

Chinese Foreign Language Learners' Knowledge of Chinese Culture and the Influences of Linguistic Proficiency, Learning Experiences, Cultural Background and Other Contributing Factors on Their Knowledge Levels

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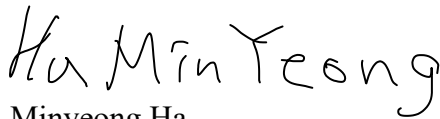
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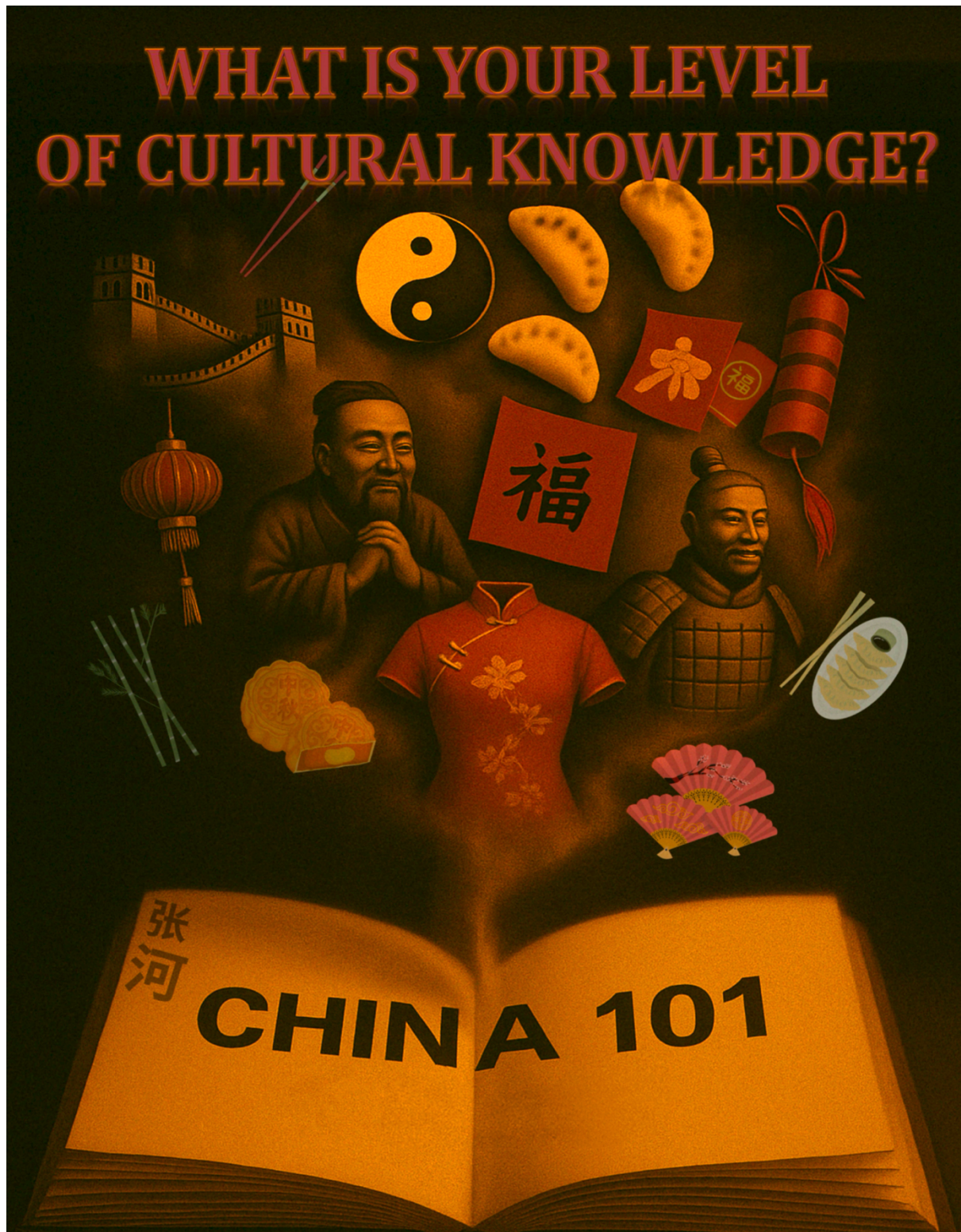
SUMMARY

This thesis examines the variation in cultural knowledge levels among Chinese as a Foreign Language (CFL) learners and the extent to which CFL learners' knowledge levels are influenced by individual characteristics, including linguistic proficiency, learning experiences, environmental cultural background, and other contributing factors. Based on the theoretical insights of Sapir-Whorf's Linguistic Relativity Theory (1929b), Vygotsky's Sociocultural Theory (1978), and Bronfenbrenner's Bioecological Systems Theory (2005a), the study provides a multifaceted understanding of how language, social interactions, learning experiences, and contextual, cultural, and environmental factors shape foreign cultural knowledge. An international anonymous online survey was conducted using SurveyMonkey software (<https://www.surveymonkey.com>) and a total of 104 CFL learners participated in the study. The research methodology was guided by the findings of a scoping review study that explored the existing literature in the area. The anonymous survey was developed in both English and Chinese. Data were analysed using SPSS version 29 (*IBM SPSS Statistics for Windows*, 2022), and descriptive statistics, correlation analysis (Pearson's r , Spearman's ρ), t-tests, ANOVA, chi-square tests, and multiple regression analysis were carried out in order to explore the relationships between Chinese language proficiency, participants' environmental backgrounds, learning experiences, and their Chinese cultural knowledge.

Chapter 1 introduces the study's background, outlines the research problem, states research aims and questions, outlines the theoretical and methodological frameworks, and provides an overview of the dissertation's structure. **Chapter 2** reviews the literature on the interdependence of language and culture, defines 'cultural knowledge' in CFL contexts, explores linguistic and cultural identity, and the unique challenges that CFL learners face in acquiring the Chinese language and cultural understanding. **Chapter 3** presents a scoping review of studies conducted over the past 20 years on CFL learners' cultural learning. It outlines the Arksey and O'Malley (2005) scoping review protocol, refined by Levac et al.(2010), the updated guidelines for reporting systematic reviews, the PRISMA guidelines (Page et al., 2021) and thematic analysis methods used to organise the studies selected for inclusion, map the key trends and identifying gaps in current research. **Chapter 4** outlines the theoretical framework, explaining how the three chosen theories, collectively, inform an integrated view of cultural levels and cultural learning among CFL learners.

Chapter 5 outlines the detailed quantitative methodology, including the anonymous survey design, sampling strategy, instrument development, pilot testing, data collection, ethical approval, and techniques of analytical methods. **Chapter 6** presents the findings by describing the sample and presenting the levels of cultural knowledge for the entire sample. It presents the relationships between cultural knowledge and linguistic proficiency, learning experiences, environmental and cultural background, and other demographic factors. **Chapter 7** discusses the findings in relation to the three main theories that make up the study's theoretical framework and also the existing literature. It considers how language structures (Sapir-Whorf), social interactions (Vygotsky), and environmental systems (Bronfenbrenner) influence cultural learning. Implications for CFL education are outlined, along with study limitations and directions for future research.

The findings from this study suggest that educational practice should integrate interactive learning experiences, experiential learning and awareness of learners' broader ecological contexts. Engagement in traditional cultural events and having relationships with or repeatedly interacting with native speakers or visiting China significantly enhances foreign language learners' cultural knowledge. This finding indicates that CFL programmes should include authentic immersive Chinese cultural engagement or technology-mediated immersive cultural engagement in their curricula. The study also demonstrates that different groups of CFL learners from different continents could benefit from tailored instructional learning settings, self-study or formal structured learning settings depending on the learning modality that best suits their established ways of learning. These findings underscore the need for culturally responsive and multidimensional pedagogy in learning Chinese culture and have practical implications for designing culturally responsive curricula and materials that support deeper intercultural competence for CFL learners.



Conceptual Poster Representing the PhD Research

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
ASC	Academic Search Complete
AI	Artificial Intelligence
CCA	Canonical Correlation Analysis
CFL	Chinese as a Foreign Language
CHL	Chinese Heritage Learners
CHAT	Cultural-Historical Activity Theory
CSL	Chinese as a Second Language
CNKI	Chinese National Knowledge Infrastructure
CEFR	Common European Framework of Reference for Languages
DMIS	Developmental Model of Intercultural Sensitivity
EDI	Early Development Instrument
ELT	Experiential Learning Theory
EFL	English as a Foreign Language
HSK	Hanyu Shuiping Kaoshi
HSKK	Hanyu Shuiping Kouyu Kaoshi
LLBA	Linguistics & Language Behaviour Abstracts
MRA	Multiple Regression Analysis
MLA	MLA International Bibliography
PPCT	Process-Person-Context-Time
QR	Quick Response code
RIS	Research Information Systems
SLA	Second Language Acquisition
SPSS	Statistical Package for Social Sciences
TCSOL	Teaching Chinese to Speakers of Other Languages
TBL	Task-Based Learning
ZPD	Zone of Proximal Development
ZPD	Zone of Potential Development
ZAD	Zone of Actual Development

Chapter 1 Introduction

1.1 Background and Rationale

Over the past three decades, China's expanding role in global politics, economy, and cultural exchanges has drawn increasing international interest in learning Chinese as a Foreign Language (CFL) (Luo, 2015; Wah, 2001). This is increasingly important as China continues to expand its influence through initiatives like the Belt and Road Initiative, which fosters economic cooperation across Asia, Europe, and Africa (Fallon, 2015). As a result, the Chinese language emerged as a global language (Yang Frank Gong & Chun Lai, 2024), with growing geopolitical, economic, and cultural importance (Gil, 2021). These initiatives have promoted widespread interest in learning Chinese as a Foreign Language (CFL) and in teaching Chinese to speakers of other languages (TCSOL) (Zhang & Zhang, 2018). Students globally now recognise Chinese as a valuable and appealing choice of language to learn (Hu, 2010). Accordingly, Chinese as a foreign language (CFL) learning has rapidly developed in recent years (Zhang & Li, 2010). This worldwide increase in learning Chinese as a Foreign Language (CFL) has sparked scholarly interest beyond the focus on the topic of basic language proficiency and skills. CFL educators and researchers in the field now understand that effective communication depends on more than simply the number of Chinese characters students learn and the grammar and vocabulary they acquire. Effective communication also depends on acquiring a deep understanding of the cultural context of the target language. Cultural insight and knowledge influence how CFL learners interpret the Chinese language, engage with people from Chinese communities, and function in intercultural environments. The terms Chinese as a Second Language (CSL) and Chinese as a Foreign Language (CFL) are often used interchangeably in the literature (Gong et al., 2020; Li & Li, 2020), although they do not denote identical learning contexts. Traditionally, CSL refers to the acquisition of the Chinese language in environments where Chinese functions as a societal or dominant language, typically within Chinese-speaking communities (Ruan et al., 2005). CFL is generally used to describe the learning of Chinese in contexts where it does not serve as the primary language of social communication, and where exposure is largely limited to formal instructional educational settings (Pasfield-Neofitou et al., 2016). Despite this traditional distinction, recent studies have noted increasing conceptual overlap between the two terms, particularly considering the global

mobility and transnational educational tracks. In many empirical studies, as in the following chapters, the boundaries between CSL and CFL learners are not consistently maintained, especially in contexts where Chinese language learners have mixed exposure. For this research, the term Chinese as a Foreign Language (CFL) is adopted as the primary descriptor. This decision is based on the institutional and sociolinguistic positioning of the participants, whose primary language of socialisation was not Chinese, and whose engagement with Chinese was primarily mediated through formal or informal educational settings, regardless of whether temporary immersion experiences had occurred in China or through participation in Chinese festivals or events. The use of the CFL as an operational category, therefore, reflects the study's focus on Chinese as a non-dominant societal language for the participants under this research investigation.

1.2 Research Problem

Many foreign language textbooks and language learning methods present Chinese culture at the surface-level in a basic or stereotypical way. This level of cultural learning may fail to support CFL learners in their endeavours to comprehend deeper cultural nuances of Chinese culture. As a result, CFL learners may struggle to grasp values, historical references, and socially embedded behaviours that are critical for effective communication in the Chinese language and integration into Chinese society. Most existing studies in the area of Chinese as a Foreign Language focus on language proficiency outcomes. Research into cultural learning in the context of language learning is limited, leaving unanswered questions about how knowledge of the Chinese culture varies between CFL learners and what influences these differences in cultural knowledge. In particular, there is a lack of empirical research into the influences of learners' linguistic proficiency levels, learning experiences, and environmental and cultural backgrounds. This gap in the existing literature makes it difficult for CFL language teachers and curriculum designers to know how to support cultural learning in CFL education.

1.3 Research Question and Research Aims

To address this gap in the literature, the current study addressed the following research question: How do linguistic proficiency, learning experiences, cultural background, and other contributing factors influence CFL learners' levels of cultural knowledge? The aims of this research study were to examine the variation in levels of

knowledge of Chinese culture among CFL learners and to identify the key factors that influence variations in cultural knowledge.

1.4 Significance of the Study

The theoretical framework chosen as the lens through which to interpret findings contributes to the field of applied linguistics by integrating insight from the following three core theoretical perspectives: Linguistic Relativity Theory (Sapir, 1929b), Sociocultural Theory (Vygotsky, 1978), and Bioecological System Theory (Bronfenbrenner, 2005a). By synthesising these three perspectives in the theoretical framework of this study, this research offers a multi-layered perspective of cultural learning in CFL contexts. The findings highlight that traditional Chinese culture can be effectively learned through various social learning activities, including traditional festivals, immersive cultural learning classes, digital collaboration, online exchanges with native speakers, and collaborative tasks. By investigating the relationships among linguistic, learning experiences, and engagement with cultural and environmental factors, this research provides a picture of the key aspects that contribute to higher levels of Chinese cultural knowledge for CFL learners. The theoretical contributions of this study are significant for the field of applied linguistics, and the practical applications of this study are significant for both CFL language learners and CFL educators.

1.5 Overview of Methodology

This study utilised a cross-sectional anonymous survey design. The anonymous online survey was developed and distributed worldwide via SurveyMonkey (<https://www.surveymonkey.com>). A pilot study was carried out in order to ensure clarity and face validity of the instrument. Participants were recruited via convenience and snowball sampling through social media, such as Xiao Hong Shu, Instagram, Facebook, WeChat and email, as well as through institutional contacts. A total of 104 CFL learners participated in the study. Data were analysed using SPSS (*IBM SPSS Statistics for Windows*, 2022) and descriptive and inferential statistical analyses were conducted, including Pearson's r , Spearman's ρ , t-test, ANOVA, Chi-square test, and multiple regression analysis. The research was granted ethical approval (REC-HT68) on May 2, 2024, by the Research Ethics Committee of the School of Linguistics, Speech & Communication Sciences, Trinity College Dublin (Appendix C).

1.6 Structure of the Dissertation

This dissertation is organised into seven chapters. Chapter 1 introduces the research background and rationale, the research problem, research aims and questions, the significance of the study, an overview of the methodology, the structure of the dissertation, and the author's personal positionality. Chapter 2 reviews literature related to language, culture, and CFL learning, as well as linguistic identity and heritage learners and highlights the research gaps that informed this research. Chapter 3 presents a scoping review of the research on CFL learners' cultural knowledge over the last 20 years. Chapter 4 outlines the theoretical framework, drawing on Linguistic Relativity Theory (Sapir, 1929a), Sociocultural Theory (Vygotsky, 1978), and Bioecological System Theory (Bronfenbrenner, 2005a), and it outlines the application of each of these theories. Chapter 5 presents the methodology, including the research design, sampling, inclusion and exclusion criteria, survey development, data collection, and data analysis techniques. Chapter 6 presents the results of the online anonymous survey, examining cultural knowledge levels and their relationships with linguistic, learning, environmental, and contextual variables. Chapter 7 presents the key findings in the context of the theoretical framework and the existing literature. It also outlines the study's contributions and discusses educational implications while reflecting on the study's limitations and suggestions for future research.

1.7 Positionality of the Researcher

In conducting this research, I recognise the significance of my positionality as a researcher who is deeply invested in the interplay between language, culture, and cognition. As a Korean who has learned both English and Chinese as foreign languages and has lived for over ten years in Shanghai, mainland China, and four years in Ireland, I have personally experienced how language shapes thought and cultural understanding and my experiences have informed this research study. My immersive experiences in foreign countries, which include navigating cultural nuances during daily interactions with Chinese friends, have shown me that learning Chinese is inseparable from understanding Chinese culture. Initially, Chinese traditions and values felt familiar to me, as many of them are rooted in shared Confucian heritage. Despite these shared roots and history, there are some subtle yet noticeable cultural differences between the two countries. I encountered many cultural

misunderstandings and small mistakes simply because I was unaware of subtle Chinese social norms, mandatory rules, and rituals.

Over time, Chinese culture has profoundly reshaped my worldview. I acknowledge that if I had learned those important Chinese cultural values in my early CFL learning journey it would have accelerated my CFL communication and proficiency. Later, marrying a Chinese partner marked another turning point, and I discovered new cultural layers that include everyday customs, family practices, mandatory rituals, and unspoken social norms. These personal experiences offer first-hand insights into how the backgrounds and environments of CFL learners shape their cultural engagement and how personal interaction with Chinese culture facilitates a deeper level of communication. Reflecting on my own language and culture learning journey throughout this study has enabled me to connect linguistic and psychosocial theories to my own cultural perspectives and experiences of the Chinese language and the culture of China.

Chapter 2 Literature Review

2.1 Introduction

This literature review outlines the literature related to the relationship between language learning and culture in the context of Chinese foreign language learning. Section 2.2 explores the interdependence of language and culture, introducing foundational theories and evidence that link linguistic and cultural structures. Section 2.3 explores cultural knowledge in CFL contexts, defines what it means by ‘cultural knowledge’ and how it is operationalised in this research. Section 2.4 clarifies the definition of Chinese culture and describes cultural elements as knowledge related to China. Section 2.5 examines the unique challenges that CFL learners face in the context of CFL learning, considering learner profiles and the specific demands of Chinese language features. Section 2.6 examines linguistic and cognitive factors in acquiring cultural knowledge, evaluating experiential and intercultural contact in the CFL, and also analyses studies on immersive, task-based activities and assesses research on self-directed and classroom learning for cultural integration, focusing on how immersive learning develops cultural and intercultural skills. Section 2.7 examines how the cultural backgrounds and identities of CFL learners reshape their learning and engagement in the context of CFL. Section 2.8 addresses the research gaps and justification for the study and research question. Section 2.9 presents conclusions to this chapter and introduces Chapter 3.

2.2 The Interdependence of Language and Culture

Languages around the world have been shaped by historical, social, and political influences, resulting in distinct linguistic landscapes that are unique to specific cultures and communities (Gorter, 2013). As international mobility and multinational communities increase (Caligiuri & Bonache, 2016; Liddicoat & Scarino, 2013), interactions between different cultures and languages intensify, promoting the exchange and adaptation of cultural norms, practices, and values. Understanding the fundamental interconnection between language and culture requires an understanding of the cultural dimensions that influence speakers' behaviours, perceptions, and social interactions (Siregar, 2021). Understanding culture requires a comprehensive approach in order to recognise its multifaceted impact on societies and language. For example, culture encompasses the traits and knowledge of a specific group, including aspects like language, religion, cuisine, social

practices, music, and art (Smith et al., 2018). Culture is a collective consciousness and it is also an organising principle that shapes social norms and values (Durkheim, 2016) and this shared understanding creates social cohesion and facilitates the maintenance of order within societies.

Language is a system of symbols, where words and phrases represent ideas, emotions, and social relations (Dinica, 2014) and culture can be defined as a system of symbols through which people make sense of their world (Geertz, 2017) that allow individuals to express their identities, communicate values, and enact social roles. Research in applied linguistics emphasises that effective communication in second and foreign languages require linguistic proficiency and awareness of cultural norms and values (Byram & Wagner, 2018). In understanding the role of culture in language learning, it is important to recognise that language is more than a tool for communication. Integrating cultural education into language instruction can enhance language learners' communicative competence, as it helps them understand the cultural norms and values that underlie linguistic behaviour (Risager, 2006). Language reflects and influences cultural worldviews (Kramsch, 2014a, 2014b, 2014c; Sapir, 1929a). Consequently, contemporary language education increasingly focuses on fostering intercultural competence, which is the ability to navigate between one's own culture and that of the target language, alongside traditional language learning skills (Imai et al., 2016).

Language and culture are inextricably linked, with language being a vessel for transmitting cultural knowledge and values (Chomsky, 1980; Risager, 2006). For example, the Chinese language encodes distinct cultural aspects through its writing system, idioms, honorifics, and pragmatic norms (Haspelmath, 2020; Zhu et al., 2025). This illustrates how linguistic features provide direct access to cultural knowledge. Language is both a product of culture and a gateway to culture as it encodes the values, beliefs, and worldviews of its speakers. As Weisman noted, “native language is the vehicle through which individuals encode their cultural reality; language becomes immediately connected to a cultural reality” (Weisman, 2001, p. 208). Thus, acquiring a new language involves internalising aspects of a new culture, whether explicitly or implicitly (Crystal, 2003, 2013). Underhill (2009) and Everett (2013) argued that as learners master a new language, they gain access to alternative cultural conceptualisations, effectively seeing the world through different cultural lenses. For example, studies have observed that multilingual individuals often develop a “broader

worldview” and more flexible thinking patterns as a result of navigating different linguistic and cultural systems (Grosjean, 2013, 2015). Linguistic structures facilitate communication, and they also actively shape perception, influencing how individuals understand concepts like space, time, and causality. In this way, language reflects and perpetuates cultural worldviews (Boroditsky, 2001; Levinson, 1997).

Many studies in linguistics have focused on the influence of cultural background on target language learning (e.g., (Ali & Mujiyanto, 2017; Jiamin, 2024; Ramlan & Maarof, 2014; Serajuddin, 2023), and research in intercultural communication consistently demonstrates that learning a language encompasses more than just grammar and vocabulary. It involves understanding and navigating social conventions, cultural symbolism, and context-dependent meanings (Byram & Wagner, 2018; Cortazzi & Jin, 2002; Jin & Cortazzi, 2017). In other words, beyond grammar and vocabulary, learners must understand how context, history, and values shape language in use (Chia & Xavier, 2025; Schmitt & Schmitt, 2020). The following section explores the definition of cultural knowledge in the context of CFL and why it must be addressed.

2.3 Cultural Proficiency, Competence, and Knowledge in the Contexts of CFL

Cultural proficiency is defined as the ability to interact effectively in a culturally diverse environment (Lindsey et al., 2018). In other words, it is a dynamic capacity, both individual and organisational, to engage, reflect upon, and adapt one’s practices so that all cultural groups are understood, respected, and empowered. The term cultural competence can be defined in many different ways, depending on the approach and context. One of the most accurate definitions is that it is a consistent set of behaviours, attitudes, policies, and structures that enable individuals to function effectively in multicultural situations (Wall-Bassett et al., 2018). The concept of cultural competence in language education refers to the ability to interact effectively and appropriately with people from other cultural backgrounds (Byram, 2020; Byram & Masuhara, 2013). Learners who learn about the culture of a target language are better equipped to engage meaningfully with native speakers of the target language (Jackson, 2005; Jackson et al., 2012). Self-reflection is a critical aspect of intercultural competence, as it enables learners to engage with culture in a respectful and informed way rather than superficial or stereotypical (Deardorff, 2008). In other words, intercultural competence refers to the ability to interact effectively and

appropriately with people from other cultures (Deardorff, 2023). A foundational element of this competence is cultural knowledge, knowing about the other culture's practices, rituals, and perspectives (Braslauskas, 2021). Cultural knowledge can be defined as scientific understanding of cultural dimensions that influence intercultural communication (Pilhofer, 2011). Mandarin Chinese is deeply embedded with Chinese cultural values, traditions, and philosophies (Murtadhoh & Arini; Seng & Lai, 2010). Centuries of Confucian and Daoist thought have influenced Chinese linguistic expressions and norms (Angle, 2010; Simmons, 2012) and understanding the Chinese language fundamentally involves understanding the cultural worldview behind it (Ames, 2011).

The Chinese culture of harmony and social structure is deeply embedded in Chinese society (Stockman, 2013), and the social norms and hierarchies shape language use in Chinese. Therefore, learning the Chinese language involves more than memorising vocabulary and grammar; it requires grasping cultural concepts and ways of thinking conveyed through the language. In the context of CFL learning, cultural knowledge encompasses understanding aspects of social hierarchy and relationships (Brown, 2011), as well as the use of specific grammar and words that are dependent on contexts. For example, Guan Xi (关系, relationship) is a culture that represents interpersonal relationships, which is a very important part of Chinese culture. It is related to Confucian ethics, such as hierarchical relationships, customs with the historical meanings (Williams, 2012), the significance of the dragon, and the usage of the colour red (Fan & Zakaria, 2024). It also includes awareness of the importance of symbols that extend beyond words, such as non-verbal communication gestures, facial expressions, and body language (Adetunji & Sze, 2012). These cultural elements manifest in the Chinese language, from idiomatic expressions and proverbs to norms of politeness in communication.

Researchers often distinguish between surface culture or visible practices and deep culture, like beliefs, values and thought patterns (Davelaar, 2021; Gómez Rodríguez, 2015; Lizardo, 2021). Effective cultural learning involves moving beyond understanding surface culture to grasping deeper cultural logic, which facilitates better communication and understanding with the people of the target culture. In CFL education research, several studies from the last decade have focused on learners' intercultural development and gains in cultural knowledge or awareness (Chen & Du, 2022; Díaz, 2016; Ip, 2016; Kennedy, 2016 ; 2020; Spring, 2012 ; 2019; Y. Wang et al., 2022; Xu & Stahl, 2023). Many of these

studies draw on established intercultural frameworks and apply them in Chinese learning environments (Chen & Du, 2022; Díaz, 2016; Kennedy, 2020; Xu & Stahl, 2023). One of the studies, for instance, has highlighted that university CFL learning programs have redesigned curricula to integrate cultural learning outcomes, using content-based instruction, teaching language through cultural or area studies content, project work on cultural topics, and experiential activities (Spring, 2012). These approaches correspond with Byram's (2020) model of intercultural communicative competence, which suggests that language proficiency, cultural knowledge, and intercultural skills develop together and should be taught in an integrated way. Studies indicate that students experience more significant intercultural development when cultural content is consistently integrated into language instruction (Liddicoat & Scarino, 2013; Nguyen, 2017). For example, Chinese language learners who took culture-integrated courses, where each lesson included cultural objectives and reflection, performed better on measures of intercultural understanding than those who took traditional language-focused courses (Borghetti, 2013). This supports the pedagogical argument that explicit cultural instruction contributes to learners' overall cultural understanding (Godwin-Jones, 2013).

Many studies focus on exploring which aspects of cultural knowledge CFL learners tend to acquire and which aspects they tend to struggle with (Danison, 2013; Kennedy, 2020; Liu & Rao, 2024). Some studies have used surveys or tests to assess learners' knowledge of Chinese culture (Wang & Wang, 2022). For instance, Gao (2020) developed a Chinese culture survey covering areas like Chinese history, geography, literature, and contemporary society, and administered it to CFL students in an intensive program. The results indicated that CFL students generally have a good understanding of certain "big C" culture topics, which contains factual cultural knowledge and understood words and phrases with cultural connotations, but weaker knowledge of everyday practices or deeper values "small c" culture, which contains cultural behaviour knowledge and competence with communicating in Chinese. This is not surprising, as big-C culture is often included in textbooks, but nuanced social norms or values require more immersive learning (Gao, 2020). Gao's (2020) study also found that knowledge of Chinese culture correlated with exposure to culture, and that CFL students who had spent time in China or taken courses with Chinese cultural content scored higher on the cultural quiz than those who only studied language. These findings underscore the importance of cultural knowledge accumulating with increased engagement and time.

In the CFL learning context, an increasingly important aspect of cultural knowledge comes from contemporary popular culture and media (Pai & Duff, 2020). Many learners today are exposed to Chinese culture through movies, TV dramas, pop music, and social media, all of which provide rich (if informal) cultural input (Brooks, 2018; Fang, 2015; Huang, 2017). Recent research highlights the growing importance of popular culture and using applications such as TikTok to learn culture, particularly for younger language learners (Khasawneh, 2024; Opsahl & Levin, 2022). For example, by engaging with authentic materials, CFL learners worldwide are able to develop their interest in and motivation to learn the Chinese language and culture through Chinese pop music, news broadcasts and cinema (Gwi-soon, 2011). They can learn about modern Chinese culture, social issues, and vocabulary through the media (Jin, 2023). Thus, CFL learners' exposure to such media content can provide insights into contemporary Chinese values and lifestyles that traditional curricula might not cover. Many scholars argue that intercultural competence should include the ability to learn through various platforms, as cultural products, such as media, applications and social media, as these are central to how culture is lived and shared today (Dervin & Gao, 2012; Godwin-Jones, 2013; Pattiwael, 2016; Ting-Toomey & Dorjee, 2018), and they can offer telecollaboration methods to learn about and discuss culture with other learners. As such, products like CFL learners who watch a popular show or participate in Chinese social media, such as Red Note (小红书, Xiao Hong Shu), can learn about social trends in China, Chinese humour, and perspectives that complement the historical and classical cultural elements that are often emphasised in formal education (Tseng & Zhao, 2024).

However, to optimally learn about Chinese culture through social media guidance from someone who better understands Chinese culture is required, as media can present stereotypes, algorithms or require background knowledge to appreciate Chinese culture fully. Thus, exploring ways to incorporate contemporary cultural content with guidance, such as discussing a trending topic on Weibo (微博), TikTok, Red Note (小红书, Xiao Hong Shu), or WeChat (微信), can help keep cultural instruction relevant and appropriate (Peng, 2019). Deardorff (2020) proposed the longitudinal nature of cultural acquisition, arguing that cultural competence develops progressively through sustained engagement with the target language and culture. Key improvements in CFL teaching

include more experiential and student-centred cultural learning, significant recognition of the role of CFL learners' cultural backgrounds, and systematic efforts to measure intercultural outcomes. While research has been conducted on assessment tools for intercultural competence (Sercu, 2004), there is a recognised need for more focused, comprehensive assessment tools that includes the assessment of the intercultural competencies of CFL learners (DeWitt & Chan, 2019; Gu & Zhao, 2021). Although language proficiency tests such as HSK are well established, there are fewer examples of standardised tools and methods used to evaluate or measure Chinese cultural knowledge. The following sections introduce the definition of Chinese culture, what Chinese cultural knowledge includes, and popular and symbolic elements of Chinese culture.

2.4 Cultural Elements in the Context of China

According to published literature on core the Chinese cultural concepts and Chinese cultural elements (Chen et al., 2018; Davis, 2004; Gu, 2013; Shiqi, 1982), there are key Chinese cultural elements that encompass broad domains, such as ideas and ideology, philosophy, values, lifestyles, education, religion, literature and literary figures, arts, non-verbal language etiquette, cultural relics, food and tea culture, mythology, metaphors and traditional practices, festivals, ethnic customs, and ethnic groups. These beliefs provide the ideational matrix, which is invisible yet generative, while custom gives those ideas a visible form through rites and social usages (Bodde, 1942). These norms and beliefs originate from an ancient civilisation that had incorporated folk culture, philosophical ideas, and religious traditions that had evolved over centuries. Chinese culture influences intrapersonal, interpersonal, and transpersonal domains. Research on tangible and intangible heritage varies, however, it indicates a rich network of relationships between the two from a theoretical perspective (Carboni & De Luca, 2016). For example, intangible culture encompasses ideas and ideologies, social values, philosophies, rites, and lifestyles, as well as education, religion, nonverbal language etiquette, metaphors, and mythology. In contrast, tangible culture comprises material artefacts, artistic products, and embodied practices.

The intangible Chinese cultural elements are represented by Yin and Yang (阴阳), which underpin Chinese metaphysics, medicine, and cosmological dualism (Fang, 2014). Its pervasiveness in classical texts justifies its representative status, and this dualism informs traditional Chinese medicine, martial arts, and governance. It posits that a balance

between opposites, such as dark and light, passive and active, ensures harmony in both body and society (Wang, 2013). Additionally, another intangible Chinese cultural element that is widely recognised globally is The Art of War 《孙子兵法》, which is a 5th century BCE Chinese military treatise by Sun Tzu that codifies thirteen chapters of strategic doctrine. It emphasises calculation, adaptability, intelligence, and deception to achieve victory with minimal force, with principles that guide leadership across diverse fields. Culturally, it intertwines Daoist notions of harmony and adaptability with pragmatic statecraft, reflecting broader Confucian and Daoist values of moderation and moral purpose (Ho & Chiu, 1994; Laufer, 1914; Tzu, 2008).

The dominant ideology of the Chinese people is the Mao Zedong Thought (毛泽东思想), which is the guiding doctrine of the People's Republic which epitomises modern political ideology in China, shaping governance and mass mobilisation. Mao Zedong Thought synthesises Marxist-Leninist theory with Chinese revolutionary practice, shaping the political and social landscape of the People's Republic. Through campaigns, such as the Great Leap Forward and the Cultural Revolution, it sought to mobilise peasant masses and reshape class structures, leaving a profound legacy on education and ideology (Chenshan, 2019). Similarly, from the new government, Xi Jinping Thought (习近平思想) synthesises Marxist-Leninist principles with China's reform-era experiences to prioritise people-centred development, comprehensive deepening of reforms, and modernisation of state governance. It also further emphasises “cultural confidence” as an integral part of national rejuvenation and strategic global engagement under the banner of socialism with Chinese characteristics for a new era (Garrick & Bennett, 2018; Mierzejewski & Kowalski, 2018). Rujia sixiang (Confucian philosophy, 儒家思想) Confucianism, established by Kongzi (孔子, Confucius), emphasises that social harmony depends on cultivated virtue, ritual propriety (礼, li), and respect for hierarchical relationships. For over two thousand years, it has supported Chinese educational and bureaucratic systems, maintaining its impact on both personal morality and public governance (Angle, 2010; Feng & Chen, 2023; Feng, 1948; Hu, 2019; Lee & Lai, 1977; Nie & Jones, 2019). Similarly, Daojia sixiang (Taoist philosophy, 道家思想), founded by Laozi (老子) and Zhuangzi (庄子), advocates spontaneity, simplicity, and non-contention (无为, wu-wei), and it is considered the route to personal and universal harmony. Its poetic and paradoxical writings have influenced art,

medicine, and environmental ideas, providing a counterbalance to Confucian social activism (Lee, 2020; Ma, 2020; Wang & Stringer, 2000).

Another important element of Chinese culture is the Peking Opera, also known as Beijing Opera (京剧). It blends music, dance, acrobatics, and intricate costumes to portray historical and mythological stories, often highlighting Confucian virtues like loyalty and filial piety (Yu, 2017). As a state recognised heritage art form, it continues to thrive in theatres and schools, representing a link to imperial cultural patronage (Yang, 1962). Similarly, Tai Chi (Chinese martial arts, 太极拳), which originated in the seventeenth century, is practiced both as a martial art and a health-promoting exercise rooted in Daoist theories of qi circulation (Robins et al., 2012). The gentle, circular motions make it accessible to people of all ages, and it symbolises gentle strength and inner development, serving as an international symbol of Chinese wellness practices (Niu et al.).

In China, there are unique customs about the sharing of blessings and luck, including how to share them and how to bring blessings in. A significant cultural practice for families is putting up spring couplets and Fu (福) characters (贴春联) during the Spring Festival. During this time, families write lucky couplets on red paper and place the character “Fu, 福” (good fortune in Chinese) at doorways to welcome blessings for the new year. These traditional decorations, handed down through generations, reflect cultural refinement and mainstream beliefs through auspicious symbolism (Asif & Ali, 2019; Lewis, 2009; Shu-xian, 2018; Yang & An, 2008). One of the traditional customs and cultural practices of the Chinese people is to share red envelopes called Hong Bao (红包) containing money, which circulate among relatives and friends as tokens of goodwill and social reciprocity (Chung, 2011). Traditionally at weddings, festivals, special events, and above all at the Chinese New Year, the bright colour symbolises luck, while the ritual exchange reinforces interpersonal bonds and filial responsibility. It is one of the most important rituals for Chinese people (Chen et al., 2018; Xue et al., 2022).

Another aspect of Chinese culture is the unique educational customs and practices. The Gao Kao (高考) is a nationwide examination that determines university placement and, by extension, directly impacts the future careers, life, and social status of millions of Chinese students. The high stake examination creates intense competition and increased

parental investment, highlighting the cultural value placed on educational achievement (Liu & Helwig, 2022; Pires & Duarte, 2019). After the competitive exam Gao Kao, comes Jun Xun (军训), which is military training that is mandatory for Chinese first-year undergraduates. Military training instils discipline, collective identity, and patriotic sentiment through regimented drills and ideological instruction, and this rite of passage marks the transition into adult responsibility and institutional belonging for Chinese people (Kádár & House, 2021).

Religion is very important and influential in China (Yang, 1970), as it organises Chinese people's lives. For example, Buddhism (佛教), which was introduced during the Han dynasty, has evolved into a major religious tradition in China, encompassing monastic orders, lay practices, and syncretic adaptations with Daoist and folk beliefs (Kieschnick, 2020). Its doctrines of karma, compassion, and emptiness have shaped art, literature, and ethical guidance across centuries (Tang, 2015), and these doctrines are still widespread throughout Chinese society today. China's indigenous faith, Daoism, also known as Taoism (道教), combines philosophical texts with ritual cults, emphasising longevity, alchemy, and communion with nature. As an indigenous religion in China (Feng & Chen, 2023; Hansen, 2003; Tang, 2015; H. Wang, 2021), it offers devotional practices and cosmologies that are deeply intertwined with folk traditions. Temples dedicated to deities, like the Eight Immortals, continue to serve as active pilgrimage sites, demonstrating the ongoing vitality of folk religion (Maspero, 1981; Wang & Stringer, 2000). These representative religions of China show the customs, arts, and ethical guidelines of the Chinese people.

One of the most important figures in Chinese culture, and the literary pride of the Chinese people, is Mo Yan (莫言), who was born in northeast Gaomi township, Shandong province, in China. He works juxtaposes magical realism with social critique, examining the legacies of revolution and modernisation (Der-Wei Wang & Berry, 2000). Awarded the Nobel Prize in 2012, Mo Yan's (莫言) work highlights the complexities of individual memory and collective history (Bakhtiyorovna, 2020). Many Chinese people regard him as a representative scholar from China (Der-Wei Wang & Berry, 2000). Another representative Chinese work is Romance of the Three Kingdoms 《三国演义》(Moody Jr, 1975). This fourteenth-century historical novel dramatises the turbulent end of the Han dynasty, blending fact and folklore to explore loyalty, strategy, and human ambition. Its

characters, Zhuge Liang (诸葛亮), Cao Cao (曹操), have become archetypes in China and in other East Asian countries (Moody Jr, 1975; Owen, 1986).

Chinese paintings have unique cultural and historical characteristics. For example, Shui Mo Hua (水墨画) is an East Asian brush painting that developed in China (Shih & Chao, 2010) and is an important cultural heritage in ancient China and emerged from literati circles. Ink and wash painting prizes expressive brushwork and spontaneity over colouristic detail. Its aesthetic philosophy equates painting with calligraphy, valuing the artist's inner state as much as the depicted subject (Jiang et al., 2019). Also, Gong Bi Hua (工笔画), which is meticulous Chinese painting, painters who employ fine brushes and mineral pigments to achieve meticulous detail, and it often portray courtly subjects such as birds and flowers. Chinese painting possesses a distinctive style of artistic conception that seeks to express the inner emotion and spirit (Libin et al., 2024). This highly controlled technique reflects ideals of refinement and technical mastery dating to the Tang and Song dynasties, and it represents the spirit of the Chinese people (Asif & Ali, 2019; Libin et al., 2024; Sullivan, 2023).

There are special rules when it comes to dealing with Chinese people, for example, the higher the status or class of the people, the less they give anyone a chance to meet them or introduce themselves. Chinese Guan Xi (关系) refers to a cultural phenomenon (Dunfee & Warren, 2001), which is the most important aspect of Chinese culture, and refers to interpersonal networks and is mainly practised during Chinese dinners and drinking occasions. It serves as a common private network among Chinese people, and this Guanxi is maintained through reputation and reciprocity, forming an inner circle of people who are closely connected, and it fosters a strong relationship among them (Lin et al., 2024). For example, if anyone starts or runs any business in this Chinese society, they inevitably face guanxi (Luo, 2020), and success depends on the Guanxi. To understand these sociocultural rules, one must first understand how to treat Chinese hierarchies and subordinates. There are also unspoken cultural rules for Chinese banquets, for example, the sequence of toasts, seating arrangements, and pouring rituals encodes respect, hierarchy, and intimacy among participants (Wang et al., 2024). This Chinese etiquette of alcohol culture (酒文化礼仪) reflects one's social competence and adherence to Confucian norms of courtesy (Bucknall, 1999; Xu et al., 2018b). China's "drinking etiquette plays an

extremely important role in people's dietetic and social activities" (Liang, 2021, p. 42). Therefore, these customs serve as major gateways to understanding Chinese society. There are behavioural expressions that Chinese people use to show social superiority and respect, which is Gong shou li (拱手礼), which is the fist-and-palm salute, conveys deference and peaceful intent without physical contact, and it persists in temple rituals and formal greetings, and is a sign of the historical etiquette of Chinese culture (Millet, 2018; Olberding, 2016; X. Wang et al., 2022; Xu et al., 2018b). These traditional elements of Chinese culture reflect the spirit and manners of the Chinese people through their actions.

Tangible Culture includes China's cultural relic collections, such as Chang Cheng (The Great Wall, 长城), spanning thousands of kilometers. Its stone and earth ramparts, reconstructed over centuries, evoke narratives of imperial ambition and collective labour. The Great Wall exemplifies ancient defensive ingenuity and serves as a symbolic boundary between the civilised China and its frontiers (Husheng et al., 2023; Jingsong, 2001; Li, 2011a; Li & Luo, 2011; Prüch, 2014; Underhill, 2013; Yang & Shen, 2024). Similarly, Bing Ma Yong (The Terracotta Army, 兵马俑), which was discovered in 1974, is comprised of life-sized terracotta warriors and horses that guard Qin Shi Huang's, China's first emperor's tomb. Their personalised features and military arrangement reflect the Qin dynasty's centralised authority and its beliefs in an afterlife (Bol, 2001; Chan, 2007; Deng et al., 2020; Howland, 1996; Lin, 2002; Veeck, 2007; Zheng, 2006). These cultural relics embody Chinese culture and highlight the unique aspects of China's spirit and cultural heritage.

Chinese foods also reflect the deeply embedded Chinese culture and daily way of living. For example, Jiao Zi (饺子), which are dumplings shaped like ancient silver ingots, are eaten at midnight on New Year's Eve to symbolise wealth and unity. Depending on the region, there are different ways to eat and share them, either boiled, steamed, or pan-fried. The regional fillings and family traditions are passed down through generations (Anderson, 1988; Li & Hsieh, 2004; Newman, 2004; Xu et al., 2018a). Another example is Huo Guo (Hot Pot, 火锅) dining, where the connections arise, and a simmering communal broth acts as both a cooking medium and a social catalyst, with diners sharing ingredients and conversation. Regional variations from different states demonstrate China's culinary diversity and lively dining culture (Anderson, 1988; Li & Hsieh, 2004; Newman, 2004;

Rumsey, 2007; Tian et al., 2018; Xu et al., 2018a). Similarly, China's tea culture is also significant for comprehending Chinese cultural heritage and establishing connections with Chinese people (Benn, 2015). Long Jing tea (Dragon Well Tea, 龙井茶) and Oolong tea (Wu-lung Tea, 乌龙茶) are among the traditional teas that symbolise China. Chinese people demonstrate a passionate and sincere enthusiasm for tea, and this dedication and pride in tea has historically made a distinctive contribution to China's culture (Li, 1993; Xiusong, 1993).

Some scholars have suggested that Chinese mythology is actually richer and more profound than Greek mythology (Tian et al., 2020), Chinese mythology reflects the knowledge and psychology of the early philosophy, moral values, attitudes toward excess, and religious consciousness of the ancient Chinese people, along with China's magnificent cultural heritage (Lei, 2024). Representative examples include, Sun Wu Kong (The Monkey King, 孙悟空), Ne Zha (Marshal of the Central Altar, 哪吒). Ancient Chinese mythology is said to constitute the ideological source of traditional Chinese culture as a whole, which inherited its unique ideas from the Chinese ancestors' way of thinking and has not been incorporated into the modern Chinese value system (Yang & An, 2008).

Festivals such as the Lunar New Year, Chun Jie (The Spring Festival, 春节), is the most important holiday for every Chinese person living in China and Chinese people living over-seas (Huang, 1991; Li, 2023). The Spring Festival entails a week of rituals, including ancestral offerings, fireworks, Bao Zhú (Firecrackers, 爆竹) in Chinese, family reunions, and the exchange of New Year's greetings. It is the single most important occasion for Chinese families, affirming kinship and cultural continuity (Ibekwe, 2021) and Zhong Qiu Jie (Mid-Autumn Festival, 中秋节). Observed on the fifteenth day of the eighth lunar month, this festival celebrates the harvest moon with mooncakes, lanterns, Deng Long (Red Lanterns) 灯笼 in Chinese, and poetry (Yu, 2017; Yu & Jia, 2016). It embodies themes of reunion and gratitude, linking agrarian cycles to cosmic rhythms. Understanding these festivals is essential to understanding Chinese culture (Xiao et al., 2017).

China is extensive in size and the Chinese population comprises many diverse ethnic groups. For example, the largest ethnic majority, Han Zu (Han, Majority Ethnic Group, 汉族), comprising over 90 % of China's population, the Han majority's language,

cuisine, and customs form the baseline of the national culture (Grunfeld, 1985). China officially recognises fifty-five ethnic minorities (Mackerras, 2003), and each ethnic group possesses a profound history, cultural practices, and traditions that significantly differ in aspects such as culture, religion, and language (Mackerras, 2005; Mullaney, 2011). For instance, Zang Zu (Tibetan, Minority Ethnic Group, 藏族), the fifth largest nationality in China and the ethnic majority in Xinjiang. The Tibetan minority maintains a distinct cultural system centred on Tibetan Buddhism, pastoralism, and a unique script (Gulia, 2007; Zang, 2016 ; 2018). Each ethnic group has its own traditional clothing, for instance, Qi Pao or Cheongsam (Traditional Chinese dress, 旗袍), which originates from Qing-dynasty Manchu robes. It is a dress for urban women, and its evolution reflects broader negotiations between tradition and modernity in dress and gender norms. Tang Zhuang (唐装), also inspired by Manchu-style jackets from the Qing court (Qiu, 2021), has seen a modern revival during national celebrations and official events. Its contemporary revival signals cultural heritage and symbolises a connection to tradition (Tomasic, 2023). Wyer et al. (2009) explains that Chinese Culture is a complex, multidimensional concept and to understand a society, one must consider its institutions, daily life, meanings, history, and traditions. Recognising these cultural elements offers many benefits to individuals seeking to understand Chinese society, particularly learners of Chinese as a foreign language (Wyer et al., 2009). The following sections provide a comprehensive review of the challenges encountered by CFL learners in mastering Chinese as a foreign language, which also encompasses Chinese culture and historical idioms within the language.

2.5 Unique Challenges of Learning Chinese as a Foreign Language

In recent decades, China's global influence has increased significantly (Bataa et al., 2018; Ding & Saunders, 2006; Feenstra, 2010), and Mandarin Chinese has emerged as a key language in international business, education, and diplomacy (Morrison, 2019). By the end of 2021, the number of people outside China learning Chinese as a second or foreign language (CFL) had exceeded 25 million (Y. F. Gong & C. Lai, 2024). The worldwide CFL learners from East Asia to Europe, the Americas, and other places around the world bring together a highly diverse learner population (Gong et al., 2020). For many of these CFL learners, studying Chinese is more than an academic goal as it represents an engagement with a new culture and it therefore changes their worldviews (Tsung & Cruickshank, 2010).

Learning the Chinese language includes a range of distinctive linguistic hurdles, including its tonal system, complex character structure, and specific syntactic patterns (Pan et al., 2023). Mandarin Chinese differs significantly from Indo-European languages in its structure and use, and these differences carry cultural significance (Qu, 2013). Unlike most Indo-European languages, Chinese is a tonal language, which means that the pitch or tone applied to syllables changes their meanings; this has no direct parallel in English or most European languages. For example, The Chinese language includes four primary tones: high-level, rising, falling-rising, and falling (Tsu-Lin, 1970). Each tone can change the semantic meaning of a syllable, making accurate tone production essential for effective communication (Osborne, 2020; Zhang et al., 2022). From a linguistics perspective, CFL learners from language backgrounds that are non-tonal, such as English or French, often struggle to perceive and produce these tones correctly (Shi, 2018; Tsukada et al., 2016; Tsukada et al., 2015). Mastering tones requires mechanical practice and attuning oneself to an alternative means of encoding meaning, which some have linked to broader differences in communication styles (Liu, 2014; Shi, 2018). The extensive research on Chinese tones conducted over many years by numerous researchers indicates that Chinese tones are a significant obstacle for CFL learners in learning Chinese as a foreign language (Han, 2012; Osborne, 2020).

Another challenge in CFL learning is the Chinese character system, which is a pictographic system that is structurally and functionally distinct from alphabetic writing systems (Huang & Agbanyo, 2022). Each character is comprised of a series of strokes, and subtle visual similarities between characters can lead to confusion (Lü et al., 2015). These challenges make the Chinese writing system especially challenging, particularly for learners accustomed to alphabetic writing systems who are more familiar with phoneme-based scripts, where letters correspond directly to sounds (Hsu, 2012; Osborne, 2020; Osborne et al., 2020). For example, achieving basic literacy in Chinese requires familiarity with approximately 2,000 to 3,000 characters (Shei, 2014), as CFL learners must memorise thousands of characters without relying on phonetic cues. This is a daunting task, as the differentiation is further complicated because Chinese characters lack consistent phonetic clues, as characters primarily convey semantic information (Bao & Du, 2015; Bian, 2013). However, CFL learners encounter a bigger challenge in acquiring linguistic knowledge because Chinese characters are deeply intertwined with cultural elements.

The Chinese characters often contain semantic radicals that hint at meaning, reflecting historical and cultural concept connections (Tong & Yip, 2015; Unger, 2003). The essence of the Chinese language and characters takes on unique dimensions due to its rich history and philosophical influences. This can be seen in culturally significant concepts and expressions that carry literal and symbolic meanings (Ames, 2011). Understanding these Chinese characters requires familiarity with the cultural contexts from which they emerge, as meanings are often tied to historical narratives, social interactions, and philosophical frameworks (Kosek, 2016; Mersmann, 2022). For instance, the Mandarin Chinese character for good (好, Hǎo) is composed of “woman” (女, Nǚ) and “child” (子, zǐ) together, offering a glimpse into ancient cultural values of family. While a learner can memorise the Chinese character’s shape and sound, understanding these etymological nuances takes some cultural insight. Another example, the Chinese character 家 (jiā), meaning “home” or “family” or “group”, (Lai, 2017, p. 3), merges the symbol for “roof” with the symbol for “pig” beneath it, reflecting the agrarian and family-centred values of traditional Chinese society. Shen (2018) notes that the Chinese writing system carries cultural information in its form, and learners who study the characters' origins often gain a deeper appreciation for Chinese cultural concepts embedded in the language. It takes a considerable amount of time and causes considerable problems in the process of learning to understand the cultural implications of the Chinese character system. Some CFL learners might leverage the shared Chinese characters to access meanings, as the typological similarity provides an initial bridge to cultural concepts. For example, Korean and Japanese learners may find certain aspects of Chinese more familiar due to the shared use of logographic characters in their languages (Kornicki, 2018; Pae & Pae, 2020). Korean and Japanese writing systems have incorporated Chinese characters, which are known as Hanja (한자) in Korean and Kanji (漢字) in Japanese, into their respective scripts. However, CFL learners from Korea may recognise some Chinese characters, which are traditional Chinese characters from their language, but they still need to familiarise themselves with simplified Chinese characters that are used in Mainland China, which differ significantly from the traditional Chinese characters they encounter in Korea (Pae & Pae, 2020). However, most non- CFL learners who are not familiar with these characters must adapt to a radically new script, which can be a barrier to learning both the language and the culture (Huang & Agbanyo, 2022). Western CFL learners face cultural challenges, especially those unfamiliar with Confucian philosophy. They often struggle with idioms and expressions

which carry meanings that are rooted in Chinese philosophy, history, or societal values, particularly in understanding idiomatic expressions and culturally embedded references (Zhao & Zhang, 2021). Therefore, for CFL learners, this task is particularly complex due to the sociolinguistic differences between Chinese and many CFL learners' native languages and cultures (Fan & Zakaria, 2024; Stockman, 2013).

The study of semantics and idioms focuses on how meaning is expressed in language, and because vocabulary and even parts of grammar often reflect the cultural values, understanding these elements is a key for grasping the cultural nature of a language (Goddard, 2011; Goddard & Wierzbicka, 2013). This phenomenon is particularly prominent in Chinese language learning as Chinese cultural semantics offers a broad view into the historical, philosophical, and sociocultural influences that shape the Chinese language and identity of Chinese speakers. From idiomatic expressions to the nuanced meanings embedded in Chinese characters (Sabirova et al., 2024), understanding Chinese cultural semantics reveals the intricate and representative nature of the language and explores the layers of cultural knowledge and values encoded in linguistic forms. For example, the Chinese maxim 吃苦 (chī kǔ), which in English is "eat bitter", means in Chinese to endure hardship, or in other words, no pain, no gain (Bao, 2023, p. 5; Chan et al., 2006), and this cultural value, rooted in ancient China, emphasises Chinese philosophical identity that enduring hardship is a vital aspect of growth and success. Another example is the idiom “入乡随俗” (rù xiāng suí sú), which in English is “when in Rome, do as the Romans do”, conveys the value of adapting to local culture, essentially a proverb about intercultural adaptation. Learning the meanings and origins of such idioms inherently involves learning the cultural stories or philosophies behind them (Guo, 2017). Idioms represent condensed narratives of shared cultural experiences, and they are inherently tied to the cultural contexts in which they evolve (Collentine & Freed, 2004). Thus, acquiring full fluency in the Chinese language includes acquiring this level of cultural understanding. CFL learners often find Chengyu (成语, chengyu) challenging because they are compact with Chinese cultural allusions and often do not have a direct translation in other languages. Research indicates that mastering some common Chinese idioms significantly enhances CFL learners' communicative ability and cultural sophistication in Chinese (Hao & Li, 2023; Jia, 2023).

CFL learners also face the challenge of sociolinguistic differences, including the rules of language use in specific contexts. The uniqueness of Asian cultures is most evident in their linguistic uniqueness (Haspelmath, 2020; Zhu et al., 2025). Language not only expresses but also constructs identity (Chassy, 2015). Language serves as the primary medium through which culture is transmitted, embedding the worldview of its speakers (Elmes, 2013; Kramsch, 2014a, 2014b, 2014c). In Asian cultures, honorifics and polite language represent customs and the etiquette of the culture. Asian cultures, in particular the Korean, Japanese, and Chinese cultures, utilise specific terms and vocabulary to show respect, particularly in which have elaborate norms for politeness. The Chinese language reflects the Chinese societal values of respect, modesty, and indirectness, particularly in the way requests, apologies, and advice are conveyed. For example, the pronoun "你 (nǐ, 'you')" is elevated to "您 (nín, 'you')" to indicate deference and acknowledge hierarchical distinctions. Learners who lack understanding of these cultural norms may struggle to use the language appropriately despite having a strong command of grammar and vocabulary (Tao, 2010; Ye, 2014).

The Korean, Japanese, and Chinese languages have all developed honorifics and polite expressions that reflect social hierarchies and relationships (Leech & Tatiana, 2014), showing a significant aspect of Asian culture. The Korean language is unique in having its own language-specific means of indicating politeness honorifics (Byon, 2006, p. 247). For example, there is a clear distinction between “jondaen-mal” which means honorifics or polite words of speech, and “Ban-mal” which means informal language or casual speaking. “Jondaen-mal” refers to the formal or respectful way of speaking, which is used to show deference or politeness to someone, particularly older people of higher status, or in professional settings. “Ban-mal” refers to an informal and less respectful speech, which is characteristically used with close friends, peers, or individuals of the same or lower social status. For example, "Where are you going?" is an English sentence which would be divided into the following two Korean versions: a casual way “어 디 가?/eodiga?” and a respectful way, “어 디 가 세 요?/ eodigaseyo?” The verb ending “-세 요/-seyo” is used to show respect. Also, the English sentence “have you eaten?” is divided into the following two versions in the Korean language: a casual version “밥 먹 었 어?/babmeog-eoss-eo?” and a respectful version, “식 사 하 셴 어 요?/sigsa hasyeoss-eoyo?” to indicate exaltation with a specific vocabulary. For older people, titles such as “어 르 신/ eoleusin”, which means “senior” or

“elderly”, is used as a term of respect for older people and “선배님/seonbaenim”, which also means “senior”, is mainly used in environments with status or rank, such as school or work, to distinguish the hierarchy(Cheong-ryong, 2011). Similarly, the Japanese language has a nuanced system of honorific speech, which is categorised into respectful language (sonkeigo), humble language (kenjōgo), and polite language (teineigo)(Pizziconi, 2003). For instance, the verb "行く" (iku, "to go") is expressed as "いらっしゃる" (irassharu, "to go") in respectful language to convey esteem. Similarly, "行く" can be rendered as "参る" (mairu, "to humbly go") in humble language to reflect self-deprecation or politeness. Meanwhile, the verb "分かる" (wakaru, "to understand") is used as "わかります" (wakarimasu, "I understand") in polite language to demonstrate formality and courtesy.

It is clear that when learning the Chinese language, which is the oldest East Asian languages and is the origin of all those Chinese characters (Kornicki, 2018), there are many cultural elements to consider. The Chinese language conveys respect and politeness through concise honorifics and context-dependent expressions (Fukada & Asato, 2004). Some examples are as follows: teaching set phrases for polite refusals and explaining the concept of face (面子, Mianzi or 脸 Lian), politeness, and codes of etiquette. These linguistic features function as essential tools for conveying respect and preserving the harmony of the community, which is deeply rooted in the traditions and customs of Asia(Rozman, 2014), where personal interdependence, social harmony and group interests are prioritised over personal autonomy and satisfaction of the needs of the self(Fang & Faure, 2011). These are all significant cultural values in China and their impact on Chinese communication characteristics are enormous (Fang & Faure, 2011). Having an understanding of these fundamental concepts contributes to CFL learners' intercultural competence. The following sections outline studies on immersive, task-based activities that enhance cultural understanding within pedagogical strategies. It also reviews the literature on self-directed and formal classroom learning for cultural integration, focusing on how various forms of immersive and experiential learning develop cultural knowledge and intercultural skills.

