Table 43 for details
Q2: What factors are associated with students' intercultural competence? How much of the variance in the intercultural competence score can be explained each of the factors?				
Q2a: Is student's CET-4 score associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this variable?	H2a: Student's CET-4 score is associated with the intercultural competence score.	Correlation - Pearson coefficient r - Spearman coefficient ρ - Effect size (r -square)	Supported	$r = .163$, $n = 1,081$, $p < .01$ $r^2 = .027$ See Table 46 for details
Q2b: Is student's overseas duration associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this variable?	H2b: Student's overseas duration is associated with the intercultural competence score		Supported	$r_s = .155$, $n = 1,983$, $p < .01$ $r^2 = .024$ See Table 47 for details

Research question	Hypotheses	Method of analysis	Support	Findings
Q2c: Is student's frequency of communicating with native English speakers in English in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this variable?	H2c: Student's frequency of communicating with native English speakers in English in the home country is associated with the intercultural competence score.		Supported	$r_s = .220, n = 1,983, p < .01$ $r^2 = .048$ See Table 48 for details
Q2d: Is student's frequency of engaging in intercultural activities to understand English culture in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this variable?	H2d: Student's frequency of engaging in intercultural activities to understand English culture in the home country is associated with the intercultural competence score.		Supported	$r_s = .270, n = 1,983, p < .01$ $r^2 = .073$ See Table 49 for details
Q2e: Is student's frequency of contacting cultural products and taking cultural courses to understand English culture in the home country associated with the intercultural competence score? How much of the variance in the intercultural competence score can be explained by this variable?	H2e: Student's frequency of contacting cultural products and taking cultural courses to understand English culture in the home country is associated with the intercultural competence score.		Supported	$r_s = .300, n = 1,983, p < .01$ $r^2 = .09$ See Table 50 for details

CHAPTER 5: DISCUSSION AND CONCLUSION

This study used the AIC-CCS to investigate the characteristics of Chinese private college students' IC, the group differences in IC, and the relationships between five factors (CET-4 score, overseas duration, communication with English native speakers, engagement in intercultural activities, and contact with cultural products and taking cultural courses) and IC. This chapter is composed of four sections: (a) a discussion of the results; (b) implications for the field; (c) study strengths; and (d) limitations and recommendations for future research.

Discussion of Results

The results of this study are discussed in this section. The first part describes the characteristics of five variables and IC based on the preliminary analysis of Chapter 4. The findings for the two research questions are presented in the second part.

Characteristics of Five Variables of Interest

A total of 1,983 students of S University participated in this study, including 1,312 females and 628 males. Students from the East of China were much more represented in the sample than those from other areas of China. The largest number of participants were in the 1st year (696), followed by the 2nd year (690), then the 3rd and 4th years (597). Among 1,081 participants who provided the CET-4 scores, 56.24% of the scores were at a medium level, 32.65% were at a high level, and 11.10% were at a low level. Students' CET-4 scores were normally distributed with a mean of 475. Among 711 students having overseas experiences, 261 studied abroad in their 1st year, 242 in their 2nd year, 208 in their 3rd and 4th years. Regarding the length of time spent abroad, 419 students lived abroad for less than one month, 199 students for 1–3 months, and 93 students were abroad for more than 4 months. Regarding intercultural contact pathways, participants preferred most to communicate in texts with native English speakers; they most liked to take English training courses given by foreign teachers as intercultural activities; and watching English movies was

students' favorite way to learn about English culture. More students had high frequency of contacting cultural products and taking cultural classes than students who had high frequency of communicating with native English speakers and engaging in intercultural activities.

IC Characteristics

In this study, 1,983 participants completed the questions about IC. Participants' IC mean score was slightly above average (.5557). The IC subscore results indicated the highest score (.6441) was obtained on the Attitude scale, followed by the scores of Knowledge of Self (.6129), Intercultural Communicative Skills (.5991), Awareness (.5989), and Intercultural Cognitive Skills (.5376). The lowest score (.4360) was obtained on the Knowledge of Others scale.

Participants ranked at the highest level on the Attitude scale, suggesting Chinese college students were willing to (a) communicate with and learn from people of other cultures, (b) willing to accept different values, dietary habits, and taboos, and (c) learn foreign languages. Their scores on Knowledge of Others were at the lowest level and below the average. The Knowledge of Others scale examined participants' knowledge about other countries' history, geography, and social politics; lifestyles and values; social etiquette, religions and taboos; basic norms and behaviors; cultural and intercultural communication concepts; and strategies and skills for successful intercultural communication. The lowest level in Knowledge of Others represented that participants were deficient in these aspects. This deficiency can be explained by the research finding students with lower CET-4, fewer overseas experiences, or fewer intercultural contacts got the lowest Knowledge of Others scores. This finding highlights the aspects of IC students need to improve most and how students' IC can be improved. Teachers should teach students more knowledge of other cultures in class, and students should learn more about this knowledge after class. Students should try to get as many international experiences and intercultural contacts as possible. If

students increase intercultural contact while studying or living abroad, they can improve IC faster.

Wu, Fan, and Peng developed the AIC-CCS scale. Wu et al. (2013) and Peng et al. (2015) used this scale to examine the Chinese public college students' IC. I compared this study's result with the results of Wu et al. (2013) and Peng et al. (2015) to see how students' IC in Chinese public and private universities differed. Figure 8 displays the IC overall scores and subscores of the three studies. The overall results of this study are consistent with the other two studies (Peng et al., 2015; Wu et al., 2013). All IC overall scores were around the average. In terms of IC subscores, the highest is Attitude and the lowest is Knowledge of Others for the three studies. This study ranked the highest in IC overall score and four subscores (Knowledge of Others, Intercultural Communicative Skills, Intercultural Cognitive Skills, and Awareness) compared to the other two studies. Table 53 shows the mean discrepancies between the highest and lowest IC overall scores and subscores among three studies. On the Awareness scale, this study surpassed Peng et al. (2015) most (.2456). On the Attitude scale, this study is the lowest, .077 lower than Peng et al. (2015). This comparison shows IC mean scores of students in Chinese public and private colleges are basically similar, and the private college students' IC is slightly higher than public college students' IC.

Figure 8

Comparisons Among Wu et al. (2013), Peng et al. (2015), and This Study

Table 53

Discrepancy Between Highest and Lowest Scores Among Three Studies

Study	IC	KN-A	KN-B	AT	SK-A	SK-B	AW
Wu, Fan, & Peng (2013)							
Peng, Wu, & Fan (2015)		.07		.077			
Li (2021)	.0817		.146		.0775	.0793	.2456

Research Question 1

The first research question was: What are the characteristics of intercultural competence of students at a Chinese private university?

Research Question 1a: IC Differences for CET-4 Groups

The descriptive analysis results reported when participants' CET-4 scores increased, their IC scores increased. The ANOVA results proved group differences were statistically significant. The magnitude of differences was small ($\eta^2 = .02$), which meant about 2% of the variance in IC could be explained by CET-4. The high- and low-score groups and the high-

and medium-score groups had statistically significant differences. There were no statistically significant differences between the medium- and low-score groups. This result indicated the high-score (500–710) group had a significant difference in IC from other groups.

Research Question 1b: IC Differences for Overseas Duration Groups

The descriptive analysis results reported as the length of living abroad increased, the number of participants in the IC high-score group increased. The ANOVA results proved group differences were statistically significant. The magnitude of differences was small ($\eta^2 = .04$), which meant 4% of the variance in IC could be explained by participants' overseas duration. The overseas duration variable could explain 2% more of the variance in IC than the CET-4 could. The group without overseas duration and the group with 4 or more months, had significant differences in IC from other groups. The groups with less than 1 month and 1–3 months overseas duration were not significantly different from one another. This finding indicates whether participants have overseas experience will have a significant difference in IC. For participants with overseas experience, the experience had a significant difference in IC if the overseas duration was more than 4 months. Students who spent less than 1 month abroad or 1–3 months abroad had no significant differences in IC. Therefore, a conclusion from this study could be students needed to stay abroad for more than 4 months if they wanted to improve their IC significantly.

Research Question 1c: IC Differences for Groups of Frequency of Communicating With English Native Speakers in China

The descriptive analysis results showed with the increase of frequencies of communicating with native English speakers, the number of participants in the IC high-score group increased. ANOVA results indicated group differences were statistically significant. The magnitude of differences was at a medium level ($\eta^2 = .086$), meaning 8.6% of the variance in IC could be explained by participants' frequency of communicating with native

English speakers. This variable could explain 6.6% and 4.6% more of the variance in IC than the CET-4 and overseas duration could. The groups with little or no communication, with some communication, and with much communication with native English speakers were significantly different in IC. This finding meant whether and how often students communicated with native English speakers made a significant difference in participants' IC.