2.6 CFL Language Learning Strategies

Chinese as a Foreign Language (CFL) teaching and learning has undergone significant transformation in recent years, adapting to both pedagogical advancements and

the evolving needs of global learners (Rossi, 2021). Each approach to learning Chinese as a foreign language has its own advantages and disadvantages in terms of cultural learning. CFL curricula in recent times has more frequently covered Chinese social customs, historical references, values, and beliefs, recognising that language proficiency and cultural literacy evolve together (Byram & Wagner, 2018). Effective CFL education incorporates cultural knowledge, allowing learners to value the language's rich context and significance (Zhu et al., 2022; Zhu, 2020), therefore, integrating culture with language instruction helps learners genuinely grasp the meaning in communication (Danison, 2013; Kennedy, 2020). Learners' cultural, linguistic, and cognitive frameworks, which are shaped by their background, play critical roles in shaping how they acquire knowledge of the Chinese language and culture, impacting the depth and scope of their cultural understanding. In CFL education, each learner's linguistic and cultural background shows unique characteristics. However, "the important role of culture has not been acknowledged in language teaching for a long time" (Gao, 2020, p. 15). For instance, according to Hofstede's cultural dimensions theory (2011), individualism versus collectivism provides a framework for understanding how beliefs shape communication, and self-expression and autonomy are highly valued in individualistic cultures, while collectivist cultures emphasise interdependence and group harmony. Acknowledging a culture's power distance or individualism-collectivism orientation enables the design of curricula that resonate with learners' cultural expectations, fostering inclusive and effective learning environments. These insights provide a structured approach to teaching language as an instrument of cultural awareness and competence (Siregar, 2021).

Language serves as a mediational tool that goes beyond mere communication, facilitating learners in regulating their cognitive processes and behavioural patterns (Lantolf, 2006). Therefore, the cultural backgrounds, linguistic foundations, and communication styles of CFL learners appear to influence their learning methodologies and preferences. Traditional classroom instruction in CFL has long prioritised foundational language skills, such as character recognition, grammar, and vocabulary acquisition, following a largely teacher-centred model rooted in Confucian educational philosophy. This approach, often characterised by structured, textbook-based lessons and rote memorisation, is effective for early learners who need to build a linguistic base in Chinese (Phillipson, 2007; Xing, 2006). Xing (2006) explained that traditional methods typically involve repetitive drills to reinforce memorisation and systematic vocabulary acquisition,

which helps solidify grammar understanding and language structure. Despite these strengths, the teacher-centred model, which traditionally has focused primarily on passive learning and strict guidance from instructors, may limit interactive engagement and spontaneous language production (Richards and Rodgers (2014). As Chamberlain et al. (1999); DeCapua and Wintergerst (2016) argued, this approach may restrict learners' abilities to use the language in dynamic, real-world settings, especially in multicultural classrooms where cross-cultural interaction is vital. It should be noted, however, that studies have demonstrated both the advantages and limitations of the traditional learning approach in CFL. For example, Zhao (2016) found that CFL students exposed primarily to rote learning showed a solid grammatical foundation but had difficulty engaging in spontaneous conversations. This finding suggests that while traditional methods remain effective for foundational knowledge, they may fail to cultivate communicative abilities which is critical for practical language use.

Liu and Rao (2023) found that learners from different countries employ distinct learning language strategies. East Asian learners, including those from Korea and Japan, tend to favour traditional learning methods such as memorisation and repetitive practice (Liu & Rao, 2023). Therefore, speakers from collectivist cultures may align more closely with the community-oriented aspects of the Chinese language and culture (Li-Jun et al., 2004; Ng et al., 2000). These methods are closely tied to cultural values such as perseverance and diligence. In contrast, learners from Australia are more likely to employ self-directed learning strategies, including using technology and exploring language through personal interest (Liu & Rao, 2023). Wang and Wang (2022), found a positive correlation between CFL learners' HSK (Hanyu Shuiping Kaoshi, Chinese Proficiency test) levels and understanding of Chinese culture. In their research, people from western cultures tended to think more visually while Koreans and Southeast Asians were more adept at activating Chinese semantic knowledge. CFL learners at advanced proficiency demonstrated a much more nuanced understanding of Chinese cultural topics (Wang & Wang, 2022). This finding supports the view that language proficiency and cultural competence grow together. Similarly, Da (2005) found that CFL learners with a wider range of vocabulary, which is approximately equal to an advanced level of Chinese proficiency (HSK), can read and understand subtle cultural context. Another example of how learners acquire knowledge differently is that Spanish learners prefer a relational communication style, while English learners tend to have a direct communication style

(Martínez-Fernández & Vermunt, 2015). However, there are cultural differences between Ireland and the UK, although they share the same English-speaking culture (Western culture), the Irish are more family-oriented, institutionally-oriented or socially-oriented (Barron, 2008). Similarly, Irish people have closer cultural ties with Asians, for example, Irish people have been found to have higher levels of family pride, loyalty and cohesion compared to other Western countries such as the UK, Australia, Canada and New Zealand (Barron, 2008).

This cultural difference makes it difficult to adapt to conversational norms. For example, and Irish people tend to avoid directness (Hickey, 2024; Walshe, 2023), and they building interpersonal harmony and avoiding conflict (Amador-Moreno, 2023). Also, in Spanish, indirect expressions are used for politeness, while in English, more direct expressions are common (Martínez-Fernández & Vermunt, 2015). For instance, learners from cultures that value direct communication might find it challenging to fully understand the subtleties of Chinese indirectness and the value placed on non-verbal cues and harmony in interpersonal communication (Ting-Toomey & Dorjee, 2018). Research by Shi and Stickler (2019) pointed to an increasing trend toward integrating communicative elements within traditional settings to address differences in approaches to learning among learners, blending structure with interaction to promote a more balanced experience. In contrast, the communicative approach prioritises language use in real-life scenarios, aiming to develop communicative competence by engaging learners in meaningful interactions.

The approach learners take to learning Chinese as a foreign language, whether through formal instruction, self-study, or other methods, can influence the extent to which they acquire cultural knowledge, and different learning approaches offer varying levels of exposure to culture. Methods such as task-based learning and role-playing exercises encourage students to practice language in context, emphasising active participation over passive reception. Studies by Ismaili (2013); Markina (2019) highlight how communicative activities, such as dialogues and group work, have positively impacted CFL learners' conversational skills and cultural understanding compared to rote memorisation. Students who participate in role-playing activities demonstrated improved conversational skills and a greater understanding of cultural nuances (O'Neill, 2012). The shift towards communicative approaches aligned with a broader movement within language education which aims to equip learners with skills for engaging in authentic interactions. Curricula that incorporate such communicative techniques, including learning cultural content, are

often more effective in fostering enthusiasm and retaining language learners. The traditional classroom has been the primary mode for CFL instruction; however, learners are increasingly combining classes with self-study or relying mostly on self-learning resources, such as apps, online courses, and tutors. According to Vygotsky's view, learning is very often a social endeavour, but the nature and effectiveness of that social interaction can vary depending on cultural context and individual factors (Vygotsky, 1978; Vygotsky, 1987). While formal class settings provide scaffolding opportunities for collaborative interaction with teachers and fellow learners (Rachels & Rockinson-Szapkiw, 2018), self-study such as, TikTok, Duolingo, AI tools and other educational and social media application can give CFL learners the self-sufficiency to adapt their learning to their own cultural backgrounds, language levels, and interests (Hong, 2023; Shadiev et al., 2017; Wang et al., 2019). As learners become more proficient in the target language, they gain more access to cultural content and are better able to understand and internalise it (Chen & Yang, 2014; Khodadady & Ghahari, 2012; Rachmawaty et al., 2018). For example, students who learn through independent self-study online can study according to their preferences and optional topics, adjusting the learning effect and progress as needed (Chen et al., 2017; Shadiev et al., 2017; Zhang & Zou, 2022). This allows them to learn optimally through customised learning, thereby increase their learning motivation (Wang et al., 2019).

Digital platforms are especially effective for practicing phonetics and pronunciation, which are crucial for mastering tonal languages like Chinese. Shi and Stickler (2019) noted that interactive software provides immediate feedback on pronunciation, which is an essential feature for CFL learners to refine their speaking skills. Online tools cater to various learning styles, accommodating visual, auditory, and kinesthetic learners, thus broadening the pedagogical scope. Online learning, however, also poses challenges, particularly in the development of speaking and listening skills. While digital platforms are effective for reading and writing, they often lack the interpersonal engagement necessary for fluency in spoken language (Ferri et al., 2020; Kemp & Grieve, 2014). Fully online CFL courses are often not able to replicate the interactive dynamics of face-to-face classes, where students can directly engage in dialogues and receive real-time feedback from instructors. As studies during the COVID-19 pandemic suggest, the shift to online learning accelerated the adoption of digital tools but also highlighted the need for more robust methods to support speaking and listening practice in virtual settings (Goh et al., 2022; Megahed & Hassan, 2022).

Blended learning, which combines online resources with classroom instruction, has emerged as an effective alternative to address the limitations of purely traditional or online methods (Luo & Yang, 2018). Blended learning incorporates the use of digital tools within the structured environment of a classroom, offering a balanced solution that leverages the strengths of both models (Cui et al., 2021; Li & Li, 2024). Shi (2017); Zhang (2020) demonstrated how multimedia tools in blended settings enhance learners' acquisition of Chinese characters and pronunciation. According to Banditvilai (2016); J. Li (2021), students in blended learning environments typically show improved proficiency, particularly in listening and writing skills. The effectiveness of blended learning in the CFL learning context lies in its adaptability to students' specific needs and learning contexts. Kuo and Lai (2006) recommended the teaching strategies, such as the use of cultural capsules and comparative analysis through proverbs and part-playing for interaction, can increase learners' cultural competence. While traditional classroom methods establish a foundational structure for language learning, digital resources in blended settings offer interactive components that foster engagement and retention. Another recent study by Li et al. (2022) investigated the impact of self-study formats, such as mobile-assisted language learning (MALL), on language learning. This study found that learners who regularly used mobile applications for practice showed increased retention of culturally nuanced language, such as idiomatic expressions and colloquial phrases. This highlights the role of mobile technologies, including language-learning apps, in facilitating language practice and cultural engagement. MALL technologies enable learners to bridge the gap between classroom learning and real-world interaction, as they offer resources like videos, podcasts, and cultural trivia that expose learners to everyday aspects of Chinese culture.

By integrating socio-cultural and historical contexts into CFL instruction, learners are offered a more holistic and realistic experience that align more closely with native speakers' linguistic and cultural landscapes (Li, 2019; Sheu, 2018). Guan (2013) argued that approaching language learning as an intertwined process with cultural acquisition enhances learners' linguistic understanding. Wu (2011) argued that Chinese culture should be interpreted and viewed from a traditional oriental perspective. Learners gain a more profound appreciation of the target language when exposed to the customs, traditions, and values that shape it. This perspective aligns with early research by Lave (1991); Lave and Wenger (2001) which suggested that knowledge acquisition occurs through meaningful

interactions within cultural and social contexts. According to Baker (2011), immersion in authentic cultural settings enables students to practice language in context, improving comprehension and the practical application of language skills. This combined approach caters to various learning styles and offers more comprehensive skill development.

In recent years, the field of Chinese as a Foreign Language (CFL) education has witnessed the emergence of various pedagogical approaches and technological innovations aimed at enhancing both linguistic proficiency and cultural competence among learners. The diversity of pedagogical approaches in CFL instruction highlights the importance of aligning teaching methods with learners' goals and needs. Immersive experiences, though highly effective, face practical constraints in accessibility. As the field continues to evolve, CFL educators are increasingly adopting integrated approaches that combine traditional, digital, AI and immersive methods to provide a well-rounded learning experience (Huang, 2019; Hung, 2025; Li & Kou, 2023; Xia et al., 2024). Recent studies, including those by Gong et al. (2020); Li et al. (2022); W. Zhou (2020) shed light on significant trends and challenges in CFL education, focusing on task-based language learning (TBL), mobile-assisted language learning (MALL), and the importance of culturally explicit instruction in bridging cultural gaps. Digital platforms are especially effective for practising phonetics and pronunciation, which are crucial elements for mastering tonal languages like Chinese. These studies show that self-study can be as practical as structured learning. Learners can choose methods based on their preferences and improve their weaknesses in the target language.

Digital resources provide learners with visual and auditory cues that help them understand the historical roots and contemporary applications of idioms (Sheu, 2018). Studies have shown that learners are more likely to retain and apply idioms accurately when they learn them in contexts that highlight their cultural significance (Guan, 2013; Orton, 2016). This approach also addresses common difficulties CFL learners face, such as interpreting metaphorical language and understanding the subtleties of Chinese social norms. Hua et al. (2022) classified native Chinese speakers into three groups: mainland Han Chinese, non-mainland Han Chinese (such as those from Hong Kong, Macau, and Taiwan), and the Chinese diaspora. Each of these groups brings a distinct cultural perspective to the language, reflected in regional variations in CFL textbooks and teaching materials. For instance, textbooks designed for learners in Taiwan may emphasise cultural

elements specific to Taiwan, while materials for learners in Mainland China focus on the cultural context of the mainland. These regional variations in cultural perspectives underscore the need for CFL textbooks to be adaptable and region-specific, making them more relevant and engaging for learners (Hua et al., 2022). Gong et al. (2020) explored the implementation of Task-Based Language Learning (TBL) within a blended CFL environment, demonstrating the potential of TBL to support learners in developing linguistic and cultural skills. TBL involves engaging learners in tasks that mirror real-life interactions, such as ordering food, arranging cultural events, or navigating public spaces, encouraging them to practice language in contexts that reflect authentic Chinese social norms and values. The study illustrates that TBL fosters not only language proficiency but also cultural awareness as students encounter scenarios that require an understanding of etiquette, politeness, and cultural rituals. Gong et al. (2020) described an activity where students were tasked with planning a Chinese New Year celebration. This required them to use specific terms related to the holiday, participate in traditions like preparing symbolic dishes, and observe the custom of giving red envelopes, thereby gaining insight into the cultural significance of the celebration. The study found that TBL fostered cultural immersion, which is vital for achieving a holistic language learning experience. Students demonstrated improved understanding of the intricate relationship between language use and cultural practices. Moreover, the hands-on tasks encouraged learners to internalise cultural nuances, such as the emphasis on politeness and interpersonal harmony in Chinese traditions. In language learning, developing cultural competence is a shared responsibility and educators significantly contribute to nurturing this competence within the classroom setting. For example, language instructors must teach the language while integrating cultural understanding into their teaching methods (Deardorff, 2008), and this can be accomplished by using authentic materials, facilitating discussions on cultural topics, and offering students opportunities for cultural immersion.

As recent research emphasises that interactions with native speakers, constructing knowledge, and interacting with culturally knowledgeable individuals of the target language is facilitative of language as well as cultural learning (Alkhudiry, 2022; Sarmiento-Campos et al., 2022). Many studies have shown that study abroad and exchange programmes have long been recognised as potent vehicles for intercultural learning, immersion, field experience learning, and exposure to native speakers, which can be the most effective methods for foreign language education (Bergman, 2017; Gong et al., 2021;

Jackson, 2010). For example, Taguchi et al. (2013) and Wang and Crawford (2021) found that advanced CFL learners who spent enough time in China or studying Chinese in China could correctly use more idiomatic expressions and explain their cultural meanings. In the CFL learning context, experiential learning and immersive learning can take many forms, for example, study abroad, visiting or living in China, having an experience of living with Chinese people, participating in Chinese cultural festivals and events, interacting with native Chinese speakers, consuming authentic media or even engaging in virtual exchanges, and these direct contact with the target culture can dramatically enhance learners' cultural knowledge and attitudes (Isabelli-García, 2006; Kormos, 2007). "A common usage of the term "experiential learning", defines it as a particular form of learning from life experience; often contrasted it with lecture and classroom learning" (Kolb, 2014, p. 18).

Immersion and experiential learning facilitate cultural competence development, enabling learners to navigate foreign languages more effectively (Engle & Engle, 2004). Jackson's (2010 ; 2018) research on study abroad experiences indicates that direct immersion in the target culture provides unique opportunities for cultural learning that cannot be fully replicated in classroom settings. And these active participation in cultural exchanges or community-based cultural events can help foreign learners gain a deeper understanding of the target country's intercultural awareness and improve practical language skills (Byram & Wagner, 2018). Learners who undergo immersive experiences are better able to view the target culture through an informed lens, interpreting behaviours, idioms, and societal norms more precisely (Jackson, 2012; Risager, 2006). Jackson's (2010, 2015) research supports with empirical evidence that students who participated in overseas experiences showed significant improvements in cultural sensitivity, linguistic adaptability, and global perspectives. The concept of cultural immersion in CFL education is particularly beneficial Kramsch (2014c). Kinginger (2008 ; 2011) indicated that immersion in experiences, such as study-abroad programs, significantly enhance students' language skills and cultural understanding. These experiences promote adaptability, as learners must navigate linguistic structures and cultural nuances that give the language its social relevance (Deardorff, 2008). Furthermore, cultural immersion strategies have enhanced learners' cognitive empathy, enabling them to understand and better interpret cultural cues (Bennett, 2009; Van de Vijver & Leung, 2009).

Direct interaction with Chinese people and their participation in cultural activities provide ‘scaffolding’ (Wood et al., 1976) for learners to reach levels of cultural understanding that would be difficult to achieve on their own (Fani & Ghaemi, 2011). As Lantolf et al. (2014) and Kinginger’s (2011) argued, these social interactions do more than transfer knowledge, and they facilitate the process by which learners co-construct and internalise cultural meaning. Similarly, a study by Wang and Kulich (2015) on foreign students in a Chinese university showed that guided reflection on critical incidents of moments of cultural misunderstanding was effective in deepening students’ cultural knowledge and intercultural skills. The students became more skilled at interpreting Chinese behaviours within the cultural context instead of through their own cultural perspective, which is a key aspect of intercultural competence. In many countries, Chinese is considered a “less-commonly taught language” (p. 65) compared to Spanish or French, and the availability of immersive environments or native-speaker communities might be limited (Zhou, 2012). Therefore, in recent decades, China’s Confucius Institutes have been established globally to promote the Chinese language and culture (S. Li, 2021; Starr, 2009; Ying, 2016; Zhao & Huang, 2010; Zhu & Li, 2024). These often provide cultural activities (calligraphy workshops, festival celebrations, cooking classes) alongside language classes, explicitly aiming to enhance cultural knowledge. The effectiveness of such cultural programming has been a subject of study (Cai, 2022). Many researchers found that CFL learners who engaged in Confucius Institute cultural events, such as celebrating Chinese New Year or participating in tai chi classes and cooking Chinese food, reported higher interest in continuing Chinese language studies and felt more confident in understanding Chinese culture and customs (Xiao, 2017; Ying, 2016). This aligns with Kolb’s (2011; 2014) Experiential Learning Theory (ELT), which suggests that learning by doing and experiencing can be more impactful than passive learning. Even with short-term immersion in a culture learners have improvements occur in personal adjustment, language acquisition, and culture learning (Jones & Bond, 2019). Anderson et al. (2006) also highlighted the positive effects of short-term study abroad programs on learners’ intercultural sensitivity and openness to the target culture and emphasises that even brief exposure to an authentic cultural context can significantly improve learners’ cultural understanding and knowledge of the cultural elements of the target language country. For example, European and American CFL learners, whose native cultures typically differ more substantially from Chinese culture, may find visits to China to be more significant opportunities for perspective transformation than for Asian continent CFL learners, who may already share

some cultural reference points with Chinese culture (Hsieh, 2014; Osborne et al., 2020). These ideas align with the findings of (Hua & Kramsch, 2016) that 'symbolic competence' involves reframing one's perspective and interpreting cultural phenomena from multiple viewpoints.

Engaging in optimal learning environments that suit individual learning styles results in higher levels of cultural knowledge. In recent years autonomous learning has become the norm, however, learner autonomy is perceived differently depending on culture (Ahmed & Hossain, 2024; Ivanovska, 2015; Palfreyman, 2003). Asian students who are placed in self-directed learning and self-study learning environments may lose their learning direction or become less motivated (Al-Qahtani & Higgins, 2013; Linh & Van Loi, 2024). Formal language classes may not, however, be the definitive answer as the efficacy of formal classes varies widely, and some may focus heavily on language form and leave culture to separate culture classes. Some learners engage deeply with authentic materials like Chinese dramas, social media, and blogs, resulting in significant cultural insights that can sometimes be more current than textbooks. However, independent study of a target language may also be unreliable and tend to emphasise particular cultural elements, failing to capture the entire scope of Chinese culture, due to errors in approach, cultural familiarity, inaccurate information (Chen, 2008; He & van de Vijver, 2012). The ideal approach may be to combine guided learning that offers structure and reliable information with chances for self-exploration and cultural immersion in the target language. The following section explores the role of the identity and heritage of Chinese learners in CFL contexts.

2.7 Linguistic Identity and Chinese Heritage in the Contexts of CFL

Language serves as a significant mechanism in identity construction, where individuals express and negotiate their cultural affiliations and self-conceptions. Research demonstrates that language learning encompasses more than merely mastering grammatical structures or vocabulary (Kramsch, 1993 ; 1995 ; 2006). It also involves navigating complex cultural contexts and negotiating identities (Byram, 2020; Kramsch, 2014a; Norton & Pavlenko, 2019), because language learning is rooted in a specific sociocultural context (Lantolf & Poehner, 2012, 2014; Lantolf et al., 2014). Norton (2014) suggested that language acquisition is intertwined with identity because language is a key medium through which individuals express who they are and are recognised by others. Post-structuralist

approaches to language learning argue that language acquisition involves continuous identity negotiation, shaped by the learner's investments and desired affiliations with target language communities. (Li & Li, 2020) found that many studies adopted post-structuralist perspectives, examining how Chinese language learners negotiate identities and accumulate cultural capital. This concept of investment underscores the motivational dynamics influencing learners' willingness to engage deeply with linguistic and cultural content (Li & Li, 2020).

For example, learners bring their own cultural backgrounds and identities into the classroom, which influences their approach to learning CFL and their interpretations of Chinese cultural content (Sam & Berry, 2010). For example, Asian CFL learners tended to learn the Chinese language as part of social belonging or as part of a community, and this is evidenced by research that shows that more than half of the HSK (Hanyu Shuiping Kaoshi, Chinese proficiency test) Chinese proficiency test takers in recent years were Korean (Paik, 2018; S. Wang, 2021). In western cultures that value individual autonomy more, however, learners are more likely to pursue personal goals and self-directed projects (Lee, 2006), and language learning tends to be treated as a personal growth activity rather than as a collective effort (Kennedy, 2002). Asian learners tend to be more integrated into the social education system, while Western learners often acted more as independent agents in their own academic growth and cross-cultural curiosity. The idea is that people from diverse cultural backgrounds use different languages, and these cultural differences influence language learning and outcomes (Deneme, 2010; Lengkanawati, 2004). For example, Holliday's (Holliday, 2018) 'small cultures' framework, which recognises that learning preferences and effective pedagogical approaches may differ among different cultural groups. The effectiveness of formal instruction for Asian learners might reflect educational traditions that emphasise structured learning environments (Jin & Cortazzi, 2017). In contrast, the success of self-directed learning among Western participants may align with educational philosophies that value learner autonomy (Little et al., 2017). According to Kangwon-gu (2014), learning a language is equivalent to learning about a comprehensive culture because it includes the target language society, nation, behavioural patterns, lifestyle, way of thinking, values, and consciousness of that target culture. Asian learners, such as Korean or Japanese CFL learners, are more likely to have indirect cultural

knowledge about China, or have shared East Asian Confucian values like Xiao (孝, filial piety) (Ames & Rosemont Jr, 2016).

A particular group of CFL learners whose language, culture, and identity interplay strongly is heritage learners of Chinese. Chinese Heritage learners (CHL) have familial or ancestral ties to Chinese culture. Often, they are ethnically Chinese or have a Chinese-speaking family, but they were raised in a different linguistic environment (He, 2008). A characteristic of heritage learners is that they tend to feel more connected with their Chinese-speaking peers or friends (Wang, 2024). In addition, CFL learners with Chinese heritage may have acquired knowledge of Chinese culture, such as through cooking traditional foods together at home or through participating in Chinese holiday events (Lin et al., 2020). Through such cultural socialisation within the home, they develop knowledge of Chinese culture and a sense of belonging to the culture (Xue et al., 2022). For example, even if second-generation Chinese immigrants are not fluent in Chinese, they are likely to have an intuitive understanding of Chinese culture through stories they hear and customs they experience at home (Mu & Dooley, 2015). Many studies have highlighted that engagement in cultural festivals and events is an invaluable to improve students' multicultural awareness and global competence (Elsamanoudy, 2024; Peng & Abd Rahman, 2024; Ratanakarn, 2011). The value of early socialisation is immense leads to valuable cultural intuition or background knowledge (Mu & Dooley, 2015). Most Chinese language learners with Chinese heritage have been socialised into Chinese culture early, even without full language skills. This implicit knowledge includes filial piety, respect for elders, and traditions, which non-heritage learners must learn from scratch. For non-heritage learners, entering the CFL learning world as adults means they are engaging in cultural socialisation from scratch, often relying on teachers and experiences for guided socialisation (Díaz, 2016; Zhu, 2012). Effective language and culture instruction should consider learners' cultural backgrounds and adjust instructional approaches correspondingly (Jin & Cortazzi, 2017).

2.8 Research Gaps and Justification for Study

While significant research has been carried out on cultural learning in the context of language learning, several gaps remain that justify the need for the current study. Much of the existing research has focused on isolated factors and has employed qualitative

methods to examine how cultural learning occurs in the context of language learning. However, to date, a comprehensive, quantitative study exploring how various influences interact and impact CFL learners' cultural knowledge has not been conducted. Another gap in the literature is that it is predominantly Western-centric and has group-specific focus. For example, previous studies have often examined American CFL learners or Korean CFL learners experiences in isolation. Comparative studies across regions and continents are rare and by analysing data from an international sample of CFL learners, this study introduces a cross-regional perspective that accounts for diversity and variation across continents. In order to go some way toward addressing these gaps in the literature, this study addressed the following research question: How do levels of cultural knowledge vary among Chinese as a Foreign Language (CFL) learners, and to what extent are these levels influenced by learners' linguistic proficiency, learning experiences, cultural backgrounds, and other contributing factors?

2.9 Conclusion

This literature review outlined the research that has been carried out on the complex relationship between language learning and cultural knowledge within the CFL context. While many studies affirm the benefits of cultural experiences, few studies have quantitatively measured learners' cultural knowledge at different stages of the language learning process or have identified which combinations of factors best predict cultural understanding. This study aimed to address these gaps by measuring learners' levels of cultural knowledge in relation to multiple possible contributing factors, including linguistic background, learning experience, and cultural identity. Chapter three outlines the scoping review that builds upon the foundation established in this literature review.

Chapter 3 Scoping review

3.1 Introduction

A scoping review was carried out as the first method of data collection for this thesis in order to map the scope of existing research studies to determine what is currently known about how learners of Chinese as a Foreign Language (CFL) gain knowledge of Chinese culture and recognise cultural aspects embedded in the language. A comprehensive overview that considers diverse CFL learner populations, varied learning environments, and a range of methodological approaches has not yet been undertaken. The relationship between foreign language learning and cultural knowledge acquisition has been widely acknowledged in applied linguistics, with many research studies emphasising that the mastery of a foreign language is inseparable from understanding its cultural context. Within the field of Chinese as a Foreign Language (CFL), research has explored how learners engage with cultural content, the role of intercultural experiences, and the pedagogical approaches used to integrate cultural learning into language instruction. However, as discussed in Chapter 2, existing studies often focus on single factors, specific target learner groups, or single geographical contexts, making it difficult to form a comprehensive understanding of how cultural knowledge develops across diverse CFL learner populations. In Chapter 2, the literature also highlights methodological limitations in the field. Much of the research relies on qualitative case studies or small-scale investigations, providing rich, context-specific insights but offering limited generalisability. Quantitative analyses that systematically measure CFL learners' cultural knowledge, alongside related variables such as CFL learners' native language, Chinese language proficiency, different learning experiences, and cultural background, remain relatively low. Besides, few studies have synthesised findings across multiple contexts to identify common patterns and differences in how CFL learners acquire and recognise cultural aspects embedded in the Chinese language. Given the increasingly globalised context of Chinese as a foreign language (Moloney & Xu, 2015), understanding how learners approach cultural dimensions in the CFL language learning context is becoming increasingly important to CFL teaching, learning and research, there is a clear need to map the scope of existing research studies and to establish a consolidated understanding of how cultural knowledge is approached within CFL learning. A scoping review is particularly suited to address this need as it allows for the systematic identification, categorisation, and synthesis of a wide range of existing

relevant research studies, highlighting the breadth and nature of existing research. This chapter provides a comprehensive mapping of research studies related to CFL learners' acquisition of Chinese cultural knowledge, with attention to the contexts in which learning occurs, the variables involved, and the ways in which cultural elements are recognised and interpreted by CFL learners. The review also identifies the key patterns and gaps in the existing literature, offering a foundation for interpreting these findings in light of existing research and for shaping the direction of subsequent empirical investigation. The review synthesises existing research studies conducted in varied educational and geographical contexts, providing numerical and qualitative summaries of the literature. It is important to clarify that the scoping review presented in this chapter fits a function distinct from the traditional literature review outlined in Chapter 2. While Chapter 2 provides a conceptually guided synthesis of theoretical and empirical debates concerning language, culture, and intercultural knowledge in the context of CFL, this chapter adopts a systematic mapping approach, and this scoping review examines the scope, methodological characteristics, and geographical distribution of empirical studies conducted over the past two decades. The inclusion of both review types reflects the dual structure of the thesis. Chapter 2 establishes the theoretical rationale for investigating cultural knowledge in CFL learning, while Chapter 3 empirically maps the existing research landscape to identify patterns, concentrations, and gaps requiring further quantitative investigation. The scoping review complements by providing an evidence-based justification for the design and focus of the main survey study.

3.2 Literature Background to the Scoping Review

Research on cultural learning in foreign language learning education consistently highlights that effective communication depends on understanding the target culture (Ali et al., 2015; Karlik, 2023; Tang, 2006). In CFL, this relationship is complicated by the cultural and linguistic distance many learners experience. For example, Yeh (2012) found that prior linguistic and cultural knowledge significantly supported CFL learners' understanding of Chinese idiom stories, suggesting that background knowledge is a key resource for interpreting culturally embedded texts. Many research studies have investigated multiple factors influencing cultural knowledge acquisition.

Linguistic proficiency and cultural interpretation. CFL studies indicate that higher Chinese proficiency is associated with deeper and more accurate cultural interpretation, including recognition of implicit meanings and idiomatic usage (Wang,

2017b; Wang & Wang, 2022). However, linguistic proficiency alone does not guarantee accurate cultural interpretation. Intercultural sensitivity and contextual familiarity also matter (Wang, 2017b).

Motivation and adaptation. Motivation both drives and results from cultural learning. Dörnyei (2001) emphasised motivation as the primary driving force behind L2 learning and ultimately L2 acquisition. Comparative work shows that levels of integrative motivation and sociocultural adaptation differ across learner groups and relate to outcomes (Yu & Downing, 2012a). The cultural and linguistic distance experienced by CFL learners may increase anxiety and depress proficiency, especially among Western CFL learners, while stronger integration is positively associated with improved proficiency (Yu & Watkins, 2008).

Reading strategies. Chinese poses distinctive challenges for alphabet-based L1 CFL learners, due to the unique linguistic characteristics of the Chinese character system (Huang, 2018). Comparative research evidence suggests that learners from Chinese cultural spheres (CCS) and non-Chinese cultural spheres (NCCS) differ in their strategy use; for example, CCS background learners were shown to have an advantage in terms of processing letters and word spelling due to their linguistic familiarity and orthographic knowledge (Ke & Chan, 2017). Similarly, Wang and Wang (2022) further research on the relationship between proficiency, cultural background, and strategy choice suggests that CFL learners with higher linguistic proficiency used cultural knowledge and semantic strategies more often. In contrast, Western CFL learners relied on visual strategies, indicating the impact of background knowledge on reading comprehension. CFL learners' strategy use for Chinese logograph correlated with Chinese proficiency and cultural background, with higher proficiency linked to more use of language and cultural knowledge. Western CFL learners favoured visual strategies, whereas Koreans and Southeast Asians activated semantic Chinese knowledge more.

Authentic materials and pedagogy. Studies report that CFL learners need support beyond words and grammar to engage in local context practices and customs (Zhang et al., 2017b). Also, research on CFL learners using authentic Chinese texts in class shows positive effects on learners' perceptions, improving reading skills, applying grammar and vocabulary in real-life, and increasing cultural awareness and engagement. Exposure to authentic texts enhances comprehension and helps retain cultural knowledge (Huang, 2018).

Psychological factors. Psychological variables, such as anxiety, willingness to communicate, and self-confidence, have a measurable influence on whether CFL learners

apply their cultural knowledge in communicative settings (Meihua, 2017). Also, some motivational factors are influenced by demographic variables, including age, gender, self-assessed target language proficiency, race/ethnicity, heritage status, prior second language experience, and the academic program in which learners are enrolled (An, 2020). For example, Ye et al.'s (2018) research demonstrated that factors such as external social culture and cultural environment had the most significant influence on the internal psycholinguistic development of CFL learners of international students, while staying in the local area, often struggled to comprehend aspects of material culture, such as architectural styles and historical landmarks, highlighting the importance of cultural knowledge in cross-cultural adaptation. The research suggests that all linguistic and psychosocial adaptation factors should be considered when conceptualising the role of identity (cultural background) in second language learning. An integrated cultural adaptation orientation allows learners to have high self-esteem, which is related to high confidence in language learning and can predict positive results (Lai et al., 2015). Also, Coryell and Clark's (2009) study highlighted that language learning anxiety and pressure in L2 learners stemmed from the need to find or say the correct and definitive answer.

Intercultural competence. Intercultural communication competence refers to the ability to understand and effectively use communicated information to engage successfully in a specific social setting (Spring, 2019). This involves understanding that culture is not a static, finished product based on unchanging facts, but a complex, dynamic framework (Kramsch, 1993). To develop cultural competence, second language learners need to understand and correctly respond to the fundamental cultural values of the target culture. Cultural themes are the shared behavioural norms in society that people adhere to pursue cultural values, helping learners connect what they're learning with cultural values (Zhu, 2008). The field of CFL includes surface-level cultural knowledge and a deeper, context-sensitive understanding of how culture shapes meaning in Chinese. As cultural values have a significant impact on people's social behaviour (Zhu, 2008), Kennedy (2016) emphasised without a clear emphasis on building intercultural competence, intercultural pedagogies and behaviours, CFL learners are unlikely to acquire the skills, attitudes, and traits that comprise intercultural competence in the language classroom. However, few research studies have measured these components systematically in the field of CFL, and there is limited empirical research work linking intercultural competence levels to actual communication outcomes in Chinese. In CFL, structured development of intercultural

competence is important, but it remains inadequately measured with limited connections to real communicative outcomes.

While these research studies offer valuable insights in the field of CFL, the existing literature is still fragmented, and many investigations consist of small-scale, qualitative case studies that lack generalisability beyond their immediate context. Comparative research encompassing diverse CFL learner backgrounds and regions is still limited, and there is a significant shortage of large-scale quantitative research studies analysing the interaction of multiple factors that influence Chinese cultural knowledge acquisition in CFL contexts. None of the research reviews have systematically synthesised existing evidence to identify consistent patterns and variations in the recognition and comprehension of Chinese cultural elements. Considering these gaps, this scoping review addresses the following question: *How do learners of Chinese as a Foreign Language (CFL) gain knowledge of Chinese culture, and to what extent are CFL learners able to identify cultural aspects inherent in the Chinese language?*

3.3 Method

This scoping review followed the five-step scoping review framework developed by Arksey and O'Malley (2005), and later refined by Levac et al.(2010). Covidence Software (Innovation, 2023) was used for article screening and data extraction. Data from the selected studies were charted on an Excel spreadsheet and findings were summarised and are outlined in the results section of this chapter. Following the numerical analysis of the extracted data from the selected studies, reflexive thematic analysis (Braun & Clarke, 2021) was carried out using NVivo 12 (QSR International, 2018). Studies have shown that CFL learners bring their unique cultural backgrounds and native language contexts (L1) into the foreign language classroom, factors that shaped their engagement with and comprehension of the cultural elements in the target language, and their interpretations of Chinese culture were often influenced by their own cultural and linguistic backgrounds (Liu & Chang, 2018; Wang & Wang, 2022). According to this, the scoping review addressed the following review question: *“How do learners of Chinese as a foreign language (CFL) gain insights into Chinese cultural knowledge, recognise the cultural elements inherent in the language, and to what extent do they identify these cultural aspects?”* This scoping review thus aimed to provide a comprehensive overview of the

existing literature, identify gaps in current knowledge, and contribute to the understanding of cultural acquisition in CFL learning contexts.

3.3.1. Eligibility Criteria

The inclusion and exclusion criteria for this scoping review were applied to define the scope of this current study. Studies qualified for inclusion if they satisfied the conditions specified in Table 3.1.

Table 3.1 Inclusion and Exclusion Criteria

Variable	Criteria	
	Inclusion	Exclusion
Time period	2000 to 2022	Studies outside these dates
Language	English	Non-English Studies
Type of article	Original research, published in a peer review journal article	Non-peer-reviewed publications, conference proceedings, dissertations, book chapters
Research Method Clearance	Empirical research, that employ qualitative, quantitative, or mixed methods research designs. Report clear and detailed information on the research design, methodology, and data analysis.	Studies without empirical research Only theoretical research (Articles that were editorials or discussion or opinion pieces.)
Study Focus	CFL/CSL acquisition, Chinese culture, and cultural elements of the Chinese language.	Commerce, publishing textbook
Population and Samples	Studies that include CFL/CSL learners of different ages, proficiency levels, and diverse cultural backgrounds	Natural Mandarin Chinese multilinguals and bilinguals such as Cantonese in Hong Kong

Studies included in the scoping review met all the inclusion criteria. First, the study focused on research conducted within the period from the beginning of 2000 to the end of 2022, a span of over 20 years. This timeframe was chosen to align with the significant developments in Chinese language education and cultural exchange that have occurred since the early 2000s, particularly the expansion of Confucius Institutes and the growing global interest in Chinese language and culture (Starr, 2009). Although articles published in Chinese (Simplified) and other languages (e.g., Korean, Traditional Chinese) were identified during preliminary searches, only English-language publications were included in this scoping review. This restriction was applied to ensure consistency in data extraction

and thematic coding across screened studies and to minimise interpretative variability arising from translation. This decision was based on difficulties in accessing foreign academic databases (e.g., CNKI, RISS), challenges of translation, and constraints of research time and cost. Arksey and O'Malley's framework (2005) also highlights the additional cost and time involved in translating foreign language material, which further supported this decision. While language restrictions may introduce potential publication bias, scoping review methodology acknowledges that pragmatic constraints and the need for analytical coherence may necessitate such delimitations (Arksey & O'Malley, 2005). However, researchers had to adopt these limits for practical reasons; it is worth pointing out that potentially relevant papers in Chinese, Korean and other foreign languages could have been missed (Arksey & O'Malley, 2005).

Also, only original research, published in a peer-reviewed journal article, was considered for inclusion in the scoping review, to ensure the quality of the final studies included. This review focused on CFL/CSL acquisition, Chinese culture, and cultural elements of the Chinese language, studies that include CFL/CSL learners of different ages, proficiency levels, and diverse cultural backgrounds. The decision to restrict inclusion to peer-reviewed journal articles was made to ensure methodological transparency, comparability, and consistency across the reviewed studies. While scoping reviews may include grey literature depending on their objectives, this scoping review aimed to map empirically grounded research employing clearly articulated research designs, data collection procedures, and analytical frameworks. Peer-reviewed journal articles typically provide standardised reporting structures, enabling systematic comparison across studies. Peer-reviewed books and book chapters were excluded for methodological reasons, not evaluative judgement. Edited volumes often vary considerably in structure, methodological reporting depth, and peer-review procedures. Also, book chapters may synthesise prior findings rather than present original empirical data, making it difficult to ensure comparability within a structured mapping framework. Restricting inclusion to journal articles enhanced analytical coherence and facilitated consistent extraction of methodological and empirical variables. This decision aligns with methodological guidance suggesting that scoping reviews may delimit source types where the objective is to systematically examine patterns in empirical research design, participant characteristics, and analytical approaches (Arksey & O'Malley, 2005; Levac et al., 2010). Doctoral dissertations were excluded to maintain consistency in peer-review standards and reporting

formats, as dissertation structures vary significantly and may not undergo the same external peer-review processes as journal publications.

3.3.2. Description of Databases

The aim of the search strategy was to be as comprehensive as possible in identifying primary studies and reviews suitable for answering the current scoping review research question. Supervisors and subject librarian advised on what electronic databases were most likely to produce this type of study that this research was seeking and then devised an initial search strategy. The final version was first used on the ERIC (EBSCOhost) database and then converted for each subsequent electronic database.

The following four electronic databases were systematically searched to source academic resources relevant to the study's research focus:

1. ERIC (EBSCOhost): This database was included as it houses an extensive collection of educational research.
2. Academic Search Complete (ASC) was chosen as it houses a wide range of academic publications across various disciplines.
3. MLA International Bibliography (MLA): This database was chosen as it focuses specifically on language and literature studies.
4. Linguistics & Language Behaviour Abstracts (LLBA): This database was chosen because it houses research on language behaviour and linguistics.

In addition, reference lists from critical articles were reviewed, and relevant studies were reviewed, allowing for the identification of additional relevant studies to be included that met the inclusion criteria. The final list of references for full-text analysis was extracted from the following electronic databases including ERIC (EBSCOhost), Academic Search Complete (ASC), MLA International Bibliography (MLA), and Linguistics & Language Behaviour Abstracts (LLBA).

The search strategy aimed to capture a comprehensive range of scholarly work published over two decades, specifically from January 1, 2000, to December 31, 2022. This search timeframe was deliberately chosen to reflect significant developments in Chinese language education and global cultural shifts, particularly considering Seng and Lai's (2010) assertion that China's economic rise in the early 21st century significantly transformed the global linguistic landscape. The search and screening process extended over ten months, commencing on November 17, 2022, and concluding on April 24, 2023. Throughout this

period, the methodology involved several stages to ensure that only relevant and high-quality sources were included in the final review. The first step in the selection of sources was to collect all articles extracted from each of the four electronic databases. All the papers and articles were finally integrated and exported using the RIS (a standardised tag format developed by Research Information Systems) format export method among the exporting methods provided by each electronic database.

3.3.3. Description of Search Strings

Developing the search strings was an iterative process that included consultation with subject librarians at Trinity College Dublin to ensure accurate search terms and keywords reflected the current review's scope. The detailed search strings are displayed in Table 3.2.

Table 3.2 Electronic Databases and Search Details

Electronic Databases	Search details		
	Final search	Thesaurus*	Search Strings
ERIC (EBSCOhost)	20-04-2023	Mandarin Chinese Asian culture Chinese	TI ((chinese OR china OR asia* OR mandarin) N2 cultur*) OR AB ((chinese OR china OR asia* OR mandarin) N2 cultur*) OR TI ((chinese OR mandarin) N5 language) OR AB ((chinese OR mandarin) N5 language) AND TI ((chinese OR mandarin) N5 language) OR AB ((chinese OR mandarin) N5 language) OR DE "Chinese" OR DE "Mandarin Chinese" OR DE "Mandarin Chinese"
ASC (Academic Search Complete)	21-04-2023	CHINA studies ASIAN languages CHINESE language ASIAN studies	TI ((chinese OR china OR asian OR asia OR mandarin) N2 cultur*) OR AB ((chinese OR china OR asian OR asia OR mandarin) N2 cultur*) OR DE "ASIAN studies" OR DE "SOUTHEAST Asian studies" OR DE "CHINA studies" AND TI ((chinese OR mandarin) N5 language) OR AB ((chinese OR mandarin) N5 language) OR DE "CHINESE language" OR DE "CHINESE dialects" OR DE "DUNGAN language" OR DE "GAN dialects (China)" OR DE "HAKKA dialects" OR DE "HOKKIEN dialects" OR DE "MIN Chinese dialects" OR DE "ASIAN languages" OR DE "AUSTRALASIAN Signed English"
MLA (MLA International Bibliography)	21-04-2023	Mandarin language Asian studies Chinese language Asian culture	TI ((chinese OR china OR asian OR asia OR mandarin) N2 cultur*) OR AB ((chinese OR china OR asian OR asia OR mandarin) N2 cultur*) OR DE "Asian culture" OR DE "Asian studies" AND TI ((chinese OR mandarin) N5 language) OR AB ((chinese OR mandarin) N5 language) OR DE "Chinese languages" OR DE "Cantonese language" OR DE "Central Min language" OR DE "Chinese language (Middle)" OR DE "Chinese language (Old)" OR DE "Eastern Min language" OR DE "Gan language (Chinese)" OR DE "Hakka language" OR DE "Huizhou language" OR DE "Jin language" OR DE "Mandarin language" OR DE "Northern Min language" OR DE "Ping language"

			(Guangxi)" OR DE "Southern Min language" OR DE "Wu language" OR DE "Wutun language" OR DE "Xiang language" OR DE "Mandarin language" OR DE "Jiang-Huai Mandarin dialect" OR DE "Taiwanese Mandarin dialect"
LLBA (Linguistics & Language Behavior Abstracts)	24-04-2023	Asian Cultural Groups Chinese Asian Languages Mandarin	(noft((chinese OR china OR asia* OR mandarin) NEAR/2 cultur*) OR MAINSUBJECT.EXACT.EXPLODE("Asian Cultural Groups")) AND (noft((chinese OR mandarin) NEAR/5 language) OR MAINSUBJECT.EXACT.EXPLODE("Chinese") OR MAINSUBJECT.EXACT.EXPLODE("Asian Languages") OR MAINSUBJECT.EXACT.EXPLODE("Mandarin"))

The search terms and thesaurus for each electronic database were repeatedly refined to ensure that the searches captured the most accurate and relevant results or studies. The search strings were tailored to each electronic database's specific search functionalities and operations. The following section outlines the study selection process.

3.3.4. Study Selection Process

The screening method utilised a systematic approach grounded in PRISMA (Page et al., 2021) guidelines, which is commonly used to select reporting items for systematic reviews. The records identified through electronic database searches were initially imported into Covidence software for efficient data management. The screening process involved the following steps:

1. Initial Screening: Titles and abstracts of identified studies were screened for relevance based on the pre-defined eligibility criteria (Table 3.1), and irrelevant studies were excluded at this stage.
2. Full-Text Review: Articles deemed relevant during the initial screening underwent a full-text review to ensure they met the inclusion criteria. This stage involved careful evaluation of methodologies and outcomes presented in the studies.
3. Final Inclusion: Screening decisions were made by the researcher as the independent reviewer. In cases of ambiguity regarding eligibility, consultation was sought from the subject librarian at Trinity College Dublin to clarify methodological interpretation of the inclusion and exclusion criteria. Final confirmation of the included studies was undertaken in consultation with the PhD supervisors to ensure adherence to the predefined review protocol.

The selection process was conducted systematically following the PRISMA (Page et al., 2021) guidelines to ensure that only studies meeting the predefined inclusion criteria were selected for the review. Initially, duplicates were automatically removed by Covidence's de-duplication feature, and the remaining records were screened in two stages. In the first screening stage, the manual title and abstract screening, the first independent reviewer examined each title and abstract to assess its relevance based on the inclusion criteria, namely, the study's focus on Chinese as a Foreign Language (CFL), cultural learning, the language of publication (English), and empirical research design. Any discrepancies or ambiguities regarding the decision to include articles were resolved through discussion with the subject librarian at Trinity College Dublin, and the results were reported to the supervisors to cross-check to ensure the quality of the scoping review. The second stage involved a full-text review of the studies after the initial manual screening. The first independent reviewer examined the remaining articles' full texts, checking for alignment with the research objectives, methodological rigour, and relevance to CFL and cultural learning. Additionally, the first independent reviewer operated independently by manually searching the reference lists of the selected articles to retrieve them and download them through Google Scholar. After each step, the initial review was verified and sent to the Trinity College Dublin subject librarian to prevent bias. Every decision was recorded in the Covidence software to ensure transparency and for future reference. The screening and selection process was conducted primarily by the researcher as the first and independent reviewer. The subject librarian at Trinity College Dublin provided methodological consultation during the development of search strategies and assisted in verifying procedural adherence to PRISMA guidelines for the scoping review. The researcher's PhD supervisors provided oversight at key stages of the review process, including confirmation of eligibility criteria and final verification of included studies. While the researcher retained responsibility for screening decisions and data extraction, verification steps were incorporated to enhance procedural transparency and reduce the potential for selection bias. These steps included consultation with the subject librarian from Trinity College Dublin in cases of ambiguity and supervisory review of the final inclusion list before confirmation. All screening decisions were documented within Covidence to maintain an auditable record of inclusion and exclusion outcomes. The following section outlines the process of data extraction.

3.3.5. Description of Data Extraction

During the data extraction key journals are hand-searched to identify articles that have been missed in electronic database and reference list searches. As Arksey and O'Malley's (2005) framework emphasised, this can occur because electronic databases could be incomplete, not up to date or because abstracting services can vary in coverage, indexing, and depth of information. Missing summary statistics or articles were addressed by imputation or contacting study authors. For instance, in *The Influence of Chinese Proficiency and Cultural Background on CFL Learners' Comprehension of Chinese Logographs* by Xiaolu Wang (2022), the first independent reviewer contacted the author and obtained the original article via email on 16th June 2023. Following the final screening inclusion stage, descriptive, content, and thematic analyses were conducted, accompanied by mapping. A Microsoft Excel data extraction template was employed to organise the full-text review references, including the following extracted data items: the year of the study, research participants, study method, terminologies in the research area, the range of data sources encompassed in the study, sample group, sample size, the methods used, the country where the study was conducted, the year of research publication, research outcomes, characteristics of included references, thematic analysis, intervention characteristics, and contextual factors, such as prior exposure to the Chinese language and Chinese culture, Chinese language proficiency, and the acquisition of Chinese cultural knowledge. The following section outlines the study's potential risks and biases. Data extraction was conducted by the researcher, and random verification checks were performed in consultation with the subject librarian to ensure consistency in coding and categorisation.

3.3.6. Collating, summarising, and reporting the results

To systematically synthesise findings from the final included references, a reflexive thematic analysis (Braun & Clarke, 2021) was conducted using NVivo 12 (QSR International, 2018), Reflexive thematic analysis (RTA), as conceptualised and developed by Braun and Clarke (2021), is a flexible and recursive approach used to identify, interpret, and report patterns of themes across qualitative data. Welsh's (2002) NVivo in the qualitative data analysis process, and following Braun and Clarke's (2021) six-phase framework. This approach enabled the identification of patterns and underlying meanings across diverse references on Chinese as a Foreign Language (CFL) learning, with particular focus on cultural knowledge, intercultural awareness, CFL pedagogical experiences, and

learner-related variables. The final included references of publications were extracted from each electronic database, including ERIC (EBSCOhost), Academic Search Complete (ASC), MLA International Bibliography (MLA), Linguistics & Language Behaviour Abstracts (LLBA). Data were exported, coded as text (TXT) files, and imported into NVivo 12 (QSR International, 2018). String value fields were then checked for statistical errors, with frequencies and percentages summarising the data (Table 3.3).

Table 3.3 *Labels, Nodes and String Value Fields Used in NVivo 12*

Fields	Label	Nodes
String Value	aim of study	acculturation
	applicants' language background	adaptability
	authors' main conclusion	awareness
	country	Chinese culture
	exclusion criteria	classroom
	inclusion criteria	communication
	key words	competency
	main cultural theme	confidence
	method of recruitment of participants	conflicts
	mixed methods	correlation
	new findings	cross-cultural
	outcomes	cultural background
	participants age	cultural differences
	qualitative	foreign language
	quantitative	HSK (Hanyu Shuiping Kaoshi)
	research purpose	identity
	research question	influence
	sample size	intercultural
	study object	language barriers
	suggestions	misunderstandings
	title	motivation
	total number of participants	proficiency
	types of linguistics	strategy
	year of publication	traditional
		variables
		reading strategy
		background impact
		host culture contact
		adaptation challenges
		role of intercultural awareness

Each file was manually labelled with bibliographic metadata, such as title, author, year, and country of publication, to ensure data reorganisation and coding consistency. Phase 1 involved familiarisation with the data; all uploaded articles were read multiple times in the NVivo document viewer. In NVivo 12 (QSR International, 2018), memos were written for each source to reflect on keywords and concepts. These memos are used for subsequent coding and potential themes. Phase 2 involved generating codes, and an open coding

process was applied to each document using NVivo's coding features. Data extracts were tagged with semantic level codes, capturing categorical content such as "intercultural awareness", "reading strategy" and "cultural background impact". The inductive and data-based process allowed codes to be directly extracted from the textual material. Phase 3 involved searching for themes, after all documents were coded, related codes were grouped into nodes, and then categorised into broader potential themes. For instance, codes such as "intercultural competence", "adaptation challenges" and "host culture contact" were organised under a high-order node titled "Role of Intercultural Awareness and Adaptation", and that node's structure allowed for hierarchical categorisation and clear reorganisation as patterns. Phase 4 involved reviewing themes; in this stage, themes were repeatedly and systematically reviewed to ensure internal coherence and distinctiveness across different data sources. Coding stripes and node frequency reports were employed to verify that each theme was substantiated by the data. Ambiguous or overlapping themes were either merged or redefined to enhance analytical clarity. Phase 5 involved defining and naming final themes, with each theme clearly outlined according to its analytical scope and relevance to the scoping review's research questions. For example, the theme "Effect of motivation and adaptation on language proficiency" included motivational orientations like integrative and instrumental, and their connection to second and foreign language development. Descriptive memos were created for each theme to define its interpretive focus and boundaries. Phase 6 involved producing the report; in this stage, the final thematic structure consisted of six core element themes.

Correlation analysis and narrative synthesis were used to present charted data in tables, enabling a clear analysis of the findings of the included studies. Narrative reviews were conducted in Excel. In this step, quantitative analyses, such as frequency assessments and qualitative analyses, including content examination, were completed in the methodological stage, as this intricate multi-layer synthesis procedure fills gaps within the existing literature but also unveils prospective subjects that merit further systematic or innovative review in subsequent knowledge (Kastner et al., 2012). All data were compiled into multiple spreadsheets and imported into Microsoft Excel (Microsoft Corporation, 2019) to calculate further statistics. An input error from additional symbol characters was identified during the transfer and corrected by cross-checking with the original file for validation and coding according to detailed guidelines for scoping review analysis data (Pham et al., 2014). The data is organised and calculated statistically and functionally in a pivot table, for the

numerical analysis, following the numerical data presentation guidelines (Pham et al., 2014). Charts were used to provide a clear comparison of the included studies. Graphs and charts were used to represent the results visually. Simple bar charts and pie charts effectively illustrated differences, making the data more accessible and easier to interpret. The following section presents the study's results. This synthesis progress enabled an exploration of the factors that facilitate cultural learning and the challenges that the CFL learners face. Stakeholder consultation was not conducted as part of this scoping review.

3.4 Results

This section describes the results of the search and selection process, cites each included study, presents its characteristics for all outcomes, presents results for each study and presents results of all statistical syntheses conducted.

3.4.1. Selection of Sources of Evidence

A total of 1,582 studies were initially identified after the chosen four electronic databases, and after the screening processes were completed, 13 studies were selected for inclusion in this scoping review. Figure 3.1. displays the PRISMA Flow Diagram presenting the selection of studies for inclusion in the scoping review.

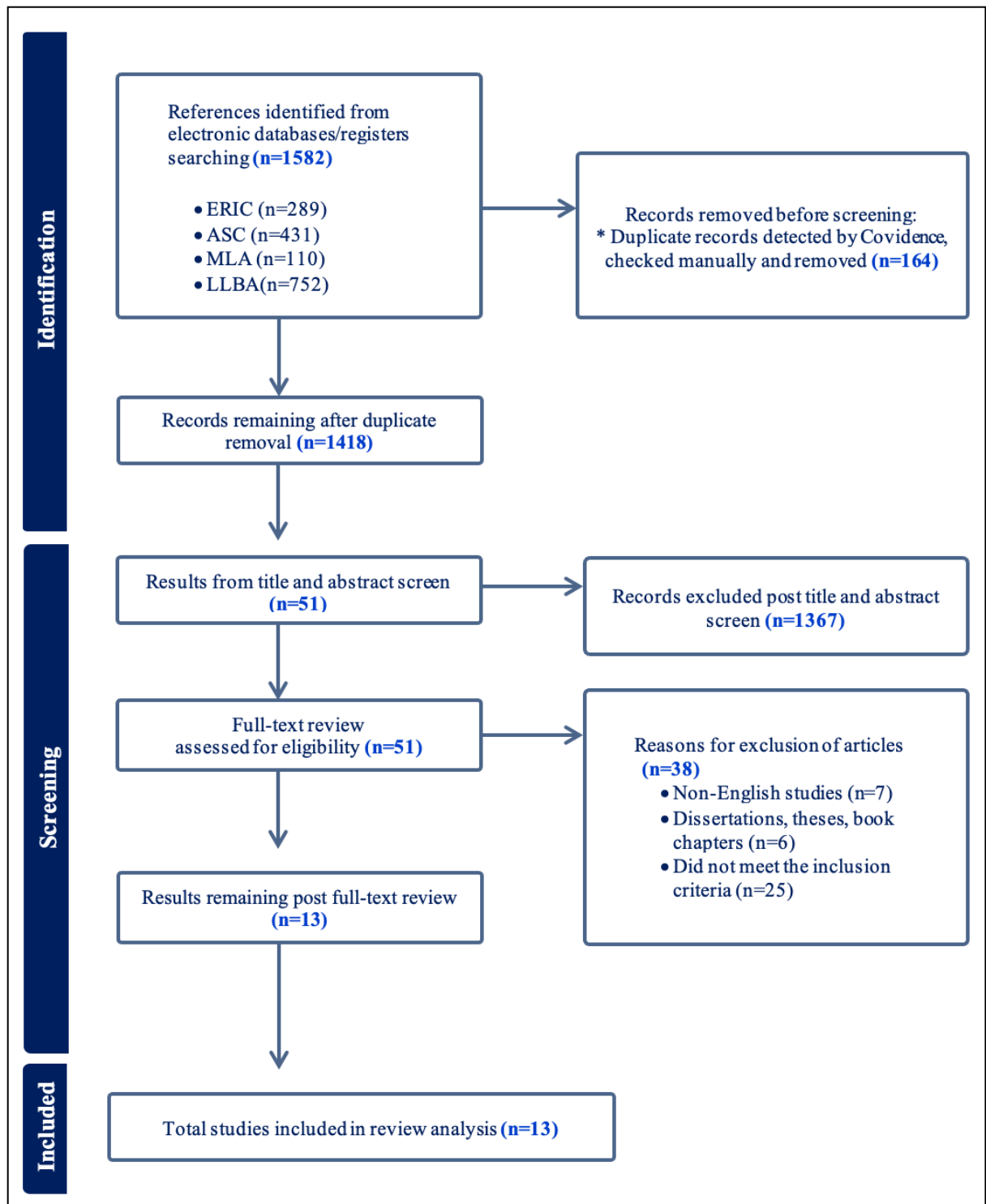


Figure 3.1 The PRISMA Flow Diagram Presenting the Selection of Studies for Inclusion in the Scoping Review

From ERIC (EBSCOhost), 289 articles; ASC (Academic Search Complete), 431 articles; MLA (MLA International Bibliography), 110 articles; and LLBA (Linguistics & Language Behavior Abstracts), 752 articles were exported. The articles of each listed number were then downloaded to the hard drive. All article titles and abstract data (n=1,582)

were imported into the Covidence Scoping Review Software. Table 3.4. displays the result of articles from electronic databases imported into Covidence software.

Table 3.4 *Articles from Electronic Databases Imported into Covidence*

Electronic Databases	Covidence Software		
	Imported	Duplicate records Removed	Records remaining after duplicate removal
ERIC on EBSCOhost	289	1	288
ASC	431	37	394
MLA	110	20	90
LLBA	752	106	646
TOTAL	1,582	164	1,418

The Covidence software detected 164 duplicate articles among the final 1,582 papers, which were automatically removed. Additionally, a manual one-by-one hand search through the reference lists of identified articles was conducted, resulting in a total of 1,418 references at the first screening stage. Only the titles and abstracts of citations were reviewed (Munn et al., 2018) to avoid unnecessary resource expenditure on non-qualifying articles. This involved systematically reading and analysing each title and abstract according to stringent inclusion and exclusion criteria (Tricco et al., 2016). Graduation theses, long-term certification research, and ongoing thesis projects were excluded from consideration, allowing for efficient processing. During the abstract screening stage, a second re-evaluation was performed to verify each reference's eligibility for the subsequent full-text review. The list of these 1,367 irrelevant references was exported in CSV (Comma-separated values) format from the Covidence scoping review software and organised in Microsoft Excel 2019. During this process, input errors or titles needing additional translation were identified and corrected. Patterns and relationships among these references were then analysed. Initially, only the titles of all references were arranged to one side for a final error check. The references that were excluded during the title and abstract screening stage, as many articles were found to be unrelated to the research field, particularly those not focused on CFL learners' acquisition of Chinese language and cultural knowledge or the identification of cultural elements within the Chinese language. Then, the final number of references moved into the next stage for the full-text review. Table 3.5 displays a

summary of the selection process, indicating the final count of included references from the original 1,418 prepared for full-text data characterisation.

Table 3.5 Summary of Selection Process

Records remaining after duplicate removal	Records Excluded post title and abstract screen	Records remaining post title and abstract screen	Records remaining post full-text review
1,418	1,367	51	13

The 51 articles that remained for full-text screening were relevant to the scoping review research question and were organised into a designated folder in the Covidence software. All essential references for the full-text review stage were successfully retrieved. For accuracy, pre-pilot tests were conducted with Subject Librarians at Trinity College Dublin on a sample of the 51 articles within the Covidence scoping review software. Following this, the full texts of potentially relevant references were independently screened against established inclusion and exclusion criteria, with non-eligible studies excluded at this stage. All included references were systematically archived in EndNote 20. After completing the full-text review, 38 (75%, n=38) of the initial 51 references were excluded, leaving 13 (25%, n=13) closely aligned with the scoping review research topic. As second and third reviewers, the subject librarians verified the review, with final confirmation by the research supervisors on 27 September 2023.

3.4.2. Characteristics of Included Studies

Table 3.6 displays the citation, title and demographic details of the selected studies.

Table 3.6 Citation, Title and Demographic Details of the Selected Studies

Study Number	Citation	Title	Year	Country	Key Words
1	Wang and Wang (2022)	The Influence of Chinese Proficiency and Cultural Background on CFL Learners' Comprehension of Chinese Logogriphs	2022	China	Chinese logogriphs, CFL learners, Chinese proficiency, cultural background
2	Jin (2020)	How University Students of Mandarin Chinese Experience 'Chinese Culture': An Interculturality and Small Cultures Perspective	2020	UK	Small cultures; interculturality; Mandarin Chinese; reflexivity; personal agency; social structures
3	Tong and Tsung (2020)	Humour strategies in teaching Chinese as second language classrooms	2020	China	Classroom humour Enjoyment of learning Chinese as a second language Language classroom discourse

						Humour strategy in language teaching
4	Huang (2018)	Authentic Texts as Reading Materials in a Chinese as a Foreign Language Classroom: Learners' Perceptions and Pedagogical Implications	2018	United States		authentic materials, reading, Chinese as a foreign language, learners' perceptions
5	Ye et al. (2018)	A Survey of Intercultural Adaptability for Foreign Students in Three Universities: Problems and Solutions	2018	China		Chinese as a Foreign Language; Language and Culture; three universities, foreign students, intercultural adaption, problems and suggestions
6	Ke and Chan (2017)	Strategy use in L2 Chinese reading: The effect of L1 background and L2 proficiency	2017	China		Chinese as a Second Language; Language and Culture; Reading strategy First language background Second language proficiency Chinese
7	Zhang et al. (2017b)	A Survey of Foreign Students' Cross-cultural Adaptation in Chongqing Normal University-A Case Study of Sri Lankan Students	2017	China		Chinese as a Foreign Language; Chinese as a Second Language; Chinese; cross-cultural adaptation, Sri Lanka, students, problems, suggestions
8	Wang (2017b)	Views and Attitudes of Intercultural Awareness in Chinese Teaching and Learning in Shanxi Provincial Universities Context	2017	China		Chinese teaching/learning as foreign language, target language and culture mastery, intercultural awareness, cultural diversity, intercultural communication competence
9	Meihua (2017)	Adult Chinese as a Second Language Learners' Willingness to Communicate in Chinese: Effects of Cultural, Affective, and Linguistic Variables	2017	China		Chinese as a Second Language; Language and Culture; Mandarin Chinese; Willingness to communicate, intercultural sensitivity, Chinese speaking anxiety, motivation, length of stay, Chinese competence, use of Chinese
10	Lai et al. (2015)	Bicultural Orientation and Chinese Language Learning among South Asian Ethnic Minority Students in Hong Kong	2015	Hong Kong		Chinese as a Second Language; Language and Culture; Chinese; biculturalism; multiculturalism; bicultural identity
11	Jin (2014)	Getting to Know You: The Development of Intercultural Competence as an Essential Element in Learning Mandarin	2014	UK		Chinese as a Foreign Language; culture; intercultural competence; language ecology; Chinese as a foreign language; language distance

12	Yu and Downing (2012a)	Determinants of International Students' Adaptation: Examining Effects of Integrative Motivation, Instrumental Motivation and Second Language Proficiency	2012	China	Chinese as a Foreign Language; integrative motivation; instrumental motivation; L2 proficiency; socio-cultural adaptation; academic adaptation; international students
13	Yu and Watkins (2008)	Motivational and Cultural Correlates of Second Language Acquisition: An Investigation of International Students in the Universities of the People's Republic of China	2008	China	Language and Culture; Chinese; Mandarin Chinese; Motivation, cultural distance, integrativeness, instrumental orientation, language anxiety.

All the selected studies met the eligibility criteria and were published in English (100%, n=13). Studies were published between 2008-2022, and among the selected studies (n=13), 2017 conducted the highest number of studies (31%, n=4). Among the selected studies, 69% were conducted in mainland China (n=9), 15% of the studies were conducted in the UK (n=2), 8% of the studies were conducted in the US (n=1), and another 8% of the studies were conducted in Hong Kong (China) (n=1). This distribution reflects a strong research focus on CFL learning within Mainland China, with comparatively fewer studies conducted in Western contexts. The included studies' research questions, main cultural themes, and aims are displayed in Table 3.7.

Table 3.7 *Research Question, Main Cultural Theme, and Aims of Selected Studies*

Study Number	Research Question(s)	Main Cultural Theme	Study Aims
1	1. How does Chinese proficiency influence logogriph comprehension? 2. How does cultural background influence logogriph comprehension? 3. How do the two factors interactively influence logogriph comprehension?	The study examines how deep-rooted cultural knowledge embedded in traditional Chinese logogriphs affects reading comprehension for CFL learners from diverse cultural backgrounds.	To examine how proficiency and cultural background individually and interactively affect CFL learners' understanding of logogriphs.
2	1. How are students of Mandarin Chinese in UK universities exposed to 'Chinese culture'? 2. How do they respond to their experience of 'Chinese culture'? 3. What discourses and personal narratives influence their understanding?	Intercultural engagement, interculturality, and learners' reflections on Chinese culture through CFL learning, fluidity and subjectivity of Chinese culture, cultural reflexivity and transnational awareness, negotiation between institutional discourses and personal agency.	To investigate how UK-based CFL learners experience, interpret, and negotiate 'Chinese culture' through intercultural perspectives.
3	1. What are the features of Chinese as L2 classrooms perceived by students? 2. How is humour used in Chinese as L2 classrooms, and what are the different types of humour strategies employed by teachers?	Role of humour in CFL classrooms, situated within Chinese educational cultural norms and the traditional teacher and student relationship.	To analyse humour strategies in CFL classrooms and assess their influence on engagement, motivation, and language learning.

	3. What is the impact of humour on learning enjoyment and language learning in Chinese as L2 classrooms?		
4	1. What are the learners' perceptions of the impact of authentic texts? 2. What factors influence learners' perceptions of the use of authentic texts? 3. What are the pedagogical implications of using authentic texts in CFL classrooms?	Chinese language and culture, the importance of authentic materials. Use of culturally authentic materials in reading instruction for CFL learners. Learners' cultural awareness and exposure through authentic materials in Chinese	To explore CFL learners' perceptions of authentic Chinese texts, identify influencing factors, and propose pedagogical implications on their preferences, and the effectiveness of instructional strategies.
5	1. What challenges affect foreign students' intercultural adaptability in Chinese universities? 2. What factors contribute to these challenges? 3. What solutions can address them?	campus cultural adaptation, material cultural adaptation, behavioural cultural adaptation, intercultural adaptability to campus, behavioural, and traditional culture for foreign students in Chinese university Chinese traditional cultural adaptation	To identify challenges in intercultural adaptation and propose solutions across four dimensions: campus, material, behavioural, and traditional cultural adaptation.
6	1. How does L2 reading strategy use vary by proficiency? 2. How does L1 cultural background affect strategy use? 3. How do L1 background and proficiency interact?	Relationship between L2 proficiency, L1 cultural background (Chinese vs. non-Chinese cultural spheres), and reading strategies.	To examine how L2 proficiency and L1 background influence CFL learners' use of decoding and comprehension strategies.
7	1. What factors influence Sri Lankan students' cross-cultural adaptation in China? 2. What challenges do they face? 3. What solutions can support adaptation?	Socialisation of Chinese; Chinese culture and customs, including knowledge of Chinese culture, local conditions Cross-cultural adaptation with emphasis on language learning, customs, and socio-cultural integration.	To analyse the adaptation challenges of Sri Lankan students in China and suggest measures for improving cultural and academic integration in line with the "One Belt and One Road" strategy.
8	1. What are staff and students' views and attitudes on intercultural awareness in CFL learning? 2. What is its significance? 3. What measures can enhance it?	Intercultural awareness and competence in the context of Chinese as a Foreign Language (CFL) teaching and learning	To explore perceptions of intercultural awareness and propose ways to strengthen intercultural competence in CFL contexts.
9	How do cultural, affective, and linguistic variables predict adult CSL learners' willingness to communicate in Chinese?	Cultural and affective influences (motivation, cultural interest, cultural contact, cultural knowledge) on willingness to communicate in Chinese.	To investigate how cultural, affective, and linguistic variables affect learners' willingness to communicate in Chinese.
10	1. How do South Asian minority CSL and bilingual students in Hong Kong orient their bicultural identities? 2. How does this orientation influence Chinese learning?	Oriental courtesy, acculturation orientation, bicultural orientation, acculturation, and integration in Chinese language learning.	Biculturalism and acculturation among South Asian ethnic minority students in Hong Kong. To examine how bicultural orientation and psychosocial well-being shape motivation and success in Chinese learning.
11	1. How do learners construct culture and intercultural competence based on their CFL learning experiences and encounters? 2. How does language distance impact their experiences?	Intercultural competence, development of intercultural competence through Mandarin learning, viewed as dynamic and situated.	To investigate how Chinese learning mediates intercultural competence and how learners perceive cultural and linguistic challenges. ecological perspective on learning another language
12	1. How do motivation, integrative motivation, instrumental motivation, socio-	The role of cultural background (Asian vs. non-Asian, conceptualised through	To examine how cultural group, motivation, and proficiency predict socio-cultural and

	cultural adaptation, proficiency, and cultural background (Asian vs. non-Asian) affect adaptation? 2. Are there group differences in adaptation outcomes?	individualism-collectivism and Confucian Heritage Culture) and language learning motivations (integrative vs. instrumental) in the socio-cultural and academic adaptation.	academic adaptation among CFL learners of non-Asian and Asian.
13	To what extent do motivational factors and cultural correlates influence proficiency, and do these differ between Asian and Western learners?	Motivation, cultural distance, and sociocultural adaptation in Chinese learning, cultural correlates.	To investigate relationships among motivation, cultural variables, and proficiency, and to identify group differences in motivation and outcomes.

The research questions of the included studies are organised into the following three main areas of investigation.

1. Relations among CFL learner variables and outcomes: Several studies investigated how proficiency, background, motivation and adaptation related to understanding or use of Chinese (Studies 1, 6, 9, 10, 12, 13).
2. Experiences and perceptions of culture, Intercultural competence in particular settings: studies explore how CFL learners encounter, interpret and negotiate “Chinese culture”, or how CFL learners adapt in local contexts (Studies 2, 5, 7, 8, 11).
3. Pedagogic text mediation: Included studies focus on CFL classroom discourse, such as humour and use of authentic texts as cultural carriers (Studies 3, 4).

The main cultural themes of the included studies are mapped onto the following pattern: A large group emphasises intercultural awareness, adaptation, and competence (Studies 2, 5, 7, 8, 10, 11, 12, 13). A second group addresses text and reading mediated Chinese cultural knowledge, including logogriphs and strategy use across CFL learners’ cultural backgrounds (Studies 1, 4, 6). One study focuses on classroom humour as a cultural, interactional resource (Study 3), and one specifies willingness to communicate as culturally shaped language use (Study 9). The aims of the included studies reflect these aspects emphases. Several studies aim to test associations or interactions, such as proficiency and their background for logogriphs; strategy use by their L1 depending on CSS or NCCS; predictors of willingness to communicate in the Chinese language; links between bicultural orientation, well-being and learning (Studies 1, 6, 9, 10, 12, 13). The other two studies aim to explore CFL learners’ perceptions and constructions of culture and intercultural competence (Studies 2, 8, 11), to analyse classroom practices, including humour and to evaluate authentic Chinese texts pedagogically (Studies 3, 4). Two studies aim to identify

cultural adaptation challenges and propose solutions for specific CFL learner groups in China, such as CFL learners in China (Studies 5, 7). The 13 included studies comprehensively address (1) how CFL learners understand cultural content, (2) how CFL learners experience and adapt in Chinese cultural contexts, and (3) how pedagogic choices, such as humour, authentic Chinese texts and CFL learners' cultural background variables, including their proficiency, background, and motivation, shape those processes. The design, sampling methods, and inclusion criteria of the selected articles are displayed in Table 3.8.

Table 3.8 *Design, Sampling Methods and Inclusion Criteria of Selected Studies*

Study Number	Design	Sampling Methods	Inclusion Criteria
1	Quantitative survey experimental study using comprehension task and ANOVA analysis	University CFL students recruited from university contexts or CFL programmes	CFL learners at a university in China, non-native, studied Chinese for ≥ 1 year, HSK levels, from specified cultural backgrounds
2	Qualitative ethnographic case study, interview-based thematic analysis	Participants recruited via personal contacts and purposive sampling through UK university Chinese departments	The participants were university students of Mandarin Chinese in the UK
3	Qualitative study (classroom observations and semi-structured interviews)	University students, participants selected based on their enrolment in ICS programmes and class availability for observation	Undergraduate students from a university in Sydney, Australia who participated in a four-week ICS program in Beijing, China
4	Qualitative case study, survey and interviews	University students recruited from a university-level Chinese reading course using authentic texts	CFL learners enrolled in a university Chinese course using authentic texts; completed at least one semester
5	Quantitative questionnaire survey with supplementary field investigation interviews-basic descriptive statistics	face-to-face, on-site data collection	Foreign students registered and studying at Chongqing, China. (Chongqing University, Chongqing Medical University, and Chongqing Normal University)
6	Mixed-methods (think-aloud protocols: quantitative frequency analysis; qualitative case analysis)	Convenience sampling from Chinese classes at three universities	University CFL learners in China, grouped by proficiency (elementary, intermediate, advanced) and L1 background (CCS vs. NCCS)
7	Quantitative cross-sectional questionnaire survey with statistical analysis	University students, On-site distribution and collection of paper questionnaires at the university, Sri Lankan students at CQNU	Sri Lankan students studying at Chongqing Normal University, China
8	Mixed methods (Phase 1: quantitative questionnaire; Phase 2: qualitative semi-structured interviews)	Paper-based and email questionnaire distribution, voluntary interview participation	Academic staff and overseas CFL students who were working or studying at Shanxi Provincial Universities (2014-2016)
9	Quantitative cross-sectional, survey-based correlational study with multiple regression analysis	questionnaires distributed in person, distributed in class, voluntary, convenience sampling of CSL students at Beijing universities	International adult CSL learners in Beijing, China enrolled in Chinese programmes, studied at least one year
10	Quantitative cross-sectional survey study using path analysis to	Survey form, Purposive sampling from designated Hong	The participants South Asian ethnic minority senior secondary students in Hong Kong (Pakistani, Filipino, Indian,

	test hypothesized causal models	Kong secondary school for South Asian minority students	Nepalese), enrolled in Chinese as a Second Language
11	Qualitative longitudinal ethnographic case study (semi-structured interviews, discourse analysis, artefacts)	Opportunity sampling, participants were recruited from Mandarin programmes at UK universities	UK university CFL learners, enrolled in Mandarin courses (undergraduate/postgraduate), studied at least one year, some with studying in China (most participants)
12	Quantitative correlational cross-sectional survey with regression analysis	Convenience sampling from Chinese language classes at two universities (China and US) Questionnaires distributed by course teachers during class	International students (Asian and Western) studying Chinese in China or the US, enrolled ≥ 6 months
13	Quantitative cross-sectional survey (ethnographic orientation) (interviews, case studies); ethnographic orientation	Convenience sampling of international students at two universities in Nanjing, China; questionnaires distributed during regular classes	International students studying Chinese in China for at least 6 months; enrolled in university-level programmes

In terms of the **research design** of the 13 included research studies, 46% (n=6) of the studies used a quantitative survey approach (Studies 1, 5, 7, 9, 10, 12). Additionally, 23% (n=3) used qualitative methods such as case studies or ethnography (Studies 2, 3, 11). A further 15% (n=2) adopted a mixed-methods approach, combining surveys with qualitative interviews or case analyses (Studies 6, 8). One study (8%, n=1) used a qualitative longitudinal method (Study 11), and another 8% (n=1) integrated a quantitative survey with ethnographic techniques (Study 13). In terms of the **sampling methods** of the 13 included research studies, 46% (n=6) studies used convenience sampling, which was the most common method (Studies 6, 9, 12, 13, and partly 3 and 11), typically through CFL and CSL university classes. Purposive sampling accounted for 15% (n=2) (Studies 2, 10), often through departmental contacts or targeted school populations. One study (8%, n=1) (Study 7) used census sampling, surveying the entire Sri Lankan student population at Chongqing Normal University. Personal contact recruitment was described in one study (8%, n=1) (Study 2), and mixed methods of recruitment (paper, email, and voluntary interviews) were employed in one study (8%, n=1) (Study 8). In terms of the **inclusion criteria reflected the focus on CFL and CSL learners in diverse contexts** of the 13 included research studies. Most included studies (77%, n=10) targeted university-level learners of Chinese as a foreign or second language (Studies 1, 2, 3, 4, 6, 7, 9, 11, 12, 13). One study (8%, n=1) focused specifically on Sri Lankan students in China, while another (8%, n=1) targeted South Asian ethnic minority secondary school students in Hong Kong. Additionally, one study (8%, n=1) included both academic staff and overseas students in Chinese universities, thereby broadening the participant base beyond learners alone. These learners typically had studied Chinese as a foreign language or Chinese as a second language for at least 6 months

or 1 year, and several included studies categorised them by proficiency level or cultural background (Studies 1, 6, 12, 13). One study (8%, n=1) examined South Asian ethnic minority secondary school students in Hong Kong (Study 10), and another (8%, n=1) included both overseas CFL and CSL students and academic staff at Shanxi Provincial Universities, China (Study 8). Across the included studies, criteria emphasised language enrolment status, duration of Chinese study, and, in some cases, cultural or regional background, such as CCS vs. NCCS, Asian vs. non-Asian groups. Table 3.8 shows that most studies were university-based, using quantitative, qualitative, or mixed methods. They focused on CFL/CSL learners' enrolment, study duration, and cultural or regional identity. Most employed survey-based designs with participants recruited from universities, based on enrolment in Chinese language programmes and study length, ensuring enough exposure to language and culture. The participants' demographics and sample size of the selected articles are displayed in Table 3.9.

Table 3.9 *Participants' Demographics and Sample Size of Selected Studies*

Study Number	Participants' Demographics	Sample Size
1	- University-aged adults 18 – 27 years old - CFL learners from four cultural groups: South Koreans, Southeast Asians, Western Caucasians, and Arabs - Different culture and proficiency - Native Chinese (L1) speakers as a control group	103 - 28 South Korean - 20 Southeast Asian (Thailand, Laos, Cambodia, Vietnam) - 22 Western Caucasian (the UK, Germany, Denmark, Australia, New Zealand) - 15 native Chinese speakers
2	- British, American, European 19 – 27 years old university students in the UK - Studying mandarin Chinese as a foreign language with no Chinese heritage	8 - 3 British - 1 American - 4 European
3	- Adults (18 years or older) - Learners of Chinese as a second language	40
4	- University-level students - CFL learners (non-native speakers of Chinese)	14 - 8 Male - 6 Female
5	- Adults (18 years or older) - Foreign students from multiple countries	295 responses received
6	- Adults (18 years or older) - CCS (Chinese Cultural Sphere) – native speakers of languages culturally and linguistically close to Chinese (e.g., Japanese, Korean) - NCCS (Non-Chinese Cultural Sphere) – languages culturally/linguistically distant from Chinese (e.g., English, French)	68 - 47 CCS - 21 NCCS
7	- Adults, 17 – 28 years old - Native Sinhalese or Tamil speakers from Sri Lanka; varied exposure to Chinese before arrival - Chinese Proficiency Prior to Arrival: HSK 1-2 (23.75%, n=19), HSK 3 (16.25%, n=13), Chinese training/optional courses (46.25%, n=37), None (13.75%, n=11)	80
8	Adults (18 years or older)	325 - 52 Academic staff

	• Students: Majority between 18–40 • Staff: Mainly 31–50 years old • Overseas students from various cultural and linguistic backgrounds studying Chinese as a foreign language; staff members at Chinese universities • Years of Teaching/Learning Chinese: Staff: Primarily 5+ years • Students: Primarily 1-3 years (20.9%, n=103) and 3-5 years (27.5%, n=75)	- 273 overseas students *Additional 25 participated in interviews (19 students, 6 staff)
9	• Adults (17–36 years) • Adult learners from diverse cultural and linguistic backgrounds learning Chinese as a second language at Beijing-based universities (Various countries/regions (Native languages: German, French, Finnish, Spanish, Turkish, Russian, Dutch, etc) • Non-native speakers of Chinese from diverse international backgrounds studying in China	• 162 - 61 Male - 101 Female
10	• Adolescents (13 years through 17 years) • Secondary school students • Bilingual or multilingual; primary ethnic backgrounds included Pakistani, Indian, Nepalese. Native languages included Urdu, Hindi, Punjabi, and Nepali. Most spoke English and/or Cantonese to varying degrees • Citizenship: 95% Hong Kong citizens • Place of Birth/Age of Immigration: 41% born in Hong Kong; 23% immigrated before age 5; 20% immigrated aged 5-10; 9% immigrated aged 11-15; 7% undisclosed. Average length of stay for immigrants: 9.8 years	• 111 - 51 Male - 49 Female
11	• Adults (20-27 years or older) • Mostly British (L1: English); Mostly from EU countries, predominantly Britain. Others from Spain, Italy, the Netherlands, Portugal, Belgium (French and Flemish), and one from the USA • Mix of students majoring in Chinese and those taking Chinese as part of another degree; most had spent at least one year studying in China • learning Mandarin Chinese as a foreign language	• 30
12	• Adults (18 years or older) • Diverse international student population (non-native English speakers), studying in the United States • Non-Asian (Western) Group: 35 students (e.g., USA, France, Germany) • Asian Group: 80 students (mainly South Korea, Japan; ~70% of sample, consistent with national statistics)	• 120 • 115 participants (after exclusions)
13	• Adults (18 years or older) • Mixed international backgrounds including students from Korea, Indonesia, France, and the US • The Western student group included students from English-speaking or European countries • The Asian student group included students, mainly from East Asian countries	• 118 - Of the 127 international students sampled, 118 completed • 127 sampled, 118 returned questionnaires (91% response rate). 3 excluded (not fitting groups), leaving N=115

Across the 13 studies, most participants were adults, and university students accounted for 92% (n=12), with only one study (8%, Study 10) focusing on adolescents in secondary schools. Sample sizes varied significantly, ranging from as few as eight participants (Study 2) to up to 325 participants (Study 8). Cultural background was a central focus in several studies. Comparisons between CFL learners from the Asian/Chinese Cultural Sphere (CCS) and those from the Non-Chinese Cultural Sphere (NCCS) or Western groups were conducted in four studies (Studies 1, 6, 12, 13). Other studies focused

on specific national or ethnic groups, such as Sri Lankan CFL learners (Study 7) and South Asian ethnic minority students in Hong Kong (Study 10). Broader international and mixed cultural samples were reported in multiple studies, including Western and European CFL learners in the UK (Study 2), international student populations in China (Studies 5, 9), and European or American learners in Mandarin programmes (Study 11). The demographic data indicate that CFL and CSL research has primarily concentrated on adult CFL/CSL learners in higher education, with only one study focused on younger learners' contexts (Study 10). Additionally, emphasis has been consistently placed on cultural background and proficiency levels as key variables in understanding Chinese language learning and cultural knowledge acquisition, while the diversity of learners' demographics, including nationality, ethnicity, age, and gender, highlights the broad range of contexts in which CFL learning has been studied. The conclusions, facilitators to learning culture and challenges to learning culture of the selected studies are displayed in Table 3.10.

Table 3.10 Study conclusions, Facilitators to learning culture and Challenges to learning culture of Selected Studies

Study Number	Study Conclusions	Facilitators to learning culture	Challenges to learning culture
1	Chinese proficiency and cultural background significantly affected logograph comprehension. Proficiency had stronger effects; higher-proficiency CFL learners used more strategies. CFL learners from culturally closer backgrounds performed more like native Chinese speakers.	Higher Chinese proficiency; relevant cultural backgrounds; integrated language and culture teaching.	Low proficiency; distant cultural backgrounds; lack of cultural knowledge; limited cultural focus in CFL teaching.
2	The study revealed that their experiences of 'Chinese culture' were influenced by their individual small cultures, including their nationality, ethnicity, and language journey. Learners' cultural understanding developed through small cultures, personal experiences, and reflections. Cultural learning was diverse, fragmented, and context-specific.	Language and culture connection; multi-perspective classroom content; personal curiosity and motivation; experiential learning; reflection and critical awareness.	Essentialist teaching and stereotypes; lack of personal relevance; limited classroom opportunities; cultural distance and misunderstandings; insufficient support for intercultural dialogue.
3	Humour strategies in the L2 (Chinese) classroom helped students challenge their stereotypical impressions of Chinese educational culture and facilitated their language use and learning motivation. Humour also increased motivation, reduced anxiety, and encouraged language use. Authors encourage CFL teachers to use humour strategically to foster enjoyment, classroom rapport, and deeper cultural understanding.	Humour integration in lessons; dialogic teacher and student relationships; engaging activities; positive emotional environment; cultural recontextualisation.	Tensions with traditional pedagogy; Cultural-Educational Tensionslack of teacher training in humour use; risk of offence; hierarchical power dynamics; limited generalisability.
4	Authentic texts enhanced motivation, language learning outcomes and cultural learning in CFL classrooms. nd that CFL teachers should incorporate authentic materials in their classroom instruction. Authors recommend larger-scale studies for further evidence.	Exposure to authentic contexts: Authentic texts; immersed learners in real-world cultural practices; integration of cultural themes in instruction: Integration of cultural	Language barriers; difficulty understanding cultural references; limited background knowledge; insufficient scaffolding; complexity of authentic texts.

		themes into language instruction: Cultural learning was enhanced when instructors deliberately integrated cultural notes and discussion topics into the reading process; learner engagement; teacher scaffolding: explaining culturally loaded language and providing background knowledge.	
5	Foreign students faced challenges adapting to Chinese culture, including language barriers, cultural unfamiliarity, and academic pressure.(due to lack of language practice), material culture (unfamiliarity with dialect, architecture, local food/spots), behavioural culture (insensitivity to local etiquette/behaviour/dialect), and Chinese traditional/local culture (lack of knowledge).Solutions include improving institutional support, strengthening Chinese language learning, and increasing meaningful cultural interactions.	Integration with Chinese students; access to authentic cultural experiences; timely cultural information; cultural activities; social support networks.	Limited Chinese competence; unfamiliarity with local dialects and customs; lack of traditional cultural knowledge; limited social integration; gaps in local information. Lack of prior knowledge about history, culture, and social systems.
6	L2 proficiency and L1 background influenced reading strategies. CCS learners had an advantage at elementary level. Decoding strategies remained difficult across all groups. CCS and NCCS learners used similar decoding strategies at intermediate/advanced levels.	CCS background supported character and word decoding due to prior cultural knowledge exposure to Chinese characters (e.g., Kanji/Hanja) at early stages; higher proficiency enabled broader strategies; explicit strategy training recommended.	Persistent decoding difficulties; NCCS disadvantage in early stages; plateau in strategy development; reliance on local strategies over global comprehension.
7	Sri Lankan students in Chongqing Normal University face challenges in adapting to Chinese culture and academic life, such as a lack of Chinese reading and vocabulary, difficulty in adapting to teaching, and less understanding of cultural customs, and students struggled with Chinese vocabulary, daily communication, teaching methods, and cultural knowledge. Suggestions included targeted vocabulary and cultural immersion activities.	Vocabulary/reading tasks; classroom use of Chinese; Integrating cultural experiences into language teaching; interaction with local students; contests and cultural events; multimedia and optional cultural courses; visits to local sites.	Lack of vocabulary and reading practice; limited communication in Chinese; difficulty with teaching styles; limited cultural knowledge and exposure; insufficient institutional support.
8	Intercultural awareness is essential in Chinese teaching and learning as a foreign language, and academic staff and overseas CFL students have positive attitudes toward intercultural understanding. The study also suggests enhancing intercultural awareness and competence in the context of Shanxi Provincial universities.	Integration of culture into courses; meaningful cultural context; exposure and interaction; authentic materials; real-life situations, short stories, and chatting with native people; cultural courses and activities; target language use.	Divided views on programme design; lack of intercultural focus; difficulty developing awareness; discrimination and sensitivity issues; lack of intercultural communication skills; motivation loss due to anxiety.
9	The study found that cultural, affective, and linguistic variables all had significant effects on adult Chinese as a second language learners' willingness to communicate (WTC) in Chinese. Specifically, intercultural sensitivity,	Longer stay in China; higher motivation; interaction attentiveness; higher proficiency; frequency use of Chinese.	Chinese speaking anxiety, shorter length of stay in China ; lower proficiency in public speaking contexts, lower Chinese proficiency level

	Chinese speaking anxiety, and Chinese learning motivation were the most significant predictors of willingness to communicate in Chinese.		
10	Bicultural orientation predicted better Chinese language learning outcomes among South Asian students in Hong Kong. Integration influenced outcomes via well-being and engagement. The utility of acculturation orientations depends on sociocultural context (e.g., discrimination levels, ethnic community cohesion). Conceptualising the identity-L2 learning relationship requires considering both linguistic engagement and psychosocial adjustment factors.	Bicultural orientation; higher bicultural competence; higher self-esteem and confidence; Higher frequency of contact with Chinese peers; Higher frequent Chinese language use.	Low Chinese proficiency; low Chinese use; limited peer contact; stronger identification with heritage culture; discrimination and social inequality; restricted school opportunities.
11	Developing intercultural competence is an essential element in learning Mandarin, and this can be achieved through an ecological perspective on language learning. The study highlights the importance of recognising each student's individuality and cultural background and the need for teachers to be sensitive to this in their teaching approach. The study also emphasises the importance of incorporating insights from leading theorists of complexity theory in relation to language learning.	Immersion in China; Studying and living in China; personal motivation; reflection on experiences; teacher guidance on usage; awareness of diversity; ecological teaching approach.	Language distance; social isolation; stereotyping; misunderstandings; historical/political sensitivities; difficulty navigating cultural diversity; outsider status despite proficiency.
12	Integrative motivation plays a primary role in academic adaptation, and a positive affective disposition towards the Chinese community can bring about good adaptation amongst foreign students regardless of their ethnicity when studying Chinese in Mainland China. It also suggests that academic adaptation should be regarded as an important facet of the adaptation of international students that is worth further empirical research.	High integrative motivation; Higher Chinese Language Proficiency; immersion context in China; Studying in China provided immersion opportunities.	High instrumental motivation (less effective); Lack of Integrative Motivation; Lower Chinese Language Proficiency; perceived cultural distance; lack of integrative motivation; Contextual Challenge.
13	Motivational factors, cultural correlates, and language anxiety were significant predictors of second language proficiency among international students learning Chinese in China. The study also found that cultural distance was a significant predictor of motivation and language anxiety. Successful language learning and cultural adaptation depend heavily on learner motivation, attitudes towards Chinese, and willingness to engage in local culture. Integrative motivation and positive attitudes facilitated smoother adaptation.	High integrativeness; strong motivation; low language anxiety; openness to communication; persistence over time.	High language anxiety; reluctance to speak (face-saving); intermediate stage anxiety peaks; demanding nature of Chinese; perceived cultural distance; classroom culture differences.

Three main areas are identified as significant focus: the influence of proficiency and cultural background, the role of motivation and identity, and the importance of pedagogy and learning context.

Study conclusions: Language proficiency and cultural background consistently shaped CFL learners' Chinese cultural knowledge and comprehension. A few studies showed that higher Chinese language proficiency and integrative motivation supported them with better outcomes, while cultural proximity, such as CCS learners, gave an early advantage (Studies 1, 6, 7, 9, 12, 13). Studies focusing on specific CFL learner groups, such as Sri Lankan students (Study 7) and South Asian minorities in Hong Kong (Study 10), highlighted persistent difficulties with adaptation, while broader international CFL group samples in Studies 2, 5, 8, and 11 revealed fragmented but dynamic cultural learning processes. Some studies examining classroom practices emphasised the effectiveness of the use of humour and authentic materials in enhancing cultural understanding, motivation and challenging stereotypes (Studies 3, 4). These findings of the included studies highlight that Chinese language and cultural learning are shaped by a combination of linguistic, cultural, and psychological factors, moderated by learners' contexts.

Facilitators to Learning Culture: Across the 13 included studies, the most identified cultural learning facilitators were consistently identified. For example, CFL learners' higher linguistic proficiency levels, due to the cultural background, cultural familiarity, and integrative motivation, were highlighted in many studies (Studies 1, 6, 9, 12, 13). The second most facilitators to learning Chinese culture were experiential learning through immersion, including studying in China or participating in cultural activities, which were another recurring facilitator across the five included studies (Studies 5, 7, 8, 11, 12). Also, engagement with peers and native speakers in Chinese showed support for integration and communication for CFL learners (Studies 5, 7, 8, 10). Also, CFL classroom factors, such as humour (Study 3), authentic texts (Study 4), and ecological or reflective teaching approaches (Studies 2, 11), further facilitated CFL learners' Chinese cultural understanding. These cultural learning facilitators all together emphasise that language learning is enhanced when linguistic, cultural, motivational, and contextual supports are combined.

Challenges to Learning Culture: Meanwhile, the most common challenges to learning Chinese culture, which were reported as limited proficiency and high language anxiety, often hinder effective communication and cultural comprehension and understanding (Studies 1, 6, 7, 9, 12, 13). Also, CFL learners' cultural distance and stereotyping were shown as challenges, as many studies noted, particularly among Western

or NCCS learners compared with CCS groups (Studies 1, 2, 6, 11). On the other hand, a few studies identified institutional or pedagogical limitations, including insufficient cultural focus in teaching materials (Studies 2, 4, 5, 7, 8), traditional educational practices that conflicted with interactive or innovative approaches (Studies 3, 11), and inadequate intercultural support systems (Studies 5, 7, 8, 10). Broader contextual challenges of learning Chinese culture, such as discrimination, outsider status, and social isolation, were also identified (Studies 10, 11). These findings highlight how linguistic, cultural, pedagogical, and social barriers interact to complicate CFL learners' adaptation and cultural knowledge acquisition comprehensively.

The 13 included studies show that successful Chinese language and culture learning depends on a dynamic interplay of their linguistic proficiency, cultural background, personal motivation, pedagogy, and context. Cultural learning facilitators, such as integrative motivation, use of authentic materials, humour, reflective learning, and intercultural engagement, can support CFL learners' cultural learning progress. However, CFL learners' Chinese cultural learning challenges, including language anxiety, cultural distance (Western, or non-Chinese sphere country), stereotyping, and limited institutional or pedagogical support, continue to be the obstacle to adaptation. The findings suggest that effective Chinese cultural knowledge acquisition for CFL learners, instruction requires linguistic training and culturally informed pedagogy and supportive environments that address CFL learners' diverse cultural backgrounds and experiences.

3.4.3. Descriptive Summary of Numerical Findings

This section reports numerical patterns from the data overview of 13 included studies, covering recruitment location, sample sizes, and research designs. Figure 3.2 displays where each study of the included studies was conducted, and participants were recruited.

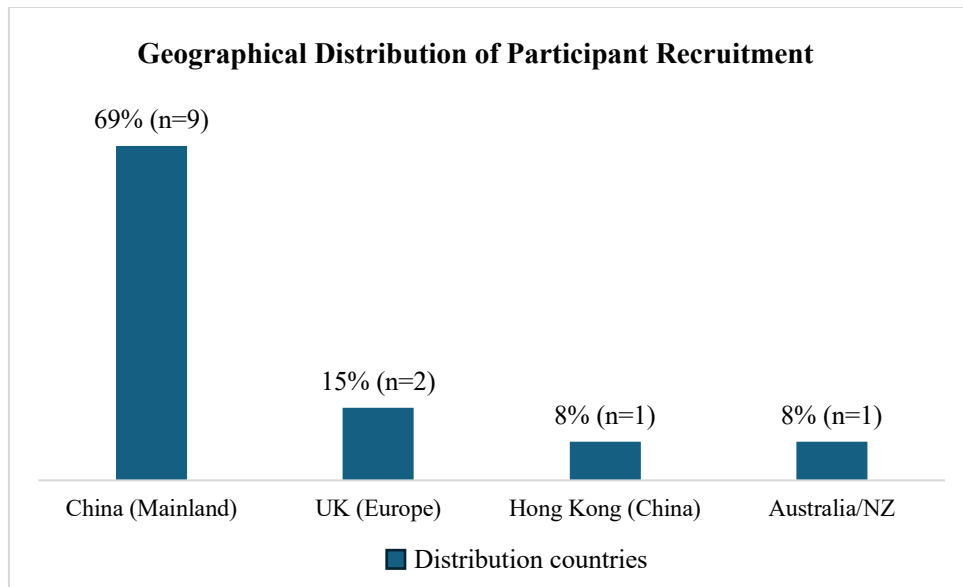


Figure 3.2 Geographical Distribution of Participant Recruitment Across Included Studies

Most samples were recruited in mainland China, Accounting for 69% (n=9), followed by the United Kingdom/Europe, accounting for 15% (n=2), participants who were pursuing education in European countries, particularly the United Kingdom. Additionally, 8% (n=1) of participants were enrolled in educational institutions in Hong Kong (China), and another 8% (n=1) were studying in Australia or New Zealand. Figure 3.3 illustrates the distribution of sample sizes across the 13 studies included in the scoping review

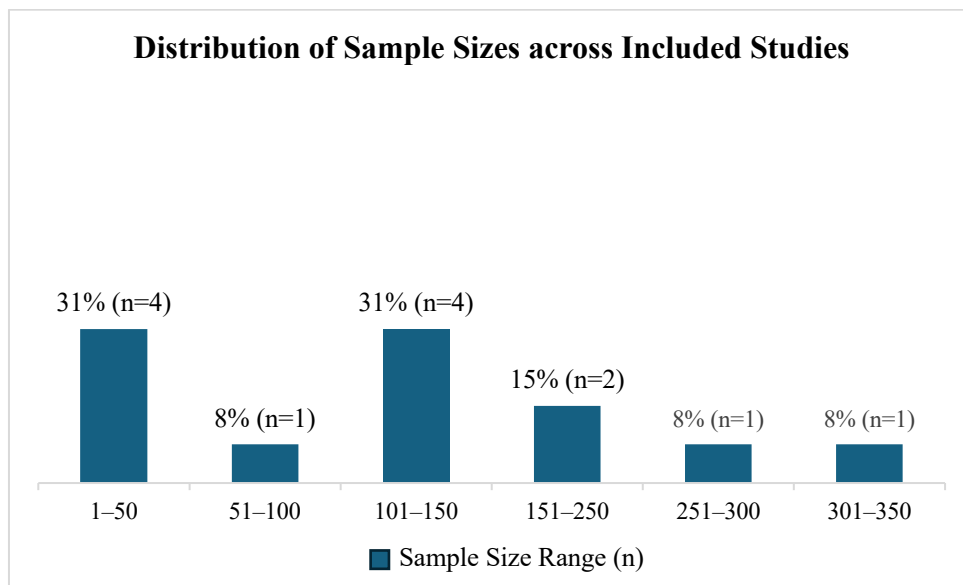


Figure 3.3 Sample Size Distribution Across Included Studies

Sample sizes were mostly small to mid-range. The most frequent sample sizes were between 1 - 50, accounting for 30.8% (n=4) and 101 - 150, also accounting for 30.8% (n=4).

Studies with sample sizes of 151 - 250 accounted for 15% (n=2), 51 - 100 accounting for 8% (n=1), 251 -300 accounting for 8% (n=1), and 301 - 350 also accounting for 8% (n=1). This pattern of variation in sample size reflects diverse methodological scopes and research capacities across the included studies, with a predominance of small to medium-sized cohorts. Figure 3.4 displays the distribution of research methods employed across the 13 studies included in the review.

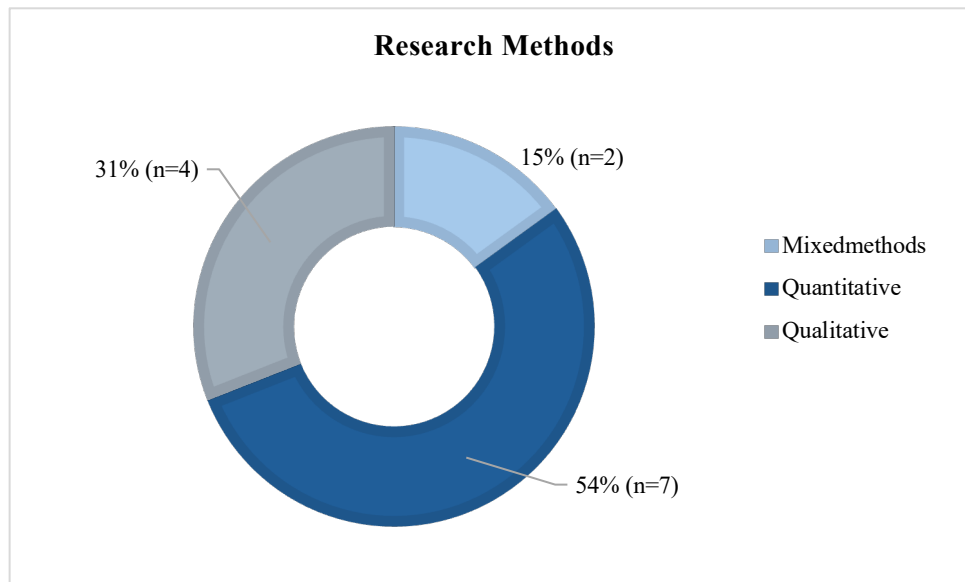


Figure 3.4 Research Methods Used in Included Studies

Across the 13 selected studies, the majority of them used quantitative survey-based designs, accounting for 54% (n=7), mainly using questionnaires and statistical analyses. Qualitative approaches accounted for 31% (n=4), mainly employing interviews, classroom observations, and ethnographic case studies. A smaller proportion of studies adopted a mixed-methods design, accounting for 15% (n=2), combining quantitative and qualitative data collection and analysis. This distribution indicates that the largest research approach was quantitative approaches, while qualitative and mixed methods were less common but provided deeper insights into CFL learners' cultural learning and their experiences. Figure 3.5 displays the year of research published across included studies.

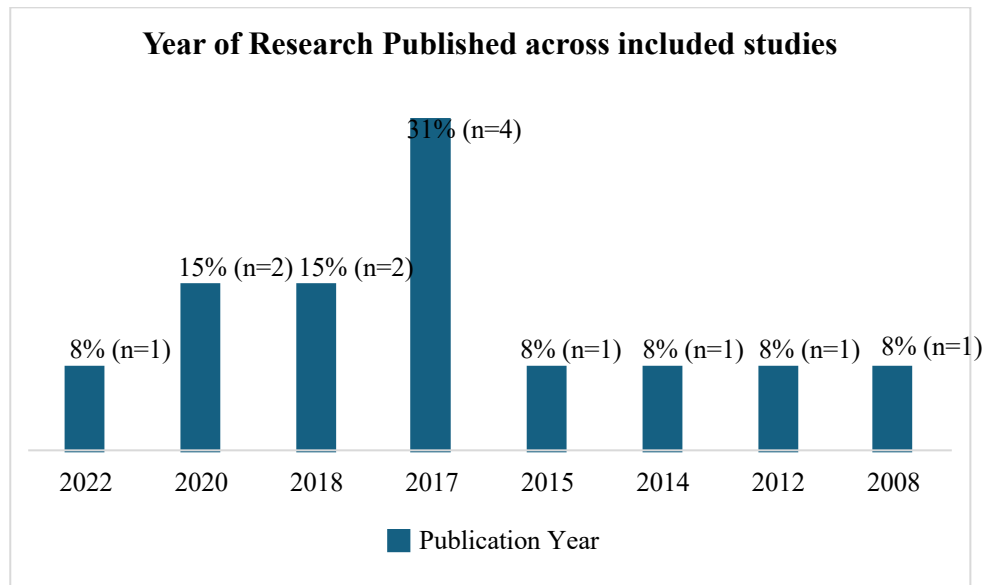


Figure 3.5 Year of Research Published Across Included Studies

The Publication concentrated in the mid-to-late 2010s, between 2015 - 2020, accounted for 69.2% (n=9), with a peak in 2017, accounting for 31% (n=4). One study was published each year in 2008, 2012, 2014, 2015, and 2022 (each 7.7%, n=1), showing a rise in interest during the late 2010s and a decline in very recent publications. The following section presents a descriptive summary of reflexive thematic analysis findings across 13 included studies.

3.4.4. Descriptive Summary of Reflexive Thematic Analysis Findings

This section presents the findings derived from a reflexive thematic analysis (RTA) of the included studies (n=13), aiming to explore how CFL learners gain knowledge of the Chinese culture, and to what extent CFL learners are able to identify cultural aspects inherent in the Chinese language. The analysis was conducted using NVivo 12 (QSR International, 2018) and followed a reflexive thematic process to ensure that themes were generated inductively and grounded in the empirical data. Each theme is detailed below, citing the relevant studies by their number. The discussion references evidence from the reviewed literature. Table 3.11 displays the six overarching themes that were identified across the included studies.

Table 3.11 Identified Themes across Included Studies

Theme No.	Themes	Study Number	% (n)	Summary
1	The Role of Intercultural Awareness and Adaptation	2, 5, 7, 8	30.7% (n=4)	Cultural understanding shaped by social context, exposure to customs, and recognition of difference

2	Effect of Motivation, Adaptation on Language Proficiency	10, 12, 13	23% (n=3)	Language success linked to integration, identity, motivation
3	Reading Strategies Impact on Language Proficiency	1, 6	15.3% (n=2)	Strategy use influenced by background knowledge and culture
4	Authentic Pedagogical Materials Impacting Language Learning	3, 4	15.3% (n=2)	Texts and humour enhanced cultural and linguistic engagement
5	Variable Psychological Reasons Affecting Communication in Chinese	9	7.6% (n=1)	Anxiety, self-esteem affected CFL learners' willingness to use Chinese and adopt Chinese culture
6	The Importance of the Construction of Intercultural Competence	11	7.6% (n=1)	Language learning linked to navigating intercultural spaces

Theme 1: The Role of Intercultural Awareness and Adaptation

This theme was identified as the most prevalent, accounting for 30.7% (n=4) of the included studies (2, 5, 7, 8). Findings indicated that CFL learners' ability to comprehend and adapt to Chinese culture was significantly shaped by their awareness of cultural differences and their exposure to diverse sociocultural environments. Participants' experiences were influenced by multiple factors, including varying social backgrounds, cultural systems, and customs encountered in the host culture. CFL Learners were found to experience challenges in understanding both tangible and intangible elements of Chinese culture. This included difficulties engaging with aspects of material culture such as architectural styles, historical landmarks, and local transportation systems. These findings suggested that a lack of familiarity with local cultural symbols often impeded CFL learners' successful integration and adaptation to the Chinese cultural environment. Also, several studies identified the role of cultural awareness in enhancing communication. Instead of focusing on similarities, CFL learners had to grasp cultural differences to communicate successfully. Language was identified as being deeply embedded within culture, with findings indicating that linguistic success was often contingent upon CFL learners' level of cultural understanding. The need for educational materials that facilitated cultural learning was also highlighted. Studies reported that CFL learners benefited from exposure to authentic cultural content, such as information about the Chinese traditional festivals (e.g., Dragon Boat Festival), daily customs, Tai Chi (太极), and other culturally rich practices. It was reported that CFL learners found it particularly difficult to interact with local Chinese people without an adequate understanding of these cultural elements, and that cultural learning should go beyond linguistic instruction to include deeper engagement with social contexts and cultural practices. Additionally, findings showed that CFL learners perceived

Chinese culture as complex and difficult to grasp. This perception was often linked to their limited experiences with Chinese social systems and cultural dynamics. CFL learners reported that their understanding of Chinese culture improved with increased intercultural encounters and reflective engagement. Intercultural awareness was thus identified as a key factor influencing both linguistic development and successful cross-cultural adaptation.

Theme 2: Effect of Motivation, Adaptation on Language Proficiency

This theme was identified in 23% (n=3) of the included studies (10, 12, 13). Findings indicated that CFL learners' levels of motivation, degree of social adaptation, and extent of cultural integration were closely linked to their Chinese language proficiency (HSK). Across the reviewed studies, learners with higher motivation and stronger adaptation to the host environment tended to achieve better linguistic outcomes, while those with lower cultural interest or weaker adaptation generally reported reduced proficiency. Differences in language performance were also identified between CFL learners from varying cultural and linguistic backgrounds. Non-Asian background CFL learners, for example, reported higher levels of integration motivation, sociocultural adaptation, and proficiency in Chinese compared with Asian background CFL learners. The variation was partly attributed to differences in cultural interest, with many Asian background CFL learners reporting that their motivation for studying Chinese was not driven by an interest in Chinese culture. An integrated acculturation orientation, where CFL learners actively engaged with both their native and target cultures, was identified as supporting higher self-esteem, increased confidence in language use, and stronger participation in the target language community. Such integration appeared to contribute positively to both linguistic achievement and psychosocial well-being. CFL learners from regions with a more significant linguistic and cultural distance from Chinese, such as Western countries, often faced higher levels of language anxiety, which negatively impacted their proficiency. Despite sometimes possessing strong linguistic aptitude or experience with other foreign languages, these learners reported greater difficulty in adapting to the Chinese linguistic and cultural context. The level of integration into the host culture was found to have a direct and positive influence on Chinese language proficiency (HSK), underscoring the interdependence of motivation, adaptation, and cultural engagement in achieving successful language outcomes.

Theme 3: Reading Strategies Impact on Language Proficiency

This theme was identified in 15% (n=2) of the included studies (1, 6). The findings indicated that CFL learners' cultural and linguistic backgrounds shaped their approaches to reading Chinese, influencing both the type and effectiveness of the strategies applied. In comparative analyses between CFL learners from the Chinese cultural sphere (CCS) and the non-Chinese cultural sphere (NCCS), both groups were found to employ similar types of character and word decoding strategies. However, CFL learners from the CCS demonstrated more significant efficiency in processing Chinese characters and words, reflecting the advantages of prior exposure to the orthographic and morphological features of the language. This linguistic familiarity was particularly evident in the accurate recognition of character structure and spelling. The use of reading strategies was also closely linked to linguistic proficiency levels. CFL learners with advanced Chinese language proficiency more frequently adopted semantic strategies that drew on their knowledge of Chinese culture, enabling them to integrate contextual and cultural cues into comprehension. By contrast, Western CFL learners, who often lacked such cultural familiarity, tended to rely on visual processing strategies, focusing primarily on the shapes and visual patterns of characters. These differences extended to specific tasks, such as solving Chinese logogriphs, where higher-proficiency CFL learners were more likely to activate culturally informed semantic knowledge, while Western participants employed visual approaches. Further distinctions were observed between cultural groups: Korean and Southeast Asian CFL learners more often activated semantic knowledge associated with Chinese, while Western CFL learners displayed a preference for visually oriented strategies. These findings suggest that both language proficiency and cultural background substantially influence the reading strategies employed, with culturally familiar learners able to draw on deeper semantic associations, and culturally distant learners more reliant on surface-level visual recognition.

Theme 4: Authentic Pedagogical Materials Impacting Language Learning

This theme was identified in 15.3% (n=2) of the included studies (3, 4). The findings indicated that exposure to authentic pedagogical materials enhanced both linguistic competence and cultural understanding among CFL learners, and it helped them understand how language is used in the real world. CFL learners who engaged with real-world and real-situation Chinese texts demonstrated improved reading comprehension, more significant retention of vocabulary, improved comprehension and cultural awareness, and more effective application of grammatical structures in practical contexts. Also, CFL

learners believed that interest and enjoyment in class had increased. The incorporation of authentic materials, authentic Chinese texts in class, affects learners' perception, and all participants responded positively. Chinese reading skills improved, knowledge of grammar and vocabulary was used in real situations, and an improved understanding of Chinese culture was emphasised. As such, for example, real texts with natural backgrounds rather than unnatural, simplified, and formal textbooks, the contemporary news articles, traditional literary excerpts, and culturally specific narratives also deepened learners' awareness of cultural norms, values, and historical contexts embedded in the language. Authentic materials not only reinforced linguistic skills but also stimulated interest in Chinese culture, thereby increasing learners' motivation to engage with the language beyond the classroom. The integration of cultural content, such as traditional festivals, idiomatic expressions, and social customs, enabled CFL learners to connect linguistic forms to their cultural meanings, which is essential for accurate interpretation and use in real-life communication. Humour, also as an authentic tool, plays a multifaceted role in the context of Chinese as a Foreign Language (CFL) learning in the classroom, contributing significantly to linguistic proficiency (HSK) and cultural understanding. By incorporating humour into the CFL learning classroom, CFL learners can create a more relaxed atmosphere that reduces their anxiety, fosters motivation, and encourages engaging in Chinese activities and positive interactions among all participants. Also, humour acts as a powerful social tool that promotes social cohesion, helping CFL learners forge stronger connections through shared cultural references and collective experiences. Recognising and effectively creating culturally specific humour, such as Chinese idioms, metaphors, or witty anecdotes, necessitates a deep understanding of language nuances and cultural contexts, serving as an insightful, authentic tool for CFL learners' intercultural competence and as a developmental resource to enhance their knowledge of cultural subtleties. Humour significantly enriches the Chinese learning process by bridging the gap between formal, textbook language skills and real-world, context-sensitive communication, ultimately fostering more authentic and effective intercultural exchanges in Chinese.

Theme 5: Variable Psychological Reasons Affecting Communication in Chinese

This theme was identified in 8% (n=1) of the included studies (9) and examined the influence of psychological variables on CFL learners' willingness to communicate in Chinese (WTCC). Quantitative analyses indicated that Chinese-speaking anxiety was the strongest negative predictor of WTCC across diverse contexts and audiences, with higher

anxiety levels corresponding to lower reported willingness to engage in spoken Chinese. Length of stay in a Chinese-speaking environment was found to be a positive predictor of WTCC in most situations, suggesting that extended exposure to the target language environment was associated with a more significant willingness to participate in spoken interactions. Motivation to learn Chinese demonstrated a positive predictive relationship with WTCC in some contexts, particularly in interpersonal and formal interactions. Intercultural awareness was also positively linked to WTCC in group discussions, indicating that more significant attention to intercultural dynamics coincided with increased communicative engagement. Chinese language competence, as indicated by proficiency level, was a significant positive predictor of CFL learners' WTCC in public speaking contexts, where higher proficiency aligned with greater willingness to address an audience in Chinese. In contrast, no statistically significant relationship was found between WTCC and certain cultural sensitivity measures, and no clear association was observed between WTCC and proficiency when measured by general HSK levels rather than exact scores. The findings indicated that CFL learners' willingness to communicate in Chinese is shaped by the combined effects of affective factors (particularly speaking anxiety), linguistic proficiency (HSK), motivational orientation, intercultural awareness, and length of cultural immersion, with specific variables exerting greater influence in particular communicative contexts.