Research Question 1d: IC Differences for Groups of Frequency of Engaging in Intercultural Activities in China

The descriptive analysis results reported participants with higher frequencies of engaging in intercultural activities also had higher IC scores. ANOVA results found group differences were statistically significant. The magnitude of differences was at a medium level ($\eta^2 = .11$), which meant 11% of the variance in IC was explained by the frequency of engaging in intercultural activities. This variable could explain 9%, 7%, 2.4% more of the variance in IC than the CET-4, overseas duration, and frequency of communicating with native English speakers could. The groups with little or no participation, with some participation, and much participation in intercultural activities were significantly different in IC. This result suggested whether and how often students participated in intercultural activities made a significant difference in students' IC.

Research Question 1e: IC Differences for Groups of Frequency of Contacting Cultural Products and Taking Cultural Courses in China

The descriptive analysis results showed participants had higher IC scores as the frequency of contacting cultural products and taking cultural courses increased. ANOVA results revealed group differences were statistically significant. The magnitude of differences was at a medium level ($\eta^2 = .11$). This meant 11% of the variance in IC was explained by the frequency of contacting cultural products and taking cultural courses. This variable could explain 9%, 7%, 2.4% more of the variance in IC than the CET-4, overseas duration, and

frequency of communicating with native English speakers could, but had the same effect on IC as the variable of frequency of engaging in intercultural activities. The groups with little or no contact with cultural products and courses, with some contact, and much contact were significantly different in IC. This finding meant whether and how often students contacted cultural products and took cultural courses made a significant difference in their IC.

Research Question 2

The second research question was: What factors are associated with students' intercultural competence? How much of the variance in the intercultural competence score can be explained by each of the factors?

Research Question 2a: Relationship Between IC and CET-4

Correlation analysis results confirmed CET-4 and IC were positively correlated, and the correlation reached statistical significance at the $p < .01$ level. The correlation coefficient was .163 and CET-4 score could explain 2.66% ($r^2 = .0266$) of the variance in IC. Although the strength of correlation was small, a positive correlation existed between the two variables. The results of this study were consistent with the findings in prior literature (Y. C. Gao, 2016; H. Lin, 2012; Wu et al., 2013) but contradicted the results of Sun (2017) and Zeng (2014), which found no association between English capability and IC.

Regarding the correlations between CET-4 score and IC subscales, CET-4 was positively correlated with Knowledge of Others, Attitude, Intercultural Communicative Skills, Intercultural Cognitive Skills, and Awareness. The correlations reached statistical significance at the $p < .01$ level. The correlation coefficients were small, with the highest in Intercultural Cognitive Skills and lowest in Knowledge of Others. CET-4 was not correlated with Knowledge of Self. This result was similar to Wu's (2013) finding that CET-4 score positively correlated with Knowledge of Others, Attitude, Intercultural Communicative Skills, with small coefficients and had no correlations with other subscales.

One of the main pathways for Chinese colleges to cultivate students' IC is through English language teaching. CET-4 is one of the main methods to test students' English language learning effect. This study's finding of a small correlation between CET-4 and IC, and the smallest correlation between IC and Knowledge of Others, to some extent, indicated Chinese colleges' English teaching was insufficient in cultivating students' IC—especially students' knowledge of other cultures—and IC elements in CET-4 were insufficient. Regarding the first finding, China's English teaching community has been aware of this problem. In the document "College English Curriculum Requirements (CECR)" (MOE of China, 2017), the Intercultural Communication course was included as one of the compulsory courses in Chinese colleges' English teaching, aiming to provide intercultural education, helping students to understand the differences in worldviews, values, and ways of thinking between Chinese and non-Chinese; and to cultivate students' intercultural awareness and improve their IC. The present study results provided further support for the policy of enhancing students' IC in English teaching.

Research Question 2b: Relationship Between IC and Overseas Duration

The overseas duration and IC score correlation analysis result indicated a positive correlation, and the correlation reached statistical significance at the $p < .01$ level. The correlation coefficient was .155 and overseas duration could explain 2.40% ($r^2 = .024$) of the variance in IC. This association was stronger than that of CET-4 and IC. Although the strength of the correlation was small, a positive correlation existed between the two variables. This result was consistent with the findings of Castles (2012), Engle and Engle (2004), Palsa (2010), and Stebleton et al. (2013). Regarding the correlations between overseas duration and IC subscales, overseas duration was positively correlated with Knowledge of Self, Knowledge of Others, Attitude, Intercultural Communication Skills, Intercultural Cognitive Skills, and Awareness. The correlations reached statistical significance at the $p < .01$ level.

The correlation coefficients were small. The higher correlation coefficients were in the Skill dimension (Intercultural Cognitive Skills and Intercultural Communication Skills) and the Knowledge of Others scale. The lowest correlation was in the Knowledge of Self scale.

Intercultural communication skills include using verbal (oral or written language) or nonverbal (body language) behaviors to communicate appropriately and negotiation skills in intercultural situations. Intercultural cognitive skills refer to abilities to acquire intercultural communication knowledge through contact with people of other cultures, to use a variety of methods to learn other languages and cultures, and to seek appropriate solutions when intercultural conflicts appear. The results manifested that extending the length of being abroad was most conducive to improving participants' intercultural communication and cognitive skills and acquiring more knowledge of other cultures.

Research Question 2c: Relationship Between IC and Frequency of Communicating With Native English Speakers in China

The frequency of communicating with native English speakers and the IC score correlation analysis result confirmed they were positively correlated. The correlation reached statistical significance at the $p < .01$ level. The correlation coefficient was .220 and the frequency of communicating with English native speakers could explain 4.84% ($r^2 = .0484$) of the variance in IC. This association was stronger than that of CET-4 or overseas duration and IC. Although the strength of the correlation was small, a positive correlation existed between the two variables. This finding was in accordance with Ding (2006), Deng (2015), and Duan (2019). Regarding the correlations between the frequency of communicating with native English speakers and IC subscales, frequency of communicating with native English speakers was positively correlated with Knowledge of Self, Knowledge of Others, Attitude, Intercultural Communication Skills, Intercultural Cognitive Skills, and Awareness. The correlations reached statistical significance at the $p < .01$ level. The correlation coefficients

were small. The higher correlation coefficients were in the Knowledge of Others scale and the Skill dimension (Intercultural Cognitive Skills and Intercultural Communication Skills), and the lowest was in the Knowledge of Self scale. Communicating with native English speakers is the fastest and most direct way to learn English and learn about other cultures. Communicating with native English speakers is also the most effective way to develop intercultural communication and cognitive skills. These skills can be acquired through personal communication with native English speakers. Regarding the communication pathways, the study found participants mainly used text, voice, or video to communicate with native English speakers through social software in China. Some participants communicated with native English speakers through emails or letters. College students reported preferring social software as their platform to communicate with native English speakers.

Research Question 2d: Relationship Between IC and Frequency of Engaging in Intercultural Activities in China

The frequency of engaging in intercultural activities and IC score correlation analysis result indicated a positive correlation, and the correlation reached statistical significance at the $p < .01$ level. The correlation coefficient was .270 and the frequency of engaging in intercultural activities could help to explain 7.29% ($r^2 = .0729$) of the variance in IC. This relationship was stronger than that of CET-4, overseas duration, frequency of communicating with native English speakers and IC. Although the strength of correlation was small, a positive correlation existed between the two variables. This finding is consistent with Zhu (2009).

Regarding the correlations between the frequency of engaging in intercultural activities and IC subscales, the frequency of engaging in intercultural activities was positively correlated with Knowledge of Self, Knowledge of Others, Attitude, Intercultural Communication Skills, Intercultural Cognitive Skills, and Awareness. The correlations

reached statistical significance at the $p < .01$ level. The correlation coefficients were small. The higher correlation coefficients were in Knowledge of Others and the Skill dimension (Intercultural Cognitive Skills and Intercultural Communication Skills), with the lowest in the Knowledge of Self scale. This result is the same as that of RQ 2c. The explanation for the similar relationship between the two variables and IC scores could be that communicating with native English speakers and participating in intercultural activities were moderately correlated ($r_s = .534$); and participating in intercultural activities involved in communicating with people from other countries, and communicating with native speakers was one form of intercultural activities. Therefore, participating in intercultural activities and communicating with native English speakers have the same effect on IC (i.e., increasing Knowledge of Others, and improving Intercultural Communication and Cognitive Skills more than the other IC aspects). The research reported the intercultural activities that students mainly preferred were taking English courses given by native English speakers, engaging in free conversations with native English speakers, and participating in foreign festival celebrations.