Theme 6: The Importance of the Construction of Intercultural Competence

This theme was identified in 8% (n=1) of the included studies (11) and focused on how CFL learners develop intercultural competence (IC) during their Chinese language learning. The concept of 'language distance' refers to understanding all the linguistic and social spaces that each student studying Chinese must overcome. Findings indicated that CFL learners perceived IC as an essential component for effective communication in Chinese, linking it directly to their ability to recognise and appropriately respond to cultural elements embedded in the language. CFL learners frequently associated language learning with gaining access to deeper cultural understanding, expressing that without cultural knowledge, communication in Chinese would remain superficial and constrained. Some CFL learners described language as a bridge to engaging with local people in locally accepted ways, emphasising that knowledge of both "formal culture" (e.g., history, literature, politics) and "deep culture" (e.g., social norms, everyday behaviours, non-verbal communication) was necessary to avoid misunderstandings and to integrate effectively into

Chinese-speaking environments. Quantitative and qualitative findings suggested that learners with higher levels of IC were more adept at interpreting implicit cultural meanings in expressions, idioms, and pragmatic forms. They also adjusted their speech style, register, and communicative strategies to match specific social contexts, showing greater adaptability in intercultural interactions. In contrast, learners with lower IC reported barriers when encountering unfamiliar cultural references, even when their linguistic proficiency was sufficient. Data also indicated that the development of IC was shaped by individual learner backgrounds, personal goals, and prior intercultural encounters. Exposure to diverse Chinese-speaking environments, both in China and abroad, was identified as a significant factor in enhancing IC. This facilitated learners' capacity to identify and respond to cultural nuances in the Chinese language, supporting more meaningful and culturally appropriate communication.

3.4.5. Summary of Key Findings

The synthesis of findings from the included studies addressed the scoping review question: How do learners of Chinese as a foreign language (CFL) gain knowledge of the Chinese culture, and to what extent are CFL learners able to identify cultural aspects inherent in the Chinese language? The review incorporated studies on intercultural awareness and cross-cultural adaptation, on motivation, linguistic and cultural adaptation, and language proficiency, on reading strategies from a learner perspective, on authentic texts and humour in language learning from a pedagogical perspective, and on psychological variables affecting communication in Chinese and on the construction of intercultural competence. Quantitative results indicated that cultural knowledge acquisition and the ability to recognise cultural aspects in the Chinese language were influenced by a combination of CFL learners' linguistic proficiency (HSK), motivation, reading strategies, exposure to authentic materials including humour, psychological factors, and the development of intercultural competence. Studies reported that when explicit cultural instruction was integrated into language teaching, a substantial proportion of CFL learners perceived conspicuous improvements in their ability to interpret Chinese cultural references and apply them in communication with Chinese people.

The thematic analysis identified six interconnected themes. First, intercultural awareness and adaptation were foremost, with CFL learners who reflected on cultural similarities and differences showing greater ability to interpret cultural elements embedded in linguistic forms. Second, motivation and adaptation influenced CFL learners' proficiency and

willingness to engage in culturally meaningful communication. Third, reading strategies supported the interpretation of culturally nuanced texts, particularly when CFL learners drew on semantic or visual processing approaches relevant to their cultural background. Fourth, exposure to authentic materials, such as Chinese films, literature, and news media, enhanced Chinese language competence and facilitated the recognition of culturally specific expressions. Fifth, psychological variables, including communication anxiety and willingness to communicate in Chinese, shaped CFL learners' readiness to apply cultural knowledge in real-world interactions. Finally, the construction of intercultural competence, encompassing formal cultural knowledge and "deep" culture, was identified as important for effective communication in varied social contexts. Synthesising these results identified a common progression in the CFL learning journey. CFL learners often begin by developing intercultural awareness, encountering complexities and challenges that could generate cultural conflict or reduce their motivation. Through behavioural adaptation and increased engagement with authentic cultural sources, CFL learners gradually adopted aspects of Chinese (way of) thinking, adjusted their attitudes, and shifted perspectives. These changes fostered more significant self-confidence, stronger connections with native Chinese speakers, and sustained motivation, ultimately supporting higher levels of language proficiency (HSK) and a deeper understanding of Chinese culture. These findings suggest that CFL learners gain cultural knowledge most effectively when language learning is integrated with sustained cultural engagement, opportunities for authentic interaction, the use of authentic materials, and explicit guidance in recognising and interpreting cultural content. However, there remains a need for further empirical research to clarify cultural level differences among CFL learners from diverse backgrounds and to refine the operational definition of "culture" within the CFL learning context.

3.5 Discussion

This scoping review addressed the question *"How do learners of Chinese as a foreign language (CFL) gain knowledge of the Chinese culture, and to what extent are CFL learners able to identify cultural aspects inherent in the Chinese language?"* Figure 3.6 displays the Facilitators and challenges influencing Chinese as a Foreign Language (CFL) learners' acquisition of cultural knowledge.

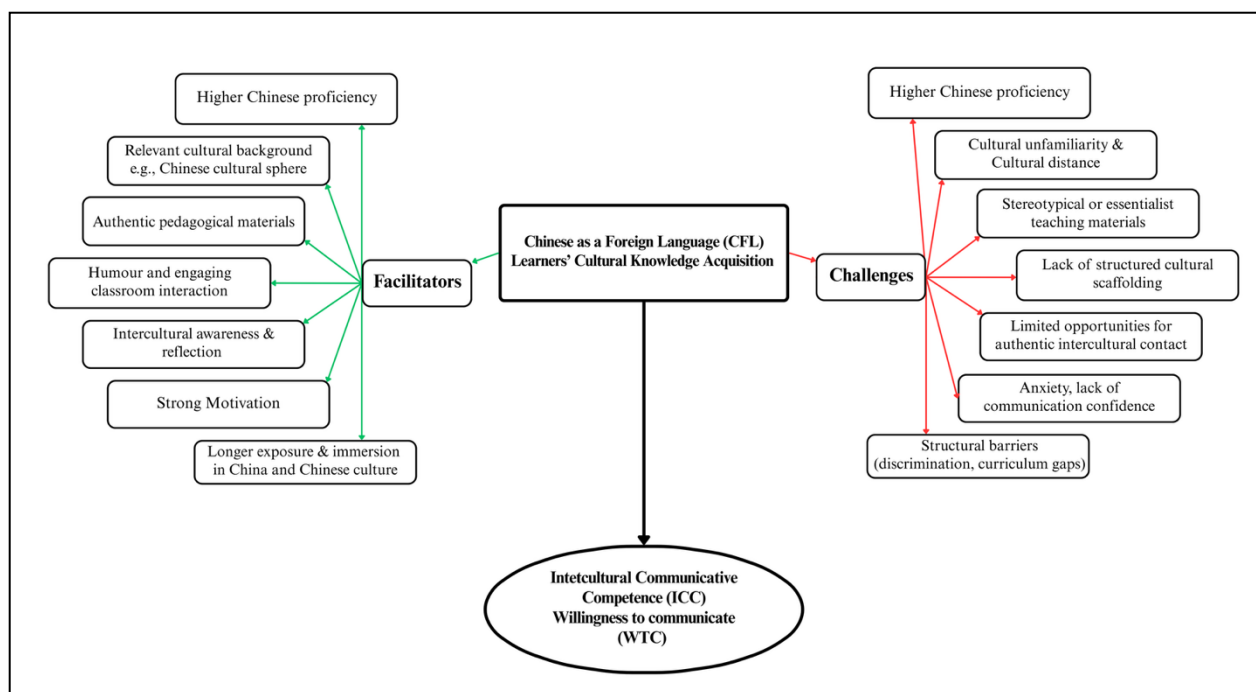


Figure 3.6 Facilitators and Challenges Influencing Chinese as a Foreign Language (CFL) learners' acquisition of Cultural Knowledge

The figure demonstrates how learners' levels of cultural knowledge, intercultural competence, and willingness to communicate are influenced by various factors. Identified across 13 included studies, facilitators such as linguistic proficiency, cultural familiarity, Chinese cultural sphere, use of authentic materials, intercultural engagement, strong motivation, classroom humour, and immersive learning and challenges like limited language proficiency, cultural distance, stereotyping, lack of scaffolding, lack of contact opportunities, higher anxiety, and structural barriers. The following section presents the numerical synthesis identified three key findings, followed by six thematic findings from the reflexive thematic analysis of this scoping review.

3.5.1. Numerical findings

There were three key findings identified in the numerical analysis. **The first finding was geographic concentration.** The included studies were predominantly conducted and published in mainland China, which accounted for 69% (n=9), but this was favourably limited to foreigners who were currently in mainland China, learning Chinese as a foreign language. Only a few studies were conducted in Europe and other regions. All the literature gathered from the European continent originated exclusively from the UK. Europe, with its diverse population and many countries where Chinese language classes are offered, presents a unique landscape for intervention, which has much more potential for

improvement in the context of CFL. However, there is a conspicuous shortage of research on Chinese as a foreign language (CFL) learners, suggesting an inadequate supply compared to the demand for comprehensive investigations. This concentration limit can make it harder to compare results across different regions and apply findings broadly, reflecting the fragmented and context-specific nature of the evidence mentioned earlier in the background literature. **The second finding was research design and sample size.** The included studies' Survey-based methodologies were the most common 54% (n=7). Moreover, most studies used a small, targeted sample, such as a scale of 1-50, accounting for 31% (n=4), and 101-150, representing 31% (n=4). This aligns with prior observations that CFL research is often small-scale and single-factor, underscoring the need for larger-scale and multiple-factor studies (see 3.2 and 3.4). The limited scope of most studies calls for future investigations to broaden participant numbers, enabling comprehensive quantitative data collection for statistically significant findings. Future research should explore possible differences in second and foreign language adaptation or sociocultural adaptation among international students from various countries, considering the different influences of each student's country of origin on their experiences (Yu & Downing, 2012a). **The third finding was time and temporal clustering.** The included studies' publication activity clustered in the mid-2010s to 2020, with limited longitudinal work. This research pattern reinforces the need for updated and sustained designs capable of explaining how CFL learners' cultural knowledge develops over time, including their environmental backgrounds (Figure 3.2 and Figure 3.4).

3.5.2. Reflexive thematic findings

There were six key findings identified following the reflexive thematic analysis that was carried out on the data. **The first key finding was as follows:** Intercultural awareness and adaptation. Across the included research studies, CFL learners who explicitly recognised cultural differences and negotiated new practices demonstrated stronger recognition of cultural meanings embedded within language. This finding aligns with the perspective that cultural interpretation in CFL depends on form and intercultural sensitivity and familiarity with context (Moloney & Xu, 2015; Wang, 2017a). **The second key finding was as follows:** Motivation and adaptation linked to proficiency. Evidence shows that having integrative motivation and adapting well to the sociocultural environment can boost positive outcomes. Conversely, factors like cultural and linguistic differences, along with anxiety, can create more challenges, especially for CFL learners who are more distant from

Chinese in terms of culture and language. This aligns with research studies on motivation and adaptation in L2 and CFL contexts (Dörnyei, 2001; Yu & Downing, 2012b; Yu & Watkins, 2008) and aligns with the perspective that emotional and contextual factors influence access to opportunities for cultural learning. **The third key finding was as follows:** Reading strategies and cultural background. Strategy profiles differed based on proficiency and background: CCS learners often used decoding and semantic strategies, while NCCS learners more frequently depended on visual strategies processing. These differences affected how people understood culturally rich texts, aligning with comparative results on strategy use in CFL (Ke & Chan, 2017; Wang & Wang, 2022). **The fourth key finding was as follows:** Authentic materials and classroom mediation. CFL learners supported cultural recognition and engagement when accompanied by explicit cultural mediation by exposure to authentic materials such as Chinese texts, film, and combined humour. This finding aligns with broader claims in applied linguistics regarding authenticity and the design of materials, as well as evidence specific to CFL classrooms (Huang, 2018; Tong & Tsung, 2020; Zhang et al., 2017a). **The fifth key finding was as follows:** Psychological variables and communication. Anxiety and willingness to communicate in the Chinese language shaped whether CFL learners used cultural knowledge in real-life interactions. This pattern is compatible with established models linking affect, confidence, and participation (Kasbi & Elahi Shirvan, 2017; MacIntyre et al., 1998; Meihua, 2017), indicating that psychological factors influence how individuals access and use culturally embedded language.

The sixth key finding was as follows: Building intercultural competence (ICC). Findings highlighted intercultural competence as a key outcome that combines formal and deep cultural knowledge for appropriate use of Chinese across different contexts. This emphasises the core importance of intercultural competence and its role in the context of foreign language learning (Atay et al., 2009; Nemati et al., 2014). International CFL learners experience Chinese culture through communication with Chinese people and living in China. The researchers cleared the burden that international students face many difficulties in adapting and recognising cultural differences, regardless of their location, and these challenges appear to directly impact their Chinese language learning, particularly in their daily lives. Also, this influence was independent of the length of time one lived in China. Second, the influence of language learning and cultural learning differed greatly depending on students' backgrounds, especially between the groups in attitude and learning motivation, linguistic strategy that had been divided into Asian and non-Asian or Asian and

Western groups learning Chinese as a foreign language. There were difficulties in adapting to and accepting Chinese culture due to students' cultural differences, and the amount of influence on Chinese language study differed depending on the students' own background. Integrating language and culture explicitly within CFL learning settings, curricula are required, and task and assessment design should include recognition of cultural references, pragmatic norms, and meaning-in-context. CFL pedagogies and learning methods should differentiate support based on CFL learners' backgrounds, scaffold authentic materials with cultural mediation, and address psychological barriers to culturally situated communication. This concentration limit can make it harder to compare results across different countries, regions and apply findings broadly, reflecting the fragmented and context-specific nature of the evidence mentioned earlier in the background literature (3.2 Literature Background to the Scoping Review). These findings, when considered alongside the identified methodological limitations, underscore the necessity for a comprehensive, multi-factor quantitative investigation into CFL learners' cultural knowledge, which this dissertation further explores in the subsequent chapters.

3.6 Conclusion

This scoping review mapped what is currently known about **how CFL learners gain knowledge of Chinese culture and the extent to which they can identify cultural aspects embedded in the language** published between 2008 and 2022. By synthesising thirteen final included studies across contexts and methods, the review provided a broad picture of the field of CFL and clarified areas where evidence is still lacking. The numerical synthesis showed three clear patterns. First, there was a strong geographic concentration in the final included studies; most studies were conducted in Mainland China, which accounted for 69% (n=9), with few investigations from other regions, especially Europe. Second, survey designs were the most dominant, accounting for 54% (n=7), and sample sizes were typically small to moderate, 1-50, accounting for 31% (n=4) and 101-150, accounting for 31% (n=4). Third, publication activity clustered in the mid-2010s to 2020, with little longitudinal work. Therefore, these patterns limit generalisability and point to the need for broader, larger-scale, and more comparative designs.

The thematic synthesis identified six interconnected findings. Intercultural awareness and adaptation supported CFL learners' recognition of meanings embedded in the Chinese language. CFL learners' motivation and adaptation related to language outcomes, while a

bigger cultural and linguistic distance and anxiety posed challenges. CFL learners' reading strategies varied by their background and proficiency, such as CCS and NCCS, shaping access to culturally rich texts. Authentic materials, including real-life words, traditional characters, and humour, enhanced their engagement and cultural recognition when accompanied by explicit mediation. CFL learners' psychological variables, such as anxiety and willingness to communicate in the Chinese language, influenced whether cultural knowledge was enacted in real interaction. The development of intercultural competence is identified as a fundamental outcome integrating formal and deep cultural knowledge for the appropriate use of Chinese across different contexts.

These insights directly shaped the doctoral research question and the survey design for the main research study. The concentration of small, single-factor, mainland China-based research studies justified a large-scale, cross-regional, quantitative approach that includes models of multiple factors influencing CFL learners' levels of knowledge of Chinese culture. The anonymous survey therefore operationalises cultural knowledge across formal, such as Chinese history, Chinese customs, and Chinese institutions and deep, such as Chinese values, Chinese philosophy dimensions, and measures CFL learners' linguistic proficiency, learning experiences, such as formal classes, self-study, immersion, and their cultural background, purpose, adaptation, frequency to communicate with Chinese people, and their reading and learning strategy use; and captures authentic exposure, including visits to China, participate in cultural festivals or events, relationships with Chinese people, media. Also, to address earlier research studies' limitations, the instrument is bilingual both in Chinese and English, pilot-tested, and designed for international targeted global recruitment beyond Mainland China, enabling multi-factor statistical analyses of links between linguistic proficiency, learning experiences, multiple cultural backgrounds, and their cultural knowledge.

This chapter establishes what is known about gaining cultural knowledge in the area of CFL and what remains to be explained for future studies. The findings inform the theoretical lenses adopted in Chapter 4 and support the methodological choices detailed in Chapter 5, which together facilitate testing the doctoral research question on how cultural knowledge vary among CFL learners and the factors influencing these differences. These aspects directly informed the design of this doctoral study and led to the following research

question: *How do linguistic proficiency, learning experiences, cultural background, and other contributing factors influence CFL learners' levels of cultural knowledge?*

Chapter 4 Theoretical Framework

4.1 Introduction

The theoretical framework outlined in this chapter is the lens through which this study was conceptualised and through which the results of this study are discussed in order to interpret the influence of learners' linguistic proficiency, learning experiences and cultural backgrounds on their levels of cultural knowledge. For foreign language learners, factors related to their linguistic proficiency, their first language (L1), their foreign language learning experiences, along with distinctive environmental and cultural differences, can significantly influence foreign language and culture learning (Brainee, 2024). It is the position of the current study that foreign language learning inherently involves learning the target language's culture, which directly shapes foreign language learners' cultural perceptions and their level of cultural knowledge. The theoretical framework chosen for this study comprises the following three theories: Sapir-Whorf's Linguistic Relativity Theory (1929a), Vygotsky's Sociocultural Theory (1978), and Bronfenbrenner's Bioecological System Theory (2005a). These three theories were chosen as the framework for this study because, together, they encapsulate the key perspectives through which foreign language learning and cultural knowledge can be understood. The following sections outline Sapir-Whorf's Linguistic Relativity Theory (1929a), Vygotsky's Sociocultural Theory (1978) and Bronfenbrenner's Bioecological System Theory (2005a) and highlight the contributions that these theories make to this study's investigation of how levels of cultural knowledge vary among Chinese Foreign Language (CFL) learners, and to what extent learners' cultural knowledge levels are influenced by their linguistic proficiency, learning experiences, cultural backgrounds, and other contributing factors.

4.2 Linguistic Relativity Theory

Linguistic Relativity Theory has been developed in two phases. First, Edward Sapir (1929b) laid the groundwork for Sapir-Whorf's Hypothesis (Sapir, 1929a) when he posited that language significantly influences one's categorisation and organisation of experiences. In *The Status of Linguistics as a Science* (Sapir, 1929a), he proposed the notion of Linguistic Relativity Theory, which posits that the structure of a language influences speakers' cognition and perception. Linguistic Relativity Theory is often considered the weak version of the Sapir-Whorf Hypothesis (Sapir, 1929a), which suggests that an

individual's linguistic framework influences how they perceive and conceptualise the world. The Linguistic Relativity Theory highlighted language's significant role in shaping thought processes, thus reinforcing the idea that different languages shape how speakers understand and experience the world. Sapir (1929a) asserted that language also helps shape the relationship between culture and thought, and contemporary research supports this concept of linguistic relativity. This Linguistic Relativity Theory is linked to Neo-Whorfianism (Levinson, 2003), which is a further developed version (Section 4.2.1), and it explains that human spatial thinking is significantly shaped by culture, particularly through language (Levinson, 2003).

Different languages offer unique ways of viewing the world, emphasising cultural diversity and the inherent differences among language structures that language shapes thought and influences one's perceptions (Sapir, 1929a). Linguistic Relativity Theory (Sapir, 1929a) is gaining increasing credibility and attention within the academic community, which suggests that speakers of different languages adopt distinct cognitive systems, implying that linguistic diversity fosters fundamentally different modes of thinking and that language significantly shapes an individual's perception and cognition of the world. Many empirical studies provided evidence that speakers' language influences their cognition across diverse domains, such as the grammatical structure of language, space orientations, gender, colour categorisation, shapes, substances, objects, and even social skills (Everett, 2013; Lucy, 1997; Wolff & Holmes, 2011). Gunter's (1982) early research on language influences cognitive development, exploring children's acquisition of nouns and verbs, underscored that linguistic structures, related to mental states, enhance social-cognitive skills. Hoffman et al.'s (1986) follow-up study emphasised the concept that language-specific schemas shape social cognition. Lucy's (1996) research emphasised the role of grammatical structures in shaping thought. These studies have been supported by follow-up research that emphasised the importance of understanding the relationship between language, thought, and reality.

Another study that focused on the structural problems of language by Naveh-Benjamin and Ayres (1986) on cross-linguistic differences showed that English, Spanish, Hebrew, and Arabic demonstrated that word length and phonological complexity impact memory span and reading speed. The systematic differences in languages, such as

grammatical structures and lexical differences, influence human thinking and these differences are deeply intertwined with cultural environments (Everett, 2013). Similarly, these linguistic differences also lead to differences in the way people who use that language distinguish and classify objects or colours. These linguistic structural differences even reflect the availability and salience of colour categories in each language, suggesting that colour perception can be modified through learned categories. This supports the Linguistic Relativity Theory, which states that language influences thought and perception (Davies & Corbett, 1997; Ozgen & Davies, 2002). These viewpoints of the structural problems of language align with the later study, which asserted that languages change and evolve over time, including shifts in vocabulary, grammar, and pronunciation, which are closely linked to social development and cultural values (Lyu & Song, 2022).

Additionally, languages have different patterns of space perception and direction due to their own unique characteristics and differences (Wolff & Holmes, 2011). For example, studies have shown that linguistic structures conceptualise the world (Lucy & Gaskins, 2001), suggest that language affects perceptions of time, space, objects, and substances, and that individuals can adapt their thinking through new languages. Lucy and Gaskins (2001), showed that language influences cognitive styles, due to the interplay of language and culture. For example, Mayan languages demonstrate that linguistic structures reflect cultural practices in spatial orientation (Slobin, 2003). Subsequent studies (Boroditsky, 2001 ; Boroditsky, 2006), on how language influences human cognition, in time, shapes, substances, and objects, have continuously shown that time can be conceptualised differently in different languages. For example, research on the Chinese and English languages indicated differences in cognition, such as English speakers representing time as left-to-right and Mandarin speakers as up-down (Boroditsky, 2001 ; Boroditsky, 2006). Therefore, understanding these complexities of linguistic relativity can help non-native speakers to make informed decisions that align with native speakers' cultures (Lyu & Song, 2022). It has been suggested that even brief exposure to a different linguistic system could alter how individuals perceive and process time (Casasanto, 2015). Language influences thought in real time and also beyond the immediate context of speech and, therefore, linguistic experience could exert enduring offline effects on cognition (Casasanto, 2015).

These findings suggest that language deeply influences how people think and perceive the world (Boroditsky, 2006). Levinson's (2003) research on spatial cognition, found that that language changes the way people perceive orientation. There are even more differences in cognition when a language has a gender system, and these linguistic features affect immediate cognition and long-term memory, as seen in the necessity of recalling gender or cardinal directions in specific languages (Slobin, 2003). For example, among the grammatical elements, gender can shape perceptions, as seen in Spanish and German, both of which assign gender to inanimate objects, thereby influencing perception (Lucy & Gaskins, 2001). As these studies demonstrate, language influences speakers' perceptions of time, shape, materiality, space, and the world they perceive.

Many studies based on the Linguistic Relativity Theory tend to focus on the relationship between culture and language or cultural identities (Sidnell & Enfield, 2012). Different languages have unique cultural perspectives that influence how people interpret and interact with the world around them (Lyu & Song, 2022). For example, Mills (2000) analysed the relationship between the Cornish language and their culture, how language clarifies reality with examples such as the Eskimo word for snow and the Hopi absence of a concept of time, and he emphasised the role of language in reflecting and diversifying their own cultural identities. Research on linguistic relativity and cultural linguistics also emphasises that cultural cognition emerges through interactions over time, and it is not uniformly shared within a speech community (Sharifian, 2017). Durkheim's (2023) research demonstrated that the way language influences thought follows a gradual, continuous spectrum by showing that Tzeltal speakers could recognise complex shapes despite lacking specific terms for spatial expressions. This study emphasised that thought is shaped by collective forces, such as language, culture, and social interactions, and asserted that social facts cannot be explained purely on a psychological level, as people acquire cultural knowledge through language (Durkheim, 2023).

Evidence supports the theory that language deeply influences cognitive processes (Boroditsky, 2001; Carruthers, 2002; Wolff & Holmes, 2011). It is clear that there is a complex relationship between language, culture and cognition, and that the linguistic context is important in shaping thoughts. However, there has been some criticism of the Linguistic Relativity Theory. For example, research on children's language acquisition in

the context of linguistic relativity on nouns and verbs has shown that children acquire nouns instinctively before verbs (Gentner, 1982). This suggests that conceptual differences explain the order of acquisition and establish that nouns are learned sooner because they represent concrete, cohesive objects that fit naturally into a child's perceptual reality. In contrast, verbs necessitate a more abstract comprehension of actions and relationships, making them more challenging to grasp (Gentner, 1982), which means that, while language informs regular thought processes, it does not entirely dictate cognition (Lucy & Gaskins, 2001). Lucy's (1997) research highlighted the difficulty of proving linguistic relativity because of various methodological issues, including defining how language shapes thought and distinguishing linguistic relativity from linguistic determinism. Also some scholars suggests that linguistic structures, which include phonology, morphology, syntax, and semantics, work together to create meaningful communication and guide cognitive processes. This suggests that different languages classify experiences in different ways, leading to multiple ways of interpreting reality (Akmajian et al., 2017; Halliday & Matthiessen, 2006). The relationship between Linguistic Relativity Theory and cognitive processing in foreign language learning has shown that Chinese orthography does affect cognitive processing; however, it does not lead to fundamentally different thought patterns compared to alphabetic languages (Hoosain, 2013). It has been suggested that thought processes transcend linguistic structures (Morency, 2017). January and Kako (2007) criticised through verification research conducted on comparative studies of different language systems, January and Kako (2007) reviewed Boroditsky's (2001) hypothesis, that comparing the English speakers and Mandarin speakers,; however, they attempts to replicate Boroditsky's (2001) study six times, and failed to find significant evidence, and some results contradicted the Whorfian view, and claimed that English speakers can change their cognitive perspective after brief exposure to a new metaphor due to inconsistencies with Mandarin speakers.

Similarly, research on colour naming found universal patterns across languages and provided evidence against Linguistic Relativity Theory (Sapir, 1929a), suggesting that cognition could be universal and not heavily influenced by language (Kay et al., 1991). Follow-up studies also supported this opposing idea that, although there were differences across languages in how colours are grouped, the grouping patterns are largely similar across cultures (Davies & Corbett, 1997; Ozgen & Davies, 2002). This aligns with the

Theory of Universal Grammar (Chomsky & Chomsky, 1998), which significantly criticises Linguistic Relativity Theory by asserting that all human languages share a deep structural similarity, limiting the extent to which language can shape thought. It has been suggested that language diversity does not significantly affect thought, and that the human mind operates with a universal cognitive structure independent of language (Pinker, 2003). The theory of linguistic relativity has been validated through numerous studies mentioned above and various empirical research experiments. It has since been developed into a new concept, such as Linguistic Determinism Theory (Whorf, 1956), and Neo-Whorfianism (Levinson, 2003).

4.2.1. The Development of Linguistic Relativity Theory

Sapir's student, Benjamin Lee Whorf, expanded the Linguistic Relativity Theory with the concept of Linguistic Determination. Whorf (Whorf, 1956 ; 1997) refined and expanded upon Sapir's Linguistic Relativity Theory (1929a) to Linguistic Determinism, which is known as the strong version of Sapir-Whorf's Hypothesis, based on the strong assertion that language determines thought (Whorf, 1940; Whorf, 1956). Whorf argued that each language encapsulates a distinct reality, and that language is not just a tool for shaping thought, but that it also establishes the possibilities and limits of thought. In its most radical form, habitual thought is determined by the grammatical structures and semantic qualities of a specific language (Whorf, 1956), which suggests that specific thoughts cannot be conceived without an accompanying linguistic framework. Whorf linked linguistic structure to cultural behaviour, arguing that a group's linguistic orientation influences their customs, habits, and lifestyle (Whorf, 1944, 1997). For example, Whorf (1956) argued that the Eskimo language has several words for snow, enabling them to describe the specific object more accurately and to recognise snow than English speakers. Many studies have supported the concept of Linguistic Determinism. For example, research shows that the quantity and diversity of colour recognition can significantly influence how colours are perceived (Franklin et al., 2008; Kay & Kempton, 1984). Qayuum (2015) argued that the speech patterns and language use can shape our thinking and identity. Rogenmoser (2018) emphasised that language shapes cultural beliefs and that language structure influences the speaker's worldview and cognition. De Villiers and De Villiers (2014) examined the link between spoken language development and theoretical thinking, supporting the hypothesis that language limits thinking. Blomberg and Zlatev's (2021) framework engaged in a

critique of both universalist and sociocultural perspectives. They recognised language's complexity as a semiotic system grounded in human experience, and supported the idea that language reflects thought and actively influences thinking through the interaction of normative and contextual practices (Blomberg & Zlatev, 2021).

However, the concept of Linguistic Determinism has been criticised by many scholars (Chomsky, 2014; De Cruz, 2009; Lucy, 1992 ; 1996 ; 1997; Morency, 2017; Pinker, 2003). Some have refuted the concept of strong linguistic determinism and have emphasised that linguistic universals and thoughts exist independently from language (Chomsky, 2014; Morency, 2017). Many other scholars have also raised additional criticisms of linguistic determinism. For example, Pinker (2003 ; 2007); and Li (2022) argued that language does not constrain thought, suggesting that thought operates independently of language. Pinker (2003 ; 2007) and Li (2022) argues that language and thought are independent, but thought significantly influences the development of language. Shapiro (2011) argued that speakers of different languages may share similar perceptions but he suggested that this could be due to their linguistic frameworks and linguistic differences, which shape attention without altering fundamental concepts. Similarly, De Cruz (2009) argued that language does not entirely dictate perception, and that linguistic determinism does not sufficiently explain the complexity of human thought. Malotki's (2011) study directly criticised Whorf's interpretation of the research on Hopi language, that Whorf's analysis misrepresented the Hopi conception of time, because his arguments lacked rigorous empirical tests and relied heavily on anecdotal and narrative sources. Perner et al. (2003) suggested that cognitive development has a significant influence on understanding, and suggested that conceptual domination of desire precedes belief and that language alone does not dictate the understanding of mental states. While Linguistic Determinism is still a controversial topic of study, its implications continue to spark exploration of the effects of language on thought and cultural behaviour. Whorf's contributions fundamentally changed the way language is viewed in anthropology, psychology, and linguistics, moving language away from being a passive medium toward being a dynamic means of shaping thought.

Further research on the relationship between language, culture, and time is needed (January & Kako, 2007), as traditional linguistic relativity oversimplifies complex

linguistic-cultural-cognitive relationships due to a reductionist view that treats culture as a single entity. Further criticism is related to the terms linguistic relativity and linguistic determinism suggesting that they need to be more accurate in relation to language, culture, and thinking, as they lead to misunderstandings and inefficient empirical research (Sharifian, 2017). Therefore, a broader cultural perspective, Neo-Whorfianism Theory (Levinson, 2003), emerged which is broadly in agreement with the basic concepts of the Linguistic Relativity Theory (Sapir, 1929a). However, it integrates insights from cognitive psychology, neuroscience, and linguistics, and therefore neo-Whorfianism advances the understanding of the complex relationship between language and thought. The conceptual definition of Neo-Whorfianism is a theory that experimentally revalidates linguistic relativity and weakens the notion of strong linguistic determinism. Neo-Whorfianism (Levinson, 2003) asserts that linguistic structures systematically influence cognitive processes and shape how individuals perceive, think, and approach problem-solving within their culturally specific contexts by acknowledging that how language use within different cultural contexts influences worldviews. It does not overemphasise linguistic cognitive limits and but rather investigates how grammatical structures, such as tense, gender and number systems, impact cognitive tasks, including spatial perception, memory, and numerical cognition.

Research on the Neo-Whorfian paradigm and Linguistic Relativity (Sapir, 1929a) has explored how linguistic structures influence interactions and social norms in Creole, Finnish, and Lao by Enfield (2015), and he criticised the simplification of language, asserting that language is not merely a tool for reference, highlighting the important social role of language and that differing grammatical forms led to varied social actions. Some language choices generate collateral effects in interactions, and language actively constructs social relationships and grants agency. It also shapes perceptions and social reality, and grammatical choices lead to different social actions, and it impacts interactions (Enfield, 2015). Wierzbicka (1986) researched untranslatable words and illustrated how critical cultural concepts are embedded in language and contribute to unique ways of understanding the world. This research demonstrated that semantic differences between languages can constrain thought without dictating it entirely, and therefore, language does not strictly determine thought but instead influences it (Štrkalj Despot, 2021). Similarly,

McWhorter (2014) suggested that while language reflects cultural differences, it does not significantly constrain thought processes in everyday life.

Although the theory of Linguistic Relativity has developed through various studies into the theory of Linguistic Determinism (Whorf, 1956) and new perspectives such as Neo-Whorfianism Theory (Levinson, 2003), these new theories continue to face refutations, lack sufficient empirical research, have limited influence, and do not align with the purpose of this current study. On the other hand, the theory of Linguistic Relativity has been validated through numerous studies and various empirical research experiments (4.2 Linguistic Relativity Theory). Therefore, Linguistic Relativity Theory (Sapir, 1929a) is the most fundamental concept and has formed the basis and important theoretical perspectives for understanding the interaction between language, thought, and cognition. Therefore, Linguistic Relativity Theory (Sapir, 1929a) as a theoretical tool of linguistic parts combined with other core theories can provide a further comprehensive analysis of whether CFL learners' native, second, and third languages influence their understanding of Chinese culture and their perspectives towards it, based on their linguistic ability and proficiency.

4.3 Application of Sapir-Whorf's Linguistic Relativity Theory

Sapir-Whorf's Linguistic Relativity Theory (1929a) is included in this theoretical framework as it provides a conceptual foundation for exploring the relationship between language and thought. It is particularly relevant within the context of Chinese cultural understanding among Chinese as a Foreign Language (CFL) learners as the theory posits that the structure and meaning of language influence the cognitive scope of speakers and, broadly, their worldview (Sapir, 1929a). This is especially evident with the Chinese language, as it is structurally and semantically distinct from other languages. Using this theory in the theoretical framework for this study is an ideal way to conceptualise the investigation of the factors that impact CFL learners' levels of cultural knowledge. This theory is applied in this study to examine the levels of cultural knowledge of CFL learners with varying linguistic abilities and different social backgrounds. The concepts of the Linguistic Relativity Theory (Sapir, 1929a) were utilised in the design of the study's anonymous survey and in the interpretation of the collected data. The Linguistic Relativity Theory serves as a lens for investigating how learning Chinese as a foreign language influences the cognitive assimilation of knowledge of Chinese culture. For these reasons,

the Linguistic Relativity Theory (Sapir, 1929a) was chosen for inclusion in this theoretical framework. Using this theoretical framework, which offers a comprehensive interpretation of the CFL learners' linguistic backgrounds, helps to understand how their language skills and proficiency support their cultural perspectives. The following section explores the second theory that was chosen for inclusion in the theoretical framework, Vygotsky's Sociocultural Theory (1978).

4.4 Vygotsky's Sociocultural Theory

Lev Vygotsky's Sociocultural Theory (1978) suggested that human cognition is fundamentally shaped by social interaction and cultural context. Vygotsky (1978) argued that higher mental functions, such as voluntary attention, logical memory, and problem solving, first emerge through social interaction and are later internalised by the individual. According to Lantolf et al. (2020) human mental functions are shaped through mediated processes involving cultural artefacts, activities, and conceptual tools. People use cultural tools, especially language, to mediate their thoughts and regulate their actions (Lantolf et al., 2020). For example, children often speak to themselves when carrying out tasks or during play, using private speech as a means of guiding their own behaviour, and over time, this self-directed language becomes internal thinking (Berk, 2014; Vygotsky, 1978; Whedon et al., 2021). Vygotsky (1978) maintained that cognitive growth is fundamentally a social process, with learning occurring through participation in shared activities and dialogue. In this way, private speech serves as a means of mediating one's thoughts and guiding one's actions, cognitive growth occurs, and as a result, it is grounded in social processes (Kozulin, 2004; Lantolf et al., 2020).

Vygotsky's Sociocultural Theory (1978) has had a lasting impact on how learning and development are understood in educational contexts. Vygotsky (1978) stressed that cognitive development is inseparable from the culture in which it occurs, as a society's beliefs, values, and tools influence what and how learners learn. A key concept in Vygotsky's framework (1978) is the concept of the Zone of Proximal Development (ZPD). The term, Zone of Proximal Development, is likely one of the most widely recognised and well-known concepts associated with Vygotsky's scientific contributions (Chaiklin, 2003; Kozulin, 2004). Vygotsky defined the Zone of Proximal Development as "the distance between the actual developmental level as determined by independent problem solving and

the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). Vygotsky’s Sociocultural Theory suggests that teaching and development are deeply interconnected, and that effective teaching awakens a variety of internal developmental processes that can only be activated when learners interact with those around them (Vygotsky, 1962, 1978). This principle later became the basis for the concept of scaffolding, a term coined by Wood, Bruner, and Ross (Wood et al., 1976) to describe the tailored assistance provided by experts to help novices accomplish a task. The continuing influence of sociocultural theories in education is evidenced by the fact that concepts like scaffolding, integration of prior knowledge, dialogue about learning, apprenticeship and learning readiness have become central to educational practices (Eun, 2010).

Through scaffolding, experts capture learners' attention, simplify the task, maintain goal orientation, important features, manage frustration, and suggest solutions (Wood et al., 1976). Scaffolding strategies effectively create temporary support structures within the ZPD, allowing learners to achieve higher levels of task performance and problem solving than they would have without assistance. As the learner's competence increases, support is gradually reduced and responsibility for the task is transferred to the learner, and learners are seen as active participants in the construction of knowledge through a variety of interactions (Eun, 2010). This is a process that reflects Vygotsky's concept of assisted performance being transformed into independent competence. A key aspect of sociocultural Theory is the role of cultural tools and symbols in cognitive development, with Vygotsky emphasising that language is the most important tool (Vygotsky, 1987). Luria (1976) conducted a pioneering cross-cultural experiment in the 1970s to test how exposure to modern education and literacy affects cognition. The results show that education level and cultural background both had a significant effect on abstract thinking, categorisation ability, and logical reasoning (Luria, 1976). This study is considered an important example of the influence of cultural factors on cognitive structure. These studies demonstrate the subtle ways in which cultural practices shape thinking and they provided strong evidence in support of Vygotsky's Sociocultural Theory.

Vygotsky's Sociocultural Theory (1978) of learning as a process that is grounded in social situations has revolutionised educational Theory and practice. Modern teaching methods overwhelmingly reflect Vygotsky's sociocultural principles and strategies, whether consciously or unconsciously (Eun, 2010). The use of scaffolding is a common practice in classrooms, as teachers regularly break tasks down into actionable steps, provide hints or checklists, model strategies, and guide students using questioning techniques. For example, the research results based on Vygotsky's ZPD found that teaching EFL students how to use scaffolding strategies significantly improved their learning motivation and reading comprehension (Ahmed Abdel-Al Ibrahim et al., 2023). Several studies based on Vygotsky's Sociocultural Theory (1978) have shown that assessments themselves are opportunities for mediated learning, and that assessments which are closely linked to subsequent instruction benefit learners (Clark, 2012; Poehner, 2008). Teachers often use the foundations of the Sociocultural Theory when conducting ongoing formative assessments, providing feedback, and coordinating learning support (Daneshfar & Moharami, 2018). Sociocultural Theory has also influenced curriculum design that emphasises meaningful and culturally relevant activities. Many educators now integrate real-world lessons that integrate elements of social discourse. Culturally responsive teaching (Gay, 2018) is closely aligned with Vygotsky's Sociocultural Theory (1978). Teachers can leverage students' cultural backgrounds and everyday knowledge as assets to connect new academic content to familiar frameworks and, in this way, effectively scaffold new learning (Herrera et al., 2012). Modern research continues to develop and empirically apply these Vygotsky's principles to various classrooms, from early childhood education to higher education (Lantolf & Poehner, 2014).

Vygotsky's Sociocultural Theory (1978) has also had a significant impact on language acquisition and applied linguistics, particularly in areas where the social nature of language learning is prominent. In native language development, children acquire language through interaction, which is, in Vygotsky's terms, a process of imitating and internalising the speech of caregivers (Dastpak et al., 2017; Nawaz et al., 2024; Vygotsky, 1978). Vygotsky's ideas have also fundamentally changed the way educators and learners understand and teach second and additional languages (Duff & Talmy, 2011; Lantolf, 2000; Pavlenko, 2002). In the past few decades, a subfield called Sociocultural Theory (Vygotsky, 1978) in L2 has emerged (Lantolf, 2006; Lantolf & Poehner, 2014; Lantolf et al., 2020). It has been argued by many scholars that acquiring a new language is not simply an individual

cognitive effort, but rather it is fundamentally social and mediated by cultural contexts, such as classroom discourse and peer interaction (Duff & Talmy, 2011; Lantolf, 2000; Pavlenko, 2002). One of the important concepts central to L2 research is the Zone of Proximal Development (ZPD) (Vygotsky, 1978) for language learning. Teachers and tutors often utilise the concept of the Zone of Proximal Development intuitively by providing progressively complex tasks and feedback to language learners. For example, when learning the grammar of an additional language, students value when teachers focus on one type of error at a time and when they do not provide assistance when students require autonomy (Wawire, 2013; Zhang & Zhang, 2023). Li (2011b) researched how interactions between teachers and students in English classes affect the development of thinking skills from a sociocultural perspective and found that the types of questions teachers ask, students' waiting time while others speak, and speaking order, significantly influence students' participation in class and their construction of meaning. Li (2011b) demonstrated that interactions between teachers and students can cultivate thinking skills, foster joint meaning creation, and use language to mediate thinking by teachers' valuing students' opinions. Similarly, Swain (2000) argued that during collaborative conversations between learners is often when language learning occurs naturally, emphasising that learner interaction itself is a means for development. Swain (2006) coined the term "languaging" to describe how language learners collaboratively solve language problems through conversation by essentially thinking out loud. Languaging is defined as follows: "The concept of languaging derives from Vygotsky's work, which demonstrated the critical role language plays in mediating cognitive processes" (Swain & Watanabe, 2013, p. 1). These empirical studies show that language learners learn more effectively when they are given the time and opportunity for collaborative practice and when they receive scaffolding support from educators appropriate to their developmental level. Modern language learning theory widely recognises that learner interaction, scaffolding, and cultural context are central to the acquisition of a new language, which underscores Vygotsky's Sociocultural Theory (1978) assertion that language teaching should be aligned with fundamental conceptual development rather than simple repetition and memorisation.

Contemporary scholars are exploring how Vygotsky's Sociocultural Theory (1978) applies to online and technology-based learning environments (Allsop, 2016; Nkomazana & Mhlanga, 2024; Pakdaman-Savoji et al., 2019; Wenger, 2014). Learners can now interact with more knowledgeable peers at any time through forums, video calls, and tutoring

systems, and they have access to a range of cultural tools that can mediate cognition, from search engines to AI and simulation software (Baskara, 2024; Indumathy & Mujra, 2025; Roscoe & Chi, 2007). For example, collaborative learning can take place in virtual spaces, where students in different countries can collaborate on a shared document, solve problems in an online forum, form a virtual Zone-Processed Area (ZPD) where learners can assist each other and can be assisted by machine in their learning (Borthick et al., 2003; Cai et al., 2025; Taber & Li, 2021). Research on Computer-Supported Collaborative Learning (CSCL) suggests that features such as chat discussions, shared digital workspaces, and guided messaging can successfully supplement interactions typically found in physical classrooms (Dillenbourg & Fischer, 2007; Jeong & Hmelo-Silver, 2016; Lim, 2019). For example, AI-based tutors or educational software can act as specialised learning tools, by providing hints and feedback tailored to learners' learning performance, such as language learning apps that listens to the learner's pronunciation and provides progressive feedback or additional practice if errors persist (Hidalgo et al., 2023; Laak & Aru, 2024; Lee et al., 2023). This type of automated scaffolding adapts to the learner's current level of knowledge, and studies have shown that these adaptive systems can improve learning outcomes by providing appropriate support and allowing learners to learn in their optimal digital learning zone. This suggests that the Adaptive and Intelligent Systems for Collaborative Learning Support (AICLS) systems can enhance learners' domain knowledge and collaborative skills (Hidalgo et al., 2023; Laak & Aru, 2024; Lee et al., 2023; Magnisalis et al., 2011; Relmasira et al., 2023). For example, Westberry (2009) critically examined how English as an Additional Language (EAL) students and their teachers engage in interactive learning activities using Information and Communication Technology (ICT) in mainstream tertiary education and found that, while e-learning offers opportunities for collaboration and co-construction of knowledge, engagement is shaped by social, cultural and historical factors that can facilitate or constrain participation.

The digital era necessitates an expansion of Vygotsky's (1978) Sociocultural Theory (Almansoori, 2021). While this theory was formulated during a time of face-to-face in-person interaction and tangible learning tools, today's learning environment frequently involves widespread online networks and virtual tools, especially after COVID-19, when virtual learning became more commonplace (Kakeeto, 2021; McIntosh, 2025). For example, Abugohar and Yunus (2024) comprehensively reviewed how evolving language technologies can be used to improve speaking skills in English as a Second Language (ESL)

and English as a Foreign Language (EFL) contexts. They drawing on Communicative Language Teaching, Sociocultural Constructivist Theory, which is a blend of Vygotsky's Sociocultural Theory (1978), and Constructivist Learning Theory which combined ideas by Piaget (2005), Bruner (1990) and Schunk (2012), Abugohar and Yunus (2024) suggested that speaking which is considered the most essential yet difficult skill in EFL learning, can be significantly improved using internet-based tools, Artificial Intelligence (AI), and metaverse technologies.

Recent studies have emphasised the need to rethink concepts, such as the ZPD, in more collective or online and virtual networked terms (Pang, 2020; Rahmat et al., 2021; Zhang & Zhang, 2025). For example, in Pang's (2020) research, which was based on Vygotsky's concept of the Zone of Proximal Development and Piaget's Theory of Cognitive Development (1952), integrated a digital scaffold called e-learning objects, which are a collection of 31 structured, interactive learning modules hosted via an institutional learning management system. The results showed that this pedagogy significantly improved students' understanding of programming semantics, facilitated knowledge transfer across programming languages, and improved problem-solving skills and engagement. Rahmat et al. (2021) demonstrated the social changes associated with the emergence of digital media, and they critically reflected on how sociocultural learning theory should be expanded and revised. The results showed that learners in online classes experienced more participation and cognitive development through interactions with peers and teachers, such as more capable others, and interactions with content, such as self-directed resource exploration, real-time discussion, and self-evaluation. In particular, regular feedback, and the use of various digital tools through online platforms effectively induced learning within the ZPD by increasing learners' participation and providing a learner-centred environment that is difficult to experience in traditional face-to-face classes. This study highlights the importance of interactive design and technology utilisation in online Chinese language education and suggests that teachers should design more dynamic and learner-tailored online classes. Structured discussions, regular feedback, and the use of various digital tools through online platforms effectively facilitate learning within the ZPD by increasing learners' participation and provides a learner-centred environment that is difficult to replicate in traditional face-to-face classes.

Vygotsky's core ideas are increasingly important as learning becomes more socialised, globally connected, and aided by sophisticated tools (Dang & Cross, 2023; Nursyam & Pajariato, 2025). However, Xi and Lantolf (2021) pointed out that, for nearly 40 years, various social science disciplines have assumed that the Zone of Proximal Development (ZPD) and the concept of scaffolding reflect roughly the same processes. The ZPD can be understood as encompassing the types of interactions described in the scaffolding literature, but it is a much broader and more robust process than scaffolding. For example, Lavin (2021) suggested that, although Vygotsky's concept of the Zone of Proximal Development (ZPD) is often cited in language education research, it is often used vaguely without the original theoretical context or conceptual sophistication. Lavin (2021) suggested that the ZPD should be reconceptualised as a concrete theoretical tool that can detect and promote the 'buds of development' which was first emphasised in Vygotsky's former Sociocultural Theory (1978) during 1933-1935, of learners. To this end, Lavin (2021) used a spatial metaphor that sets up the Zone of Actual Development (ZAD) and the Zone of Potential Development (ZPD) within the ZPD and presents a practical method for observing the progress of development through learner autonomous error correction level and transcription accuracy. The research provides an interesting direction for the practical application of the ZPD concept to adult second language learning and opens up the possibility that it can be specifically utilised in this way in the field of language education. Rahman (2024) also examined the application of Vygotsky's concept of the Zone of Proximal Development (ZPD) to education and found that the ZPD can function as a core framework for educational design that induces cognitive growth through cooperative learning and teacher-learner interaction, beyond the simple evaluation of individual cognitive ability. The study emphasised that the role of the teacher is not simple that of the knowledge transmitter, but rather the teacher is the 'facilitator' who helps learners to recognise and expand their ZPD. The research proposed that the ZPD can be used as a core theoretical tool for curriculum design and teachers' professional development (Rahman, 2024). Vygotsky's research inspired complementary research that considers broader contexts. For example, Cultural-Historical Activity Theory (CHAT) (Pillai, 2024) expands the focus of the concept of the Zone of Proximal Development from simple mentor-learner interactions to interactions with the entire activity system, including multiple individuals, community tools, or goals (Cong-Lem, 2022; Dougherty, 2021).

4.5 Application of Vygotsky's Sociocultural Theory

Vygotsky's Sociocultural Theory (1978) has been chosen for inclusion in this theoretical framework as it is a useful lens through which to understand the dynamics between CFL learning, social interactions, learning readiness and Chinese cultural knowledge construction. The core of this theory is the concept that learning occurs in a social context and is mediated by cultural tools, of which language is the most fundamental element. Therefore, this study conceptualises foreign language learning, not simply as the acquisition of grammatical structures, but as a cultural context in which CFL learners co-construct meaning through mediated participation with other Chinese people, people with Chinese heritage and interactions with various Chinese cultural contexts. Applying this theory in this research enables the study to examine how CFL learners' Chinese cultural knowledge levels are formed through mediated participation in various cultural exposures, intercultural exchanges, cultural engagements in festivals or in other culturally rich contexts. For these reasons, Vygotsky's Sociocultural Theory (1978) was chosen to be included in the theoretical framework of this study. The following section explores Bronfenbrenner's Bioecological System Theory, which is the third theory that was chosen for inclusion in this theoretical framework.

4.6 Bronfenbrenner's Bioecological System Theory

The development of Bronfenbrenner's Bioecological Theory (1995 ; 2000 ; 2005a), was a significant refinement of his earlier work. Bronfenbrenner's Ecological Systems Theory (1979) is built on Kurt Lewin's earlier Field Theory (Lewin, 1997), which explained human behaviour as a function of individual and environmental factors. The Ecological Systems Theory's (1979) main claim was about the influence that the environment has on human development throughout the life span. It emphasised the dynamic influences of psychological and environmental factors on human behaviour. Bronfenbrenner's work focused on the complexities of interactions among the five ecological factors: the microsystem, exosystem, mesosystem, macrosystem, and chronosystem (Bronfenbrenner, 1979, 1994; Bronfenbrenner, 1998). The microsystem refers to the immediate environments where direct interactions occur, within the family, school, or peer groups, and these settings were critical because they provided the most immediate and tangible context for development. The mesosystem represented the interconnections between two or more microsystems, such as the relationship between family dynamics and educational

experiences, illustrating how changes or challenges in one domain could ripple into another (1979). The exosystem describes indirect environmental influences, such as parental workplace conditions, which, although not directly involving the child, significantly shape their development through factors like parental stress or availability. The macrosystem reflects overarching cultural values, belief systems, and societal structures that influence all other systems, and these broad societal factors shape developmental norms, expectations, and opportunities, providing the larger context in which all other systems operate. The chronosystem involves the temporal dimension of development, highlighting the importance of changes in an individual's environment or life circumstances over time, such as family relocation or parental divorce, and societal changes over time.

Many scholars have applied Bronfenbrenner's Ecological System Theory (1979) to research in various fields of study (Christensen, 2016; Sampson & Raudenbush, 1999; Sampson et al., 1997; Ward, 2013). The Ecological System Theory (1979) demonstrated the interconnected nature of experiences across contexts (Darling, 2007). For instance, Darling's (2007) work, which drew on the Ecological System Theory (Bronfenbrenner, 1994), showed how parenting styles are influenced by social class and cultural expectations. Similarly, Bronfenbrenner and Morris (1998) emphasised the influential relationship between parent and child in adolescent development. Using this model, Kraft and Dougherty (2013) demonstrated that regular teacher and parent communication improved student behaviour, and Vasquez et al. (2015) who found that parental autonomy support positively influenced academic and psychosocial outcomes. Similarly, Paat (2013) applied the Ecological Systems Theory (1979) framework to the influx of multicultural and multiethnic immigrants, including immigrant children, to the United States. This highlights the impact of the microsystem and macrosystem on adaptation in a new cultural environment. Tissington (2008) explored ecological influences on adult learners by linking learner success to multilevel environmental support. Leonard (2011) and Onwuegbuzie et al. (2013) emphasised the exosystem's role in shaping student outcomes through external factors such as parental employment and school policies. Anderson et al. (2014) highlighted the importance of coordination across ecological levels for inclusive education. Shelton (2018) coined the term "Develecolology" to integrate ecological and developmental perspectives. Despite some criticisms regarding limited methodological clarity and underdeveloped incorporation of digital contexts (Bronfenbrenner & Evans, 2000), the Ecological System Theory model remains influential. Bronfenbrenner's Ecological

Systems Theory (1979) model was modified by Johnson and Pupilampu (2008) to include the technosystem, and this adaptation reflects the efforts to contextualise development within virtual and global environments. Many researchers have applied the technosystem to different domains (Crocker & Kleitsch, 2023; Johnson & Pupilampu, 2008; Navarro & Tudge, 2023). This adaptation accounts for some dynamics of contemporary life, such as technology and globalisation, which create new microsystems which may contribute to learners' cultural understanding.

Bronfenbrenner's *Making Human Beings Human* (2005b) synthesised existing theories of the five systems and emphasised the integration of environmental and biological factors into a dynamic and interactive model known as Process-Person-Context-Time (PPCT) (1995). The PPCT model, which addresses individual growth's complexities and the proximal processes driving development, further advances the framework (Harney, 2007; Rosa & Tudge, 2013; Tudge et al., 2009; Xiao et al., 2018). The inclusion of time, known as the Chronosystem, acknowledges that development is not static but evolves as individuals and their environments interact continuously across the lifespan (Bronfenbrenner, 2005a). Bronfenbrenner claimed that interactions, identified as proximal processes, are fundamental to the Bioecological Theory (2005a). He suggested that they must occur with regularity and over a sustained period to foster meaningful developmental outcomes. Activities which commonly reflect these processes, include playing, engaging in interpersonal interactions, participating in group and solitary play, reading, and acquiring new skills (Bronfenbrenner, 2005a).

Bronfenbrenner's Bioecological System Theory (2005a) has been widely accepted and applied in various fields (Harney, 2007; Rosa & Tudge, 2013; Tudge et al., 2009; Xiao et al., 2018). For example, the connection between children's exposure to violence and their self-regulation development (McCoy, 2013), systemic inequities in gifted education, and the underrepresentation of racial and ethnic minority students (Crawford et al., 2020). Further applications of the theory include: the biopsychosocial impacts of mass trauma, including natural disasters and terrorism (Hoffman & Kruczek, 2011), parental priorities based on class (Xiao, 2000), and early childhood educators, and (Tudge, Merçon-Vargas, Liang, et al., 2022), educators role in fostering positive proximal processes (Navarro et al., 2020), resilience across individual, community, and systemic levels in the context of

climate-related disasters (Boon et al., 2012), developmental sports psychology (Bengoechea, 2002), integration of the model with Meleis' Transition Theory (2015) in nursing (Joly, 2016), the role of family engagement and sociocultural context (Jaeger, 2017). The theory has provided a for understanding educational ecology (Anderson et al., 2014), and understanding child and adolescent development in various contexts (Ryan, 2001; Tissington, 2008). The ecological perspective in early childhood development studies, confirm that intricate, multilayered systems influence development (Phillips & Shonkoff, 2000). The theory has also been applied to psychology related to pedagogy highlighting interrelated developmental and educational phenomena and influencing curricula accordingly (Härkönen, 2001). Bronfenbrenner's theory remains a cornerstone in the fields of education, psychology, and social sciences, demonstrating its enduring influence across disciplines (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Morris, 2007).

The concept of macrotime, as explored in the Process-Person-Context-Time (PPCT) model (Bronfenbrenner, 2005a), focused on how historical and sociocultural contexts interact with individual life stages to shape outcomes. For example , research by Elder (2018) demonstrated through longitudinal studies that two cohorts born a decade apart in the same region of the United States exhibited markedly different developmental patterns due to their distinct experiences of the Great Depression and subsequent historical events. These findings underscore the critical role of historical timing in development, revealing how broader sociocultural changes can influence individual growth and adaptation over time. The Bioecological System Theory (Bronfenbrenner, 2005a) also laid the foundation for integrating other theoretical perspectives, such as Life Course Theory (Elder, 1998), which similarly emphasised the importance of historical and sociocultural contexts in shaping individual trajectories (Hutchison, 2018). The application of the Bioecological model (Bronfenbrenner, 2005a) in various fields, including education, psychology, and public policy, has demonstrated its utility in addressing contemporary developmental challenges, such as technological advancements, globalisation, and environmental crises (Bronfenbrenner, 1994; Tudge, Merçon-Vargas, Liang, et al., 2022; Tudge, Merçon-Vargas, & Payir, 2022).

These interdisciplinary applications reflect the versatility of the Bioecological System Theory (Bronfenbrenner, 2005a) and its ability to capture the complexity of human development across diverse contexts and fields. Guhn and Goelman (2011) examined Bronfenbrenner's Bioecological System Theory (2005a) in early child development, explicitly validating the Early Development Instrument (EDI). They suggested that the EDI's approach could effectively measure developmental outcomes when aligned with the Bioecological Theory (2005a). Tudge, Merçon-Vargas, Liang, et al. (2022) expanded the application of Bronfenbrenner's Bioecological Theory (2005a) to early childhood education. Their research indicates that children's school preparation begins in their home environment and background, influencing their language, attitudes, and adaptability to school, as well as their interactions with teachers and peers. Hayes et al. (2022) provided a comprehensive exploration of Bronfenbrenner's Bioecological System Theory (2005a) and they asserted that understanding child development requires examining how individual, contextual, and temporal factors interact within Bronfenbrenner's Bioecological System Theory (2005a). Situating Bronfenbrenner alongside theorists like Vygotsky and Cole (2018), Hayes et al. (2022) highlights the Bioecological System Theory's (2005a) relevance in conceptualising modern educational challenges, including technology and inclusivity. These studies argued for integrating Bronfenbrenner's Bioecological System Theory (2005a) into early childhood pedagogy to better understand the factors affecting child development in order to create strategies that supported young children's well-being and growth. Expanding on this foundation, subsequent studies by Tudge, Merçon-Vargas and Payir (2022) have highlighted the broader theoretical implications of the Bioecological System Theory that captures the intricate interplay between biological predispositions and environmental factors.

Despite its many contributions, Bronfenbrenner's Bioecological System Theory (2005a) has received some criticisms from scholars. For instance, Tudge et al. (2016) highlighted the persistent misapplications of the Bioecological System Theory (2005a), and Xia et al. (2020) emphasised the need to consider micro-time (moment-to-moment interactions) and macro-time (broader historical frameworks). Navarro et al. (2020) criticised the somewhat incomplete view of the application of the theory and that often focuses solely on context, without considering the proximal processes and the individual characteristics that drive development. The significance of the Bioecological System

Theory (Bronfenbrenner, 2005a) arises, however, from its capacity to bridge the distinction between natural influences, biological predisposition, and environmental factors, or nurture. The Bioecological System Theory illustrates that both of these aspects can be understood as a collaborative process. Bronfenbrenner, in his subsequent works, offers a comprehensive perspective on the roles of individuals in transforming their contexts (Tudge, Merçon-Vargas, & Payir, 2022; Tudge et al., 2009; Tudge et al., 2016; Xia et al., 2020).

4.6.1. The Development of Bioecological System Theory

Recent studies have tailored the ecological and bioecological systems approach to specific populations, including immigrant families, individuals with disabilities, and those affected by economic inequality. One such development was the Neo-ecological Theory (Navarro & Tudge, 2023), which expanded on Bronfenbrenner's ideas of Process-Person-Context-Time (PPCT) (Bronfenbrenner, 1995). The Neo-ecological Systems Theory (Navarro & Tudge, 2023) aimed to provide a more nuanced understanding of development in a world where physical and virtual interactions coexisted and often intersected. Earlier scholars, such as Livingstone (2014) and Gardner and Davis (2013), have recognised the need to update the theory to reflect the modern reality of an interconnected world to account for the influence of digital media on education in particular. Neo-ecological Theory (Navarro & Tudge, 2023), in the educational sphere, Hayes et al. (2022) stressed how supportive classroom environments and reflective practices can enhance proximal processes, ultimately fostering developmental growth.

The Neo-ecological Theory (Navarro & Tudge, 2023), incorporating modern understandings of technology, globalisation, and evolving social dynamics, as well as integrated aspects of digital interaction, social media and online education, including applications. Research is continuing to adapt to increasing globalisation with the development of digital technologies and applied diverse research fields. For instance, the Neo-ecological Theory (Navarro & Tudge, 2023) has been applied to land use planning, with a focus on the interplay of cultural identity, social justice, and technological advancements in shaping community outcomes (Adumene, 2024), and on peer support among veterans in online environments (Tarbet, 2022). By integrating these modern dimensions, the Neo-ecological Systems Theory (Navarro & Tudge, 2023) offered a relevant and flexible framework for examining contemporary developmental processes, addressing some of the modern challenges and opportunities that traditional models could

not have anticipated. Rapid technological advancements and globalisation have given rise to new systems, including digital microsystems, which influence development in ways that Bronfenbrenner's ecological Theory (1994) and Bioecological Theory (2005a) did not foresee. The term "neo-ecological Theory" is derived from Bronfenbrenner's ecosystem and is frequently employed to describe contemporary interpretations and extensions of his foundational work (Adumene, 2024). Navarro and Tudge (2023) distinguished between physical and virtual microsystems, arguing that virtual environments, such as social media and online gaming, have become critically important for development. Proximal processes, once confined to physical settings, now frequently occur online, enabling complex, non-localised interactions. The authors highlighted adolescents' simultaneous engagement in multiple microsystems and the role of online platforms in shaping identity, emotion, and social learning. They also emphasised cultural and macrosystemic influences on digital engagement, concluding that developmental theory must now integrate both physical and virtual environments to reflect current young people's experiences. There has been some criticism of this extension of Bronfenbrenner's theories. For example, Postman (2011), argued that integrating technology into developmental processes undermines the traditional, meaningful interactions that Bronfenbrenner (2005a) initially emphasised.

Despite some criticism of the extensions of Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979, 1994) to Bioecological System Theory (2005a) and Neo-ecological Systems Theory (Navarro & Tudge, 2023), Bronfenbrenner's theoretical foundations have been utilised across various academic fields, and these theoretical perspectives have offered valuable insights through which to view social and environmental development. Therefore, Bioecological System Theory (2005a) as a theoretical tool of cultural and environmental parts combined with other core theories can provide a further comprehensive analysis of whether CFL learners' microsystem, exosystem, mesosystem, macrosystem, and chronosystem influence their understanding of Chinese culture and their perspectives towards it, based on their bioecological systems.

4.7 Application of Bronfenbrenner's Bioecological System Theory

This study drew on Bronfenbrenner's Bioecological System Theory (2005a) to conceptualise the complex and multilayered environment in which CFL learners' Chinese language and cultural knowledge practices are formed. The Bioecological System Theory posits that human development is formed by five interrelated systems, from direct

interpersonal interactions to broader sociocultural contexts. For CFL learners, these systems include family background, Chinese heritage, Chinese language education environment, peer interactions, cultural experiences, and the social environment of their respective countries. Therefore, Bronfenbrenner's Bioecological Systems Theory provides a fitting theoretical perspective from which to analyse the factors that contribute to CFL learners' levels of cultural knowledge. With the increasing global interconnectedness there has been growing recognition and emphasis on cultural considerations, such as analysing the digital learning landscape based on an ecological approach (Samsudin, 2021). This shift has highlighted the importance of cultural and global contexts within the macrosystem, underscoring their significance (Fulantelli et al., 2021).

The application of this theory in this study is fitting as it considers CFL learners' Chinese language proficiency and Chinese cultural knowledge, not only in the cognitive or linguistic domain, but also in the broader ecological context of their attitudes toward Chinese culture. These environments, including home, school, friends, travel experiences, heritage and study abroad experiences, can directly shape CFL learners' perceptions and understanding of Chinese culture. In addition, variables such as the language learning curricula and the dominant cultural ideology of the countries where CFL learners reside can influence how CFL learners approach Chinese culture and construct cultural knowledge. This study categorises and interprets the different, yet in some ways shared, basic human environmental framework of CFL learners which encompasses their cultural backgrounds, learning contexts, and cultural experiences. In addition, it provides a framework for interpreting how the background of CFL learners' understanding of Chinese culture, within the bioecological system, is formed by the learners' characteristics and interactions with Chinese culture, and their personal relationships, such as Chinese heritage, partner or friends. Therefore, Bronfenbrenner's Bioecological System Theory (2005a) is a good fit for examining the environmental factors related to the various levels of Chinese cultural knowledge.

4.8 Conclusion

This chapter outlined the theoretical framework of this study by drawing on three theories that together create the context for this research. Sapir-Whorf's Linguistic Relativity Theory (1929a) provides insight into how linguistic differences and proficiency in CFL learners can shape their Chinese cultural perceptions and interpretations.

Vygotsky's Sociocultural Theory (1978) provides insight into complementing this cultural perspective in language learning by focusing on the central role of social interaction and cultural mediation in language learning and development. It positions language learning not as an important cognitive process, but as one that is deeply embedded in social practice. Bronfenbrenner's Bioecological System Theory (2005a) emphasises the significance of how environmental systems, spanning from the personal to the societal, interplay and affect individual development. The combination of these three theories created the framework that informed the design of the methodology for this study and also provided the lens through which to interpret the study's findings.

Chapter 5 Method

5.1 Introduction

This study investigated how levels of knowledge of Chinese culture differ among learners of Chinese as a Foreign Language (CFL), and how levels of cultural knowledge vary among Chinese as a Foreign Language (CFL) learners, and to what extent these levels are influenced by learners' linguistic proficiency, learning experiences, cultural backgrounds, and other contributing factors. This chapter outlines the research methodology adopted in the study, which was informed by the scoping review phase in the development of the anonymous survey phase of this study. It presents the overall research design, explains the criteria used to select participants, and describes the procedures for data collection. It also details the methods used to analyse the data and discusses the ethical considerations addressed throughout the research process.

5.2 Research Design

This study was conducted in two phases. A research review design was used in the first phase of the study, and a cross-sectional survey design was utilised in the second phase of the study. In the first phase, a scoping review was conducted, following the protocol outlined by Arksey and O'Malley's (Arksey & O'Malley, 2005) scoping research framework, updated by Levac et al. (Levac et al., 2010). Full details of the method of the scoping review phase of the study are included in Chapter 3 of this thesis. The scoping review was conducted in the first phase in order to identify the scope of the published literature about how learners of Chinese as a foreign language (CFL) gain insights into Chinese cultural knowledge, recognise the cultural elements inherent in the language, and identify the extent to which these cultural aspects are perceived and interpreted. As a result, the scoping review identified several significant areas of research in the CFL field that were lacking. First, the literature all emphasises the importance of cultural awareness; the cultural distance or differences between the linguistic background of the native language and the foreign language on learners' learning Chinese as a foreign language. Second, there is a conspicuous lack of research on CFL learners' cultural perspectives, suggesting a lack of supply compared to the demand for comprehensive investigations. The limited scope of most studies calls for future investigations to broaden participant numbers, enabling comprehensive data collection for statistically significant findings. Third, China had the

most significant literature in the field of CFL, but this was limited to the CFL learners currently in mainland China. Fourth, all the literature gathered from the European continent originated exclusively from the UK. Considering that Europe, with its unique landscape of culturally diverse populations and numerous countries offering CFL classes, presents considerable potential for improvement. As Yu and Downing (2012b) claimed, subsequent research endeavours should delve into potential variations in second and foreign language adaptation or sociocultural adaptation among international students from diverse countries, considering the influence of each student's country of origin on their experiences (Yu & Downing, 2012b). The main phase of the research was the anonymous survey phase which investigated the influence of CFL learners' linguistic, learning experiences, and environmental and cultural backgrounds on their Chinese cultural knowledge. The survey employed quantitative methods providing an objective and reliable approach to examining language and cultural knowledge, as well as assessing language learning outcomes (Mackey & Gass, 2015, p. 54).

5.2.1 Justification for Using an Online Anonymous Survey

The online anonymous survey provided access to a diverse and wide-ranging sample across different countries, allowing for flexible participation in terms of time and location worldwide. By collecting data through an online survey channel, the research project reduced the cost and time burden of collecting large samples (Nardi, 2018). Through voluntary participation, online participants are able to answer detailed questions without pressure from time constraints (Nardi, 2018). Anonymity enabled participants to respond to detailed questions without pressure, thereby encouraging honest opinions; therefore, this online anonymous survey approach can cover a wide range of questions and topics comprehensively within a survey (Nardi, 2018). For these reasons, this online anonymous survey approach has been adopted as the optimal method to gain insights into the varying levels of knowledge of Chinese culture among a diverse range of CFL learners from different linguistic, learning, and cultural backgrounds.

5.3 Description of Sample

5.3.1 Sampling Method

The study utilised convenience and snowball sampling methods, which are non-probability sampling techniques frequently used in studies involving participants from

hard-to-reach (Noy, 2008). Considering the Chinese as a Foreign Language (CFL) learners across various regions and institutions, snowball sampling was considered the most appropriate method for collecting the sample. Initially, a list was compiled to recruit CFL participants, and the primary participants were identified through outreach to which included a list of Confucius Institutes (孔子学院) worldwide, the Chinese embassy-affiliated programmes (e.g., Chinese and Korean embassies in Dublin) and a list of universities with departments that teach Chinese as a foreign language, such as those in Dublin, the United States, South Korea, and Japan. This list contained the representative and departmental emails of each institution, collected from the public websites of each organisation. These institutions were selected due to their established role in providing formal CFL instruction and their capacity to reach geographically diverse CFL learner populations, which was the study's primary purpose. Additionally, the researcher's friends, personal contacts, including the researcher's social media, such as Facebook, Instagram, and Red Note (小红书), were included. These individuals were then invited to refer other CFL learners who met the study's inclusion criteria. The snowball sampling allowed the researcher to gradually access a wider network of CFL learners who were actively engaged in Chinese language and culture education but might not have been reachable through standard random sampling procedures. Despite its limitations in terms of representativeness (Noy, 2008), the snowball method enabled voluntary participation and sharing by individuals who were not affiliated with the institution, and this became a route that led to more participants participating in the survey through the snowball effect, which proved effective in accessing an international, multicultural cohort of CFL learners, aligning with the research objectives.

5.3.2 Inclusion and Exclusion Criteria

Participants were selected based on clearly defined inclusion and exclusion criteria designed to ensure the quantitative research data's relevance, consistency, and clarity (Nardi, 2018). The inclusion criteria for the study included the following elements: participants had to be adults over the age of 18 years and participants had to either learn Chinese as a Foreign Language (CFL) or have previously studied Chinese as a foreign language and participants were required to possess at least a beginner-level proficiency in Chinese, equivalent to HSK (Hanyu Shuiping Kaoshi) Level 1 or CEFR (Common European Framework of Reference for Languages) A1. The criteria were broad enough to include CFL learners who acquired

Chinese through formal educational settings and informal methods (e.g., self-study, reading books, application), thus allowing for a diverse representation of CFL learners' linguistic proficiency, learning experiences and cultural background factors. This study adopts CFL as the operational category for participant classification. CFL learners are defined as individuals whose primary language of socialisation is not Chinese and for whom Chinese does not function as the dominant societal language. This classification applies irrespective of whether participants have had temporary study-abroad experiences in China. The central criterion for inclusion was therefore not geographical location alone, but the sociolinguistic positioning of Chinese as a non-native and non-dominant language in the participants' broader linguistic repertoire. This operational decision ensures conceptual consistency across participants drawn from diverse educational and geographical contexts and aligns with the study's focus on the acquisition of Chinese cultural knowledge as mediated through foreign language learning. Participants of Chinese heritage background were not excluded, provided that Chinese was not their dominant language of socialisation and that their formal engagement with Chinese corresponded to foreign language learning courses rather than native language acquisition. Exclusion criteria included language learners below 18 years of age and individuals with no prior or current experience learning Chinese as a foreign language (CFL).

5.4 Description of Anonymous Survey Design

The anonymous online survey questionnaire was self-developed specifically for this study and was informed by the conceptual priorities identified in the literature review (Chapter 2) and the empirical trends and gaps mapped in the scoping review (Chapter 3). Item generation followed a deductive process in which core constructs (linguistic factors, learning experience factors, and environmental and cultural background factors) were operationalised into survey questions, alongside a separate set of items assessing self-reported knowledge of selected Chinese cultural elements. The instrument combined construct-related items (e.g., perceived cultural and linguistic influence, engagement, cultural exposure) with culturally specific knowledge items to address the study's main research question. The survey was available in Chinese and English, and all translations were cross-checked with *Xinhuaazidian* (新华字典), an authoritative dictionary source approved by the Chinese government, to ensure linguistic accuracy and specific word categories for cultural appropriateness (Clark, 2001; Guo, 2012). After its initial

development, the survey was reviewed by experts, including experienced researchers, educators specialising in Chinese as a Foreign Language (CFL) education, native Chinese speakers with expertise in law and language precision, and professionals in cross-cultural studies to assess the face validity of the instrument. Changes were made to the survey based on the feedback from the expert reviews.

The survey was created using SurveyMonkey (UC, n.d.), and it consisted primarily of Likert scale items as well as a few open-ended questions (Appendices A and B). Participants rated their applied questionnaires on a 5-point Likert scale, ranging from 1 to 5, which includes a range of importance range, 1 (“Not Important at All”) to 5 (“Very Important”); influential range, 1 (“Not at all”) to 5 (“Extremely”); thinkability range 1 (“None”) to 5 (“Many”); duration range 1 (“less than n duration”) to 5 (“More than n duration”); method of CFL learning range, 1 (“self-study with kind of method”) the more closer to lower range the more tend to went through self-study to 5 (“structured learning through kind of method”) the more closer to higher range the more tend to went through structured learning method; extent range, 1 (“Not at all”) to 5 (“to a very large extent”). Participants’ self-reported knowledge of Chinese cultural elements on a 5-point Likert scale, ranging from 1 (“not knowledgeable”) to 5 (“extensive knowledge”). In addition to Likert scale items, the survey incorporated other question formats, including multiple-choice, drop-down selection, checkbox items, and matrix rating scales. Dripdown questionnaires on country of origin, country of residence, L1, L2, L3, L4. Table 5.1 displays questionnaires that captured the participants’ linguistic factors, learning experience factors, and environmental and cultural background factors. For analytical purposes, items were organised into thematic domains (item sets) reflecting the study’s conceptual framework, for example, linguistic factors, learning experience factors, and environmental/cultural background factors, in addition to demographic variables and selected Chinese cultural knowledge items. These item sets below were used to structure data organisation and subsequent statistical analyses.

Table 5.1 Anonymous Survey *Item sets* of Linguistic, Learning Experience, Environmental and Cultural Factors, Variables and Question Numbers

Survey Item sets	Concepts Investigated in Survey Questions	Question Numbers
Linguistic Factors	Participants’ Ability to Distinguish Between Simplified and Traditional Chinese	(Q59)
	Participants’ Recognition of Chinese Words or Phrases Without Direct Equivalence in Their Native Language	(Q15)
	Participants’ Reported Chinese Proficiency Level (CEFR and HSK)	(Q18)

	Survey Completion Language	
	Participants' effect of the Chinese language use on behaviour	(Q12)
	Participants' Native Language (L1) Proficiency	(Q2)
	Participants' Second Language (L2) Proficiency	(Q60)
	Participants' Third Language (L3) Proficiency	(Q61)
	Participants' Fourth Language (L4) Proficiency	(Q62)
	Participants' Perceptions of the Importance of Learning Chinese Cultural Aspects	(Q10)
	Extent of Chinese Cultural Incorporation in Participants' Chinese Language Classes	(Q20)
	Methods Used by Participants to Study Chinese	(Q19)
	Impact of Chinese Language Learning on Changes in Participants' Perception of Chinese Culture	(Q21)
Learning Experience Factors	Duration of Participants' Chinese Language Learning	(Q16)
	Weekly Time Spent Studying Chinese	(Q17)
	A number of countries participants have visited	(Q4)
	Influence of Popular Chinese Cultural Elements on Participants' Understanding of Chinese Culture	(Q11)
	Participants' Experience of Living with Chinese People	(Q7)
	Participants' Relationships with Chinese Individuals	(Q9)
	Participants' Experience of Visiting China	(Q6)
	Participants' Initial Experience of Culture Shock When Encountering Aspects of Chinese Culture	(Q13)
	Participants' Engagement in Chinese Cultural Festivals or Events	(Q14)
	Preferred Aspects of Chinese Culture Among Participants	(Q5)
Environmental, Cultural background Factors	Participants' Identification with Chinese Heritage	(Q8)
	Age Distribution of Survey Participants	(Q1)
	Participants' Country of Origin	(Q22)
	Descriptive Statistics of Participant Distribution by Continent	
	Current Country of Residence of Participants	(Q3)
	Participants' Reported Knowledge of Yin and Yang	(Q23)
	Participants' Reported Knowledge of <i>The Art of War</i>	(Q24)
	Participants' Reported Knowledge of Xi Jinping Thought	(Q25)
	Participants' Reported Knowledge of Mao Zedong Thought	(Q26)
	Participants' Reported Knowledge of Peking Opera (Beijing Opera)	(Q27)
Other Factors	Participants' Reported Knowledge of Tai Chi (Chinese martial arts)	(Q28)
	Participants' Reported Knowledge of Ruija Sixiang (Confucian Philosophy)	(Q29)
	Participants' Reported Knowledge of Daojia Sixiang (Taoist Philosophy)	(Q30)
	Participants' Reported Knowledge of Putting Up Couplets	(Q31)
	Participants' Reported Knowledge of Hong Bao (Red Envelope with Money)	(Q32)
	Participants' Reported Knowledge of Gao Kao	(Q33)
	Participants' Reported Knowledge of Jun Xun	(Q34)
	Participants' Reported Knowledge of Buddhism	(Q35)
	Participants' Reported Knowledge of Taoism	(Q36)
	Participants' Reported Knowledge of Mo Yan	(Q37)
Chinese Cultural Elements	Participants' Reported Knowledge of Romance of the Three Kingdoms	(Q38)
	Participants' Reported Knowledge of Shui Mo Hua (Ink and Wash Painting)	(Q39)
	Participants' Reported Knowledge of Gong Bi Hua (Meticulous painting)	(Q40)
	Participants' Reported Knowledge of Etiquette of Alcohol Culture	(Q41)
	Participants' Reported Knowledge of Gong Shou Li	(Q42)
	Participants' Reported Knowledge of Chang Cheng (The Great Wall)	(Q43)
	Participants' Reported Knowledge of Bing Ma Yong (The Terracotta Army)	(Q44)
	Participants' Reported Knowledge of Huo Guo (Hot Pot)	(Q45)
	Participants' Reported Knowledge of Jiao Zi (Dumplings)	(Q46)
	Participants' Reported Knowledge of Long Jing Tea (Dragon Well Tea)	(Q47)
	Participants' Reported Knowledge of Oolong tea (Wu-lung)	(Q48)
	Participants' Reported Knowledge of Sun Wu Kong (The Monkey King)	(Q49)
	Participants' Reported Knowledge of Ne Zha (Marshal of the Central Altar)	(Q50)

Participants' Reported Knowledge of Deng Long (Red Lanterns)	(Q51)
Participants' Reported Knowledge of Bao Zhu (Firecrackers)	(Q52)
Participants' Reported Knowledge of Chun Jie (The Spring Festival)	(Q53)
Participants' Reported Knowledge of Zhong Qiu Jie (Mid-Autumn Festival)	(Q54)
Participants' Reported Knowledge of Qi Pao/Cheongsam (Traditional dress)	(Q55)
Participants' Reported Knowledge of Tang Zhuang (Tang suits)	(Q56)
Participants' Reported Knowledge of Han Zu (Han, Majority Ethnic Group)	(Q57)
Participants' Reported Knowledge of Zang Zu (Tibetan, Minority Ethnic Group)	(Q58)

To investigate the diverse linguistic characteristics of the participants, the questionnaire questions that capture various linguistic environments were classified into nine Linguistic Factors; and to capture the comprehensive learning environment including the participants' learning process, learning period, learning experience, and learning method, the questionnaire questions were classified into six Learning Experience Factors; and to capture the cultural experience in detail, including the diverse environmental and cultural backgrounds of the participants from all over the world, the questionnaire questions were classified into nine Environmental and Cultural background Factors. In addition, the questionnaire questions were classified into Other Factors, which included four survey questions designed to capture the basic demographic characteristics of the participants. The selection of Chinese cultural elements was guided by three operational criteria. First, these selected Chinese cultural elements were required to have sustained representation in academic scholarship across disciplines, including philosophy, literature, history, cultural studies, and applied linguistics. Second, these selected Chinese cultural elements needed to reflect domains that are commonly referenced in Chinese language education materials, both in formal and informal, intercultural communication research, or public cultural discourse, in that way ensuring relevance to learners of Chinese as a Foreign Language (CFL). Third, the final set was designed to ensure a categorical range across multiple dimensions of culture, including ideological, philosophical, artistic, social, ritual, historical, and everyday-life practices in Chinese culture. These selected Chinese cultural elements were not aiming to construct an exhaustive representation of "Chinese culture." The instrument operationalised a cross-domain sample of widely recognised cultural referents that are likely to be encountered by CFL learners through formal instruction, media exposure, social interaction, or study-abroad contexts. The purpose of inclusion was thus analytical comparability and categorical coverage rather than canonical prioritisation. This approach enabled the anonymous survey to assess relative levels of familiarity across diverse domains while maintaining conceptual coherence with the study's research

question. In addition, the identification of Chinese cultural elements was informed by widely circulated cultural frameworks and recognised lists promoted within official Chinese cultural and educational platforms. These platforms, such as Confucius Institutes, function as standardised reference points in the dissemination of Chinese cultural knowledge both domestically and internationally, particularly within language education contexts. The decision to draw on such sources was methodological rather than ideological: it ensured consistency, recognisability, and pedagogical relevance for CFL learners who are frequently exposed to these cultural representations through institutional curricula and state-supported cultural initiatives. (Table 5.2).

Table 5.2 Chinese Cultural Categories and Cultural Elements Included in the Anonymous Survey

Chinese Cultural Categories and Cultural Elements Included in the Survey			
Cultural Categories	Cultural elements in English	Cultural elements in Chinese	Associated References
Ideas, Ideology	• Ying and Yang • The Art of War • Xi Jinping Thought • Mao Zedong Thought	• 阴阳 • 《孙子兵法》 • 习近平思想 • 毛泽东思想	(Barmé, 1999; Bodde, 1942; Chenshan, 2019; Cohen & Goldman, 1990; Fang, 2014; Feuerwerker, 1998; Fung, 1922; Garrick & Bennett, 2018; Ho & Chiu, 1994; Laufer, 1914; Mierzejewski & Kowalski, 2018; Tzu, 2008; Wang, 1996; Wang, 2013)
Values	• Peking Opera (Beijing Opera) • Tai Chi (Chinese martial arts)	• 京剧 • 太极拳	(Deng et al., 2023; Guo et al., 2014; Lei, 2015; Li et al., 2001; Li, 2023; Niu et al.; Robins et al., 2012; Wang et al., 2014; Yu, 2017)
Philosophy	• Rujia sixiang (Confucian philosophy) • Daojia sixiang (Taoist philosophy)	• 儒家思想 • 道家思想	(Angle, 2010; Feng & Chen, 2023; Feng, 1948; He, 2011; Hu, 2019; Lee & Lai, 1977; Leslie, 1964; Moore, 1978; Nie & Jones, 2019; Wong, 2008; Yang & Sternberg, 1997)
Lifestyles	• Putting up couplets (including "Spring" couplets and "Fu" characters) • Hong Bao (Red envelope with money in it)	• 贴春联(包括“春”联和“福”字) • 红包(内含钱的红色信封)	(Birrell, 1999; Chung, 2011; Cohen, 1992; Lewis, 2009; Lodén, 2007; Shu-xian, 2018; Werner, 1994; Yang & An, 2008; Yu, 2014)
Education	• Gao Kao (The annual national undergraduate admission exam of China) • Jun Xun (Mandatory Military training)	• 高考 • 军训	(Guo et al., 2021; Kádár & House, 2021; Liu & Helwig, 2022; Pires & Duarte, 2019; Sargent, 2015; You & Hu, 2013)
Religion	• Buddhism • Taoism	• 佛教 • 道教	(Adler, 2002; Ching, 2016; Feuchtwang, 2016; Kieschnick, 2020; Lopez, 1996; Miller, 2006)
Literature, Literature figure	• Mo Yan • Romance of the Three Kingdoms	• 莫言 • 《三国演义》	(Feuerwerker, 1982, 1998; Giles, 2008; Goldman, 1977; Hong, 2007; Idema & Haft, 1997; Moody Jr, 1975; Owen, 1986, 2020; Ying, 2021)
Art	• Shui Mo Hua (Ink and wash painting) • Gong Bi Hua (Meticulous painting)	• 水墨画 • 工笔画	(Cheng, 2010; Geng, 2018; Jiang et al., 2019; Karlsson, 2004; Libin et al., 2024; Stanley-Baker, 1992; Sullivan, 2023; Y. Zhou, 2020)

non-verbal Language etiquette	• Etiquette of Alcohol Culture (e.g., Seating arrangements, toasting, pouring, and drinking customs) • Gong shou li (The fist-and-palm traditional Chinese greeting)	• 酒文化礼仪(如敬酒、倒酒和饮酒习俗) • 拱手礼(传统的中国式问候)	(Bucknall, 1999; De Mente, 2016; Kasper, 2017; Millet, 2018; Olberding, 2016; Ostrowski & Penner, 2011; Wang et al., 2024; X. Wang et al., 2022; Xu et al., 2018b)
Cultural Relic collection	• Chang Cheng (The Great Wall) • Bing Ma Yong (The Terracotta Army)	• 长城 • 兵马俑	(Husheng et al., 2023; Jingsong, 2001; Li, 2011a; Li & Luo, 2011; Prüch, 2014; Underhill, 2013; Yang & Shen, 2024) (Bol, 2001; Chan, 2007; Deng et al., 2020; Howland, 1996; Lin, 2002; Veeck, 2007; Zheng, 2006)
Food & Tea	• Jiao Zi (Dumpling) • Huo Guo (Hot Pot) • Long Jing tea (Dragon Well Tea) • Oolong tea (Wu-lung Tea)	• 饺子 • 火锅 • 龙井茶 • 乌龙茶	(Benn, 2015; Li & Hsieh, 2004; Li, 1993; Liu, 2012; Lu & Fine, 1995; Newman, 2004; Rumsey, 2007; Tian et al., 2018; Xiusong, 1993; Xu et al., 2018a; Yang et al., 2021)
mythology	• Sun Wu Kong (The Monkey King) • Ne Zha (Marshal of the Central Altar)	• 孙悟空 • 哪吒	(Birrell, 1999; Lei, 2024; Shu-xian, 2018; Tian et al., 2020; Yang & An, 2008)
Metaphor & traditional rules	• Deng Long (Red Lanterns) • Bao Zhú (Firecrackers)	• 灯笼 • 爆竹	(Asif & Ali, 2019; Huang, 1991; Li, 2023; Xiao et al., 2017)
Festival	• Chun Jie (The Spring Festival) • Zhong Qiu Jie (Mid-Autumn Festival)	• 春节 • 中秋节	(Asif & Ali, 2019; Huang, 1991; Ibekwe, 2021; Li, 2023; Xiao et al., 2017)
Ethnic customs	• Qi Pao/Cheongsam (Traditional dress) • Tang Zhuang (Tang suits)	• 旗袍 • 唐装	(Cheng, 2021; Chew, 2007; Ling, 2013; Ng, 2015; Qiu, 2021; Tomasic, 2023; Xu et al., 2018a; Yang, 2007)
Ethnic groups	• Han Zu (Han, Majority Ethnic Group) • Zang Zu (Tibetan, Minority Ethnic Group)	• 汉族 • 藏族	(Gulia, 2007; Mackerras, 2003 ; 2005; Mullaney, 2011; Zang, 2018)

The survey explored participants' reported knowledge of various Chinese cultural elements. A total of 36 sub-elements of different Chinese cultural elements were explored that covered the following topic areas: ideology, values, philosophy, lifestyles, education, religion, literature, literature figures, arts, non-verbal language etiquette, cultural relic collection, food, tea, mythology, metaphor and traditional rules, festival, ethnic customs, and ethnic groups. The anonymous survey consisted of a total of 64 questions, which were closely aligned with the study's research question and theoretical framework. Measures of internal consistency (e.g., Cronbach's alpha) were not applied to all grouped items because the questionnaire contained heterogeneous item formats and functionally distinct indicators within each domain (e.g., factual background variables, cultural exposure measures and self-reported attitudinal ratings). In this study, the grouped domains were treated primarily as collections of observed variables.

5.4.1 Description of Pilot Study

A pilot study (n=4) was conducted using SurveyMonkey (<https://www.surveymonkey.com>) to evaluate the usability, interpretability, and cross-language clarity of both the English and Chinese versions of the anonymous survey. The pilot focused on identifying ambiguous wording, response-option inconsistencies, survey length burden, and technical functionality across different electronic devices. Revisions were subsequently made to improve item clarity, reduce ambiguity, and standardise item presentation formats, including resolving inconsistencies between matrix and dropdown response formats. Expert review supported the instrument's face validity and ensured that the survey content was appropriate for CFL learners with varied proficiency levels and cultural experiences. In line with (Beaton et al., 2000; Brislin, 1970; Chien et al., 2014) guidelines for cross-cultural translation and adaptation, special care was taken to ensure the survey's accuracy, clarity, and cultural appropriateness in both languages. Pilot study participants (n=4) were sent the anonymous survey link by email. Feedback from the pilot identified questions and statements that required minor adjustments to enhance clarity and reduce ambiguity. Feedback from the pilot also led to the removal of visual images accompanying certain cultural items, as their inclusion increased survey length and introduced potential variability in display quality across devices. Minor revisions were made to rephrase technical or potentially ambiguous language and to enhance coherence across item sets. The pilot study was used to refine the clarity, accessibility, and functional design of the instrument before full deployment. Details of changes as follows: a key issue was resolved involving the combination of matrix and dropdown formats within specific questions, which would have yielded only descriptive-level data. To fix this, the format of these questions was revised to use either a matrix or a drop-down format exclusively. Another issue identified as a result of the pilot study was that some of the Chinese cultural elements depicted in questions had pictures associated with the cultural element items displayed with the question, and others did not include pictures of the cultural elements, through the pilot study, decided not to include images or pictures, since this survey can be completed via a variety of electronic devices, including computers, tablets, and mobile phones, image provision was excluded from the final questionnaire due to increased the length of the survey and the comprehensive factors that could distract the participants with added visual stimuli, differences in image size, quality, and color. Minor changes were made to the survey to resolve these issues. For instance, changes included rephrasing of overly technical

or ambiguous language and adjusting wording to align with participants' varied proficiency levels and cultural experiences. Initial feedback from the pilot test was used to ensure coherence and consistency across the survey's questions and item sets. The pilot study also successfully identified and resolved several issues related to survey design and technical functionality that were subsequently addressed.

5.5 Ethical Considerations

The research was granted ethical approval on May 2, 2024, by the Research Ethics Committee of the School of Linguistics, Speech & Communication Sciences REC-HT68 (Appendix C). Trinity College Dublin.

5.6 Data Collection Procedure

A participant information leaflet (Appendix I) and the anonymous survey link were distributed via email. Participant information infographics (Appendix D English, and E Chinese) and a gatekeeper letter (Appendix F) were available in English, and they were also translated into Chinese and Korean. The participant information infographic was posted on the webpages listed above, and the gatekeeper letter was sent to the organisations listed above. The anonymous survey was also distributed via online platforms, social media, and webpages specifically chosen for their popularity and relevance among CFL learners globally; webpages such as Red Note (小红书), Instagram, WeChat (微信), etc., as well as through educational institutes and CFL learning communities worldwide (Table 5.3). These distribution channels were selected to maximise participant reach and accessibility while ensuring CFL learners from diverse linguistic and cultural backgrounds could participate. Data collection was conducted over a defined period of fifteen weeks, from 26 September 2024 to 2 January. Table 5.3 displays the distribution channels used to disseminate the survey.

Table 5.3 *Survey Distribution Channels*

Survey Distribution Channels		
Distribution Channels	Organisations	Contribution Details
Educational Networks	Collaboration with Chinese CFL Teachers	Teachers in various Chinese and international universities helped distribute the survey to students actively engaged in CFL programs.
	University Partnerships in Ireland	Chinese language instructors from University College Dublin (UCD) and Dublin City University (DCU) distributed the survey among students and faculty.

	Trinity College Dublin's Asian Studies Network	The Trinity Centre for Asian Studies contributed by promoting the survey through its academic network including Pakistan universities.
	Japanese Network	A colleague in Okinawa distributed the survey to CFL learners in Japan, further diversifying the sample.
	The U.S.A. Network	A colleague in the Virginia Beach shared the survey to CFL learners in Virginia University and Connecticut American Navy camps' neighbours via text and email.
Outreach to Korean Academia	Emails to Chinese Language Programs in Korean Universities	Korean universities with strong CFL programs received survey invitations for student and faculty participation.
	Confucius Institutes in Korea	Confucius Institutes in Seoul, Busan, Anyang, and Gwangju distributed the survey among their students and staff.
Diplomatic Networks	Chinese Embassies in Ireland	The embassies helped distribute the survey to Chinese expatriates and students, enhancing respondent diversity.
	Chinese Embassies in Korea	The embassies helped distribute the survey to Chinese expatriates and students, enhancing respondent diversity.
Social Media Campaign	General Social Media Platforms: Red Note(小红书), Instagram, Facebook	Survey shared across major platforms to reach a broad and diverse audience of CFL learners worldwide.
	Targeted Weibo Promotion	A Chinese contact with a large following on Weibo shared the survey, extending reach to CFL learners in China.

The survey distribution strategy relied heavily on collaborations with academic institutions and language schools that offer Chinese language courses. The initial goal was to reach students directly involved in CFL programs in China and Ireland, and therefore, invitations were sent via email and shared on institutional websites and social media platforms. The gatekeeper letter and link to the survey were also sent to Chinese friends teaching Chinese as a foreign language and Chinese CFL teachers in various universities across China and other countries. Their participation was instrumental in reaching CFL learners within the Irish higher education system. The Trinity Centre for Asian Studies, Trinity College Dublin, Japan: A Japanese colleague based in Okinawa, Japan, shared the survey, both English and Chinese versions, with CFL learners in Okinawa and Tokyo by sending emails and contacting via Line applications to formal CFL learners in China and Japan, ensuring that the survey was distributed to learners outside of China, thereby increasing the diversity of respondents.

To expand the survey's reach beyond China and Ireland, emails were sent to universities in Korea with vital Chinese language programs, inviting participation from both faculty and students. Emails to multiple Korean universities: These institutions were invited to act as gatekeepers in the study due to their robust Chinese language programs. In addition to academic and educational networks, diplomatic channels were leveraged to broaden the survey's scope. Emails were sent to the Chinese embassies in Ireland and Korea,

inviting them to share the survey with their networks. These embassies were selected to reach Chinese expatriates and students studying in these countries, potentially broadening the pool of participants and adding valuable diversity to the sample. Social media also played a critical role in ensuring the survey reached a global audience of CFL learners. Platforms such as Red Note (小红书), Instagram, Facebook, Twitter, LinkedIn, and Weibo were utilised to distribute the survey to a broader and more varied group of potential participants. Sharing the survey on Red Note (小红书), Instagram, and Facebook (X). Additionally, a Chinese friend with a significant following on Weibo (微博) shared the survey, ensuring it reached a more significant number of Chinese speakers and CFL learners. Weibo (微博), one of China's most popular open blogging platforms, was helpful in attracting participants who may not have been reached through traditional academic networks.

5.7 Data Analysis

Participant responses were initially exported directly from SurveyMonkey (<https://www.surveymonkey.com>) and saved in IBM SPSS version 29 (*IBM SPSS Statistics for Windows*, 2022) for statistical analysis. Once the raw dataset was imported into SPSS, a review of participant responses (n=104) was carried out. Responses with missing data were removed from the dataset, and a total of 71 responses remained after data cleaning was completed. The following statistical tests were carried out in the data: descriptive statistics, including mean scores and standard deviations, frequencies and percentages, Correlations (Pearson's r and Spearman's ρ), independent samples t-tests, analysis of variance (ANOVA), Chi-square tests, cross-tabulations, and Multiple Regression Analysis (MRA). Descriptive statistics analysis was conducted to summarise the sample demographics, such as age, current residency, country of origin, cultural background, years of Chinese language study, and levels of Chinese cultural knowledge and language proficiency. Frequencies and percentages were calculated for categorical variables (e.g., cultural background, native language L1). Initially, descriptive statistical analyses were conducted to summarise and characterise the demographic, linguistic, learning, and cultural backgrounds of the sample. These statistics provided a foundational overview of the CFL participants, allowing for the identification of patterns and differences among subgroups of CFL learners. Mean scores and standard deviations were calculated to identify patterns across participant responses regarding their self-reported knowledge of the 36 Chinese

cultural elements and other variables. Each element was rated on a Likert scale ranging from 1 ("not knowledgeable") to 5 ("extensive knowledge") (Appendix A English and B Chinese). Correlational analysis (Pearson's r and Spearman's ρ) was used to explore the links between key continuous variables in the study. These variables included participants' linguistic proficiency, learning experience, and cultural backgrounds (e.g, learning methods, learning environments, learning period, levels of Chinese cultural knowledge, and Chinese language proficiency in HSK).

Chi-square tests and cross-tabulation analyses were conducted to explore differences between categorical variables related to CFL learners' linguistic proficiency, cultural backgrounds, and learning experiential factors. These analyses were used to examine whether statistically significant relationships existed between variables such as HSK level, heritage background, visiting China, having lived with Chinese people, or personal relationships with native Chinese speakers, and their levels of Chinese cultural knowledge. Cross-tabulations provided a detailed visual representation of the distribution of responses across groups, while the Chi-square tests assessed the independence of these associations.

Correlational analysis was carried out to identify statistically significant associations, such as between language proficiency and cultural knowledge, and to highlight areas warranting further inferential analysis. For example, relationships between participants' Chinese proficiency levels and their Chinese cultural knowledge scores, between age and cultural knowledge, and between the number of years studying Chinese and their levels of knowledge of Chinese culture were examined using correlational analysis. Independent samples t-tests were carried out to examine whether statistically significant differences existed among CFL learners, in groups of two, with different cultural backgrounds, levels of Chinese language proficiency, or varying types of learning experience or learning method (e.g., formal instruction versus self-study) demonstrated significant differences in their Chinese cultural knowledge scores.

Analysis of Variance (ANOVA) was used to determine whether statistically significant differences existed in Chinese cultural knowledge scores across more than two groups of CFL learners. This method enabled the comparison of mean differences between groups defined by categorical variables, facilitating the identification of whether group

membership had a measurable effect on learners' cultural knowledge scores across multiple groups of CFL learners, based on their linguistic proficiency, learning experiences, and cultural backgrounds. Comparisons were made between groups based on categorical variables, including HSK certification level, length of Chinese study, prior visits to China, living experience with Chinese people, and personal relationships with native Chinese speakers. Multiple regression analysis was conducted to examine selected factors that impacted dependent outcomes, such as participants' Chinese language proficiency and cultural knowledge. Predictor variables included learning methods (e.g., formal instruction versus self-study), demographic factors (e.g., age, native language L1), cultural exposure, and other contextual factors. The multiple regression analysis allowed for the assessment of each predictor's relative contribution and the interactions among them, aligning closely with the research aim of understanding the complex relationship between language learning processes and cultural knowledge acquisition.

5.8 Conclusion

This chapter outlines the methodological foundation of the current research, encompassing the research design, participant sampling strategy, development of the online survey instrument, data collection procedures, ethical considerations, and data analysis techniques. The methodological choices made in this chapter were designed to ensure the clarity, usability, and ethical integrity of the research. The following chapter presents the results of the anonymous online survey, providing a detailed analysis of CFL learners' levels of knowledge of Chinese culture and the factors that influenced it.

Chapter 6 Results

6.1 Introduction

This chapter presents the findings from the anonymous survey, which explored Chinese as a Foreign Language (CFL) learners' levels of knowledge of Chinese culture and the factors linked to their levels of knowledge of Chinese culture. The anonymous survey addressed the following research question: *How do linguistic proficiency, learning experiences, cultural background, and other contributing factors influence CFL learners' levels of knowledge of Chinese culture?* The results are organised into the following sections: 6.2 Description of the whole sample, 6.3 Mean scores for the whole sample on levels of knowledge of Chinese cultural elements, 6.4 Linguistic factors and levels of knowledge of Chinese culture, 6.5 Learning factors and of levels of knowledge of Chinese culture, 6.6 Cultural background factors and levels of knowledge of Chinese culture, 6.7 Demographic factors and levels of knowledge of Chinese culture, 6.8 Description of various factors multiple regressions and non-parametric Spearman correlation, 6.9 Conclusion.

6.2 Description of the whole sample

This section displays the statistical analysis results with the bar graphs and descriptions of the whole sample from SPSS version 29 (*IBM SPSS Statistics for Windows*, 2022). The participants (n=71) completed the anonymous survey in either English or Chinese (Figure 6.1).

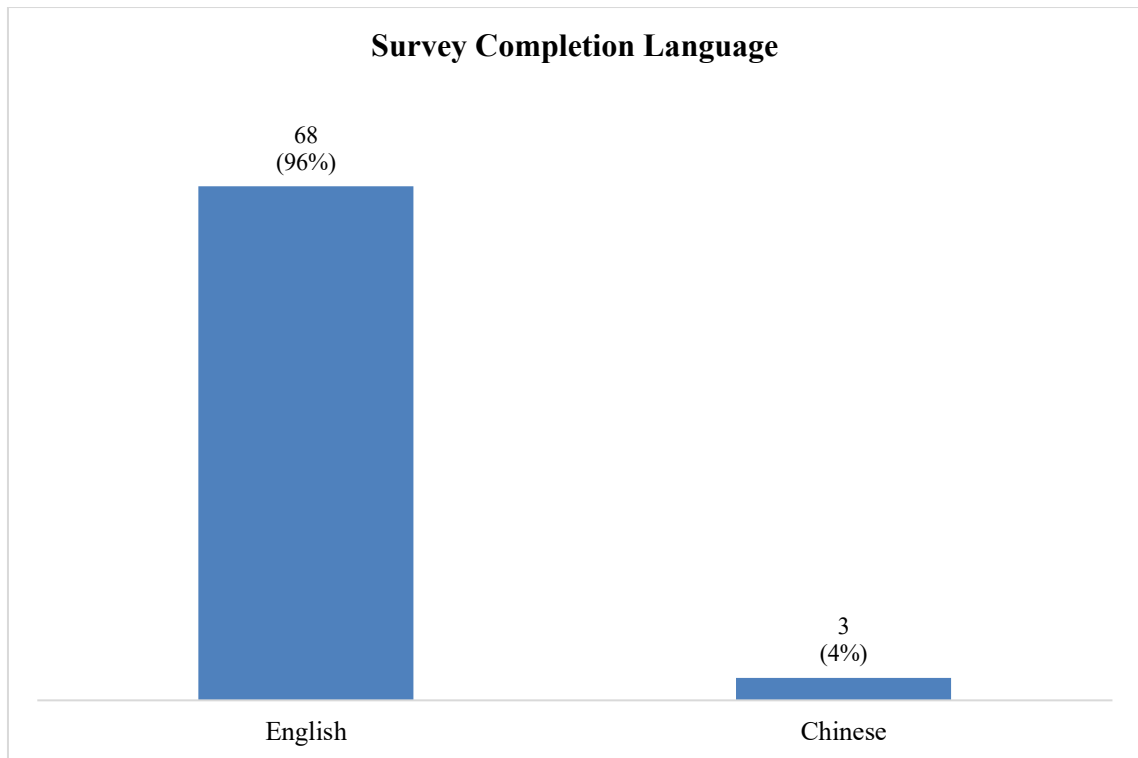


Figure 6.1 Survey Completion Language

Most participants (96%, n=68) completed the English version of the survey, and only 4% (n=3) completed the Chinese version of the survey. The reported age ranges of participants are displayed in Figure 6.2.

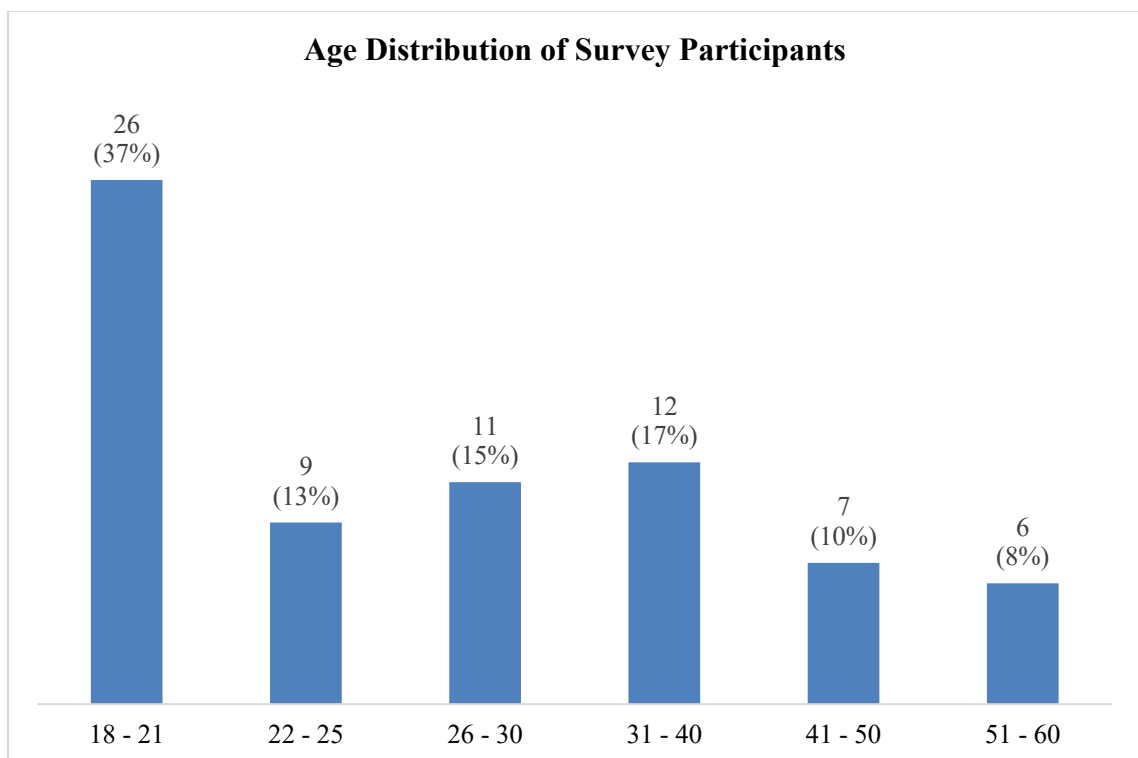


Figure 6.2 Age Distribution of Survey Participants

More than one third of participants 37% (n=26) reported that they were in the 18-21 age group, with 17% (n=12) reporting that they were in the 31–40 age group, 15% (n=11) reporting that they were in the 26–30 age group, 13% (n=9) reporting that they were in the 22–25 age group, 10% (n=7) reporting that they were in the 41–50 age group, and 8% (n=6) reporting that they were in the 51–60 age group.

The distribution of the participants' native languages (L1) is displayed in Figure 6.3.

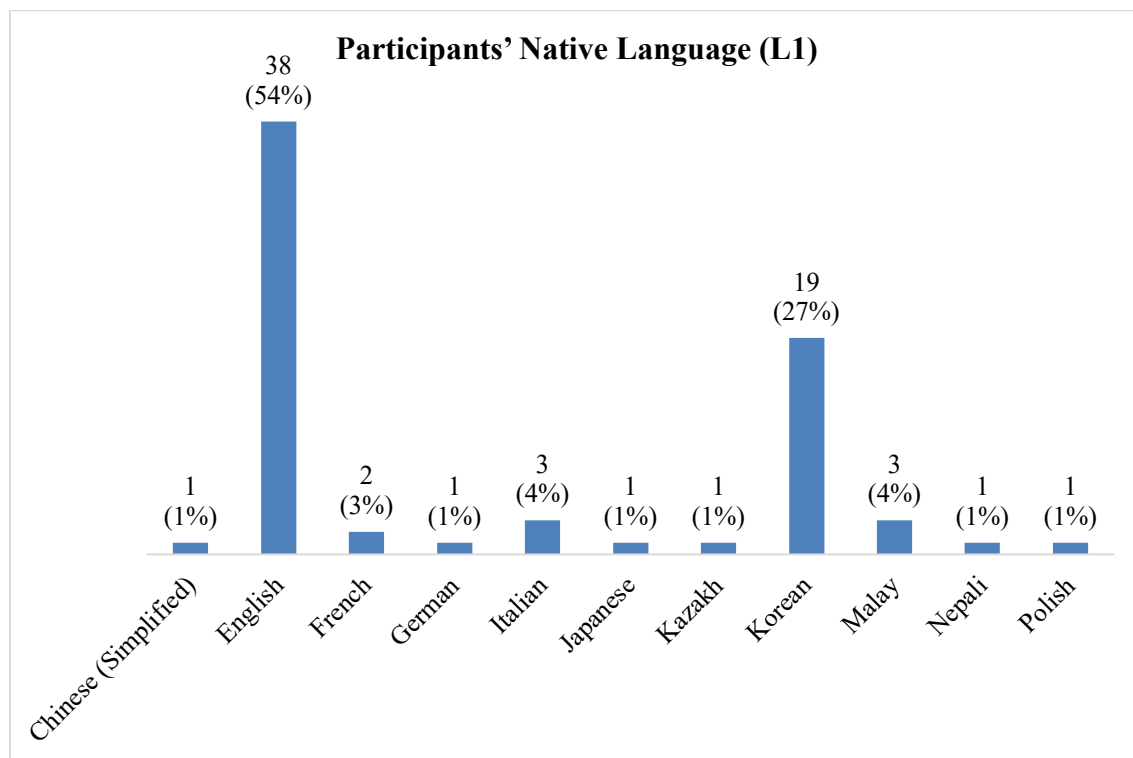


Figure 6.3 Participants' Native Language (L1)

More than half of the participants (54%, n=38) reported that their native language (L1) was English, with 27% (n=19) reporting that their L1 was Korean, 4% (n=3) reporting that their L1 was Malay, another 4% (n=3) reporting that their L1 was Italian, 3% (n=2) reporting that their L1 was French, 1% (n=1) reporting that their L1 was Chinese (Simplified), 1% (n=1) reporting that their L1 was German, 1% (n=1) reporting that their L1 was Japanese, 1% (n=1) reporting that their L1 was Kazakh, 1% (n=1) reporting that their L1 was Nepali, and 1% (n=1) reporting that their L1 was Polish.

The distribution of the participant's second languages (L2) is displayed in Figure 6.4.

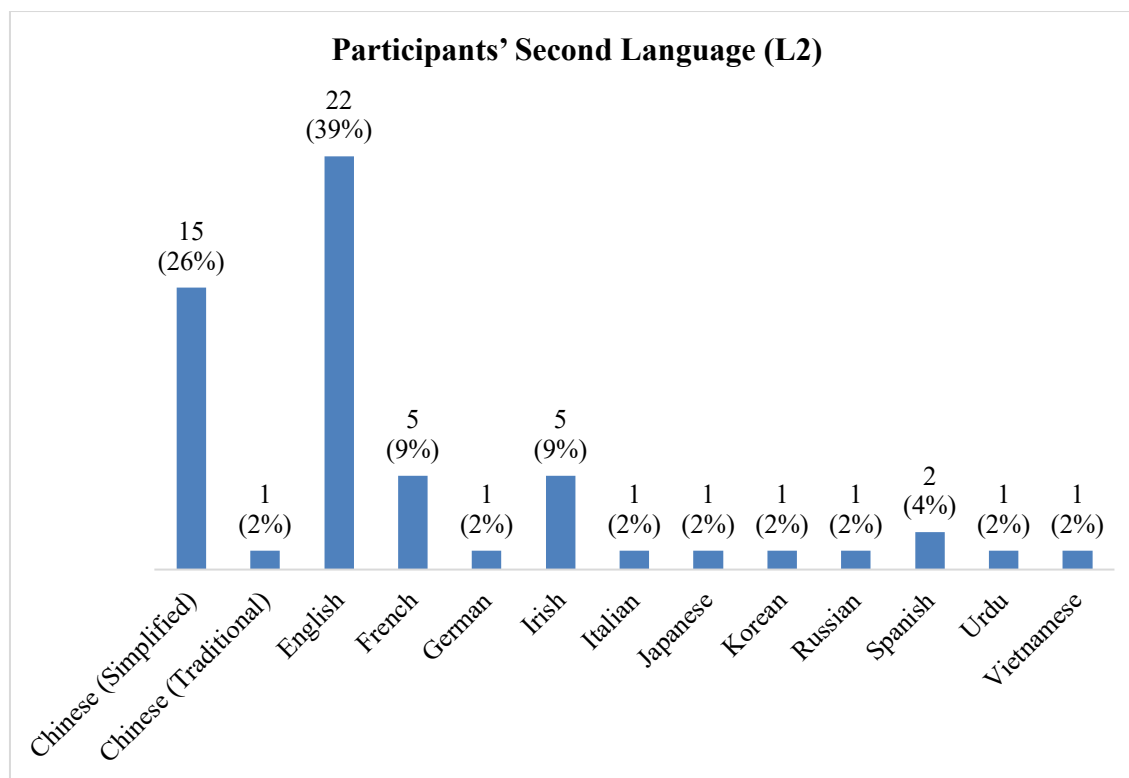


Figure 6.4 Participants' Second Language (L2)

More than one third of participants (39%, $n=22$) reported that their Second language (L2) was English, with 26% ($n=15$) reporting that their L2 was Chinese (Simplified), 9% ($n=5$) reporting that their L2 was French, 9% ($n=5$) reporting that their L2 was Irish, 4% ($n=2$) reporting that their L2 was Spanish, 2% ($n=1$) reporting that their L2 was Chinese (Traditional), 2% ($n=1$) reporting that their L2 was German, 2% ($n=1$) reporting that their L2 was Italian, 2% ($n=1$) reporting that their L2 was Japanese, 2% ($n=1$) reporting that their L2 was Russian, 2% ($n=1$) reporting that their L2 was Urdu, and 2% ($n=1$) reporting that their L2 was Vietnamese.

The distribution of participants' third languages (L3) is displayed in Figure 6.5.