Research Question 2e: Relationship Between IC and Frequency of Contacting Cultural Products and Taking Cultural Courses in China

The frequency of contacting cultural products and taking cultural courses, and the IC score correlation analysis result indicated they were positively correlated. The correlation reached statistical significance at the $p < .01$ level. The correlation coefficient was .300 and the frequency of contacting cultural products and taking cultural courses could explain 9% ($r^2 = .09$) of the variance in the IC score. Although correlation strength is small, a positive correlation existed between the two variables. This variable had a stronger relationship with IC than the prior four factors. This finding is similar to those of Y. Li (2008) and L. Zhang (2010). Regarding the correlations between the frequency of contacting cultural products and taking cultural courses and IC subscales, the frequency of contacting cultural products and

taking cultural courses was positively correlated with Knowledge of Self, Knowledge of Others, Attitude, Intercultural Communication Skills, Intercultural Cognitive Skills, and Awareness. The correlations reached statistical significance at the $p < .01$ level. The correlation coefficients were small. The higher correlation coefficients were in Knowledge of Others and the Skill dimension (Intercultural Cognitive Skills and Intercultural Communication Skills). The lowest was in the Knowledge of Self scale. This result was similar to those of RQ 3c and 3d. The possible explanation for the similar effect of the three variables on IC was contacting cultural products and taking cultural courses were moderately correlated with communicating with native English native speakers ($r_s = .424$) and with engaging in intercultural activities ($r_s = .553$); increasing frequencies of contacting cultural products and taking cultural courses could lead to more direct and indirect communication with native English speakers; and intercultural activities could take the forms of appreciating and commenting on cultural products, and offering cultural lectures and courses. Participants preferred watching English movies, listening to English songs, and taking English courses most to increase their intercultural contact.

Summary of Results

The IC characteristics of 1,983 participants at a Chinese private university were investigated by AIC-CCS. The results showed participants' IC overall scores were slightly above average. Five of the six subscores were above average and one (Knowledge of Others) below average. Participants scored highest on Attitude scale and lowest on Knowledge of Others scale. This result was consistent with those of the studies conducted by the AIC-CCS developers (i.e., Wu, Fan, and Peng).

I explored IC differences for groups based on CET-4, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses. Results

supported all the hypotheses that there were significant differences in the IC across all the groups. The study found all the group differences reached statistical significance. The effect sizes of two variables (CET-4, overseas duration) were at a low level and three variables (intercultural contact frequencies) at a medium level. The correlations between CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses and IC were examined, respectively. Results supported all hypotheses that all the variables were associated with IC. Results confirmed that each variable was positively correlated with IC, and the correlation reached statistical significance at the $p < .01$ level. The magnitudes of the associations were small. Regarding IC subscales, the larger correlations were with Intercultural Communication Skills, Intercultural Cognitive Skills, and Knowledge of Others. The smaller correlation was with Knowledge of Self.

To conclude, IC is a complex and multifaceted construct. IC content domain involves a lot of competencies in the cognitive, affective, and behavioral dimensions. Many factors may impact IC, but none are likely to impact IC significantly by itself. Just as this study found, every factor was correlated with IC, but the correlation coefficients were small. Therefore, it is necessary to identify more impact factors and explore the combined impact of factors on IC. This will be further discussed in the recommendation for future research section.

Implications

Results of this study provided information about the characteristics of Chinese private college students' IC, the strengths and weaknesses in each of IC dimensions, the IC differences across groups, and the positive relationships between five factors and IC. The findings bring several implications for teachers, students, and schools in China.

Implications for Teachers

The study reported Chinese private college students' IC was at an average level. To further foster students' IC, foreign language teachers could take more responsibilities than teachers of other subjects. The reason is that the primary pathway for cultivating college students' IC in China is through foreign language education. Students' IC development has been a focus of foreign language teaching (FLT) and teaching English as a foreign language (TEFL) programs (Y. A. Wang et al., 2017) in China.

This study informs foreign language teachers regarding how they can do to enhance students' IC. Language and culture are inseparable. Appropriate and effective intercultural communication requires a mastery of English language skills and a thorough knowledge of English and Chinese cultures. The necessity of teaching English culture was supported by the study finding that students' knowledge of other cultures was below the average and at the lowest level among the IC dimensions. Therefore, when teaching English language skills, teachers need to focus on English-speaking countries' cultures and Chinese culture. Teachers can give students chances to conduct investigations on English-speaking countries' etiquette, festivals, food, dressing, and social customs in groups. Teachers can ask students to make comparisons between different countries on selected topics and then present their findings in class. Through this teaching method, students can deepen their understanding of the countries' cultures they have investigated and learn more about other countries' cultures from other students' presentations.

Another implication from this study is teachers can provide students more opportunities to communicate with native English speakers and participate in intercultural activities in or after class. Students prefer native English speakers to Chinese teachers to teach the Oral English course. Students can get sufficient and timely opportunities to communicate with their native English teachers. Chinese teachers and native English teachers

can work together to teach English courses and organize intercultural activities for students. Another method is that teachers can ask Chinese students to interview international students on campus about their studying and living experiences in China. Interview topics may include what international students are surprised by and frustrated about while studying and living in China (e.g., how they overcome obstacles they encountered while communicating interculturally; or what cultural characteristics Chinese and international students want to share with each other). Through interviews, both Chinese and international students can learn more about other cultures and foster their intercultural communication skills.

In addition to foreign language teachers, teachers of other subjects may also give general education courses or subject core courses in English or Chinese-English bilingually. Chinese teachers can also invite professors from overseas partners to co-teach or give lectures in China or online. Teachers may intentionally integrate cultural knowledge, global visions, intercultural sensitivity, and intercultural communication skills into their teaching.

Implications for Students

One significant finding of this study was that frequencies of communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses in the home country were positively related to IC. This finding provided an implication that students could increase their frequencies of intercultural contact in the home country to improve their IC. In the COVID-19 pandemic, cross-border international exchanges are hard to continue. But students can still foster their IC by increasing intercultural contacts in China. The study also found frequencies of intercultural contact were more highly related to Knowledge of Others, Intercultural Communicative Skills, and Intercultural Cognitive Skills than the other subscales. This finding implied increasing frequencies of intercultural contact in the home country could increase students' Knowledge of Others, Intercultural Communicative Skills, and Intercultural Cognitive Skills

scores more effectively. Students were found to get lower scores in the three subscales than the others in the study. This finding indicates educators need to increase students' knowledge of other cultures, and strengthen intercultural communicative and cognitive skills.

Chinese students can improve their IC in a variety of ways in China. They can accumulate more cultural knowledge of other countries through reading English textbooks, newspapers, magazines, and social media news; or by completing intercultural coursework, such as culture-themed research, interviews with international students, and sharing of research and interview findings in class. Chinese students should communicate more with teachers and students from English-speaking countries both in class and after class, orally or in writing through letters, emails, or social media. Chinese and international students can learn from each other as partners. They are encouraged to participate in more intercultural activities, such as festival celebrations, cultural lectures, role playing, and English speech and debate competitions.

Another important finding of this study was that Chinese students' overseas duration had a positive relationship with their IC. When the international situations allow, students can actively participate in various cross-border activities to enrich their international experiences, such as study or take internship abroad; and participate in global competition, international conference, international volunteer, or summer or winter programs. The study found a significant difference in IC between the group of 4 or more months and the other groups for overseas duration. Kohli Bagwe and Haskollar (2020) noted, "Living or studying abroad to be most beneficial when it was combined with on-site interventions and cultural immersion" (p. 353). While living or studying abroad, students can (a) increase their communication and contacts with local people and local community; (b) participate in local festival celebrations and other cultural activities; (c) attend cultural lectures or courses; (d) take a local language training or intercultural adaptation training; and (e) read English newspaper or magazines,

watch English films, and listen to English music. If students can combine these activities and training together, they can improve their IC much faster and more effectively.

Implications for Schools

The study has several implications for schools. Schools can encourage Chinese teachers and native English teachers to offer general education and subject courses with international or intercultural elements, in English or in Chinese-English bilingually, alone or together. Schools can send teachers for overseas training to improve teachers' foreign language proficiency and IC. They can give incentives and rewards for the teachers who are active in giving courses in English or Chinese and English.

Schools can admit more students with diverse cultural backgrounds and encourage them to take classes together and get engaged in meaningful intercultural interactions and activities. With students from diverse cultures, schools can hold international cultural festivals and activities, inviting students from other cultures to display their own cultures in various ways (e.g., singing, dancing, playing sports, making local food, or exhibiting local clothing and accessories). Schools can also create comfortable spaces on campus for students to engage in intercultural communication in their spare time.

Schools can establish more overseas partnerships to provide more choices for students to study abroad. They can provide students with more accurate services to encourage students to go abroad. They can offer predeparture language and intercultural training to students; help students complete their overseas learning agreements; provide students with financial support or scholarships; and give suggestions on or provide services for visa, insurance, flight ticket, airport pick-up, and accommodation. Schools should try to get governmental support to provide students with more accurate services in terms of policies and funds.

To make sure students can get sufficient opportunities of practicing local language and enriching intercultural contact experiences while studying abroad, schools can arrange

for teachers to participate in the design, implementation, and evaluation of study abroad programs. When designing programs, teachers can take local language practice, cultural experiences, and specialized course(s) learning goals into consideration. Students can be partnered in advance so that they can communicate and experience local culture together as much as possible. Schools can send teachers on the trips first for planning purposes or with students. While abroad, the host school can arrange half-day study and half-day campus activities or city visits. On weekends, short cultural experience trips can be arranged for teachers, students, and their partners. Students should be encouraged to go to neighboring communities and shopping malls to communicate with local people and experience local life in their unstructured time.

Before international departure, schools can test students' IC; and when they return home, students will be required to take the test again. The pre and posttests can evaluate the effect of study abroad programs on students' IC development. Further, schools can have focus group interviews with students about what they have gained from the programs and what they think needs to improve. Based on the analysis of IC test results and interview results, school leaders can evaluate the programs comprehensively for future improvement.

Within the complexity and diversity of globalization, schools are more concerned about whether graduates have been prepared to take on the challenges of globalization. Deardorff and Hunter (2006) stated the core mission of higher education in the 21st century was to prepare global-ready graduates who would be able to address global challenges and live in an increasingly interconnected society. Therefore, cultivating students' global leadership competencies is critical to their future success. Osland and Bird (2005) defined global leadership as the process of influencing the thinking, attitudes, and behaviors of a global community to work together synergistically toward a common vision and common goal (p. 123). Bird and Osland's (2004) pyramid model of global leadership identified five

levels of key competencies of global leadership, consisting of: (a) global knowledge; (b) threshold traits (i.e., integrity, humility, inquisitiveness, and resilience); (c) attitudes and orientations, and global mindset (i.e., cognitive complexity and cosmopolitanism); (d) interpersonal skills (i.e., mindful communication, creating and building trust, and multicultural teaming); and (e) system skills (meta skills required for global work, i.e., making ethical decisions, influencing stakeholders, leading change, spanning boundaries, architecting, and building community). Many of the competencies in Bird and Osland's (2004) pyramid model of global leadership overlap with the competencies in Deardorff's (2006) pyramid model of intercultural competence on the levels of knowledge, mindset, and skillset. Intercultural competence is a core competency for effective global leadership. Cultivating students' IC is conducive to developing students' global leadership and preparing them to be global citizens or global leaders. Therefore, schools should be committed to cultivating students' IC.

Study Strengths

Three strengths of this study are discussed in this section. One strength is prior examinations on Chinese private college students' IC are scarce, so this study represents a significant contribution to the extant quantitative research on private college students' IC in China. The study provides information regarding the IC characteristics and the impact factors, which inform the field of the current situation of Chinese private college students' IC, and informs teachers, administrators, and policymakers of colleges regarding focus areas for in or out of class to cultivate students' IC.

The second strength is the large sample size. Through an online survey, I gathered responses from 1,983 participants. This size is large. Participants' gender, age, area of origin, grade, major, and parents' educational levels are diversified. The findings are more representative and can be generalized in a larger context.

The third strength is this study provided empirical proof for the reliability and validity of the AIC-CCS measure. Reliable and valid scales are urgently needed in the field of Chinese IC studies, and the creation of AIC-CCS meets the need. The AIC-CCS had previously been used for public college students. Through this study, the AIC-CCS scale was proved to be applicable to private college students as well, and the assessment results of public and private college students are quite similar.

Study Limitations and Future Directions

There are several limitations of this study, and the limitations can be addressed in future research. The limitations are related to sampling, methodology, and variables. Although this study was preliminary, it represented an important first step in gathering information about Chinese private college students' IC and its impact factors. This result can guide future research directions in this field. The limitations and suggestions for future research are discussed next.

Sampling

This study was limited in terms of sample diversity. All participants were Chinese students at S University. They have similar cultural backgrounds, and their intercultural experiences were limited. The number of students and universities that participated in this study may impact the generalizability of the results. Future research should include students with diverse cultural backgrounds from other universities within China. Replicating this study in other universities may provide further evidence regarding the comparisons of different groups of and the relationships among CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses. IC comparisons between public and private universities will also be further investigated in future research.

Methodology and Scale

One limitation is related to the one-time survey used in this study. The IC cultivation is a long-term dynamic developmental process. A one-time survey can only reflect students' IC at a certain point in time but cannot reflect the IC developmental process. Future research can have two directions. If the research purpose is to verify if some study abroad programs or intercultural training programs have significant effects on IC improvement, pre and posttests can be used to capture IC differences before and after implementing these programs. If the goal of a study is to find problems related to program activities to improve the program, formative evaluation is suggested for use. Formative evaluation focuses on the ongoing development of a program and finds appropriate program modifications (Alkin & Vo, 2017). To have a comprehensive and objective evaluation of IC development programs, I recommend using longitudinal data with mixed methods. The developmental IC instrument, Intercultural Development Inventory (Hammer et al., 2003), can be used to measure students' IC along a developmental continuum regarding their orientation toward cultural difference. To explore how students' IC develops, what problems students have in developing IC, and what changes are made in students' IC over time, I suggest using qualitative methods such as interviews and observations for deeper information.

A second limitation is that participants were asked to report their CET-4 scores, overseas duration, frequencies of intercultural contact, and IC scores by themselves. They might desire to over report appropriate behaviors and under report inappropriate behaviors (Donaldson & Grant-Vallone, 2002). The self-report data may be biased. The other problem is participants might not know how to answer questions accurately. In this study, the responses from participants who have never had an intercultural experience may not have been accurate or appropriate. Therefore, in addition to surveys and statistical analyses, future researchers could also use qualitative methods such as observation, interview, and document

analysis, or mixed-method case studies. Results obtained with qualitative and quantitative methods can be complemented and triangulated to make them more comprehensive and credible. Regarding the quantitative analysis method, this study used correlation analysis to examine the relationships between five factors and IC. The correlation method could not provide the predictive power of two or more independent variables, as a group, on IC. Regression analysis methods may further be used to find a predictive model that can more accurately predict IC.

An additional limitation lies in a time gap between when students took the CET-4 and when they took the AIC-CCS questionnaire. Students may have taken CET-4 between 6 months and 3 years ago. Their CET-4 scores may not represent their current English language capability, but IC scores represent their current IC level. This factor is potentially limiting for the relationship between CET-4 and IC. In future research, I will test students' English language proficiency and IC scores at the same time.

Variables of Interest

Five variables were examined in relation to IC in this study. There are several limitations in variables. One limitation is that CET-4 scores can represent students' English capability to some extent, but not sufficient. The correlation between CET-4 and IC cannot fully represent the relationship between students' English capability and IC. More comprehensive scales can be used in future research to measure students' English listening, speaking, reading, writing, and translating abilities. From there, further correlation analyses can be conducted between language capability and every IC subscale. In this way, teachers and students can know which IC aspect can be improved by strengthening which language capability.

Many studies observed the positive impact of participants' international experiences on their IC, as reviewed in Chapter 2. The relationships between international experiences

and IC can be explored through many factors like overseas duration, homestay experience, language training, or cultural learning opportunities. Examining the association between overseas duration and IC only is not enough to reflect the full impact of international experiences on IC, which is a second limitation. In future research, other forms of international experiences, such as homestay experience, language training, cultural learning, can be explored together in relation to IC.

Students can have intercultural contact through various pathways in the home country and abroad. A limitation of this study was only students' intercultural contact in the home country (i.e., China) was explored, and only the pathways of communicating with native English speakers, engaging in intercultural activities, and contacting cultural products and taking cultural courses were examined. In future research, more detailed pathways both in the home country and abroad can be investigated. Scales of intercultural contact are suggested for future use, such as Peng and Wu's (2016) intercultural contact scale for Chinese college students.