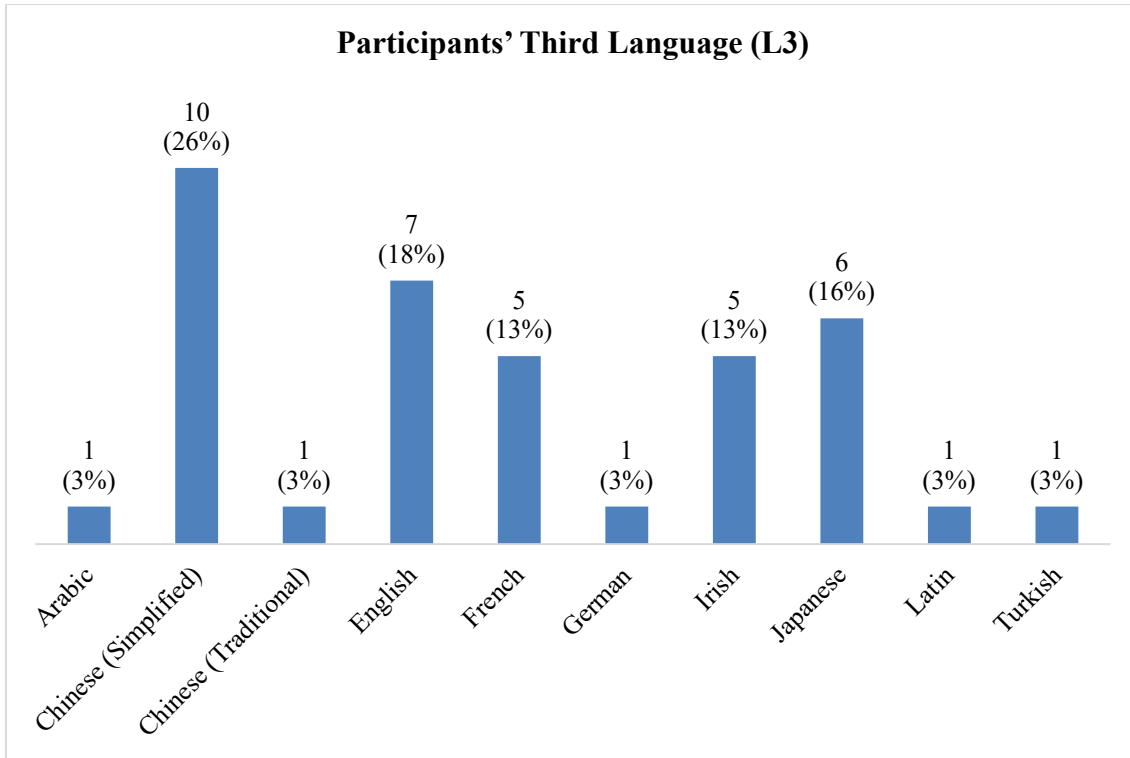


Figure 6.5 Participants' Third Language (L3)

Among the participants, more than half of the participants (53%, $n=38$) reported that they have a third language (L3). 26% ($n=10$) reported that their L3 was Chinese (Simplified), with 18% ($n=7$) reporting that their L3 was English, 16% ($n=6$) reporting that their L3 was Japanese 13% ($n=5$) reporting that their L3 was French, another 13% ($n=5$) reporting that their L3 was Irish, 3% ($n=1$) reporting that their L3 was Arabic, 3% ($n=1$) reporting that their L3 was Chinese (Traditional), 3% ($n=1$) reporting that their L3 was Latin, 3% ($n=1$) reporting that their L3 was German, and 3% ($n=1$) reporting that their L3 was Turkish.

The distribution of participants based on their reported fourth language (L4) is displayed in Figure 6.6.

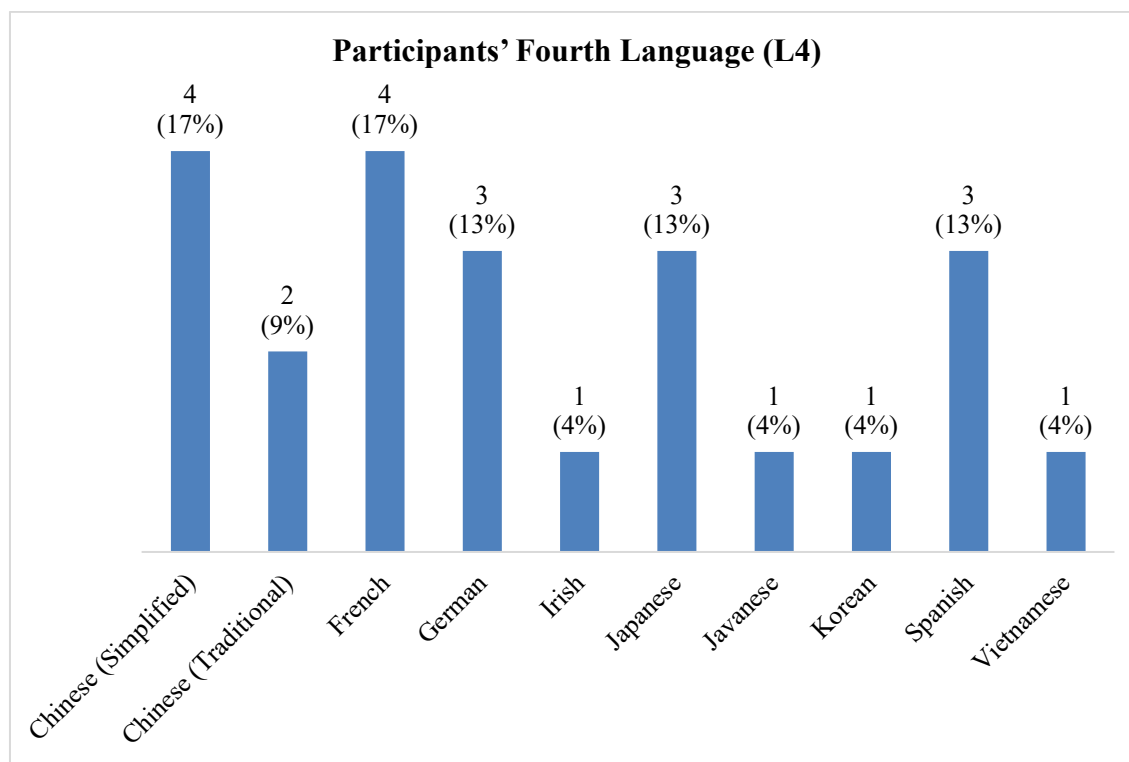


Figure 6.6 Participants' Fourth Language (L4)

Among the participants, more than one-third of the participants (32%, n=23) reported that they have a fourth language (L4). Their fourth languages varied considerably, with 17% (n=4) reporting that their L4 was Chinese (Simplified), with another 17% (n=4) reporting that their L4 was French, 13% (n=3) reporting that their L4 was German, 13% (n=3) reporting that their L4 was Japanese, another 13% (n=3) reporting that their L4 was Spanish, 9% (n=2) reporting that their L4 was Chinese (Traditional), 4% (n=1) reporting that their L4 was Irish, 4% (n=1) reporting that their L4 was Javanese, 4% (n=1) reporting that their L4 was Korean, and 4% (n=1) reporting that their L4 was Vietnamese.

The distribution of participants based on their countries of origin is displayed in Figure 6.7.

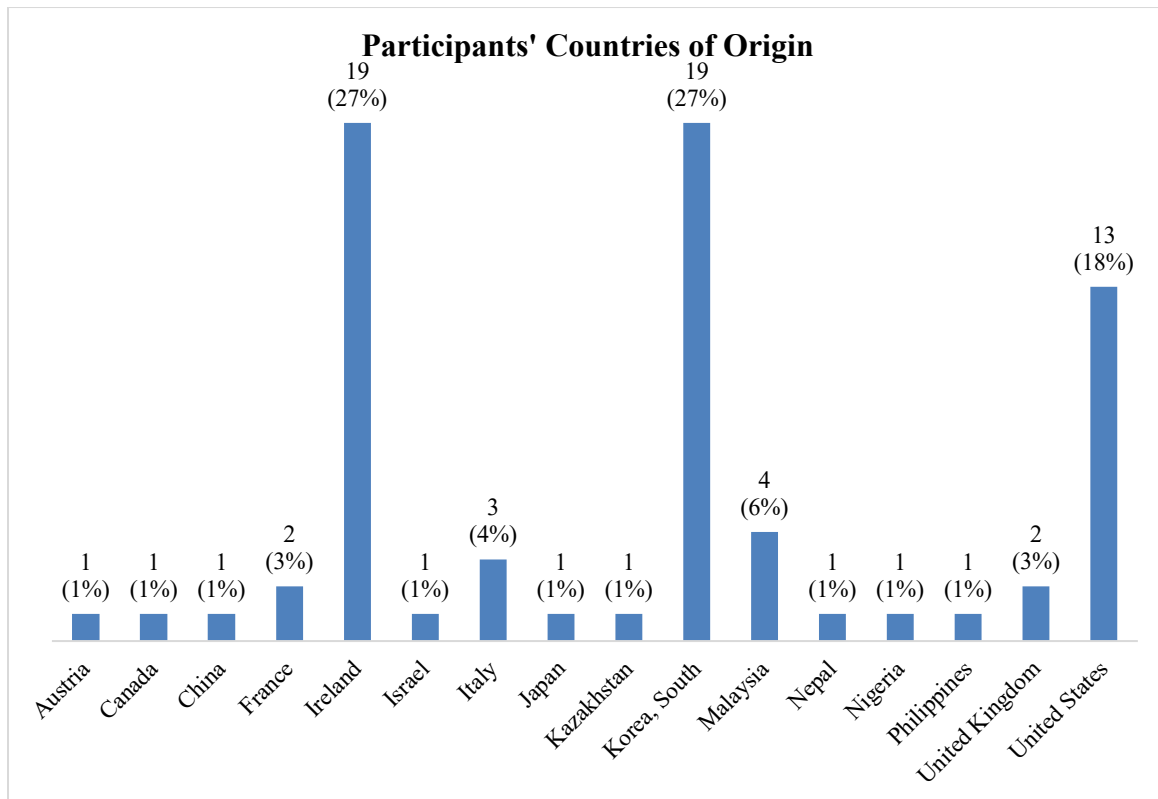


Figure 6.7 Participants' Country of Origin

The most significant proportion of participants (27%, n=19) reported that they were from Ireland, with 27% (n=19) reporting that they were from South Korea, 18% (n=13) reporting that they were from the United States, 6% (n=4) reporting that they were from Malaysia, 4% (n=3) reporting that they were from Italy, 3% (n=2) reporting that they were from the United Kingdom, another 3% (n=2) reporting that they were from France, 1% (n=1) reporting that they were from Austria, 1% (n=1) reporting that they were from Canada, 1% (n=1) reporting that they were from China, 1% (n=1) reporting that they were from Israel, 1% (n=1) reporting that they were from Japan, 1% (n=1) reporting that they were from Kazakhstan, 1% (n=1) reporting that they were from Nepal, 1% (n=1) reporting that they were from Nigeria, and 1% (n=1) reporting that they were from the Philippines.

The continents of origin of the participants are displayed in Figure 6.8

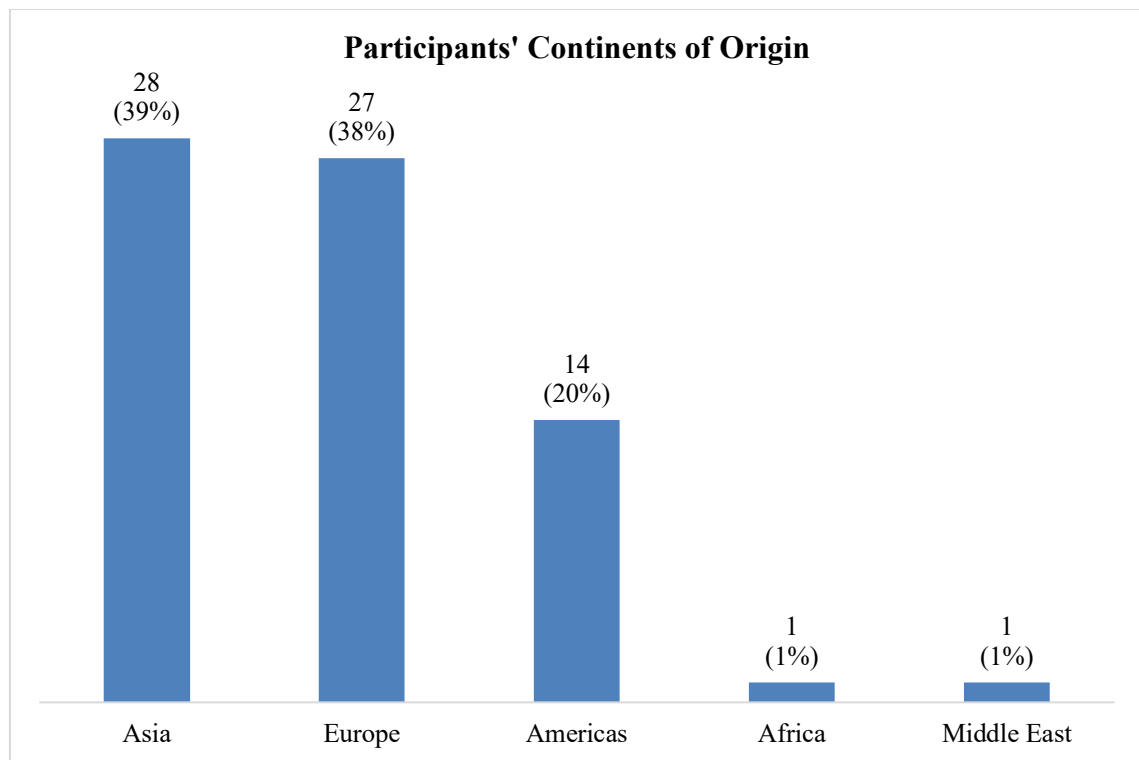


Figure 6.8 Descriptive Statistics of Participant Distribution by Continent

More than one third of participants (39%, n=28) reported that they were from Asia, with 38% (n=27) reporting that they were from Europe, 20% (n=14) reporting that they were from the Americas, 1% (n=1) reporting that they were from Africa, and another 1% (n=1) reporting that they were from Middle East.

The participants' levels of identification with Chinese heritage is displayed in Figure 6.9.

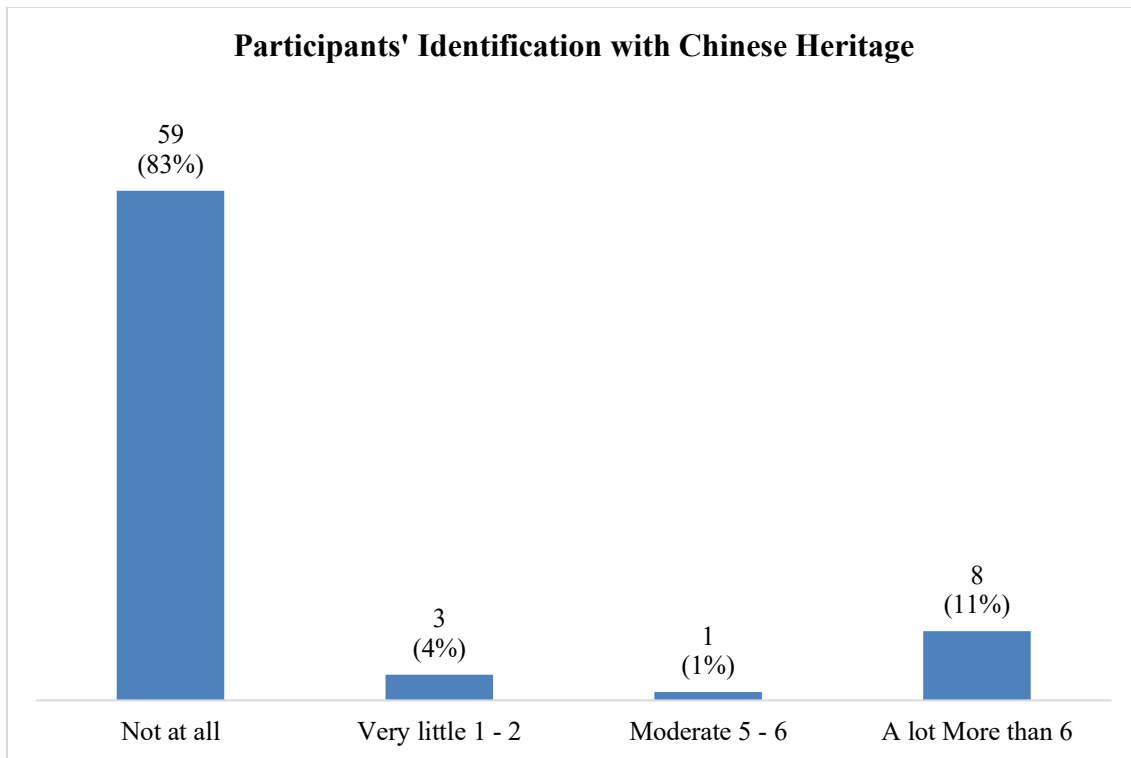


Figure 6.9 *Participants' Identification with Chinese Heritage*

Most of the participants (83%, n=59) reported that they do not have a Chinese heritage background at all, with 11% (n=8) reporting that they had Chinese heritage a lot more than six family members, 4% (n=3) reported that they had Chinese heritage very little one or two of family members, 1% (n=1) reported that they had Chinese heritage moderate five or six family members.

The participants' current country of residence in the survey is displayed in Figure 6.10.

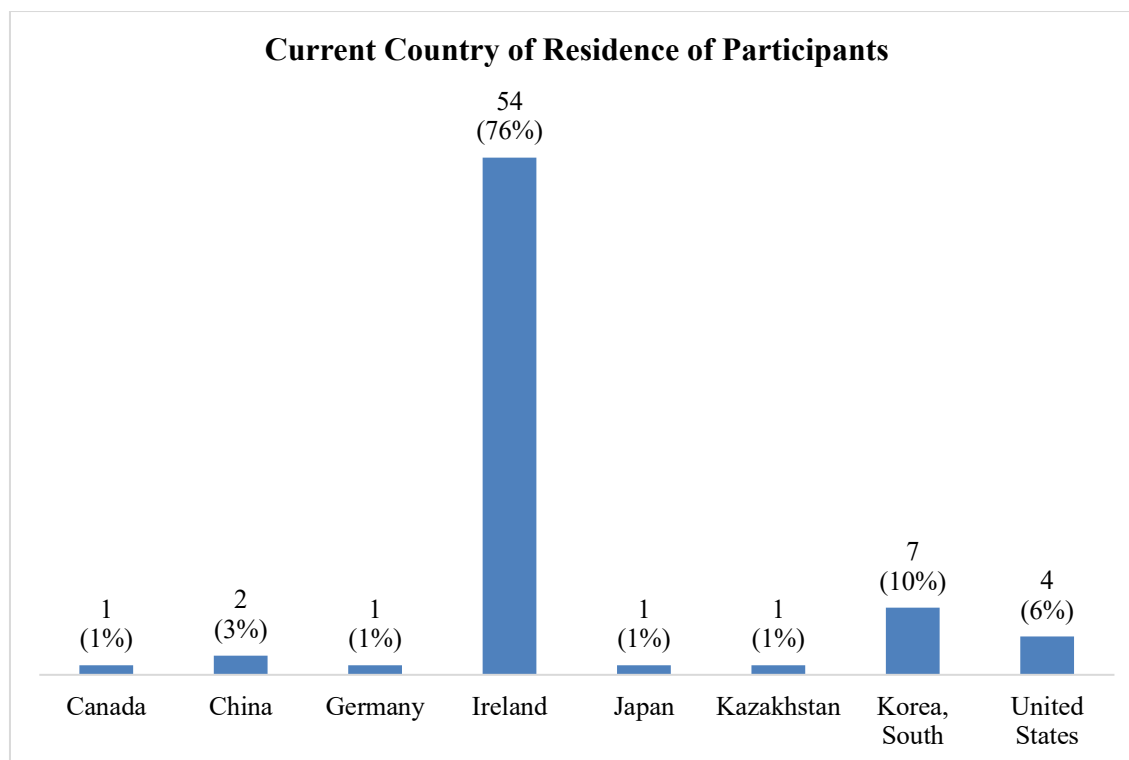


Figure 6.10 *Current Country of Residence of Participants*

Most of the participants (76%, $n=54$) reported that they resided in Ireland, with 10% ($n=7$) reporting that they resided in South Korea, 6% ($n=4$) reporting that they resided in the United States, 3% ($n=2$) reporting that they resided in China, 1% ($n=1$) reporting that they resided in Canada, 1% ($n=1$) reporting that they resided in Germany, 1% ($n=1$) reporting that they resided in Japan, and 1% ($n=1$) reporting that they resided in Kazakhstan.

The distribution of participants' reported experience of living with Chinese individuals is displayed in Figure 6.11.

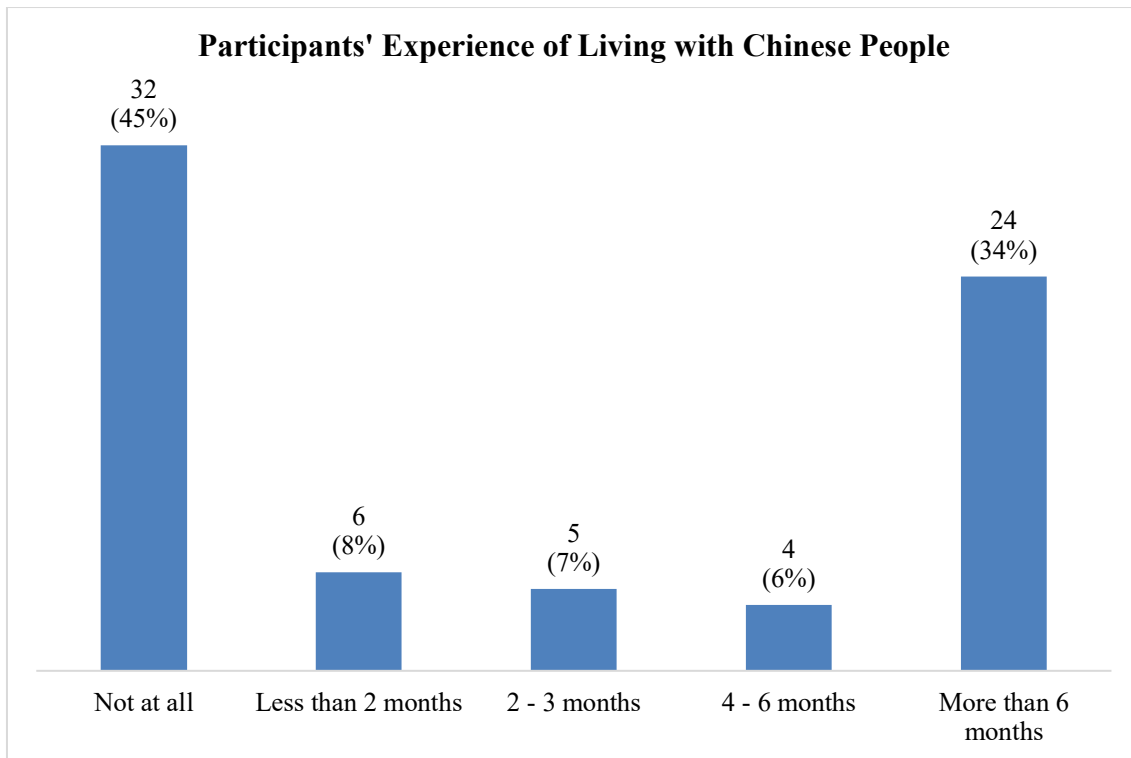


Figure 6.11 *Participants' Experience of Living with Chinese People*

Nearly half of participants (45%, n=32) reported that they had never lived with Chinese people, 34% (n=24) reported that they had lived with Chinese people for more than six months, 8% (n=6) reported that they had lived with Chinese people for less than two months, 7% (n=5) reported that they had lived with Chinese people for two to three months, and 6% (n=4) reported that they had lived with Chinese people for four to six months.

The participants' reported relationships with Chinese individuals are displayed in Figure 6.12.

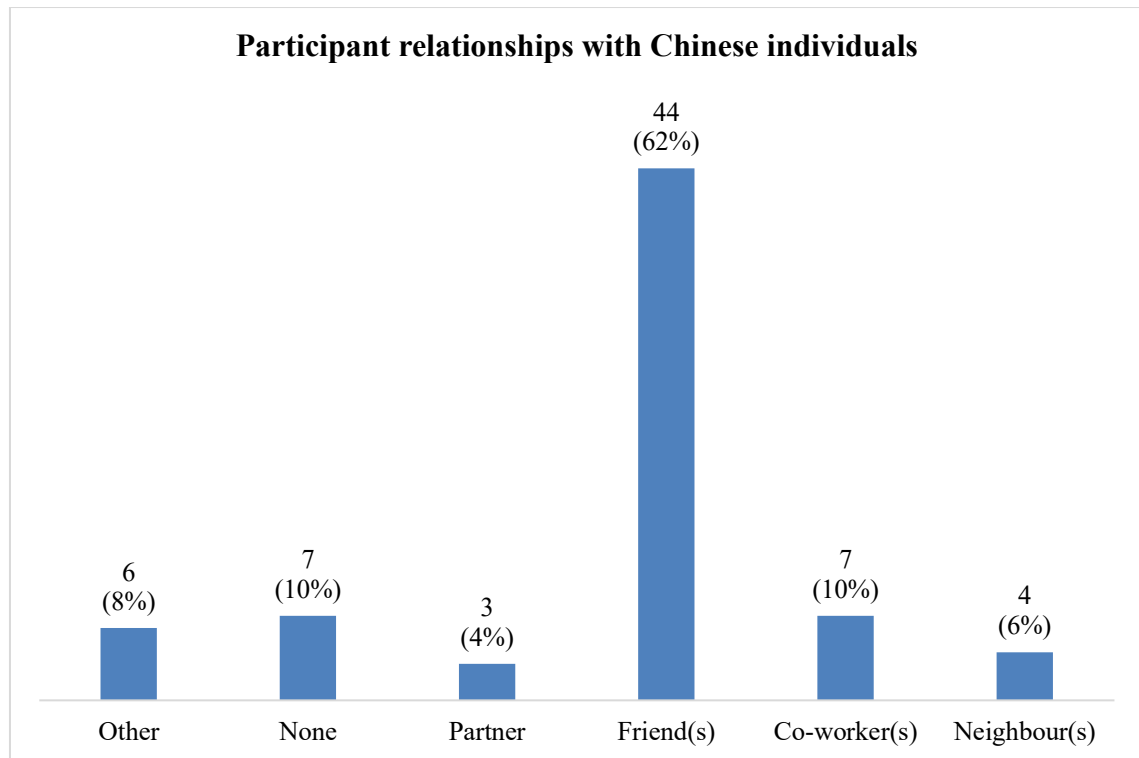


Figure 6.12 *Participants' Relationships with Chinese Individuals*

Over half of the participants (62%, n=44) reported that they had Chinese friend(s), 10% (n=7) reported that they had Chinese co-worker(s), another 10% (n=7) reported that they did not have a relationship with Chinese individuals, 10% (n=7) reported that they had other relationships with Chinese individuals, 6% (n=4) reported that they had Chinese neighbours, 4% (n=3) reported that they had Chinese partner.

The distribution of the number of countries participants have visited is displayed in Figure 6.13.

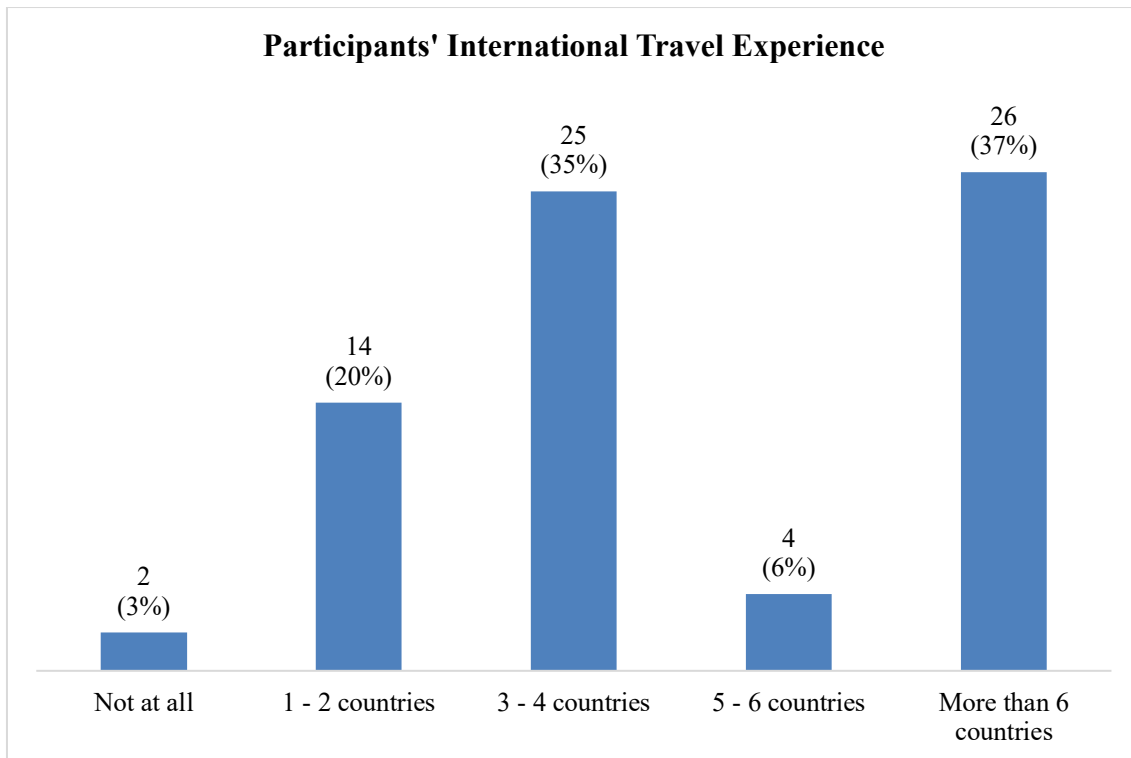


Figure 6.13 *Participants' International Travel Experience*

More than one third of participants (37%, n=26) reported that they had visited more than six countries, 35% (n=25) reported that they had visited three to four countries, 20% (n=14) reported that they had visited one to two countries, 6% (n=4) reported that they had visited five to six countries, and 3% (n=2) reported that they never visited other countries at all.

The number of times that participants had visited China is displayed in Figure 6.14.

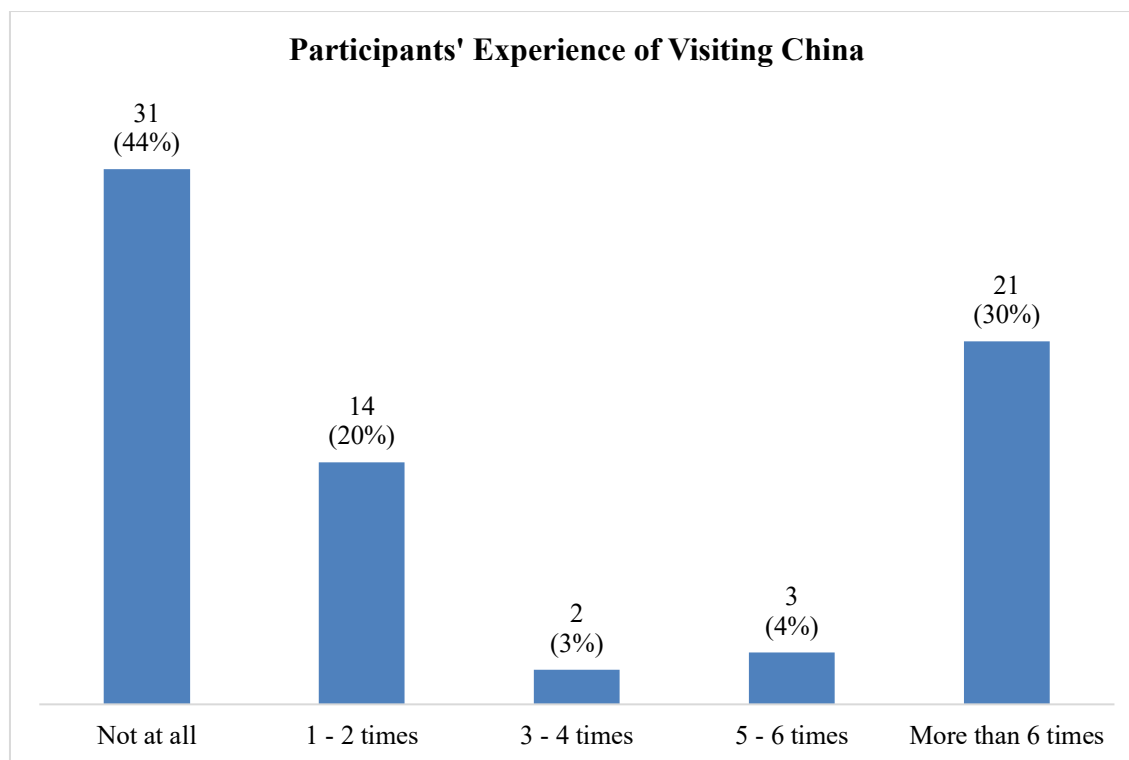


Figure 6.14 *Participants' Experience of Visiting China*

More than one third of participants (44%, $n=31$) reported that they had never visited China, 30% ($n=21$) reported they had visited more than six times, 20% ($n=14$) reported that they had visited China one to two times, 4% ($n=3$) reported that they had visited China five to six times, and 3% ($n=2$) reported that they had visited China three to four times.

The distribution of participants' responses regarding their initial feelings of culture shock when exposed to Chinese cultural aspects is displayed in Figure 6.15

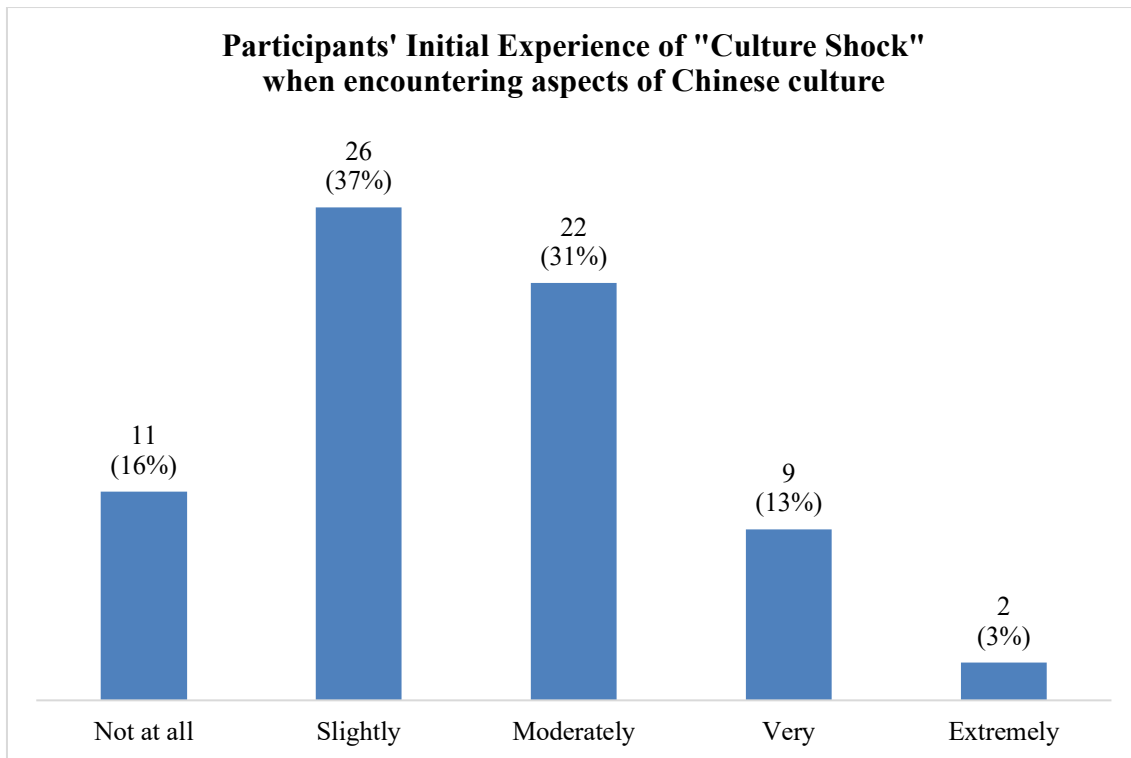


Figure 6.15 *Participants' Initial Experience of Culture Shock When Encountering Aspects of Chinese Culture*

More than one third of participants (37%, n=26) reported that they had slight culture shock when they encountered aspects of Chinese culture, 31% (n=22) reported that they had moderate culture shock, 16% (n=11) reported that they had not culture shock at all, 13% (n=9) reported that they had very culture shock, and 3% (n=2) reported that they had extreme culture shock when they encountered aspects of Chinese culture.

The distribution of participants' responses regarding how iconic Chinese cultural elements (e.g., the Silk Road, Chinese medicine, Symbolism and meaning) have influenced their cultural understanding is displayed in Figure 6.16.

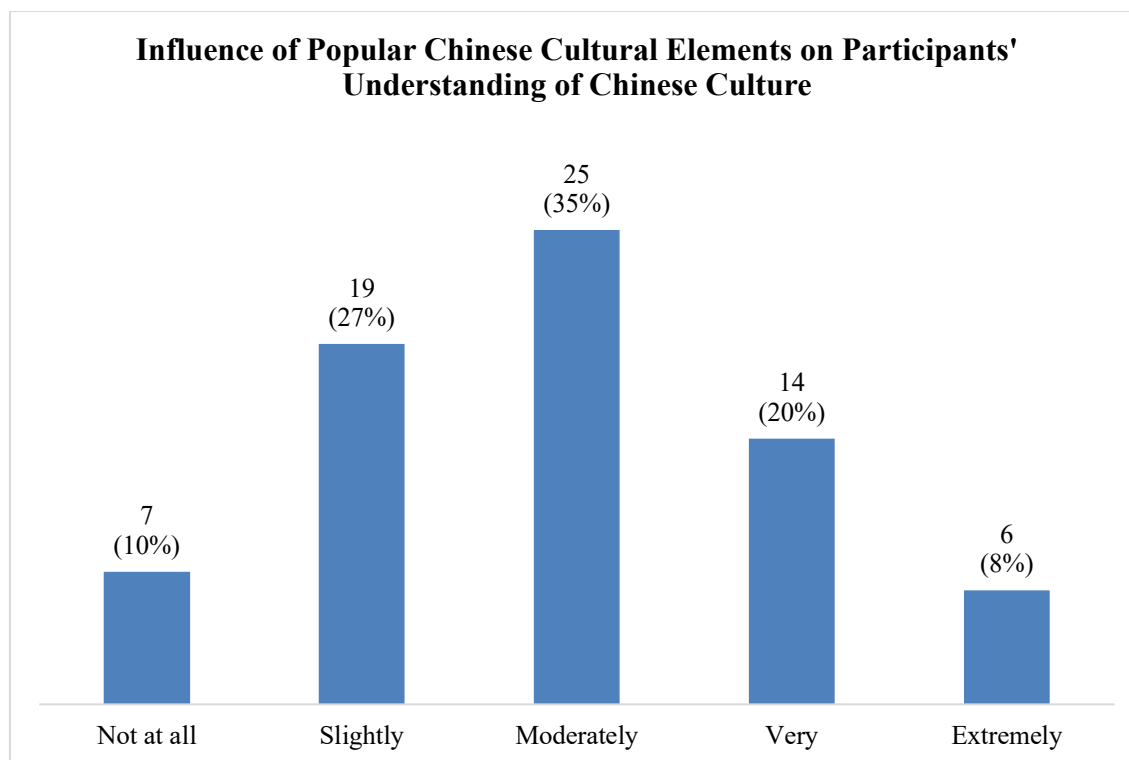


Figure 6.16 *Influence of Popular Chinese Cultural Elements on Participants' Understanding of Chinese Culture*

More than one third of participants (35%, n=25) reported that the popular Chinese cultural elements moderately influenced their understanding of Chinese culture, 27% (n=19) reported that they slightly influenced their understanding of Chinese culture, 20% (n=14) reported that they very influenced their understanding of Chinese culture, 10% (n=7) reported that they did not influenced their understanding of Chinese culture at all, and 8% (n=6) reported that the popular Chinese cultural elements extremely influenced their understanding of Chinese culture.

The reported frequency of participants' engagement in Chinese cultural festivals or events is displayed in Figure 6.17

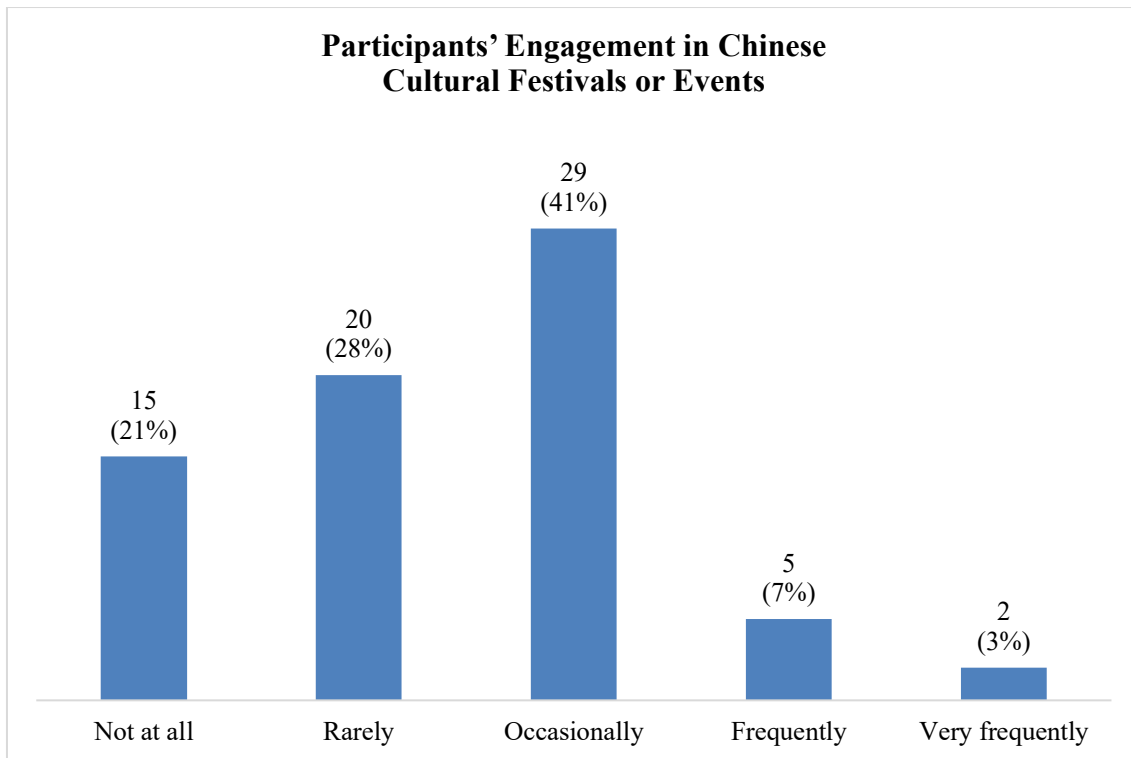


Figure 6.17 *Participants' Engagement in Chinese Cultural Festivals or Events*

Among the participants, more than one third of participants (41%, n=29) reported that they occasionally engaged in Chinese festivals and events, 28% (n=20) reported that they rarely engaged, 21% (n=15) reported that they were not engaged in Chinese cultural festivals or events, 7% (n=5) reported that they frequently engaged in, and 3% (n=2) reported that they frequently engaged in Chinese cultural festivals and events.

The reported participants' engagement with various aspects of Chinese culture, which indicates how relevant the elements of Chinese culture are in their daily lives, are displayed in Figure 6.18

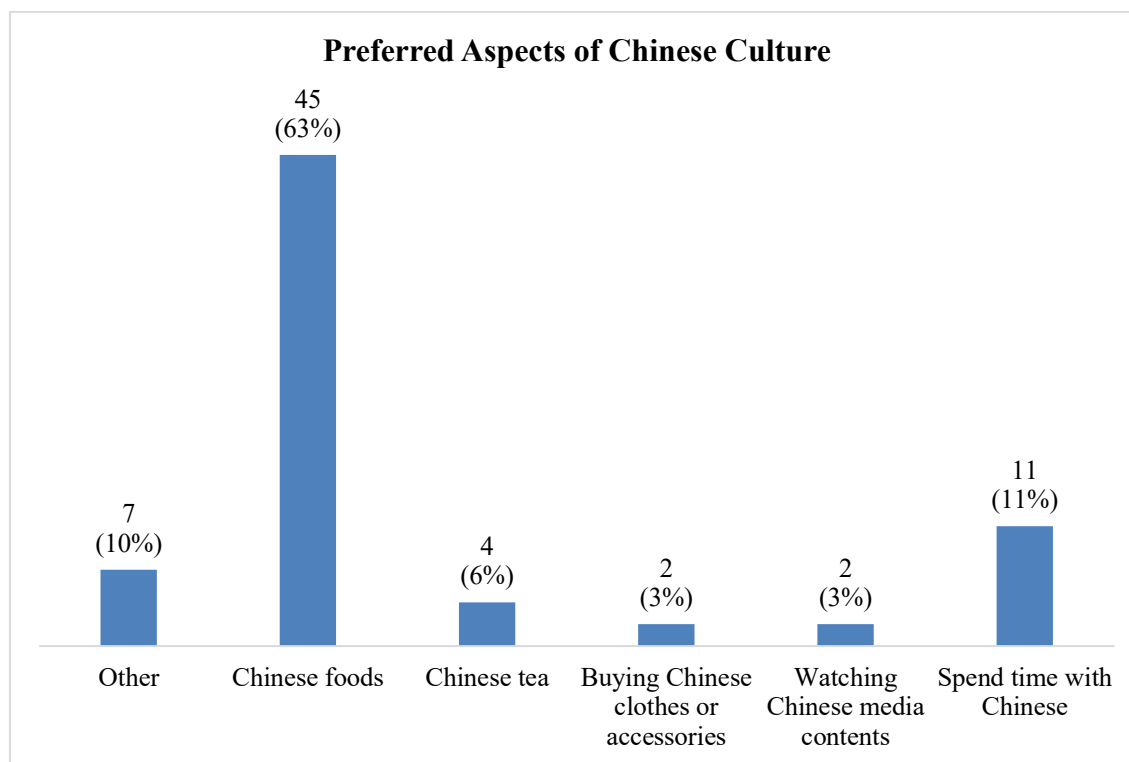


Figure 6.18 Preferred Aspects of Chinese Culture Among Participants

Among the participants, 63% (n=45) reported that they preferred to enjoy Chinese food, followed by 15% (n=11) reported that they preferred to enjoy spending time with Chinese individuals, 10% (n=7) reported that they preferred to enjoy other Chinese cultural aspects, 6% (n=4) reported that they preferred to enjoy Chinese tea, 3% (n=2) reported that they proffered to enjoy watching Chinese media contents, and another 3% (n=2) reported that they preferred to enjoy buying Chinese clothes or accessories.

The reported length of time the participants spent learning the Chinese language, highlighting variations in experience levels, is displayed in Figure 6.19.

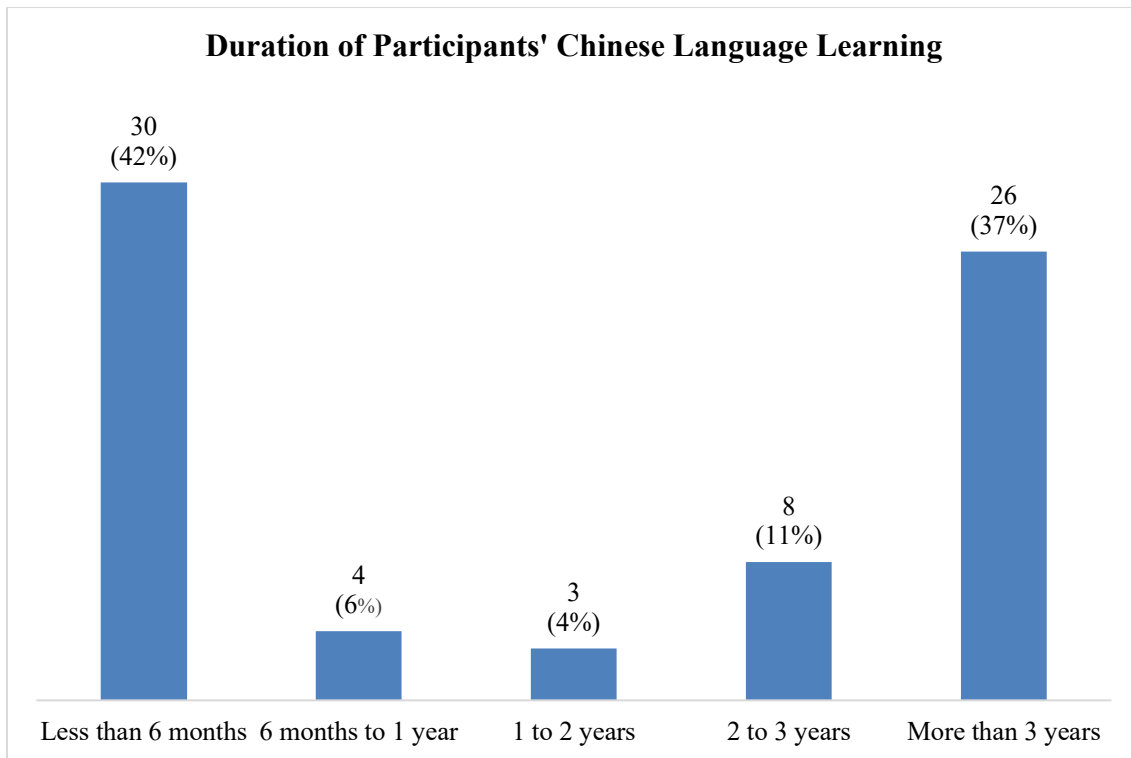


Figure 6.19 *Duration of Participants' Chinese Language Learning*

Among the participants, more than one third of participants (42%, n=30) had studied Chinese for less than six months, followed by 37% (n=26) reported that they had studied Chinese for more than three years, 11% (n=8) reported they had been studying Chinese for two to three years, 6% (n=4) reported that they had been studying Chinese for 6 months to 1 year, and 4% (n=3) reported that they had been studying Chinese for one to two years.

The reported length of time participants had spent learning the Chinese language is displayed in Figure 6.20.

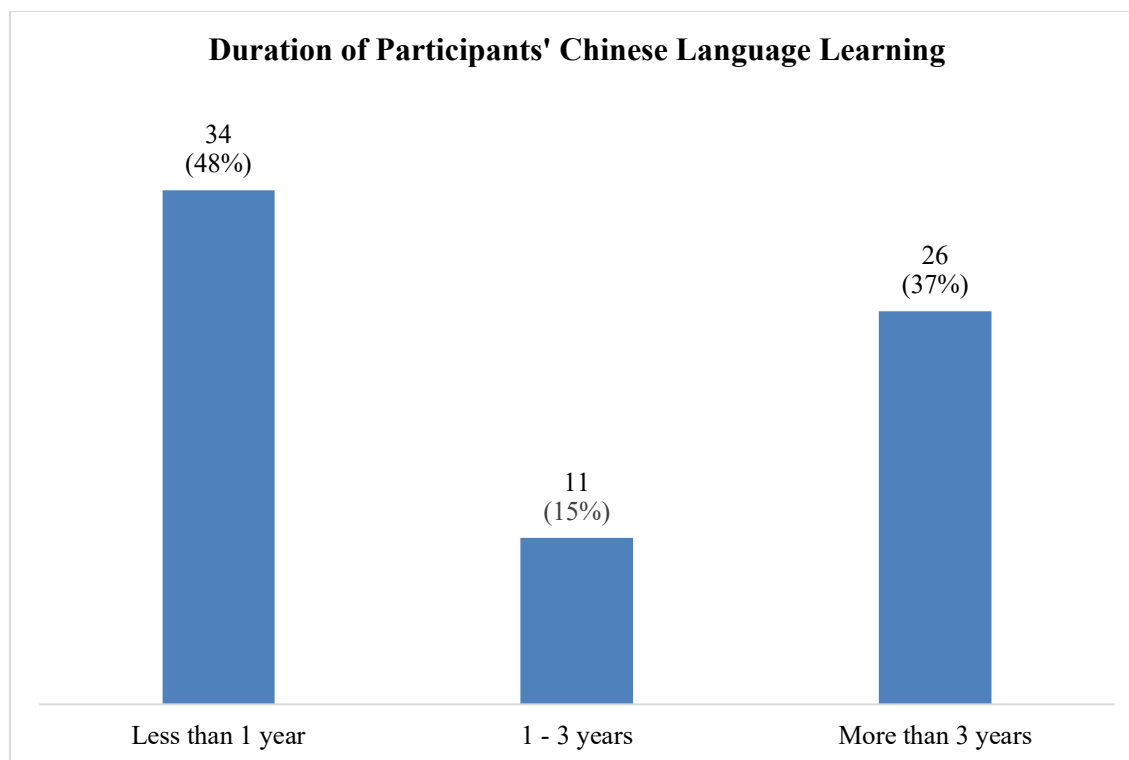


Figure 6.20 *Duration of Participants' Chinese Language Learning 2*

Almost half of the participants (48%, $n=34$) reported that they had been studying Chinese for less than one year, 37% ($n=26$) reported that they had been studying Chinese for more than three years, 15% ($n=11$) reported that they had studied Chinese for one to three years.

The reported amount of time that participants spent studying Chinese each week is displayed in Figure 6.21.

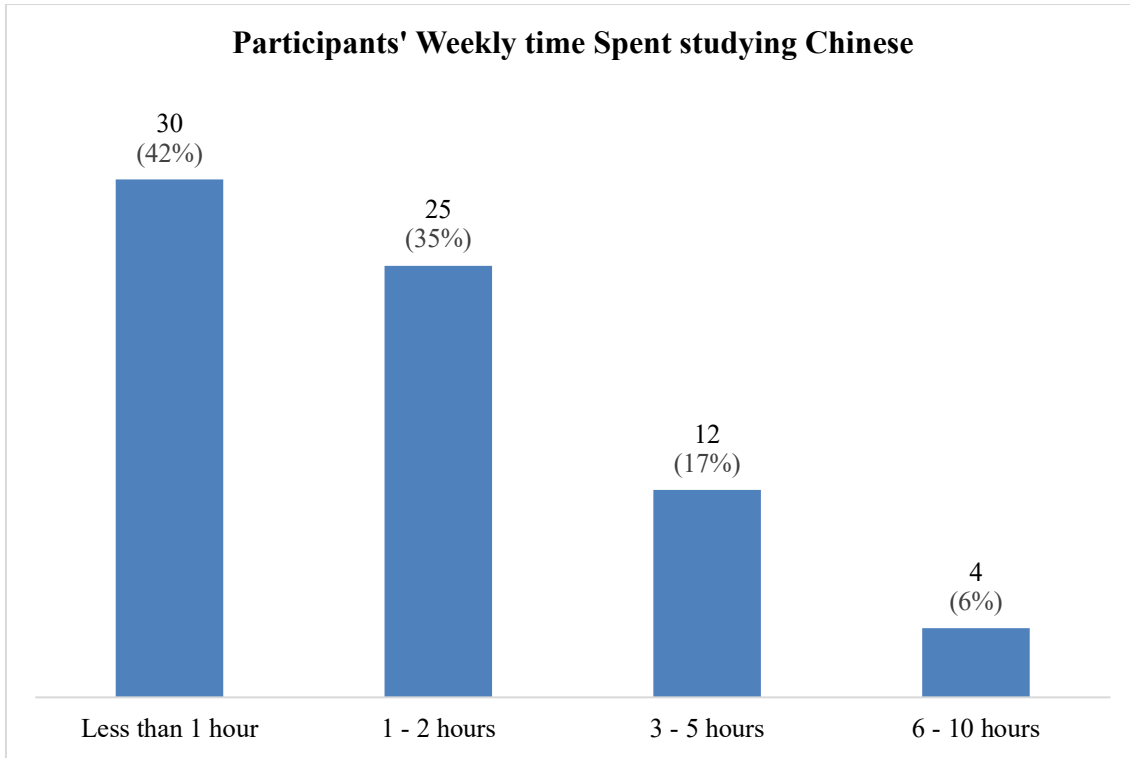


Figure 6.21 *Participants' Weekly Time Spent Studying Chinese*

More than one third of participants (42%, n=30) reported that they spent time studying Chinese less than one hour per week, 35% (n=25) reported that they spent one to two hours per week, 17% (n=12) reported that they spent for three to five hours per week, and 6% (n=4) reported that they sent six to ten hours per week to studying Chinese.

The reported preferred methods of learning Chinese are displayed in Figure 6.22.

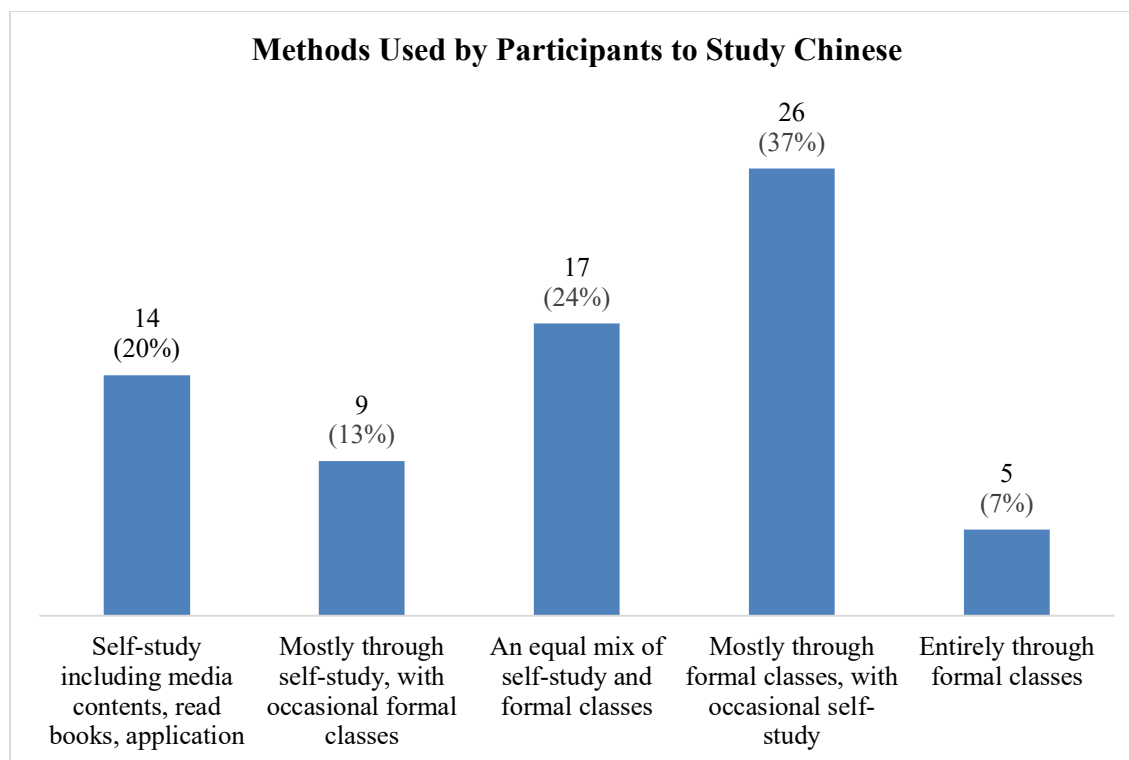


Figure 6.22 *Methods Used by Participants to Study Chinese*

Among the participants, the most common method used to study Chinese was formal classes with occasional self-study (37%, n=26), followed by an equal mix of self-study and formal classes 24% (n=17). In addition, 20% (n=14) reported that they went through self-study using media content, reading books, or applications, 13% (n=9) reported that they mostly went through self-study with occasional formal classes, and 7% (n=5) reported that they were studied Chinese entirely through formal classes.