The variances in participants' IC scores that could be explained by CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses were small, seen in Chapter 4. Yet, they are not insignificant. IC is complex and multifaceted, including various competencies in the cognitive, affective, and behavioral dimensions. Any one factor is not going to have a large impact on IC on its own. Therefore, it is suggested future studies explore the effects of more factors and examine their individual and combined impact on IC.

In the pyramid model of intercultural competence, Deardorff (2006) indicated desired external outcomes and internal outcomes of IC development. The combination of external and internal outcomes is the uniqueness of this model. The desired external outcome is

“behaving and communicating effectively and appropriately in intercultural situations” (Deardorff, 2004, p. 196). The desired internal outcome is the cultivation of adaptability, flexibility, empathy, and the formation of ethnorelative view. The internal outcomes can enhance the external outcomes to a higher level and make the external outcomes more sustainable. For example, Koester and Olebe’s (1988) BASIC, Ruben’s (1976) IBAI, and Van der Zee and Van Oudenhoven’s (2000) MPQ frameworks all identified empathy as a major component of IC development. A limitation of this study is it did not explore the impact of internal factors like empathy on IC. A future study will examine the effects of the internal factors on IC as well.

IC studies from multiple cultural perspectives are in great need (Deardorff & Arasaratnam, 2017). I reviewed some Chinese indigenous IC theoretical models of IC in Chapter 2 and found several unique IC elements in Chinese culture (i.e., face, relationship, and harmony). Research on the impact of Chinese cultural elements on IC is scarce. A final limitation of this study is it did not explore the effects of some Chinese cultural elements on Chinese students’ IC. Integrating IC studies from a Chinese cultural perspective into international IC research may be conducive to the understanding and communication between different cultures. This direction is one for future research.

Conclusion

This study explored the characteristics of Chinese private college students’ IC, examined the group differences in IC, and identified five factors associated with IC. The overall IC level of 1,983 participants was slightly above average, with the highest score in Attitude and lowest score in Knowledge of Others. All IC differences for groups of CET-4, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses reached statistical significance. The effect sizes of CET-4 and overseas

duration were at a low level, and those of three intercultural contact frequencies were at a medium level. Results of this study confirmed the positive relationships between CET-4 score, overseas duration, frequency of communicating with native English speakers, frequency of engaging in intercultural activities, and frequency of contacting cultural products and taking cultural courses. The larger correlations were between Intercultural Communication Skills, Intercultural Cognitive Skills, Knowledge of Others, and IC.

Based on the study results, there are some implications for teachers, students, and schools. Teachers should teach cultural knowledge and language skills together in foreign language teaching; they are encouraged to teach general education courses or subject courses in English; and they should give students more opportunities to communicate with native English speakers in or out of class. Students should increase intercultural contacts domestically to foster their IC when international mobility is hard in a pandemic situation; When international mobility is allowed, students should actively participate in cross-border activities, increase intercultural contacts abroad, and enrich international experiences to improve their IC. School leaders should encourage teachers to give general education courses or subject courses in English or Chinese-English bilingually; they should admit students with diverse cultural backgrounds and create comfortable spaces on campus for students to engage in intercultural interactions and hold international cultural festivals; they should establish more overseas partnerships as alternative destinations for students' study abroad; they should provide more accurate services to help students study abroad. Based on students' IC development, schools should further cultivate students' global leadership. As IC is a core competency for effective global leadership, this study also provides an implication to develop students' global leadership.

This study has three strengths. One, this study contributes to the quantitative research on Chinese private college students' IC. With a large sample size, the findings can be

generalized in a larger context. The localized AIC-CCS measure proved applicable to Chinese private college students.

Several limitations were related to sampling, methodology, and impact factors. One limitation was the sample diversity. Future research should include participants with diverse cultural backgrounds in other Chinese universities. Another limitation was the use of a one-time self-report survey. Longitudinal mixed-method studies are recommended for future research. One more limitation was about the coverage of impact factors. As IC is a complex and multifaceted construct, I suggest future studies explore more impact factors and examine their combined impact on IC. The final limitation was the scarcity of IC studies from a Chinese cultural perspective. Future research is suggested to explore the effects of Chinese cultural elements on Chinese students' IC. Studying IC from multiple cultural perspectives is conducive to the understanding and communication between different cultures.

Although this study is preliminary, it is an important step to gather information about Chinese private college students' IC and its impact factors. The findings bring implications for teachers, students, and schools. It also provides directions for future action. This study calls for Chinese private colleges' action to take an integrated approach to developing students' IC. Chinese private colleges should take measures to: (a) strengthen English language and culture teaching; (b) encourage English or English-Chinese bilingual teaching and learning; (c) employ more native English teachers or Chinese teachers with years of overseas experiences, and encourage teachers without overseas experiences to study, attend conferences, or leading student groups abroad; (d) expand more overseas partners to give students more alternatives for studying abroad or taking internship and provide students with convenient services, scholarships, and financial support; (e) admit more international students and encourage Chinese and international students to attend classes together to increase intercultural interactions; and (f) hold international cultural festivals to create an international

and culturally diversified campus. Hopefully, through the joint efforts of teachers, students, and schools, Chinese private college students' IC will significantly improve in the future.

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APPENDICES

Appendix A

A Survey on Intercultural Competence of Chinese Private College Students

(Chinese Version)

中国民办高校大学生跨文化能力调查

亲爱的同学：

你好！

本问卷调查是针对中国民办高校大学生跨文化能力的一项调查，你的参与完全是自愿和匿名的。

本问卷主要在中国一所民办高校中调查学生跨文化能力的现状。问卷包括两个部分：个人信息和跨文化能力自评表。问卷结果只用于学术研究，对你的信息绝对保密。

请同学们认真阅读并完成问卷中的每一个问题。无论你是否完成调查，你都可以点击问卷结尾处的链接参加抽奖，你将有机会赢得一张价值 100 元的星巴克礼品卡。

非常感谢你的大力支持！

知情同意书

研究课题：对中国民办高校大学生跨文化能力的研究

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主要信息

我们邀请您参加一项研究。研究只针对自愿选择参加的人。研究小组的一名成员将向您解释这项研究，并回答您可能提出的任何问题。您可以慢慢来决定是否参加。

如果您同意参与本次研究，项目将包括：

- 年龄在 18-24 岁之间的大学生；
- 一份网络问卷调查；
- 完成这项调查将花费大约 20 分钟；
- 与这项研究相关的风险，不会超过通常在日常生活中会遇到的风险；
- 您将获得这份知情同意书的复印件。

邀请

我们邀请您参加本次研究。此表中的信息旨在帮助您决定是否参加。如果您有任何问题，请提问。

我们为什么邀请您参加这个研究？

您被邀请参加这项研究是因为您是中国上海一所民办大学的学生。您必须年满 18 岁才能参加。

做这项研究的原因是什么？

Deardorff (2009) 将跨文化能力描述为一系列的认知、情感和行为技能，这些技能能够使人们与其他文化的人进行有效而恰当的交流。跨文化能力是高校学生在许多国际化努力下的学习成果之一。对中国大学生跨文化能力的定量研究还比较少。此外，学者们在考察英语语言能力和跨文化能力之间的关系中有不同的发现，在中国民办高校生中，还没有考察两者之间关系的研究。为了填补这些空白，本研究旨在：(1) 确定中国民办高校学生跨文化能力特征；(2) 考察学生出国留学时间、英语语言能力和跨文化能力之间的关系。

在本次研究中，我们将做些什么？

您将被要求完成一项网络问卷调查，询问有关留学经历、英语语言能力和跨文化能力的相关问题。整个问卷将花费大约 20 分钟来完成，您可以在手机、平板电脑或电脑上完成。

在这项研究中可能存在的风险是什么？

参与这项研究，您没有已知的风险。

参与这项研究，对您有什么好处？

您不会从这项研究中得到任何直接的好处。

对其他人可能的好处是什么？

对科学和/或社会的好处可能包括更好地了解中国民办高校学生跨文化能力的特点，以及出国留学时间、英语语言能力和跨文化能力之间的关系。

参与这项研究将让您花费什么？

参与这项研究不会让您有任何花费。

您参与这项研究有报酬么？

您参与这项研究不会有任何报酬。无论你是否完成调查，你都可以点击问卷结尾处的链接参加抽奖，你将有机会赢得一张价值 100 元的星巴克礼品卡。

如果您在本次研究中遇到问题，您应该怎么做？

您的福祉是研究小组每个成员关心的主要问题。如果您的问题是因参与这项研究而直接产生的，您应该立即联系本知情同意书开头所列的人员中任何一人。

如何保护您的信息？

我们将采取合理措施保护您的隐私和研究数据的机密性。

这些数据将通过一个安全的服务器以电子方式存储，研究团队只有在研究期间和研究完成后的 1 年内看到这些数据。

只有研究团队成员、机构审查委员会以及法律要求的任何其他人、机构或赞助人才能查阅您的研究记录。来自这项研究的信息可能会在科学期刊上发表或在科学会议上陈述，但这些数据将以小组或汇总数据的形式报告，您的身份将被严格保密。