The distribution of participants based on their CEFR and HSK Chinese proficiency levels are displayed in Figure 6.23.

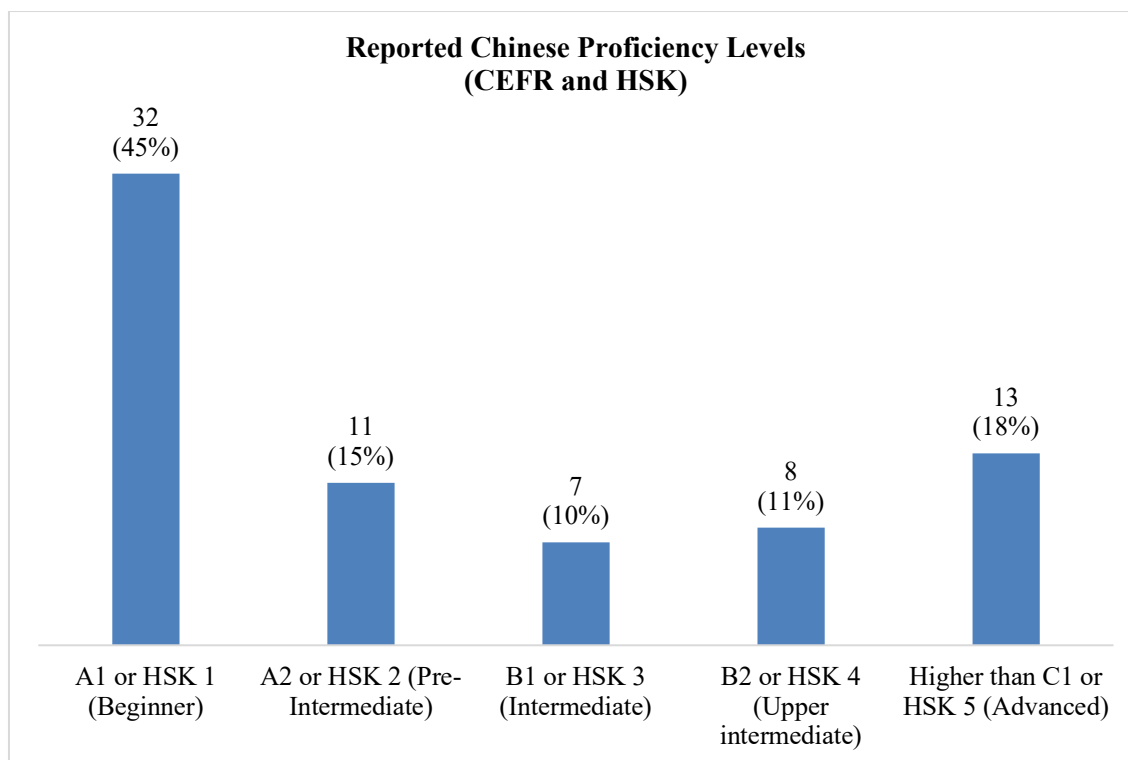


Figure 6.23 Participants' Reported Chinese Proficiency Levels (CEFR and HSK)

Nearly half of the participants (45%, $n=32$) reported that they were at the beginner (A1 or HSK 1) level in Chinese proficiency, 18% ($n=13$) reported that they were at the advanced level (higher than C1 or HSK 5), 15% ($n=11$) reported that they were at pre-intermediate level, 11% ($n=8$) reported that they were at the upper intermediate level, and 10% ($n=7$) reported that they were at the intermediate level.

The distribution of participants' responses on whether speaking the Chinese language influences their thinking and behaviour in alignment with Chinese cultural aspects are displayed in Figure 6.24.

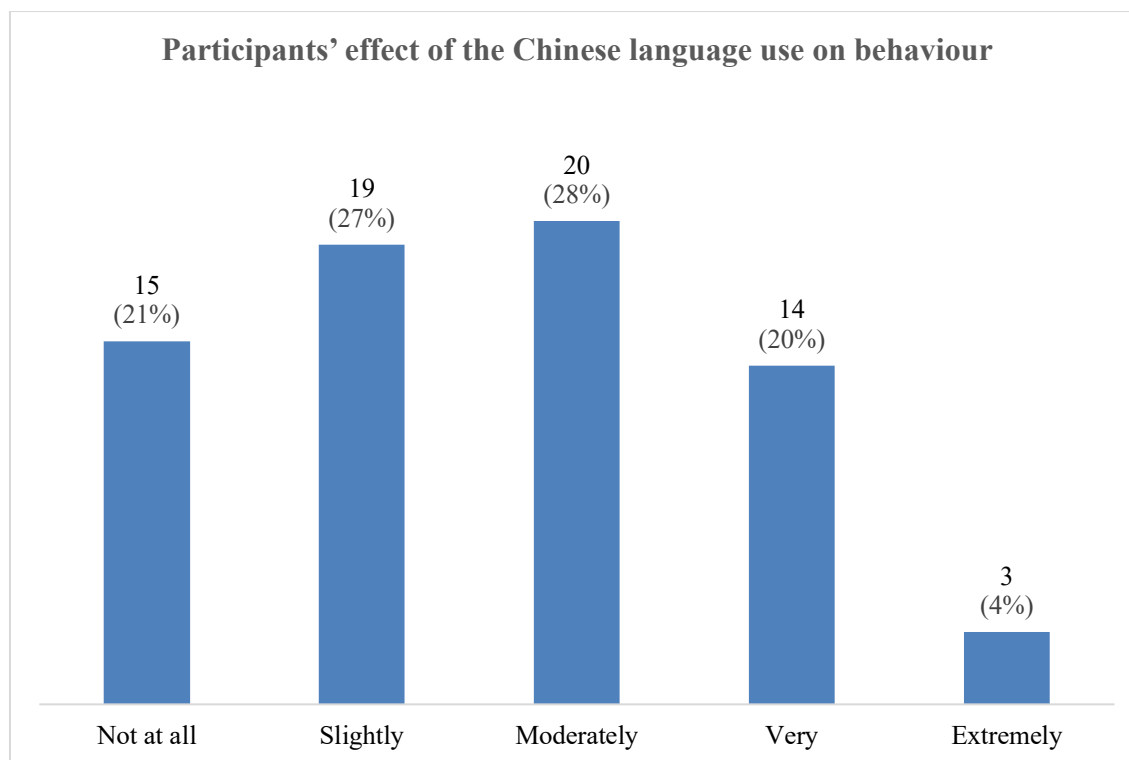


Figure 6.24 *Reported Effect of Chinese Language Use on Participants' Behaviour*

Among the participants, 28% (n=20) reported that using the Chinese language had a moderate effect on their behaviour, 27% (n=19) reported that it had a slight effect, 21% (n=15) reported that it had no effect at all, 20% (n=14) reported that it had a very strong effect, 4% (n=3) reported that it had extreme effect on their behaviour.

Participants' perceptions of the importance of learning Chinese cultural aspects during Chinese language study are displayed in Figure 6.25.

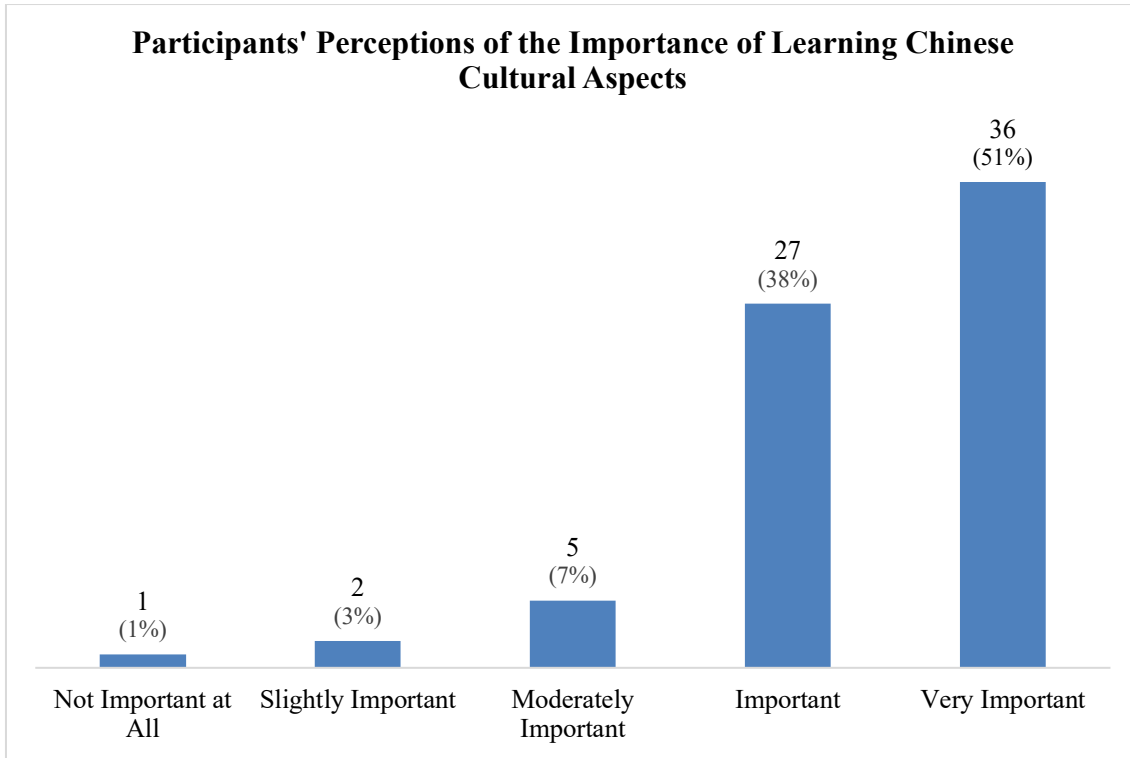


Figure 6.25 *Participants' Perceptions of the Importance of Learning Chinese Cultural Aspects*

Over half of the participants (51%, n=36) reported that learning Chinese cultural aspects was very important, followed by 38% (n=27) reported that it was important, 7% (n=5) reported that it was moderately important, 3% (n=2) reported that it was slightly important, and 1% (n=1) reported that learning Chinese cultural aspects was not important at all.

The reported extent of Chinese cultural incorporation in participants' Chinese language learning settings is displayed in Figure 6.26.

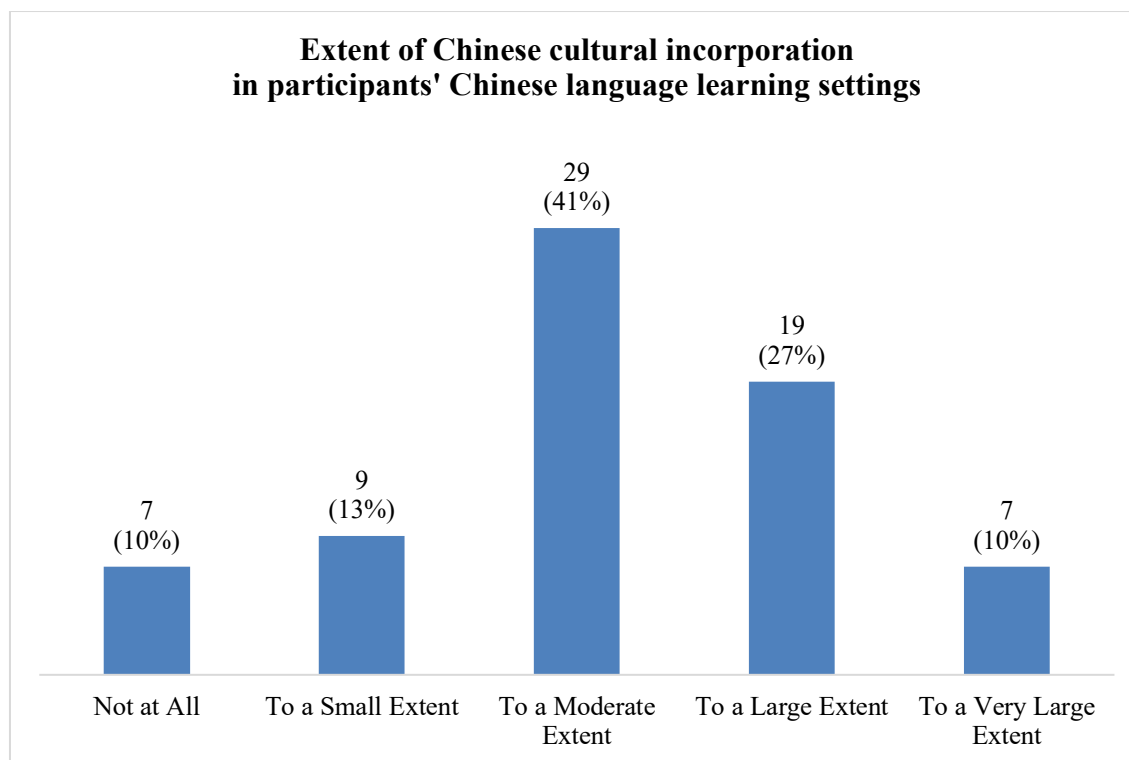


Figure 6.26 *Extent of Chinese Cultural Incorporation in Participants' Chinese Language Learning Settings*

More than one third of participants (41%, n=29) reported that Chinese culture was incorporated to a moderate extent in their Chinese language learning settings, followed by 27% (n=19) reported that it was incorporated to a large extent, 13% (n=9) reported that it was incorporated to a small extent, 10% (n=7) reported that it was incorporated to a very large extent, and 10% (n=7) reported that it was not incorporated at all.

The distribution of participants' responses on how much their perception of Chinese culture changed due to their Chinese language studies are displayed in Figure 6.27.

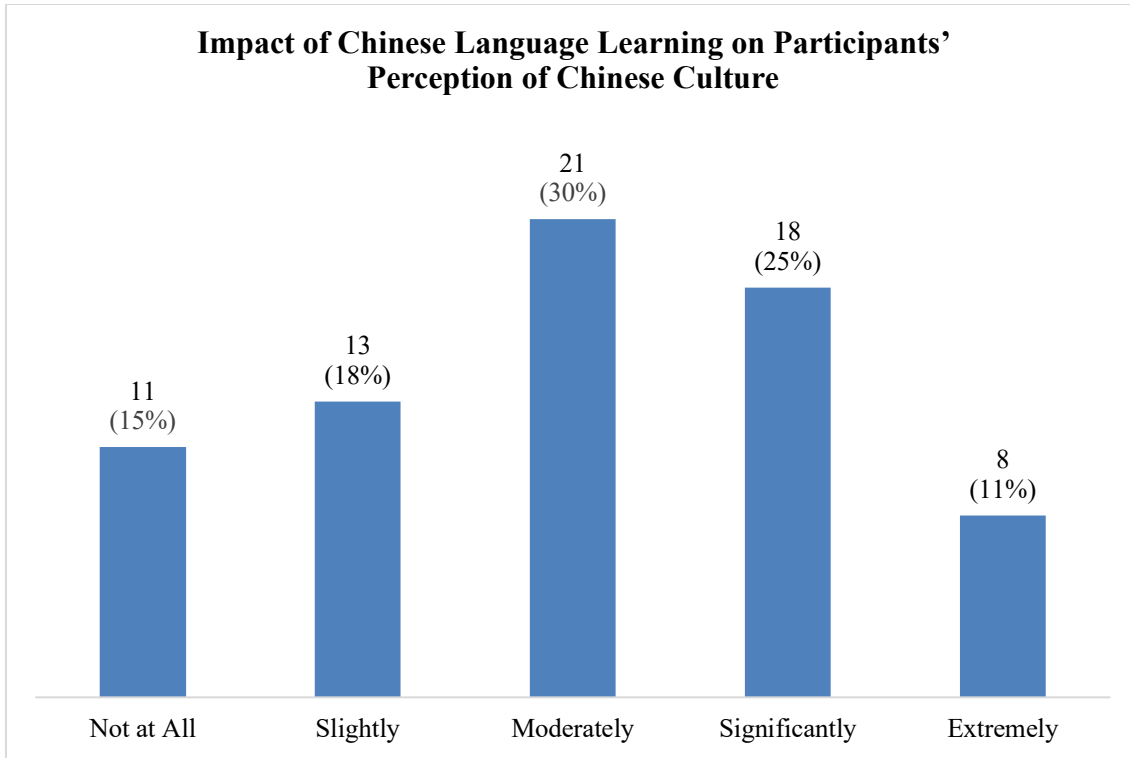


Figure 6.27 *Impact of Chinese Language Learning on Participants' Perception of Chinese Culture*

One third of participants (30%, n=21) reported that their perception of Chinese culture was moderately impacted by Chinese language learning, with 25% (n=18) reporting that their perception was significantly impacted, 18% (n=13) reporting that their perception was slightly impacted, 15% (n=11) reporting that they had no impact at all, and 11% (n=8) reporting that they had an extreme impact on their perception of Chinese culture by Chinese language learning.

Participants' reported abilities to identify Chinese words or phrases that lack direct equivalence in their native language are displayed in Figure 6.28.

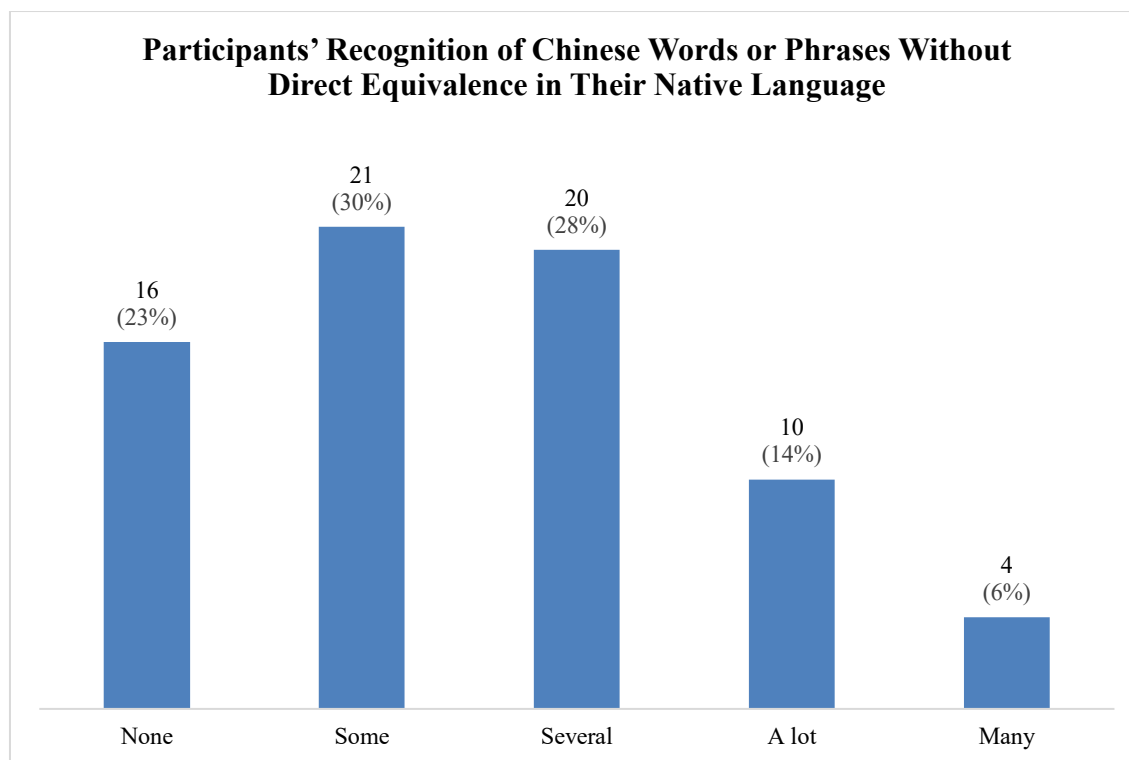


Figure 6.28 *Participants' Recognition of Chinese Words or Phrases Without Direct Equivalence in Their Native Language*

A third of participants (30%, n=21) reported that they were able to recognise Chinese words or phrases without direct equivalence in their native language, 28% (n=20) reported that they recognised several of them, 23% (n=16) reported that they were unable to recognise any, 14% (n=10) reported that they were able to recognise a lot, 6% (n=4) reported that they were able to recognise many of Chinese words or phrases without direct equivalence in their native language.

The participants' reported abilities to differentiate between Simplified and Traditional Chinese characters are displayed in Figure 6.29.

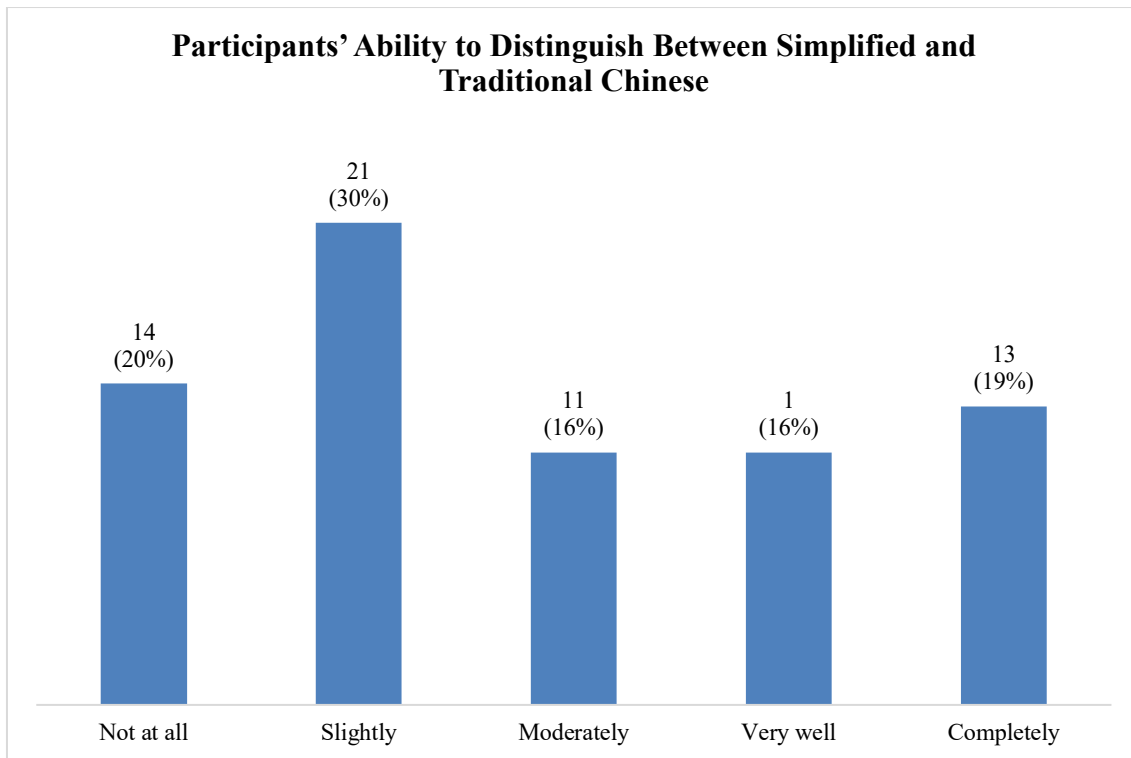


Figure 6.29 *Participants' Ability to Distinguish Between Simplified and Traditional Chinese*

A third of participants (30%, n=21) reported that they were only slightly able to distinguish between the simplified and traditional Chinese characters, 20% (n=14) reported that they were not able to distinguish between them at all, 19% (n=13) reported that they were completely able to distinguish them, and 16% (n=11) reported that they were moderately able to distinguish them and another 16% (n=11) reported that they were able to distinguish between the simplified and traditional Chinese characters very well.

The participants' reported levels of knowledge of Ying and Yang, which are the Chinese philosophical concepts of the ideas, are displayed in Figure 6.30.

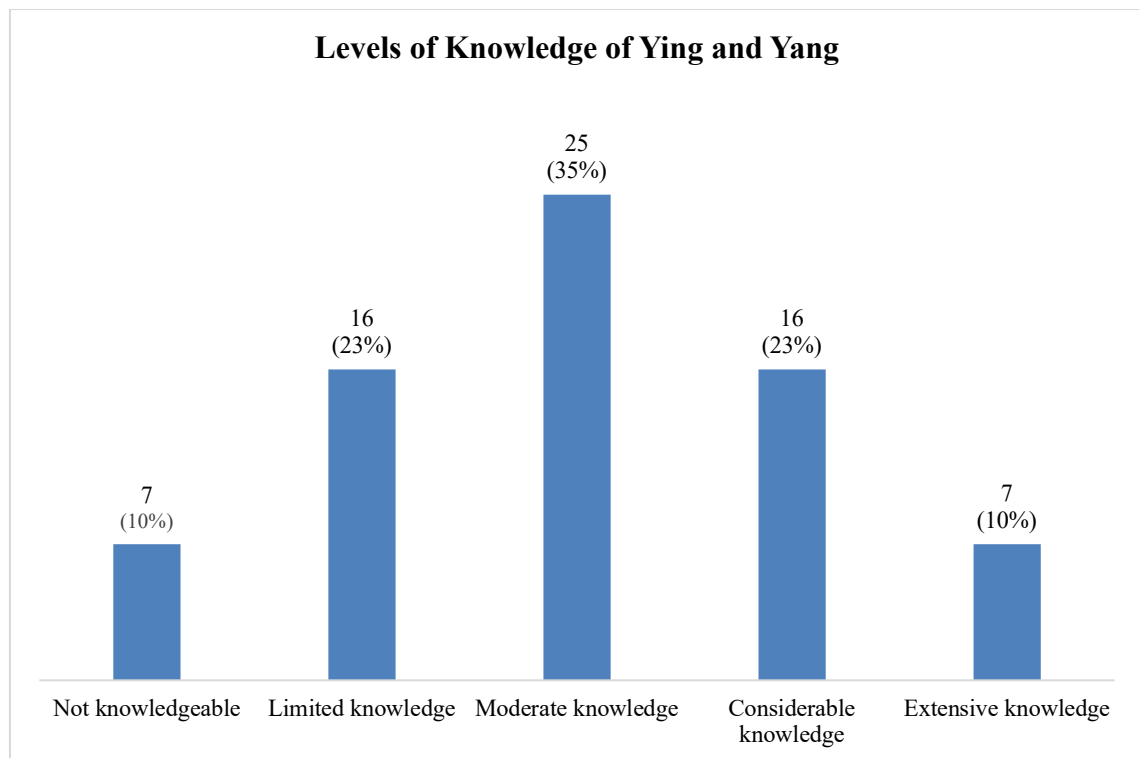


Figure 6.30 *Participants' Reported Levels of Knowledge of Yin and Yang*

Over one third of participants (35%, n=25) reported moderate levels of knowledge regarding Ying and Yang, with 23% (n=16) reporting that they had limited knowledge and another 23% (n=16) reported that they had considerable knowledge. 10% (n=7) reported that they were not knowledgeable, and another 10% (n=7) reported having extensive knowledge of Ying and Yang.

The participants' reported levels of knowledge of The Art of War, which is a classical Chinese military treatise attributed to Sun Tzu, are displayed in Figure 6.31.

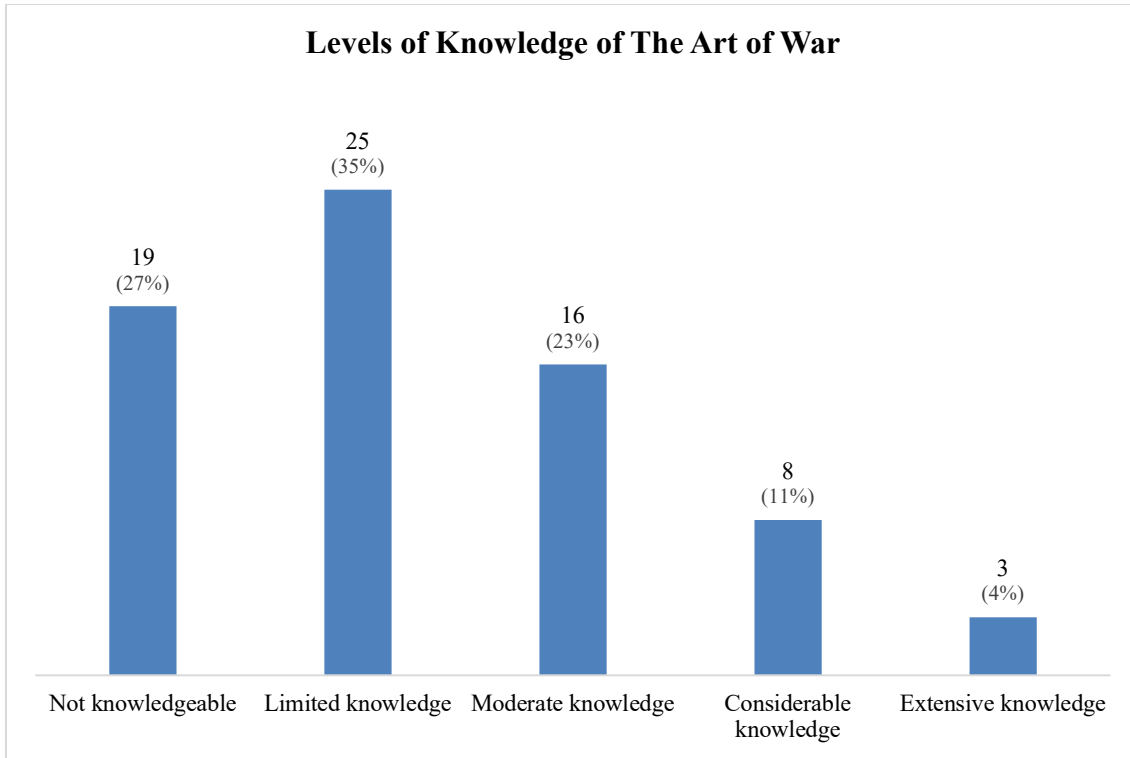


Figure 6.31 Participants' Reported Levels of Knowledge of The Art of War

More than one-third of participants (35%, n=25) reported limited knowledge regarding the levels of knowledge of The Art of War, with 27% (n=19) reporting that they were not knowledgeable. 23% (n=16) reported that they were moderately knowledgeable, and 11% (n=8) reported that they had considerable knowledge. 4% (n=3) reporting that they had extensive knowledge of The Art of War.

The participants' reported levels of knowledge of Xi Jinping Thought, which is a key ideological framework in contemporary Chinese political discourse, are displayed in Figure 6.32.

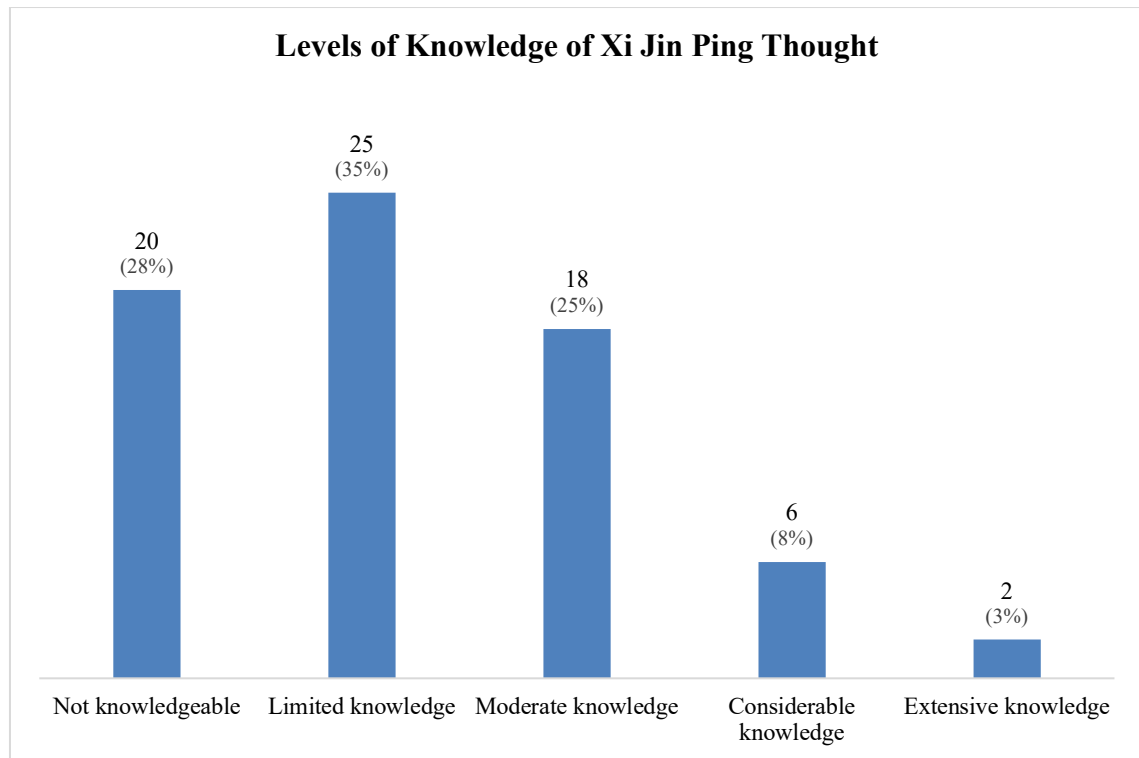


Figure 6.32 Participants' Reported Levels of Knowledge of Xi Jinping Thought

Among participants, 35% (n=25) reported limited knowledge regarding the levels of knowledge of Xi Jinping thoughts, with 28% (n=20) reporting that they were not knowledgeable, 25% (n=18) reporting that they were moderately knowledgeable, 8% (n=6) reporting that they had considerable knowledge, and 3% (n=2) reporting that they had extensive knowledge of Xi Jinping Thought.

The participants' reported levels of knowledge of Mao Zedong Thought, which is a foundational ideological framework in modern Chinese history, are displayed in Figure 6.33.

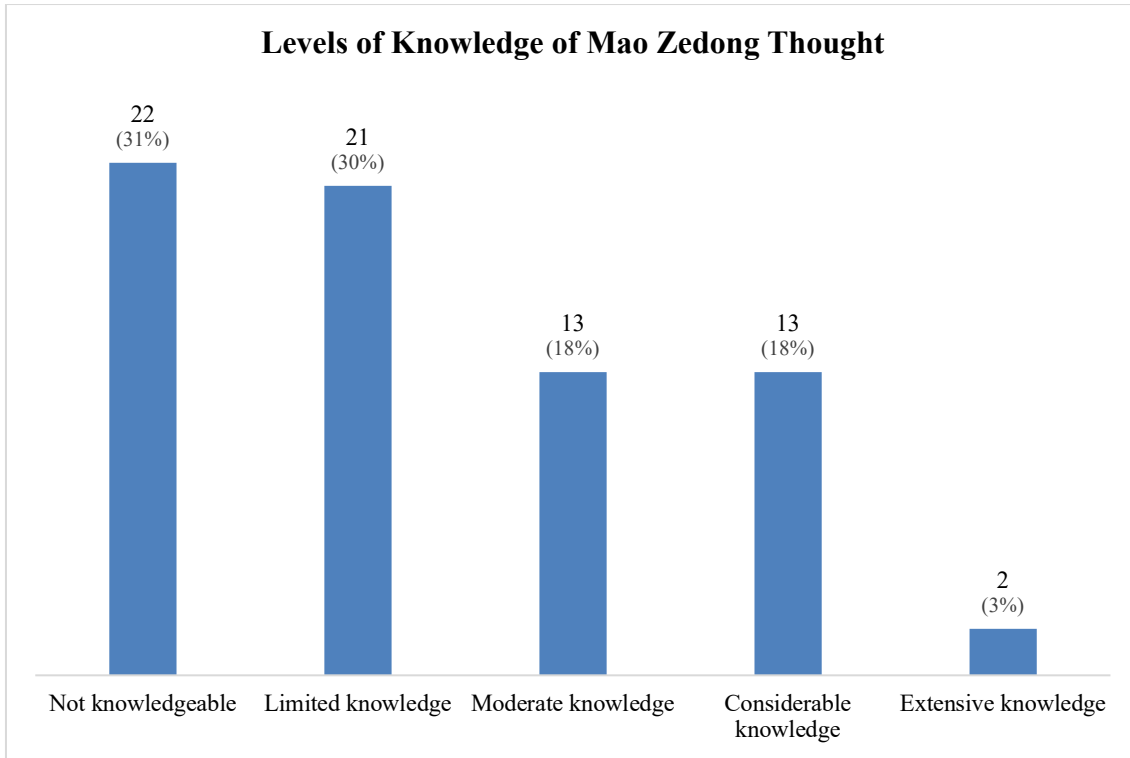


Figure 6.33 Participants' Reported Levels of Knowledge of Mao Zedong Thought

Among participants, 31% (n=22) reported that they were not knowledgeable regarding the levels of knowledge of Mao Zedong thought, with 30% (n=21) reporting that they were limitedly knowledgeable, 18% (n=13) reporting that they were moderately knowledgeable, 18% (n=13) reporting that they had considerable knowledge, and 3% (n=2) reporting that they had extensive knowledge of Mao Zedong Thought.

The participants' reported levels of knowledge of Peking Opera (Beijing Opera), which is a traditional Chinese performing art form, are displayed in Figure 6.34.

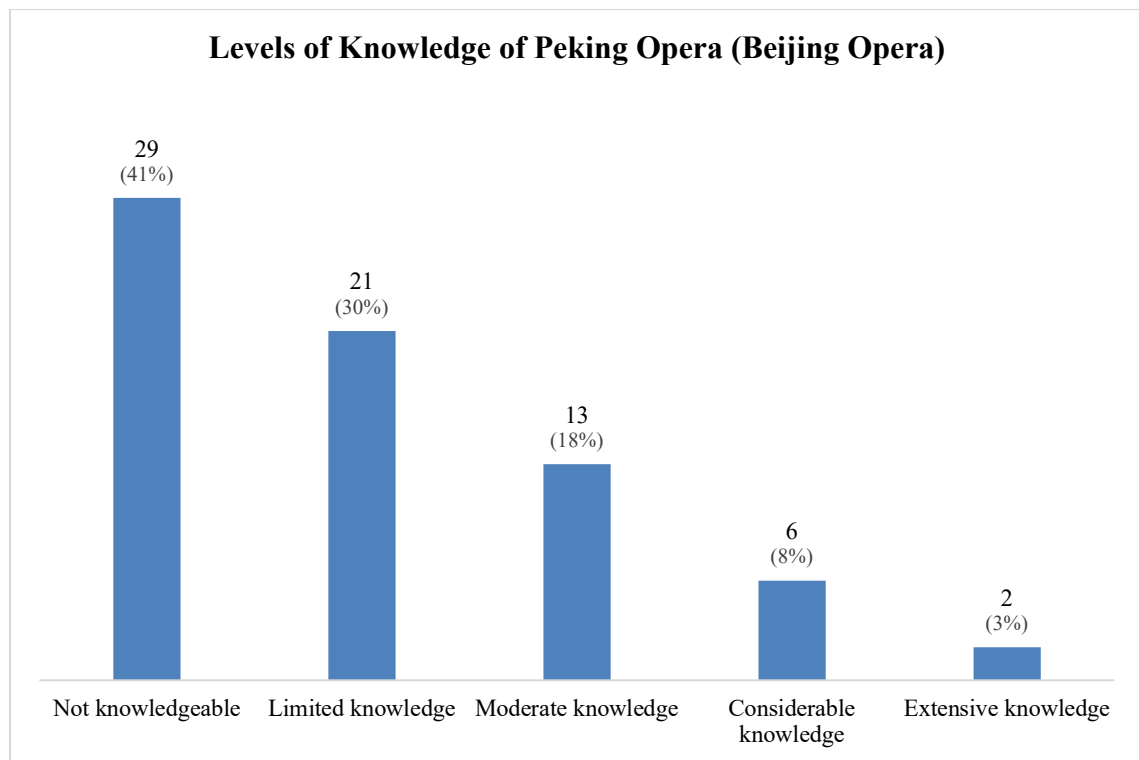


Figure 6.34 *Participants' Reported Levels of Knowledge of Peking Opera (Beijing Opera)*

More than one third of participants 41% (n=29) reported not knowledgeable regarding the levels of knowledge of Peking Opera (Beijing Opera), with 30% (n=21) reporting that they were limitedly knowledgeable, 18% (n=13) reporting that they were moderately knowledgeable, 8% (n=6) reporting that they had considerable knowledge, and 3% (n=2) reporting that they had extensive knowledge of Peking Opera (Beijing Opera).

The participants' reported levels of knowledge of Tai Chi, which is a traditional Chinese martial art known for its slow, meditative movements and health benefits, are displayed in Figure 6.35.

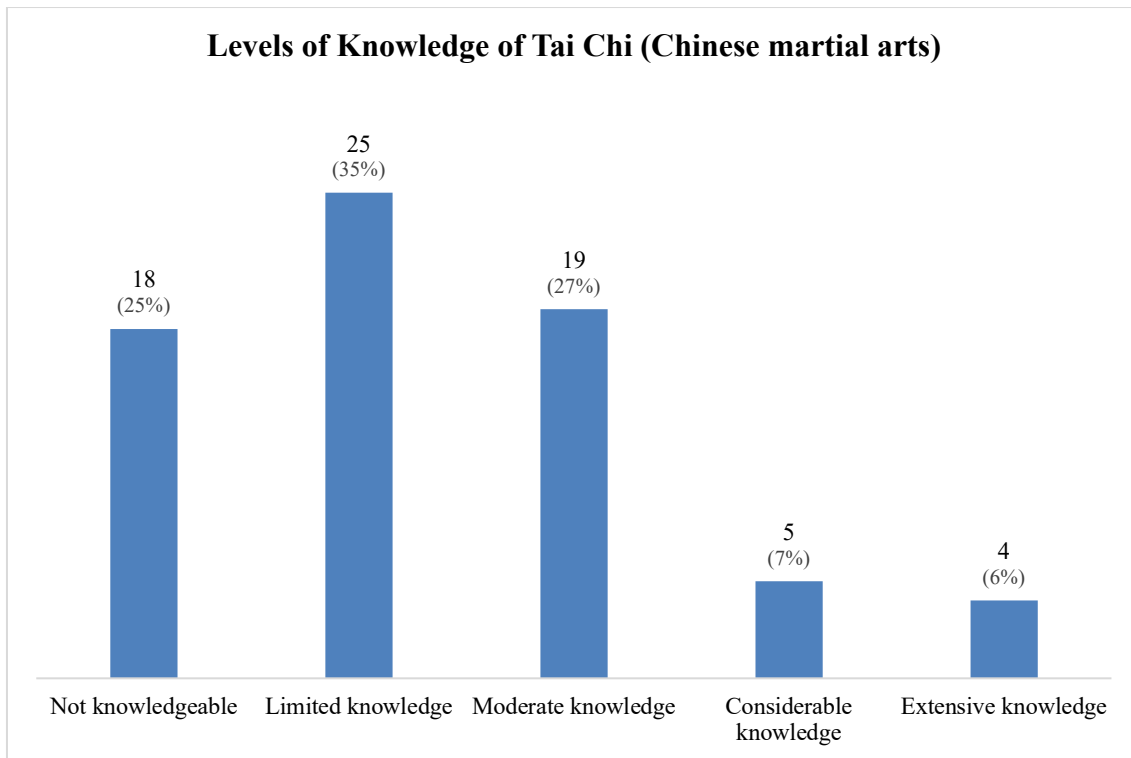


Figure 6.35 Participants' Reported Levels of Knowledge of Tai Chi (Chinese martial arts)

More than one third of participants (35%, n=25) reported limited knowledge regarding the levels of knowledge of Tai Chi (Chinese martial arts), with 27% (n=19) reporting that they were moderately knowledgeable, 25% (n=18) reporting that they were not knowledgeable, 7% (n=5) reporting that they had considerable knowledge, and 6% (n=4) reporting that they had extensive knowledge of Tai Chi (Chinese martial arts).

The participants' reported levels of knowledge of Ruija Sixiang, which is the Confucian philosophical system that has significantly influenced Chinese culture, ethics, and education, are displayed in Figure 6.36.

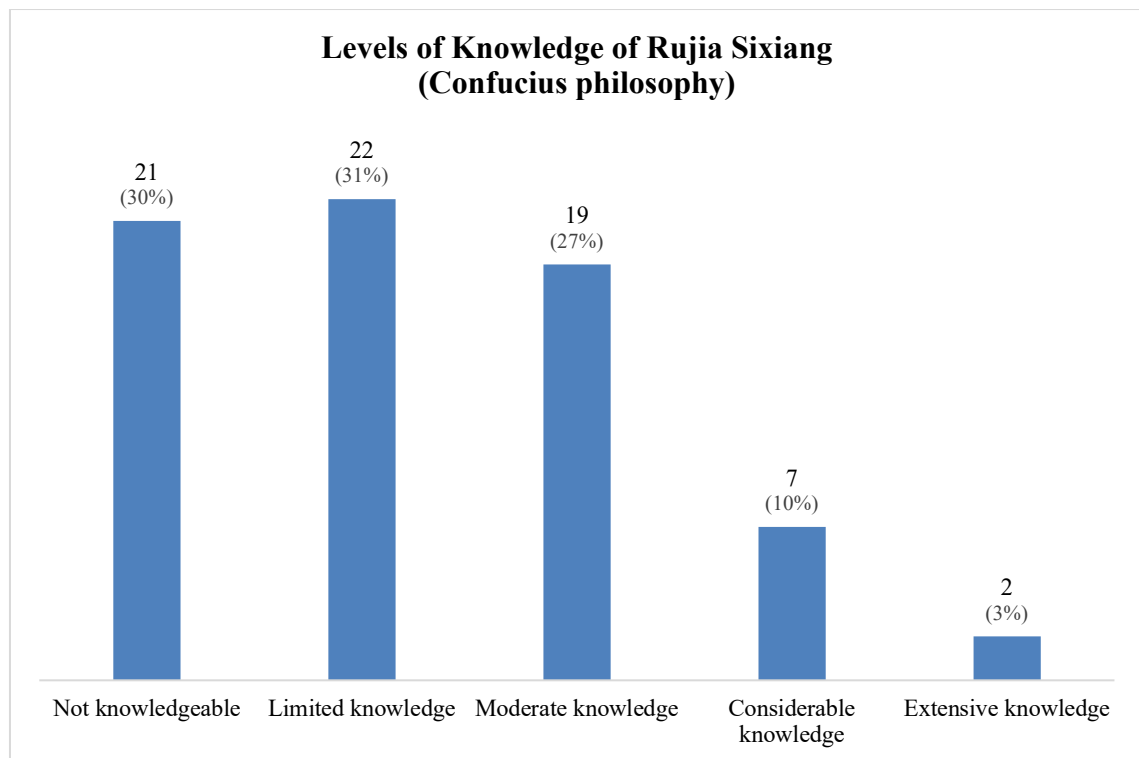


Figure 6.36 Participants' Reported Levels of Knowledge of Rujia Sixiang (Confucian Philosophy)

More than one third of participants (31%, n=22) reported limited knowledge regarding the levels of knowledge of Rujia Sixiang (Confucius Philosophy), with 30% (n=21) reporting that they were not knowledgeable, 27% (n=19) reporting that they were moderately knowledgeable, 10% (n=7) reporting that they had considerable knowledge, and 3% (n=2) reporting that they had extensive knowledge of Rujia Sixiang (Confucius Philosophy).

The participants' reported levels of knowledge of Daojia Sixiang, which is the Taoist philosophical system that has influenced Chinese spirituality, cosmology, and traditional medicine, are displayed in Figure 6.37.

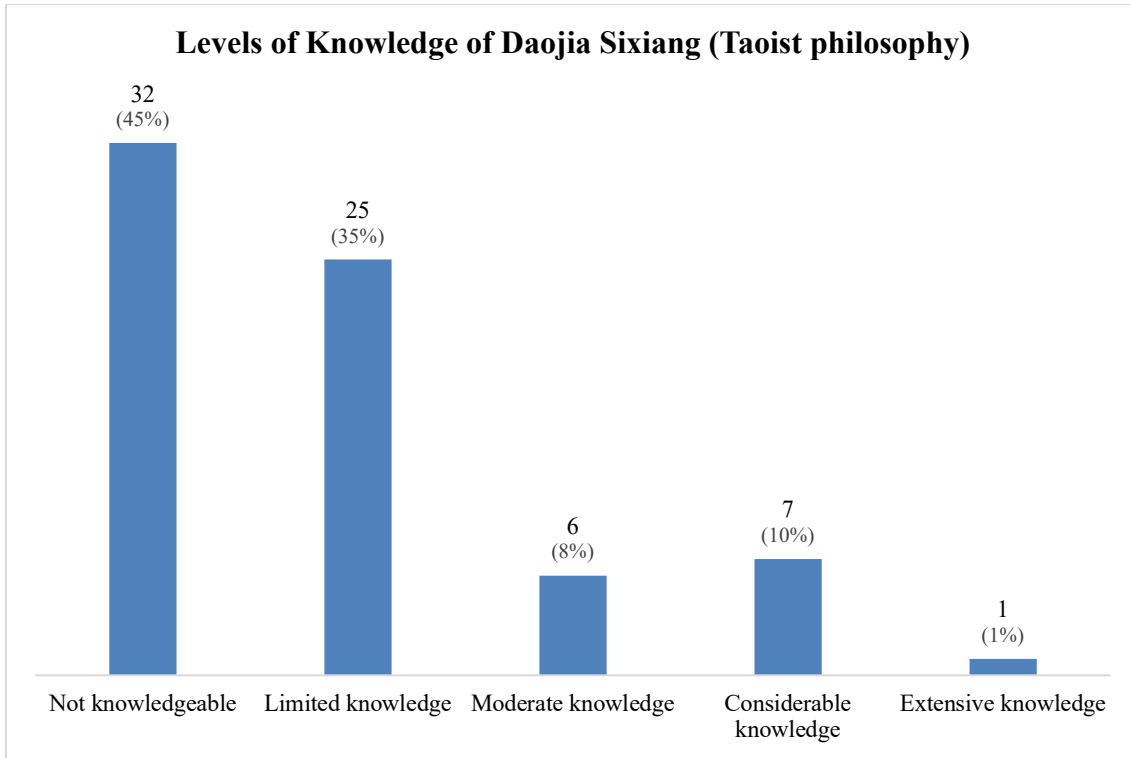


Figure 6.37 Participants' Reported Levels of Knowledge of Daojia Sixiang (Taoist Philosophy)

Almost half of the participants (45%, n=32) reported that they were not knowledgeable regarding the levels of knowledge of Daojia Sixiang (Taoist Philosophy), with 35% (n=25) reporting that they were limitedly knowledgeable, 10% (n=7) reporting that they had considerable knowledge, 8% (n=6) reporting that they were moderately knowledgeable, and 1% (n=1) reporting that they had extensive knowledge of Daojia Sixiang (Taoist Philosophy).

The participants' reported levels of knowledge of Putting up couplets (including "Spring" couplets and "Fu" characters), which are the traditional (Chunlian, 春联, Fu, 福) and typical decorations during Chinese New Year celebrations to bring good fortune and happiness, are displayed in Figure 6.38.

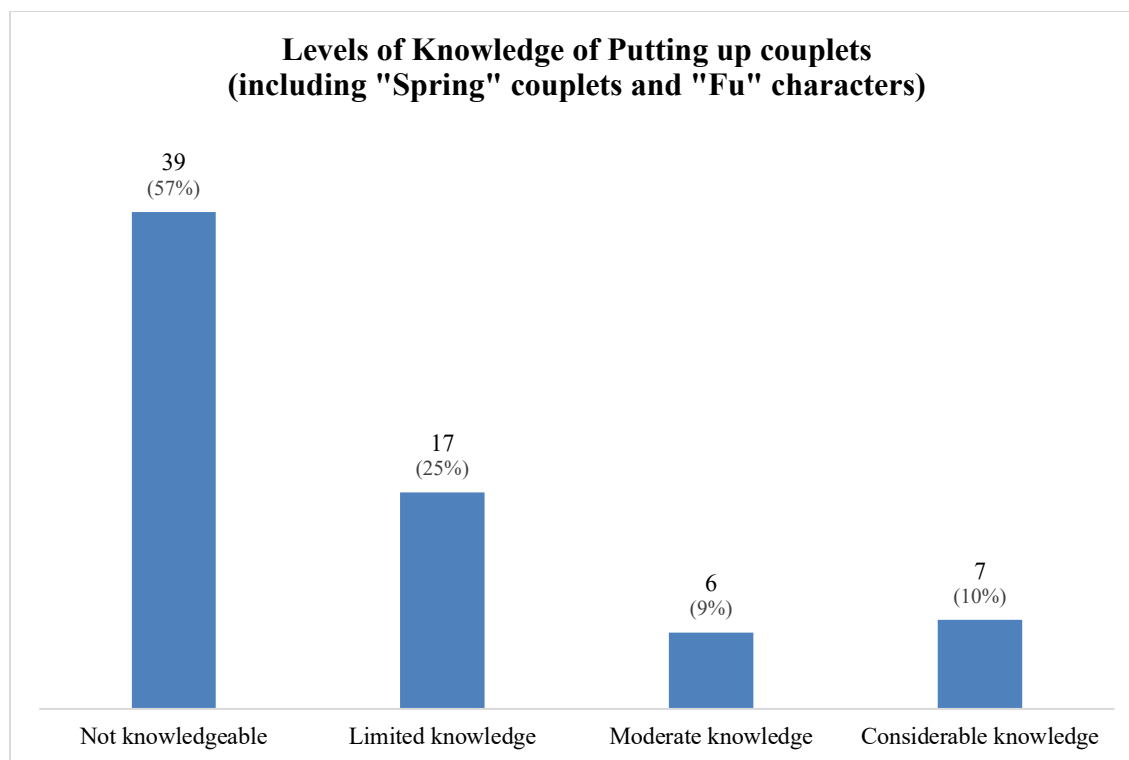


Figure 6.38 Participants' Reported Levels of Knowledge of Putting Up Couplets

More than half of the participants (57 %, n=39) reported not knowledgeable regarding the levels of knowledge of Putting Up Couplets, with 25% (n=17) reporting that they were limitedly knowledgeable, 10% (n=7) reporting that they had considerable knowledge, and 9% (n=6) reporting that they had moderate knowledge of Putting Up Couplets.

The participants' reported levels of knowledge of Hong Bao (Red Envelope with Money), which is the tradition of giving and receiving Hong Bao (红包), which are red envelopes containing money commonly exchanged in Chinese culture during holidays and special occasions, are displayed in Figure 6.39.

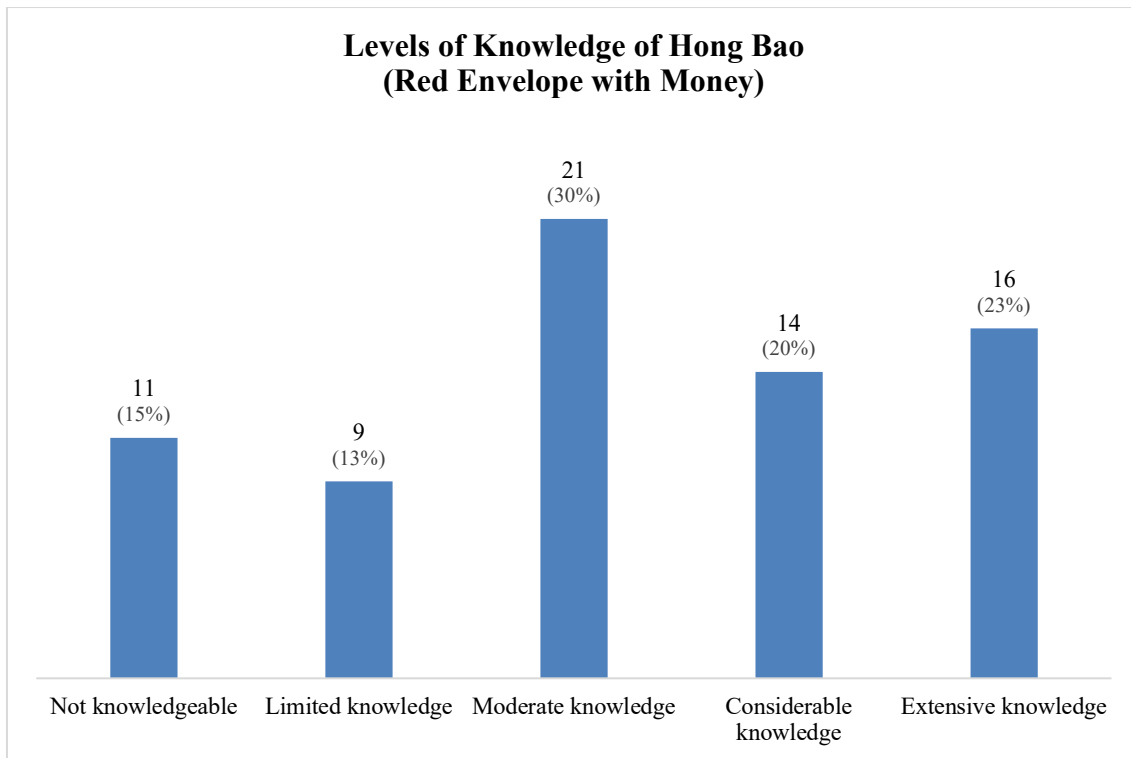


Figure 6.39 Participants' Reported Levels of Knowledge of Hong Bao (Red Envelope with Money)

One thirds of the participants (30%, n=21), reported moderate knowledge regarding the levels of knowledge of Hong Bao (Red Envelope with Money), 23% (n=16) reporting that they had extensive knowledge, 20% (n=14) reporting that they had considerable knowledge, 15% (n=11) reporting that they were not knowledgeable, and 13% (n=9) reported that they had limited knowledge of Hong Bao (Red Envelope with Money).