您作为研究对象的权利是什么？

您可以就本研究提出任何问题，并在同意参与研究前或研究期间回答这些问题。

有关研究的相关问题，请与本表格开头所列的研究人员联系。

有关您对本研究的权利或投诉的问题，请联系机构审查委员会 (IRB)，电话 (714) 628-2833 或电子邮箱 irb@chapman.edu。

如果您决定不参加这项研究，或者一旦开始就决定停止参与，会发生什么？

在研究开始之前、期间或之后的任何时间，因为任何原因，您可以决定不参加这个研究，或者您可以停止参加这个研究（即：退出）。决定不参加本次研究或决定退出不会影响您与研究、查普曼大学或上海杉达学院的关系。您不会失去任何您有权得到的利益。

知情同意文件记录

您自愿决定是否参加本次研究。签署本同意书即表示：(1) 您已阅读并理解本同意书；(2) 您已得到对本同意书的解释；(3) 您的问题已得到解答；(4) 您已决定参加本次研究。您将会得到一份本同意书的复印件。

参加人或合法监护人签名

日期

1. 知情同意书

我已阅读了“知情同意书”。在此，我同意在本研究项目中使用我提供的信息作为数据。我也会保留一份本同意书复印件作为个人记录保存。[单选题]

- ☐ 同意
☐ 不同意（请跳至第问卷末尾，提交答卷）

第一部分 基本信息

请根据你的实际情况做出选择或填空

2. 性别 [单选题]

- ☐ 女 ☐ 男 ☐ 非两性 / 第三性别 ☐ 更喜欢自我描述 ☐ 不想说

3. 年龄 [单选题]

- ☐ 18 以下
☐ 18
☐ 19
☐ 20
☐ 21
☐ 22
☐ 23 及以上

4. 国籍 [单选题]

- ☐ 中国
☐ 其他 _____ *

5. 生源地 [单选题]

- ☐ 安徽
☐ 北京
☐ 重庆
☐ 福建
☐ 甘肃
☐ 广东
☐ 广西
☐ 贵州
☐ 海南
☐ 河北
☐ 黑龙江

- ☐河南
- ☐香港
- ☐湖北
- ☐湖南
- ☐江苏
- ☐江西
- ☐吉林
- ☐辽宁
- ☐澳门
- ☐内蒙古
- ☐宁夏
- ☐青海
- ☐山东
- ☐上海
- ☐山西
- ☐陕西
- ☐四川
- ☐台湾
- ☐天津
- ☐新疆
- ☐西藏
- ☐云南
- ☐浙江
- ☐其他

6. 所在学院 [单选题]

请嘉善光彪学院的同学根据自己的专业，选择对应的专业二级学院。

- ☐胜祥商学院
- ☐管理学院
- ☐艺术设计与传媒学院
- ☐信息科学与技术学院
- ☐外语学院
- ☐国际医学技术学院
- ☐教育学院
- ☐机电工程学院

7. 所在年级 [单选题]

- ☐一年级
- ☐二年级
- ☐三年级
- ☐四年级
- ☐五年级及以前

8. 所在专业 [单选题]

- ☐ 国际经济与贸易（含中美合作）
- ☐ 金融学（含 CFA 方向）
- ☐ 会计学
- ☐ 财务管理（含 CIMA 方向）
- ☐ 市场营销（含时尚营销方向）
- ☐ 法学
- ☐ 教育学(含幼儿教育方向)
- ☐ 小学教育
- ☐ 学前教育
- ☐ 汉语国际教育
- ☐ 英语
- ☐ 日语
- ☐ 西班牙语
- ☐ 朝鲜语
- ☐ 俄语
- ☐ 翻译（日语翻译）
- ☐ 计算机科学与技术（含数据工程方向）
- ☐ 软件工程
- ☐ 数据科学与大数据技术
- ☐ 信息管理与信息系统（含金融信息管理系统方向）
- ☐ 电子商务
- ☐ 护理学
- ☐ 康复治疗学
- ☐ 卫生教育
- ☐ 劳动与社会保障
- ☐ 工程管理
- ☐ 行政管理（含人力资源管理方向）
- ☐ 人力资源管理
- ☐ 食品质量与安全
- ☐ 旅游管理（含会展策划与管理方向）
- ☐ 酒店管理（含高级管家方向）
- ☐ 新闻学（含传媒经营方向）
- ☐ 网络与新媒体
- ☐ 视觉传达设计
- ☐ 环境设计
- ☐ 产品设计（含数字设计方向）
- ☐ 服装与服饰设计
- ☐ 时尚传播
- ☐ 建筑电气与智能化
- ☐ 机械电子工程（含民航机务工程方向）

9. 所在行政班级 [单选题]

每个学生入学后被安排到一个班级，每个班级有一个代码。每个班通常由 30-40 人组成。班级代码见下拉表（略）。

10. 你父亲的受教育程度 [单选题]

- ☐ 初中
- ☐ 中专
- ☐ 高中
- ☐ 大专
- ☐ 大学本科
- ☐ 硕士研究生
- ☐ 博士研究生
- ☐ 不适用

11. 你母亲的受教育程度 [单选题]

- ☐ 初中
- ☐ 中专
- ☐ 高中
- ☐ 大专
- ☐ 大学本科
- ☐ 硕士研究生
- ☐ 博士研究生
- ☐ 不适用

12. 你的大学英语四级考试成绩 [请填写总分和单项分]

总分	_____
听力	_____
阅读	_____
写作和翻译	_____

13. 你曾经是否出过国 [单选题]

- ☐ 是
- ☐ 否（请跳至第 16 题）

14. 你出国的目的 [多选题]

- ☐ 国外学习
- ☐ 国外实习
- ☐ 国际竞赛
- ☐ 国际学术会议
- ☐ 国际组织志愿者
- ☐ 夏令营、冬令营
- ☐ 出国旅游
- ☐ 其他 _____

15. 你在国外的累计时间 [单选题]

- ☐ 少于 1 个月
- ☐ 1-3 个月
- ☐ 4-6 个月
- ☐ 7-9 个月
- ☐ 10-12 个月
- ☐ 12 个月以上

16. 跨文化能力被定义为一系列认知、情感和行为技能，这些技能能使人们与其他文化的人进行有效和适当的交流 (Deardorff, 2009)。你认为出国留学是否有助于培养跨文化能力? [单选题]

- ☐ 是
- ☐ 否
- ☐ 不适用

17. 你在国内与英语母语的人用英语进行交流的途径有哪些? [多选题]

- ☐ 通过 QQ、Wechat、Twitter、Facebook、Skype、Linkedin 等社交媒体与英语母语的人用英语进行打字交流
- ☐ 通过 QQ、微信、Twitter、Facebook、Skype、Linkedin 等社交媒体与英语母语的人用英语进行语音或视频交流
- ☐ 通过书信或电邮与英语母语的人用英语进行文字书面交流

☐其他途径 _____*
请注明具体内容

☐与英语母语的人没有交流

18. 你在国内与英语母语的人用英语进行交流的频率 [单选题]

☐没有

☐少

☐一般

☐多

☐很多

19. 你在国内了解英语国家文化的跨文化沟通活动有哪些? [多选题]

☐通过参加外国节日庆祝活动

☐通过参加外国文化交流日活动

☐通过参加国际留学会展活动

☐通过参加外国人的文化类讲座

☐通过参加外教口语类课程

☐通过与外教的自由交谈

☐通过与留学生交谈和参加活动

☐其他活动 _____*
请注明具体内容

☐没有这样的跨文化沟通活动

20. 你在国内了解英语国家文化的跨文化沟通活动的频率 [单选题]

☐没有

☐少

☐一般

☐多

☐很多

21. 你在国内为了解英语国家文化而接触的文化产品和课程有哪些? [多选题]

- ☐通过参加在线课程
 - ☐通过阅读纸质书籍
 - ☐通过阅读电子书籍
 - ☐通过阅读纸质报刊杂志
 - ☐通过阅读电子报刊杂志
 - ☐通过观看英文电影
 - ☐通过欣赏英文歌曲
 - ☐通过参加大学英语课程
 - ☐其他 _____*
- 请注明具体内容
- ☐没有接触过这类文化产品和课程

22. 你在国内为了解英语国家文化而接触的文化产品和课程的频率 [单选题]

- ☐没有
- ☐少
- ☐一般
- ☐多
- ☐很多

第二部分 跨文化能力自评

本部分是中国大学生跨文化能力自评量表,包括四个方面的内容:知识、态度、技能和意识。请根据你自己的实际情况,从0到5中选择一个数字进行自我评分,0代表程度最低,依次递增,5代表程度最高。

具体参照如下:

- 0 没有/全无
- 1 非常弱/些微
- 2 较弱/一点
- 3 一般/一些
- 4 较强/较多
- 5 非常强/非常多

23. 了解本国的历史、地理和社会政治知识 [单选题]

没有/全	☐	☐	☐	☐	☐	☐	非常强/
无	00	01	02	03	04	05	非常多

24. 了解本国的生活方式和价值观知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

25. 了解本国的社交礼仪和宗教文化知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

26. 了解外国的历史、地理和社会政治知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

27. 了解外国的生活方式和价值观知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

28. 了解外国的社交礼仪和宗教文化知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/非
无 常多

29. 了解外国的文化禁忌知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

30. 了解和比较不同文化的基本规范与行为知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

31. 了解文化和跨文化交流与传播等概念的基本知识 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

32. 了解一些成功进行跨文化交流的策略和技巧 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

33. 愿意和来自不同文化的外国人进行交流和學習 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

34. 愿意尽量去宽容外国人不同的价值观、饮食习惯、禁忌等 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
35. 愿意学好外语和了解外国人 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
36. 出现跨文化交流误解时和对方协商、解释本国文化从而达到让双方满意的能力 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
37. 出现语言交流障碍时借助身体语言或其他非语言方式进行交流的能力 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
38. 使用外语与来自不同社会文化背景和领域的人进行成功交流的能力 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
39. 在与外国人交流时礼貌对待他们的能力 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
40. 在与外国人交流时尽量避免在语言、穿着和行为举止上冒犯他们的能力 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
41. 在与外国人交流时尽量避免对外国人产生偏见和成见的能力 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多
42. 在与外国人交流时避免提到外国人有关隐私话题的能力 [单选题]
- 没有/全 无 ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 非常强/非常多

43. 具有对跨文化差异敏感性的能力 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

44. 看待其他国家发生如政治、经济、宗教等方面的事件时会从不同文化和多角度看问题的能力 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

45. 具备通过与外国人的接触直接获得跨文化交际相关知识的能力 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

46. 具备运用各种方法、技巧与策略帮助学习外国语言和文化的能力 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

47. 出现跨文化冲突和误解时进行反思和学习并寻求妥善解决途径的能力 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

48. 意识到与外国人交流时彼此存在文化相似性和差异性 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

49. 意识到与外国人交流时自身文化身份和对方文化身份的差异 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

50. 意识到文化风格和语言运用的不同，以及它们对社会和工作情景造成的影响 [单选题]

没有/全 〇0 〇1 〇2 〇3 〇4 〇5 非常强/
无 非常多

感谢你的大力支持！如果你愿意参加抽奖，赢得价值 100 元的星巴克礼品卡，请点击链接：<https://www.wjx.top/jq/83201294.aspx>。此链接将引导你填写你的电子邮件地址，以便你中奖后，我们将礼品卡发送给你。此链接与本问卷调查分开，因此你的个人信息不会与你的问卷调查结果相联系。我们期待您参与未来的研究。

Appendix B

A Survey on Intercultural Competence of Chinese Private College Students

(English Translation)

Dear Participants,

You are invited to participate in a survey on the intercultural competence of Chinese private college students. Your participation is strictly voluntary and anonymous.

The survey is mainly to investigate the current situation of students' intercultural competence in a Chinese private university. It consists of two parts: basic questions and the Assessment of Intercultural Competence of Chinese College Students. The results will be used only for academic research and your information will be kept confidential.

Please read and complete each question carefully. It takes you about 10 minutes. You will have the option to follow a link at the end of the survey to be entered into a drawing to win a RMB100 Starbucks gift card, no matter whether you complete the survey or not.

Thanks a lot for your support.

ADULT INFORMED CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: An Examination of Chinese Private College Students' Intercultural Competence

Members of the Research Team

Student Researcher: Li Li, MA & MBA

Email: lili@chapman.edu

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Key Information

You are being asked to take part in a research study. Research studies include only people who choose to take part. A member of the research team will explain the study to you and will answer any questions you might have. You should take your time in deciding whether or not you want to participate.

If you agree to participate in this study, the project will involve:

- College students between the ages of 18-24
- Procedures will include administration of one web-based survey
- Completion of this survey will take approximately 20 minutes
- There are no risks associated with this study that exceed what would typically be encountered in daily life.
- You will be provided a copy of this consent form.

Invitation

You are invited to take part in this research study. The information in this form is meant to help you decide whether or not to participate. If you have any questions, please ask.

Why are you being asked to be in this research study?

You are being asked to be in this study because you are a student at a private university in Shanghai, China. You must be 18 years of age or older to participate.

What is the reason for doing this research study?

Deardorff (2009) described intercultural competence as a range of cognitive, affective, and behavioral skills that led to effective and appropriate communication with people of other cultures. Intercultural competence is one of students' learning outcomes of many internationalization efforts in higher education institutions. The quantitative research on Chinese college students' intercultural competence is scarce. There are almost no quantitative studies on Chinese private college students' intercultural competence. What's more, scholars identified different findings in the relationship between English language proficiency and intercultural competence. No research has shown the relationship between the two among Chinese private college students. To fill these gaps, this research is designed to (a) identify Chinese private college students' characteristics of intercultural competence and (b) examine the relationships between student study abroad duration, English language proficiency, and intercultural competence.

What will be done during this research study?

You will be asked to complete 1 survey using an internet-based questionnaire that asks questions about study abroad experience, English language proficiency, and intercultural competence. The survey will take approximately 20 minutes to complete and you may complete them on your phone, tablet, or computer.

What are the possible risks of being in this research study?

There are no known risks to you for being in this research study.

What are the possible benefits to you?

You are not expected to get any direct benefit from being in this study.

What are the possible benefits to other people?

The benefits to science and/or society may include better understanding the characteristics of Chinese private college students' intercultural competence, and the relationships between study abroad duration, English language proficiency, and intercultural competence.

What will participating in this research study cost you?

There is no cost to you to be in this research study.

Will you be compensated for being in this research study?

You will not be compensated for your participation in this research study. But you have the option to follow a link at the end of the survey to be entered into a drawing to win a RMB100 Starbucks gift card for your time and participation, no matter whether you complete the survey or not.

What should you do if you have a problem during this research study?

Your welfare is the major concern of every member of the research team. If you have a problem as a direct result of being in this study, you should immediately contact one of the people listed at the beginning of this consent form.

How will information about you be protected?

Reasonable steps will be taken to protect your privacy and the confidentiality of your study data.

The data will be stored electronically through a secure server and will only be seen by the research team during the study and for 1 year after the study is complete.

The only people who will have access to your research records are the members of the research team, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. Information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

What are your rights as a research subject?

You may ask any questions about this research and have those questions answered before agreeing to participate in the study or during the study.

For study related questions, please contact the investigator(s) listed at the beginning of this form

For questions concerning your rights or complaints about the research, contact the Institutional Review Board (IRB) at (714) 628-2833 or irb@chapman.edu.

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study (i.e., “withdraw”) at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator, or with Chapman University or Sanda University. You will not lose any benefits to which you are entitled.

Documentation of informed consent

You are voluntarily deciding whether or not to be in this research study. Signing this form means that (1) you have read and understood this consent form, (2) you have had the consent form explained to you, (3) you have had your questions answered, and (4) you have decided to be in the research study. You will be given a copy of this consent form to keep.

Signature of Participant or Legal Guardian

Date

1. Informed Consent Form (Please click [here](#) to read)

I have read the informed consent form. I hereby grant permission to use the information I provide as data in this research project. I will also retain a copy of this consent form for my own record. [single choice] *

☐ Yes

☐ No (Skip to the end of the survey and finish it.)

Part One Basic Demographic Questions

2. **Gender** [single choice]

☐Female ☐Male

☐Nonbinary /
Third Gender

☐Prefer to
Self-describe

☐Prefer
Not to Say

3. **Age** [single choice]

☐Younger than 18

☐18

☐19

☐20

☐21

☐22

☐23 and older

4. **Nationality** [single choice]

☐China

☐Others _____

5. **Place of origin** [single choice]

☐Anhui

☐Beijing

☐Chongqing

☐Fujian

☐Gansu

☐Guangdong

☐Guangxi

☐Guizhou

☐Hainan

☐Hebei

☐Heilongjiang

☐Henan

☐Hong Kong

☐Hubei

☐Hunan

☐Jiangsu

☐Jiangxi

☐Jilin

☐Liaoning

☐Macao

☐Inner Mongolia

☐Ningxia

☐Qinghai

☐Shandong

☐Shanghai

☐Shanxi

☐Shaanxi

☐Sichuan

- Taiwan
- Tianjin
- Xinjiang
- Tibet
- Yunnan
- Zhejiang
- Others

6. Your college [single choice]

- College of Business
- College of Management
- College of Art Design and Media
- College of Information Science and Technology
- College of Foreign Languages
- College of International Medical Technology
- College of Education
- College of Mechanical and Electrical Engineering
- Others

7. Year of study [single choice]

- 1st year
- 2nd year
- 3rd year
- 4th year
- 5th year and before

8. Your major [single choice]

- International Economics and Trade (including Sino-US Joint Program)
- Finance (including concentration: CFA)
- Law
- Education (including concentration: Preschool Education)
- Health Education
- Elementary Education
- English
- Japanese
- Spanish
- Translation and Interpretation (Concentration: Japanese)
- Korean
- Russian
- Journalism (including concentration: Media Management)
- Network and New Media
- Teaching Chinese to Speakers of Other Languages
- Food Quality and Safety Management
- Computer Science and Technology (including concentration: Data Engineering)
- Software Engineering
- Mechanical and Electrical Engineering
- Nursing
- Rehabilitation Treatment
- Marketing (including concentration: Fashion Marketing)

- Accounting
- Financial Management (including concentration: CIMA)
- Labor and Social Security
- Construction Project Management
- Building Electricity and Intelligence
- Tourism Management (including concentration: Event Planning and Management)
- Hotel Management (including concentration: Butler Services)
- Public Administration
- Information Management and Information System (including concentration: Financial Information Management System)
- E-commerce
- Visual Communication Design
- Environmental Design
- Product Design
- Clothing and Apparel Design
- Fashion Communication
- Preschool Education
- Data Science and Big Data Technology
- Human Resource Management

9. Your class code [single choice]

Each student is assigned to a class and each class has a code. Each class usually consists of 30-40 students.

Choose from the list of all class codes which are

10. Your father's education level [single choice]

- Middle school
- Secondary vocational school
- High School
- Junior College
- Bachelor
- Master
- Doctor
- Not Applicable

11. Your mother's education level [single choice]

- Middle school
- Secondary vocational school
- High school
- Junior college
- Bachelor
- Master
- Doctor
- Not Applicable

12. Your CET-4 score [Please fill in the total score and subscores.]

Total score	_____
Listening score	_____
Reading score	_____
Writing/Translation score	_____

13. Have you been abroad? [single choice]

- ☐ Yes
- ☐ No (skip to Question 16)

14. Your purpose of going abroad [multiple choice]

- ☐ For study
- ☐ For internship
- ☐ For international competition
- ☐ For international conference
- ☐ For volunteer of international organizations
- ☐ For summer/winter camp
- ☐ For travel
- ☐ Others _____*

15. Your total overseas duration [single choice]

- ☐ Less than 1 month
- ☐ 1–3 months
- ☐ 4–6 months
- ☐ 7–9 months
- ☐ 10–12 months
- ☐ More than 12 months

16. Intercultural competence is defined as a range of cognitive, affective, and behavioral skills that led to effective and appropriate communication with people of other cultures (Deardorff, 2009). Do you think if studying abroad can help develop intercultural competence? [single choice]

- ☐ Yes
- ☐ No
- ☐ Not Applicable

17. Through which pathways do you communicate with English native speakers in English in the home country? [multiple choice]

- ☐ Through text communication with English native speakers through QQ、 WeChat、 Twitter、 Facebook、 Skype、 Linkedin in China
- ☐ Through voice or video communication with English native speakers through QQ、 WeChat、 Twitter、 Facebook、 Skype、 Linkedin in China
- ☐ Through letters or emails with English native speakers in China
- ☐ Through other pathways _____*
- Please explain
- ☐ No communication with English native speakers in English

18. How frequently do you communicate with native English speakers in English in the home country? [single choice]

- ☐ None
- ☐ A little
- ☐ Some
- ☐ Many
- ☐ A great many

19. Through which intercultural activities do you understand English culture in the home country? [multiple choice]

- ☐ Through participating in foreign festival celebrations
- ☐ Through participating in foreign cultural communication day
- ☐ Through participating in international study exhibition
- ☐ Through participating in foreigners' cultural lectures
- ☐ Through participating in foreign teachers' English training courses
- ☐ Through participating in free conversations with foreign teachers
- ☐ Through participating in conversations and activities with international students
- ☐ Other activities _____*
- Please explain
- ☐ No intercultural communication activities

20. How frequently do you have intercultural activities to understand English culture in the home country? [single choice]

- ☐None
- ☐A little
- ☐Some
- ☐Many
- ☐A great many

21. Through which cultural products and courses do you understand English culture in the home country? [multiple choice]

- ☐Through participating in an online course
 - ☐Through reading printed books
 - ☐Through reading E-books
 - ☐Through reading printed newspaper and magazines
 - ☐Through reading E-newspaper and E-magazines
 - ☐Through watching English movies
 - ☐Through enjoying English songs
 - ☐Through participating in college English courses
 - ☐Others _____*
- Please explain

- ☐No such cultural products and courses

22. How frequently do you contact cultural products and take cultural courses to understand English culture in the home country? [single choice]

- ☐None
- ☐A little
- ☐Some
- ☐Many
- ☐A great many

Part Two Self-Evaluation of Intercultural Competence

This part is the Assessment of Intercultural Competence of Chinese College Students (AIC-CCS), which includes four aspects: knowledge, attitude, skill, and awareness.

Please choose a number from 0 to 5 to rate yourself. 0 represents the lowest degree and 5 represents the highest degree.

- 0 Not at all**
- 1 Very Low**
- 2 Low**
- 3 Some**
- 4 High**
- 5 Very High**

23. I know the historical, geographical, and socio-political knowledge of my home country. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

24. I know the way of life and the values of my home country. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

25. I know the social etiquette and religions of my home country. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

26. I know the historical, geographical, and socio-political knowledge of foreign countries. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

27. I know the way of life and the values of foreign countries. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

28. I know the social etiquette and religions of foreign countries. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

29. I know the cultural taboos of foreign countries. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

30. I know and can compare the basic norms and behaviors of different cultures. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

31. I know the concepts of cultural and intercultural communication. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

32. I know some strategies and skills for successful intercultural communication. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

33. I am willing to communicate with and learn from foreign people of other cultures. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

34. I am willing to tolerate foreigners' different values, dietary habits, and taboos as much as possible. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

35. I am willing to learn foreign languages well and understand foreigners well. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

36. When misunderstandings occur in intercultural communication, I have the ability to negotiate with the other party and explain the culture of my country so as to satisfy both parties. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

37. When there are language barriers, I have the ability to use body language or other non-verbal means to communicate. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

38. I have the ability to successfully communicate with people from different socio-cultural backgrounds and different fields in a foreign language. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

39. I have the ability to be polite to foreigners when I communicate with them. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

40. I have the ability to communicate with foreigners without offending them in language, dress and behavior. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

41. I have the ability to avoid prejudices when communicating with foreigners. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

42. I have the ability to communicate with foreigners without mentioning any private topics. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

43. I am sensitive to intercultural differences. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

44. When political, economic, or religious events happen in other countries, I have the ability to see them from different cultural perspectives. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

45. I have the ability to acquire knowledge related to intercultural communication directly through contacts with foreigners. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

46. I have the ability to use a variety of methods, techniques and strategies to learn foreign languages and cultures. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

47. When there are intercultural conflicts and misunderstandings, I have the ability to reflect, learn and seek appropriate solutions. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

48. I am aware that there are cultural similarities and differences in communicating with foreigners. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

49. I am aware of the difference between my own cultural identity and the other's cultural identity when communicating with foreigners. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

50. I am aware of the differences in cultural styles and language use, and their impact on social and work situations. [single choice]

Not at all ☐0 ☐1 ☐2 ☐3 ☐4 ☐5 Very High

Thanks a lot for your support. If you are willing to be entered into a drawing to win a RMB100 Starbucks gift card, please click this link (<https://www.wjx.top/jq/83201294.aspx>).

This link will direct you to fill out your email address so that we can send you the gift card when you win. This link is separated from the survey, so no identifiable information will be associated with the survey result. We look forward to your participation again in the future.