The participants' reported levels of knowledge of Gao Kao (Annual national undergraduate admission exam), which is China's highly competitive national college entrance examination, are displayed in Figure 6.40.

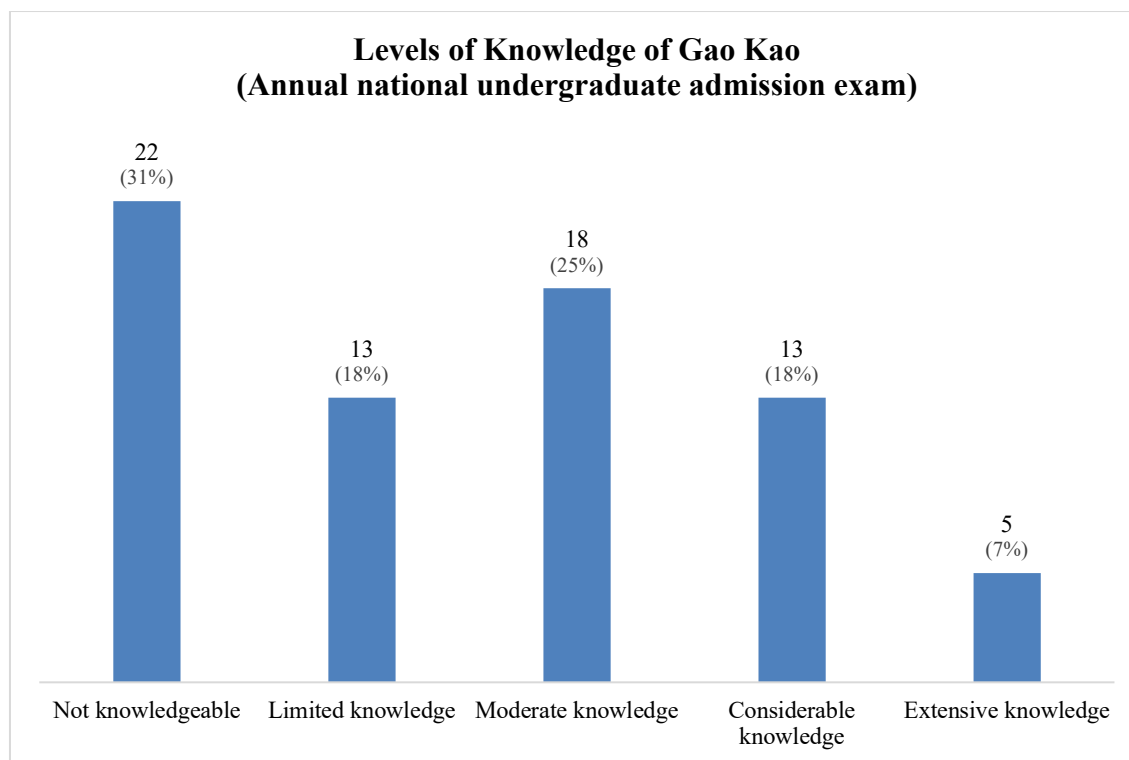


Figure 6.40 Participants' Reported Levels of Knowledge of Gao Kao (Annual National Undergraduate Admission Exam)

Over one third of the participants (31%, $n=22$) reported that they were not knowledgeable regarding the levels of knowledge of Gao Kao (Annual national undergraduate admission exam), 25% ($n=18$) reporting that they were moderately knowledgeable, 18% ($n=13$) reporting that they had limited knowledge, 18% ($n=13$) reporting that they had considerable knowledge, and 7% ($n=5$) reporting that they had extensive knowledge of Gao Kao (Annual national undergraduate admission exam).

The participants' reported levels of knowledge of Jun Xun (Mandatory Military Training), which is the compulsory military training for students in China and a fundamental part of their educational experience and national identity formation, are displayed in Figure 6.41.

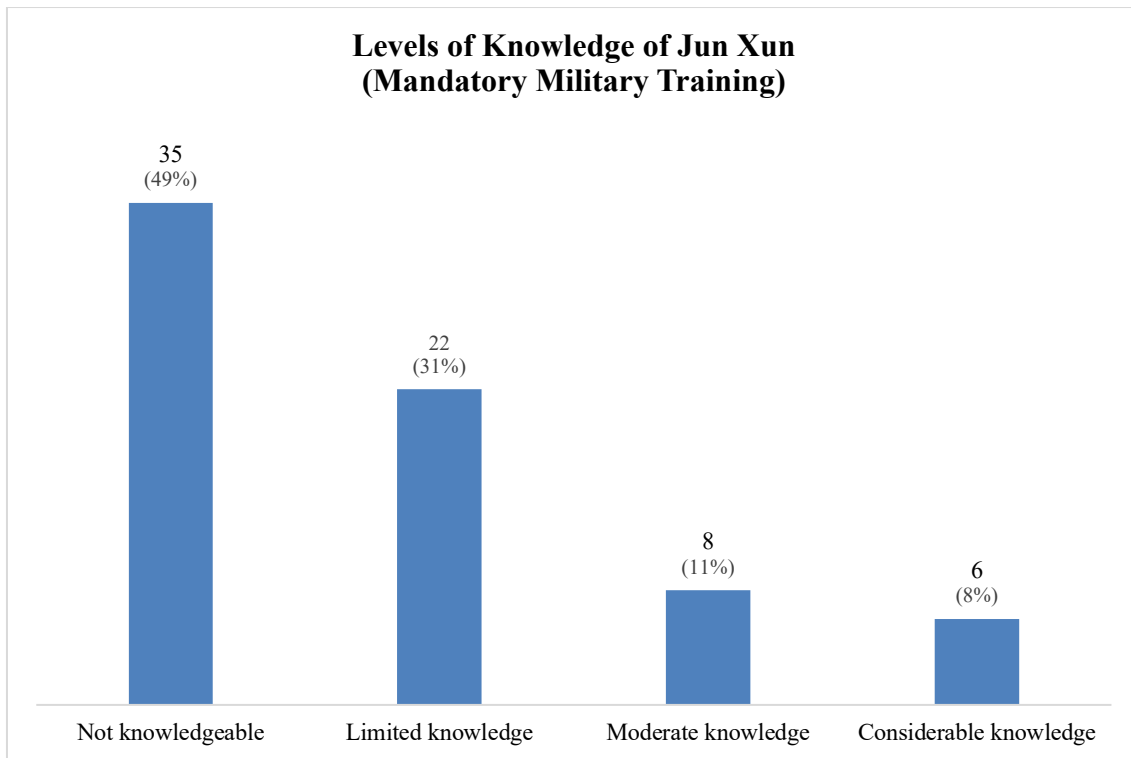


Figure 6.41 Participants' Reported Levels of Knowledge of Jun Xun (Mandatory Military Training)

Almost half of the participants (49%, $n=35$) reported that they were not knowledgeable regarding the levels of knowledge of Jun Xun (Mandatory Military Training), with 31% ($n=22$) reporting that they had limited knowledge, 11% ($n=8$) reporting that they were moderately knowledgeable, and 8% ($n=6$) reporting that they had considerable knowledge of Jun Xun (Mandatory Military Training).

The participants' reported levels of knowledge of Buddhism, which is one of China's major religious and philosophical traditions that influences various aspects of Chinese history, ethics, and daily life, are displayed in Figure 6.42.

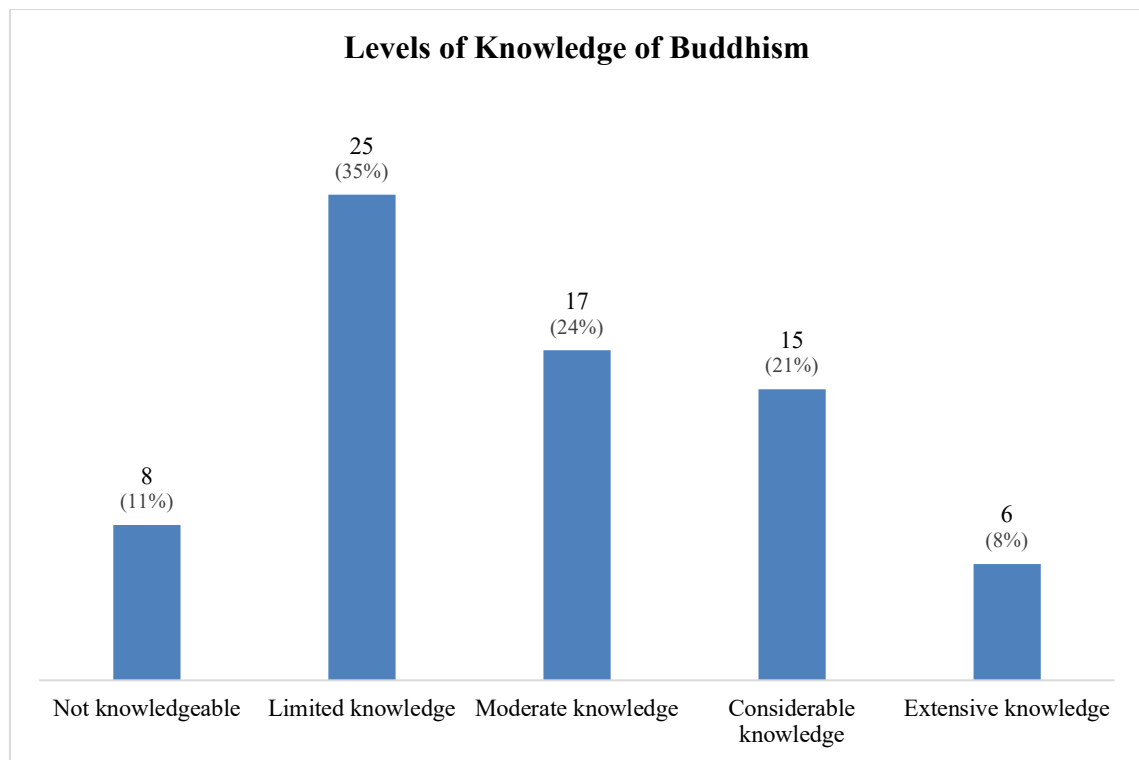


Figure 6.42 *Participants' Reported Levels of Knowledge of Buddhism*

More than one third of the participants (35%, $n=25$) reported limited knowledge regarding the levels of knowledge of Buddhism, with 24% ($n=17$) reporting that they were moderately knowledgeable, 21% ($n=15$) reporting that they had considerable knowledge, 11% ($n=8$) reporting that they were not knowledgeable, and 8% ($n=6$) reporting that they had extensive knowledge of Buddhism.

The participants' reported levels of knowledge of Taoism, which is a major Chinese philosophical and religious tradition influencing Chinese culture, ethics, and cosmology, are displayed in Figure 6.43.

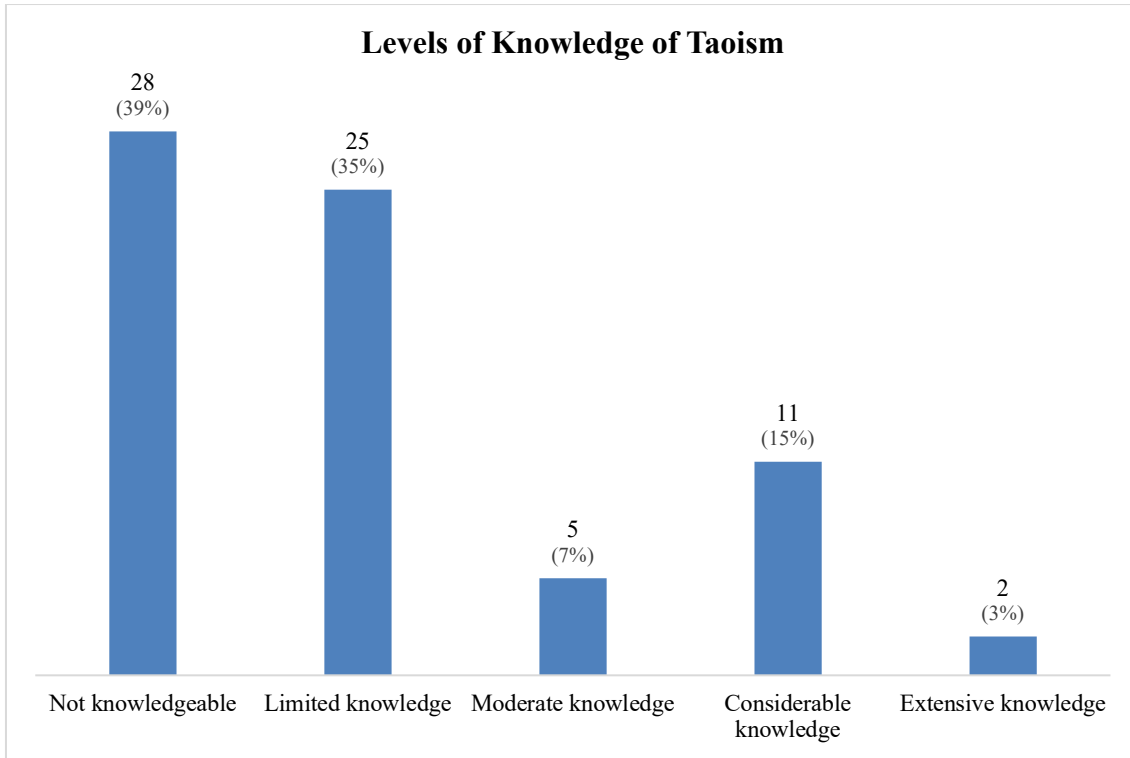


Figure 6.43 Participants' Reported Levels of Knowledge of Taoism

More than one third of the participants (39%, n=28) reported that they were not knowledgeable regarding the levels of knowledge of Taoism, with 35% (n=25) reporting that they had limited knowledge, 15% (n=11) reporting that they had considerable knowledge, 7% (n=5) reporting that they were moderately knowledgeable, and 3% (n=2) reporting that they had extensive knowledge of Taoism.

The participants' reported levels of knowledge of Mo Yan, who is a prominent Chinese writer and Nobel Prize laureate, are displayed in Figure 6.44.

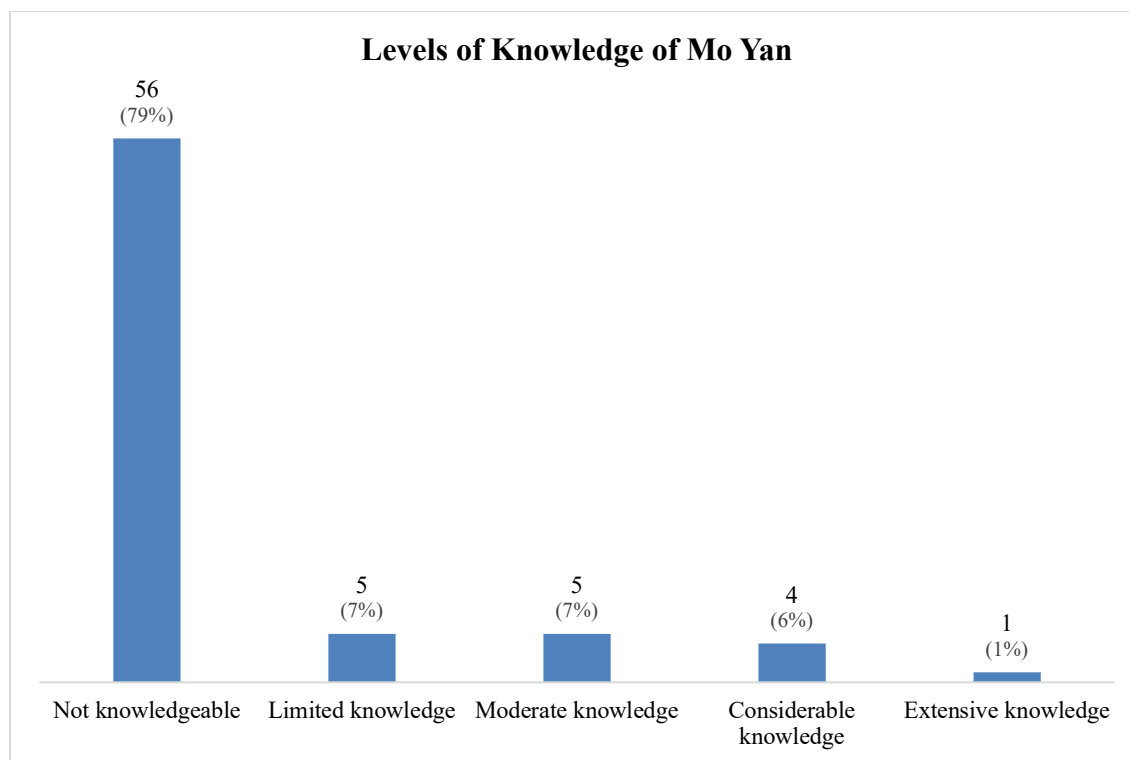


Figure 6.44 Participants' Reported Levels of Knowledge of Mo Yan

Among the participants, 79% (n=56) reported that they were not knowledgeable regarding the levels of knowledge of Mo Yan, with 7% (n=5) reporting that they had limited knowledge, 7% (n=5) reporting that they were moderately knowledgeable, 6% (n=4) reporting that they had considerable knowledge, and 1% (n=1) reporting that they had extensive knowledge of Mo Yan.

The participants' reported levels of knowledge of *Romance of the Three Kingdoms*, which is one of the four great classical Chinese literature novels attributed to Luo Guanzhong, known for its historical and cultural significance, are displayed in Figure 6.45.

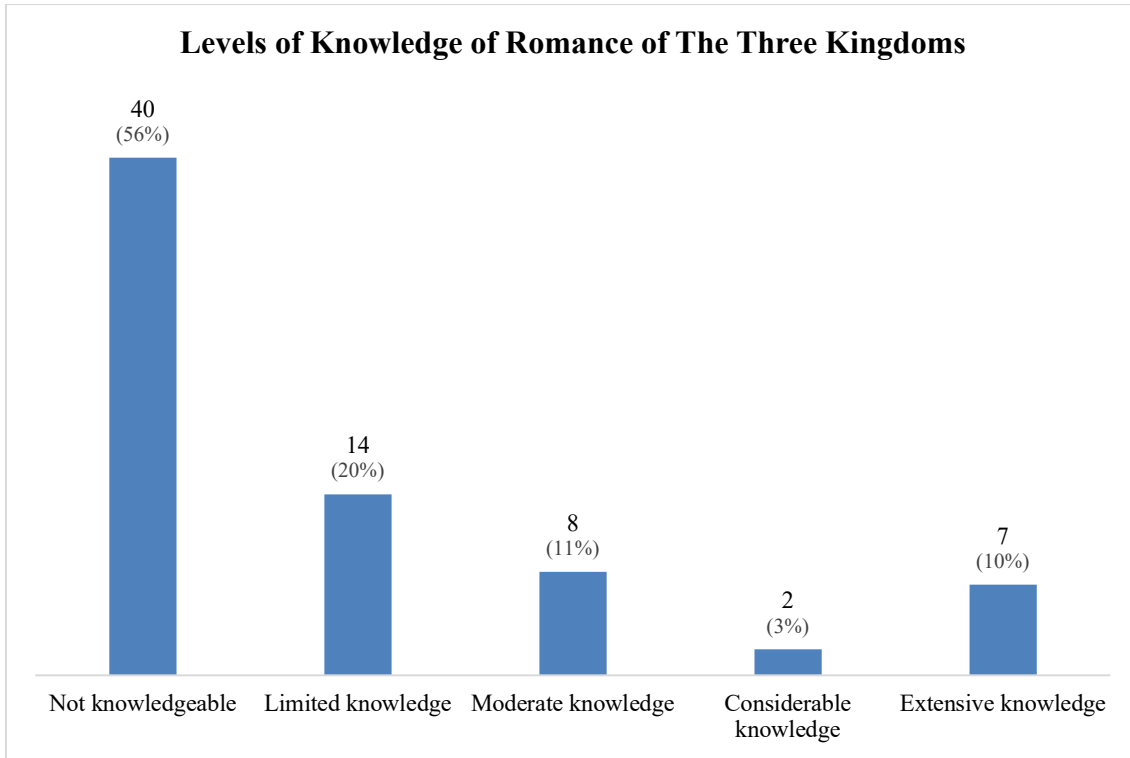


Figure 6.45 Participants' Reported Levels of Knowledge of Romance of the Three Kingdoms

More than half of the participants, 56% (n=40) reported that they were not knowledgeable regarding the levels of knowledge of Romance of the Three Kingdoms, with 20% (n=14) reporting that they had limited knowledge, 11% (n=8) reporting that they were moderately knowledgeable, 10% (n=7) reporting that they had extensive knowledge and, 3% (n=2) reporting that they had considerable knowledge of Romance of the Three Kingdoms.

The participants' reported levels of knowledge of Shui Mo Hua (Ink and wash painting), which is a fundamental part of Chinese artistic tradition and a significant form of Chinese visual art known for its aesthetic principles and cultural heritage, are displayed in Figure 6.46.

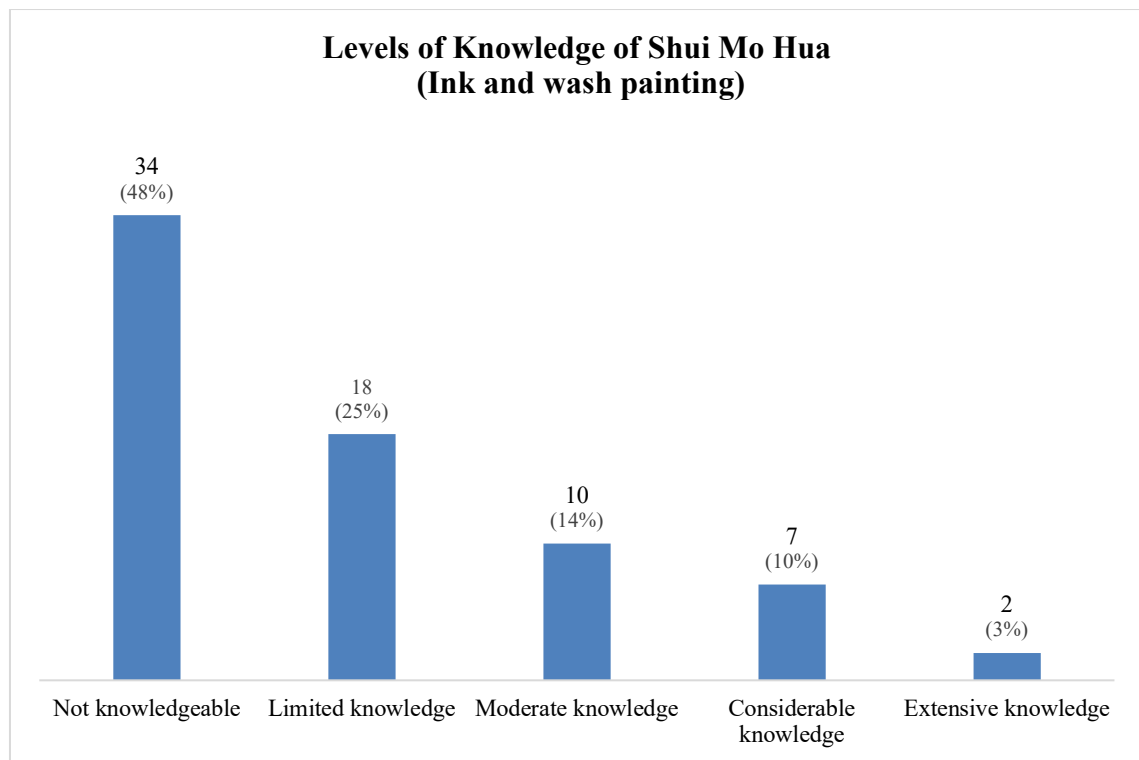


Figure 6.46 Participants' Reported Levels of Knowledge of Shui Mo Hua (Ink and Wash Painting)

Almost half of the participants (48%, n=34) reported that they were not knowledgeable regarding the levels of knowledge of Shui Mo Hua (Link and Wash Painting), with 25% (n=18) reporting that they had limited knowledge, 14% (n=10) reporting that they were moderately knowledgeable, 10% (n=7) reporting that they had considerable knowledge, and 3% (n=2) reporting that they had extensive knowledge of Shui Mo Hua (Link and Wash Painting).

The participants' reported levels of knowledge of Gong Bi Hua (Meticulous painting), which is also known as meticulous painting, a traditional Chinese art form characterised by fine brushwork, rich colours, and detailed depictions of figures, animals, and landscapes, are displayed in Figure 6.47.

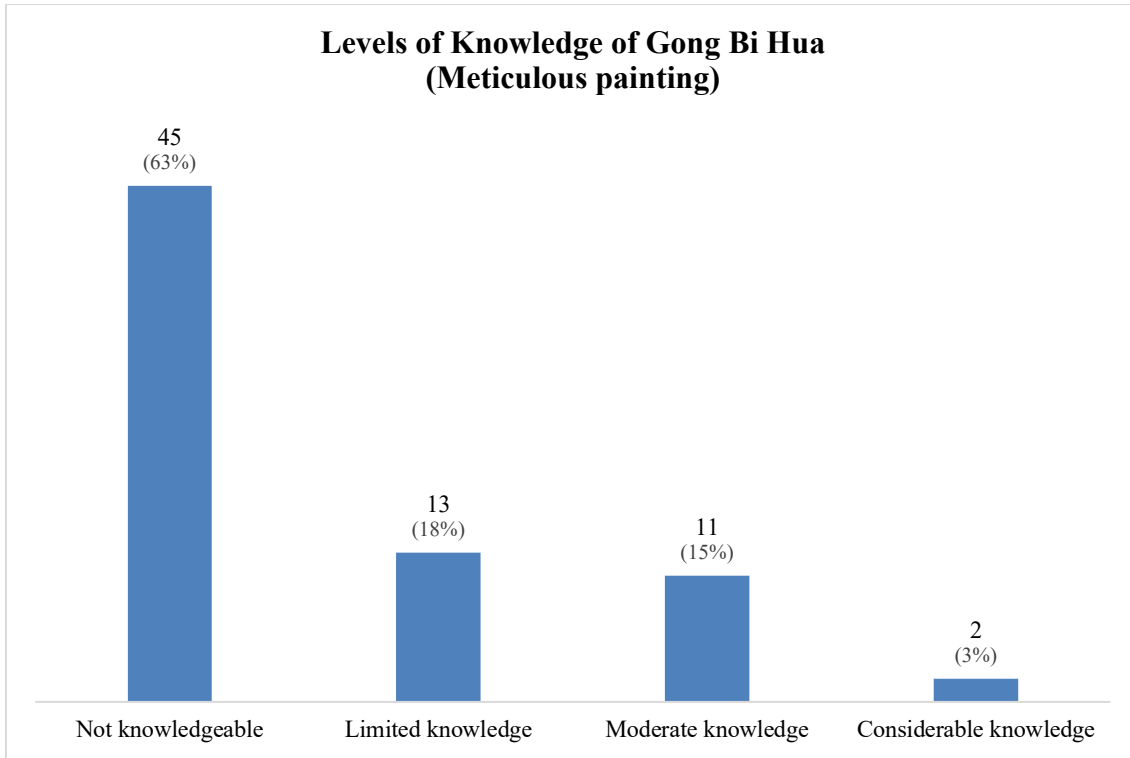


Figure 6.47 Participants' Reported Levels of Knowledge of Gong Bi Hua (Meticulous Painting)

Over half of the participants (63%, n=45) reported that they were not knowledgeable regarding the levels of knowledge of Gong Bi Hua (Meticulous Painting), with 18% (n=13) reporting that they had limited knowledge, 15% (n=11) reporting that they were moderately knowledgeable, and 3% (n=2) reporting that they had considerable knowledge of Gong Bi Hua (Meticulous Painting).

The participants' reported levels of knowledge of Etiquette of Alcohol Culture, which includes traditional drinking customs, formal toasting practices, the role of alcohol in social bonding and business interactions, and the social and business roles of alcohol in Chinese culture, are displayed in Figure 6.48.

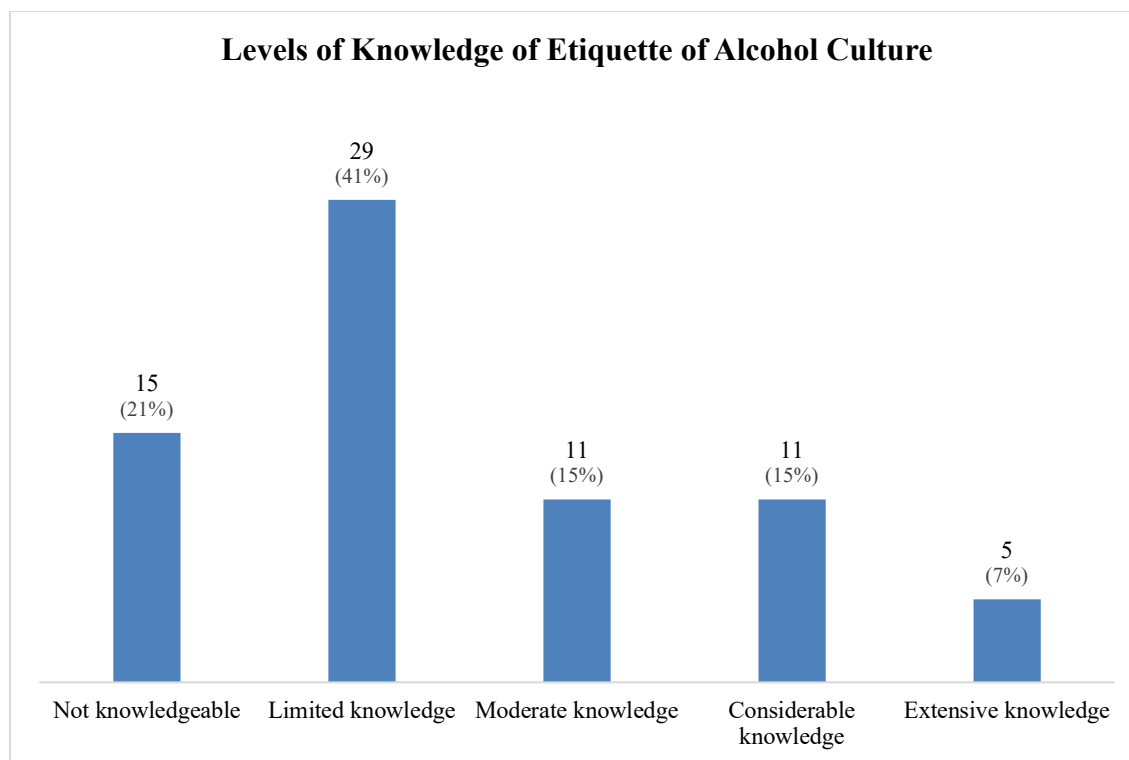


Figure 6.48 Participants' Reported Levels of Knowledge of Etiquette of Alcohol Culture

More than one third of participants 41% (n=29) reported limited knowledge regarding the levels of knowledge of Etiquette of Alcohol Culture, with 21% (n=15) reporting that they were not knowledgeable, 15% (n=11) reporting that they were moderately knowledgeable, 15% (n=11) reporting that they had considerable knowledge, and 7% (n=5) reported that they had extensive knowledge of Etiquette of Alcohol Culture.

The participants' reported levels of knowledge of Gong Shou Li, which is a traditional Chinese hand salute (拱手礼) used to express respect, gratitude, and greetings in formal and festive settings, are displayed in Figure 6.49.

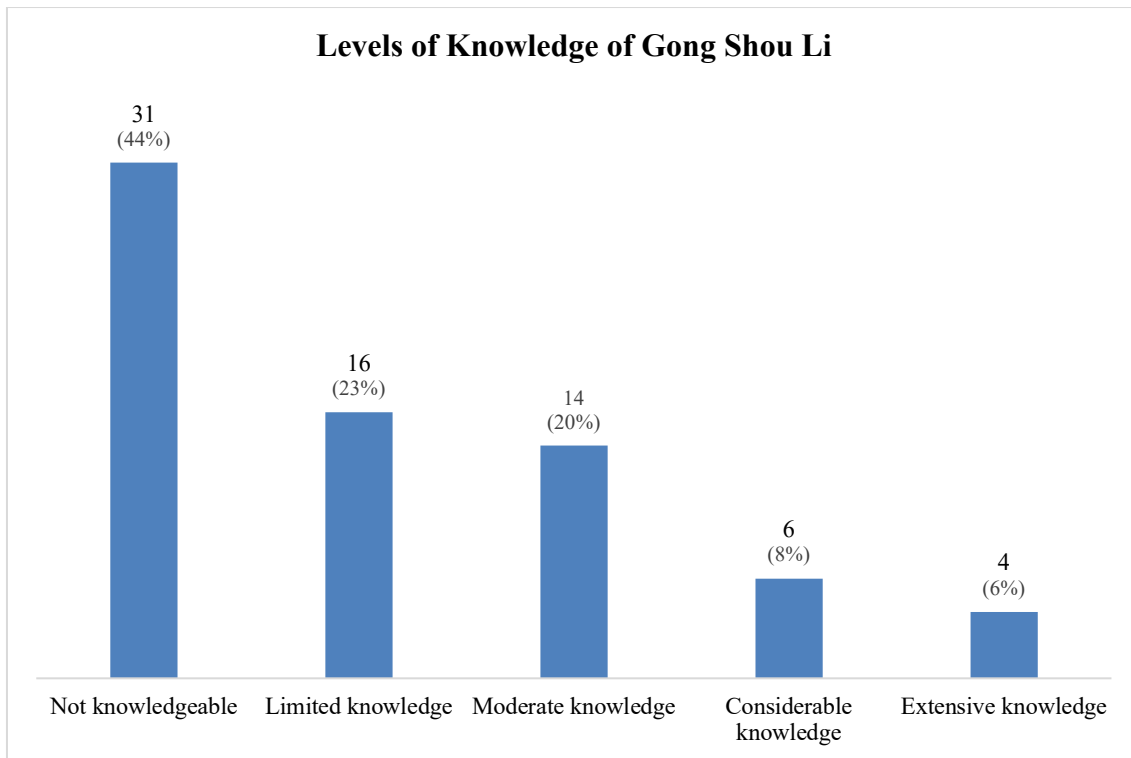


Figure 6.49 Participants' Reported Levels of Knowledge of Gong Shou Li

More than one third of participants (44%, n=31) reported that they were not knowledgeable regarding the levels of knowledge of Gong Shou Li, with 23% (n=16) reporting that they had limited knowledge, 20% (n=14) reporting that they were moderately knowledgeable, 8% (n=6) reporting that they had considerable knowledge, and 6% (n=4) reported that they had extensive knowledge of Gong Shou Li.

The participants' reported levels of knowledge of Chang Cheng (The Great Wall of China), which is one of China's most iconic historical landmarks, are displayed in Figure 6.50

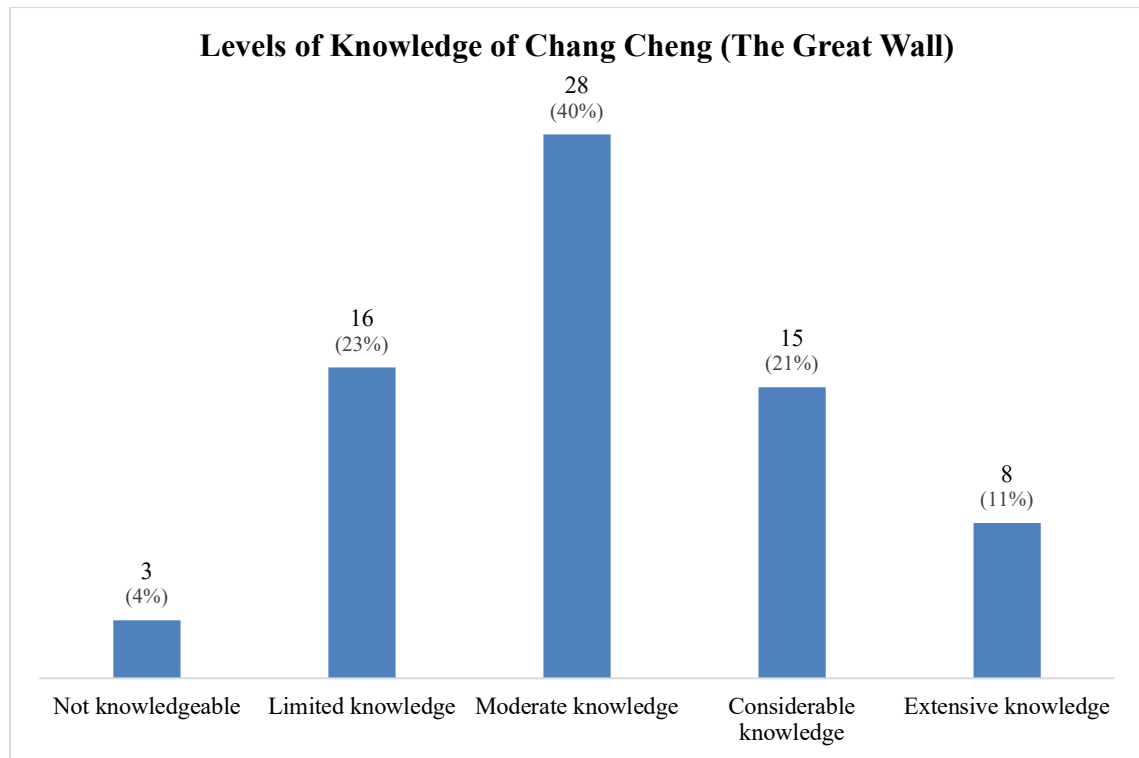


Figure 6.50 Participants' Reported Levels of Knowledge of Chang Cheng (The Great Wall)

More than one third of participants (40%, n=28) reported that they had moderate knowledge regarding the levels of knowledge of Chang Cheng (The Great Wall), with 23% (n=16) reporting that they had limited knowledge, 21% (n=15) reporting that they had considerable knowledge, 11% (n=8) reporting that they had extensive knowledge and 4% (n=3) reporting that they were not knowledgeable.

The participants' reported levels of knowledge of Bing Ma Yong (The Terracotta Army), which is a famous archaeological discovery associated with the first emperor of China, Qin Shi Huang, are displayed in Figure 6.51.

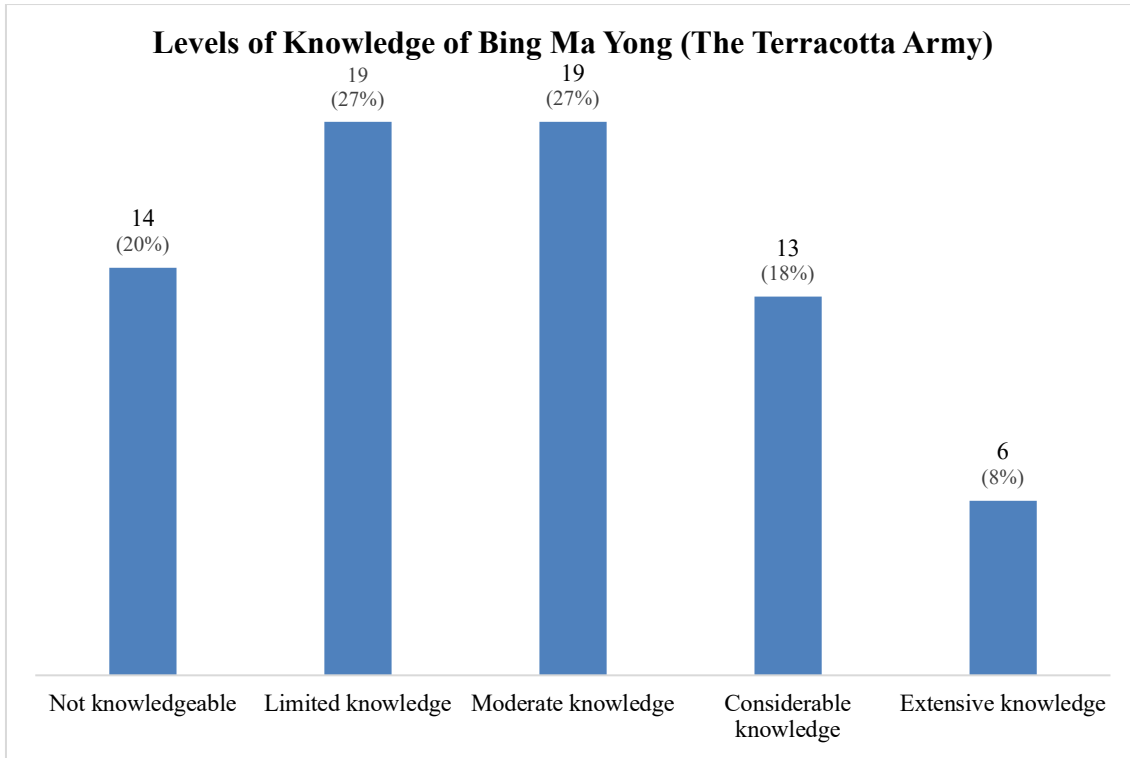


Figure 6.51 Participants' Reported Levels of Knowledge of Bing Ma Yong (The Terracotta Army)

Among the participants, 27% (n=19) reported that they had limited knowledge regarding the levels of knowledge of Bing Ma Yong (The Terracotta Army), with 27% (n=19) reporting that they were moderately knowledgeable, 20% (n=14) reporting that they were not knowledgeable, 18% (n=13) reporting that they had considerable knowledge, and 8% (n=6) reporting that they had extensive knowledge of Bing Ma Yong (The Terracotta Army).

The participants' reported levels of knowledge of Huo Guo (Hot Pot), which is a well-known Chinese culinary tradition, as displayed in Figure 6.52.

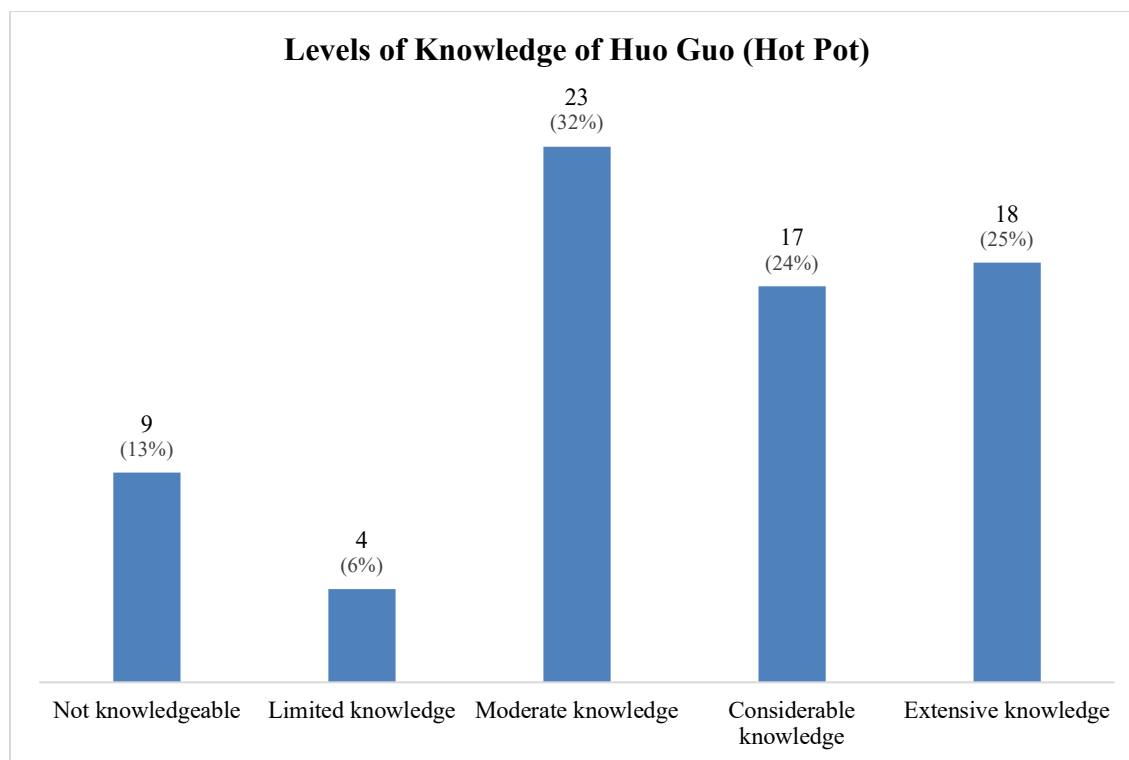


Figure 6.52 Participants' Reported Levels of Knowledge of Huo Guo (Hot Pot)

More than one third of participants (32%, n=23) reported that they had moderate knowledge regarding the levels of knowledge of Huo Guo (Hot Pot), with 25% (n=18) reporting that they had extensive knowledge, 24% (n=17) reporting that they had considerable knowledge, 13% (n=9) reporting that they were not knowledgeable, and 6% (n=4) reporting that they had limited knowledge.

The participants' reported levels of knowledge of Jiao Zi (Dumplings), which is a staple dish in Chinese cuisine, are displayed in Figure 6.53.

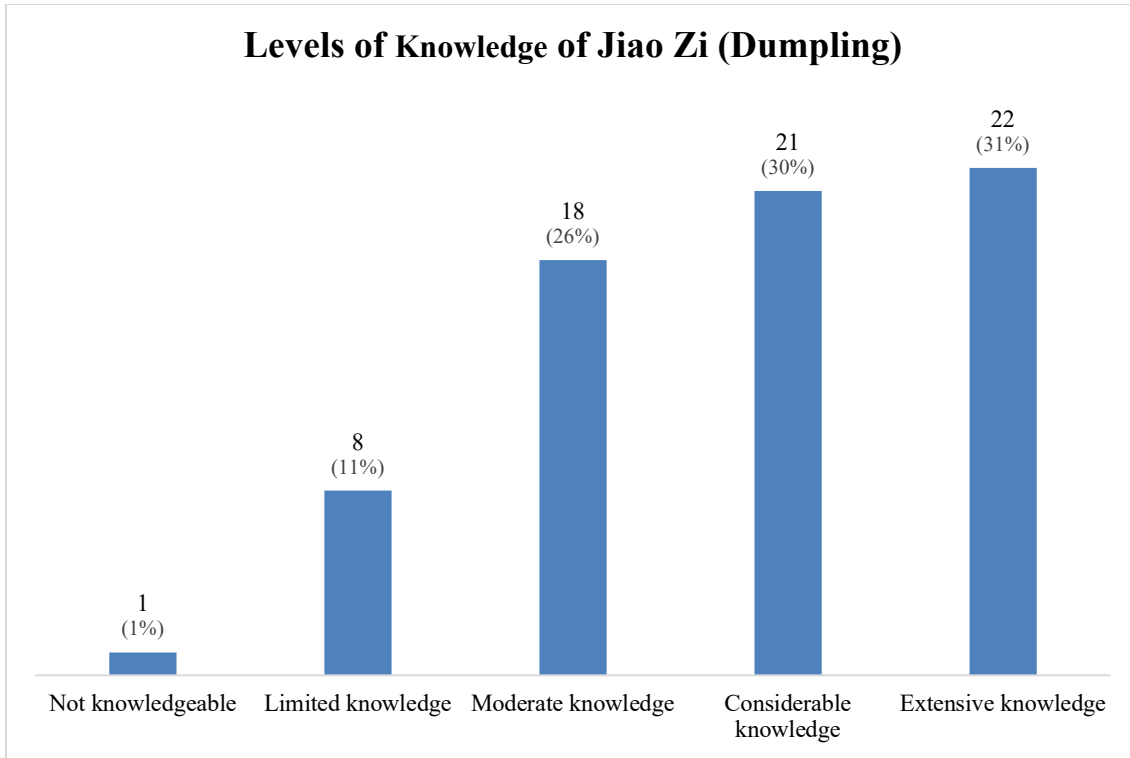


Figure 6.53 Participants' Reported Levels of Knowledge of Jiao Zi (Dumplings)

More than one third of participants (31%, n=22) reported that they had extensive knowledge regarding the levels of knowledge of Jiao Zi (Dumplings), with 30% (n=21) reporting that they had considerable knowledge, 26% (n=18) reporting that they were moderately knowledgeable, 11% (n=8) reporting that they had limited knowledge, and 1% (n=1) reporting that they were not knowledgeable of Jiao Zi (Dumplings).

The participants' reported levels of knowledge of Long Jing Tea (Dragon Well Tea), which is a famous Chinese green tea variety, are displayed in Figure 6.54.

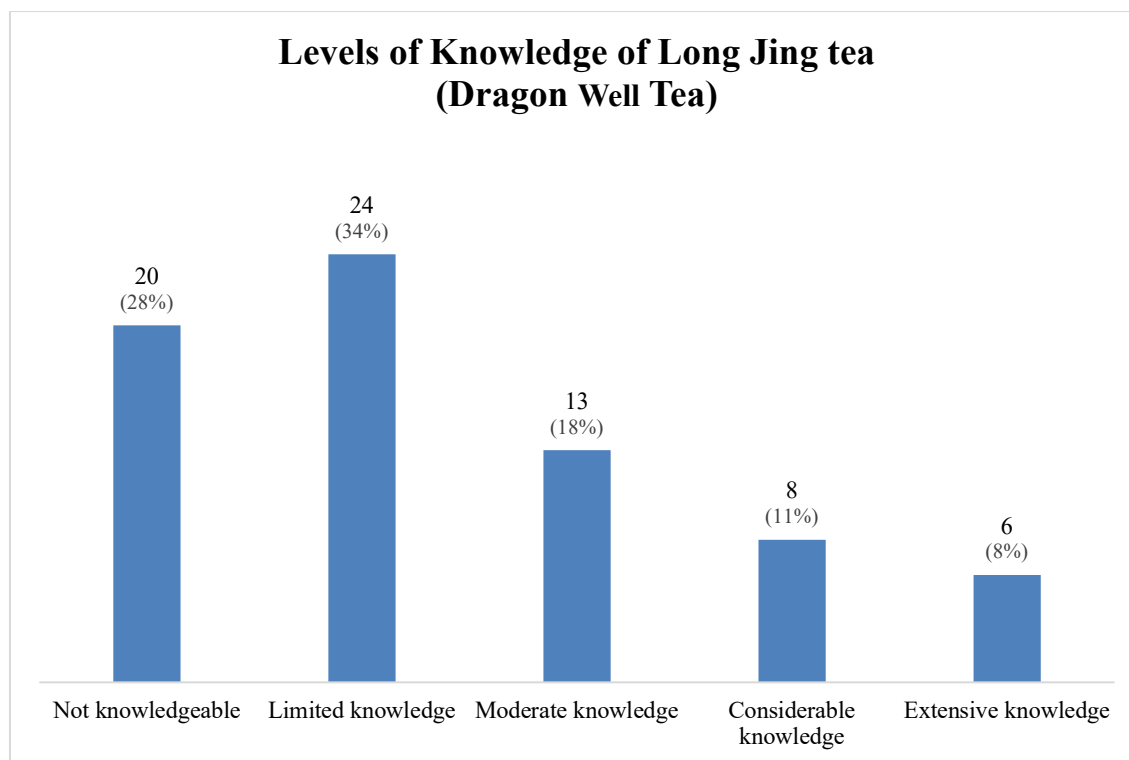


Figure 6.54 Participants' Reported Levels of Knowledge of Long Jing Tea (Dragon Well Tea)

More than one third of participants 34% (n=24) reported limited knowledge regarding the levels of knowledge of Long Jing Tea (Dragon Well Tea), with 28% (n=20) reporting that they were not knowledgeable, 18% (n=13) reporting that they were moderately knowledgeable, 11% (n=8) reporting that they had considerable knowledge, and 8% (n=6) reporting that they had extensive knowledge of Long Jing Tea (Dragon Well Tea).

The participants' reported levels of knowledge of Oolong tea (Wu-lung Tea), which is one of the most well-known Chinese tea varieties, are displayed in Figure 6.55.

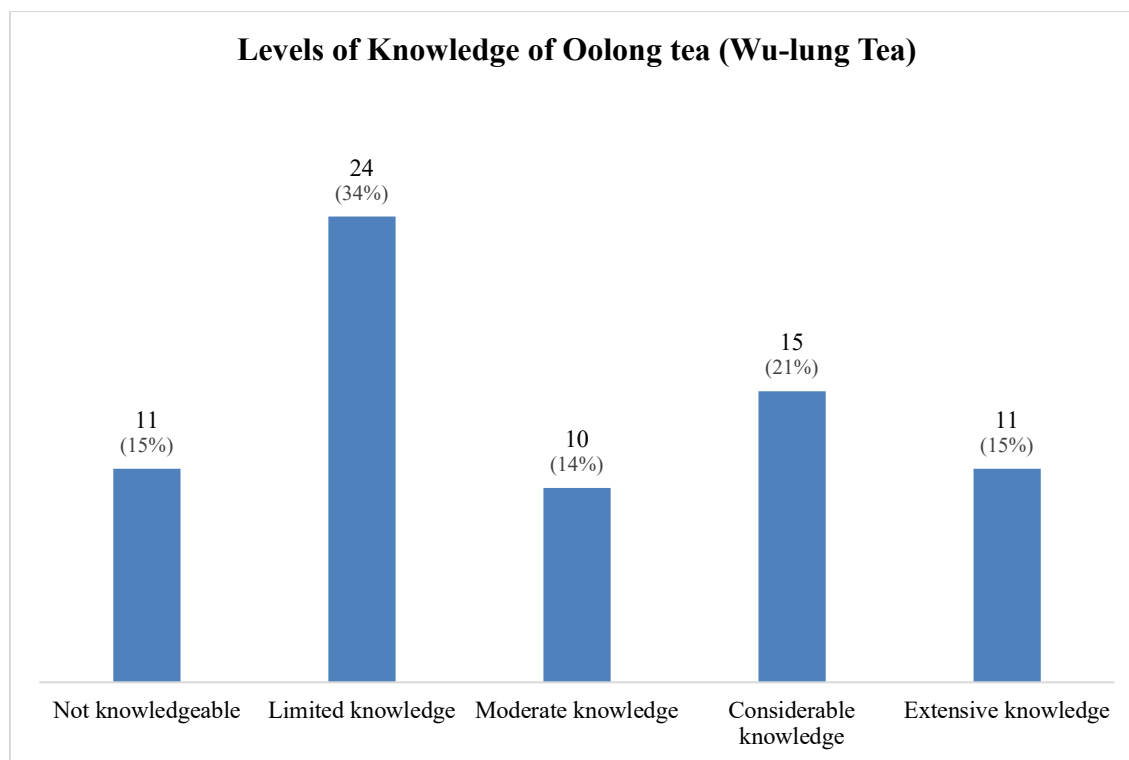


Figure 6.55 Participants' Reported Levels of Knowledge of Oolong Tea (Wu-lung Tea)

More than one third of participants (34%,n=24) reported limited knowledge regarding the levels of knowledge of Oolong Tea (Wu-lung Tea), with 21% (n=15) reporting that they had considerable knowledge, 15% (n=11) reporting that they were not knowledgeable, 15% (n=11) reporting that they had extensive knowledge, and 14% (n=10) reporting that they were moderately knowledgeable of Oolong Tea (Wu-lung Tea).

The participants' reported levels of knowledge of Sun Wu Kong (The Monkey King), which is a legendary figure from the classic Chinese novel *Journey to the West* (西游记) and one of the most iconic characters in Chinese mythology and literature, are displayed in Figure 6.56.

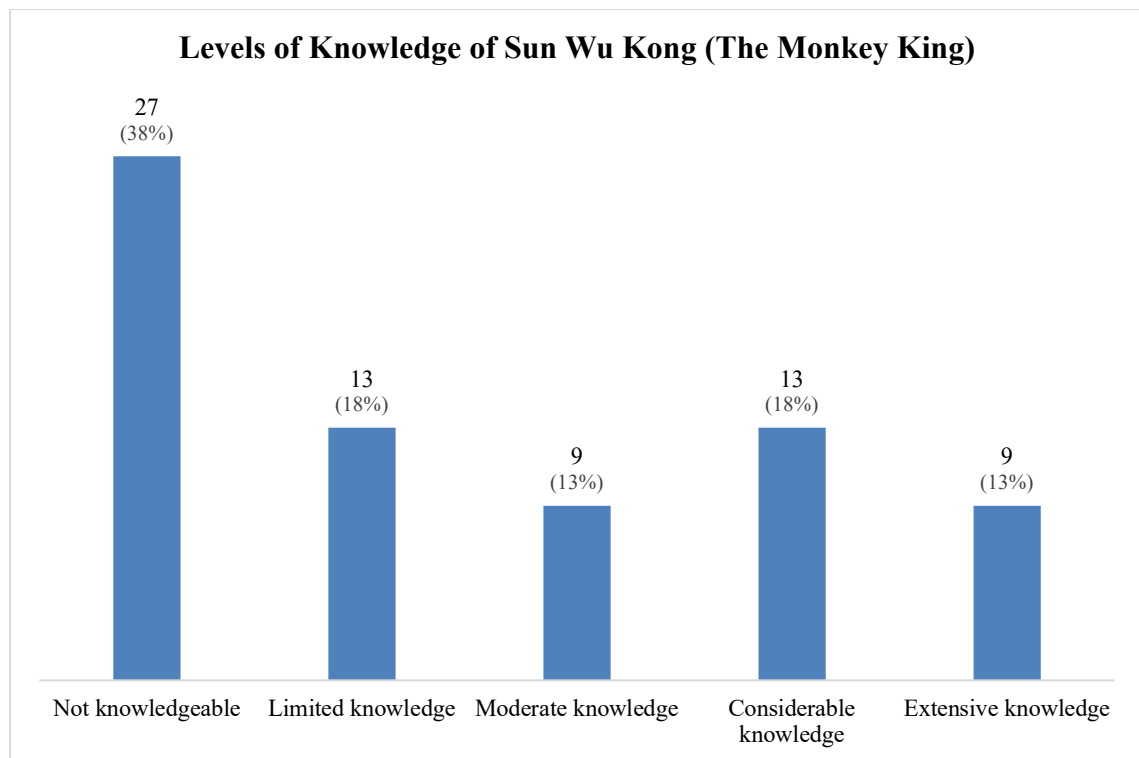


Figure 6.56 Participants' Reported Levels of Knowledge of Sun Wu Kong (The Monkey King)

More than one third of participants (38%, n=27) reported that they were not knowledgeable regarding the levels of knowledge of Sun Wu Kong (The Monkey King), with 18% (n=13) reporting that they had limited knowledge, 18% (n=13) reporting that they had considerable knowledge, 13% (n=9) reporting that they were moderately knowledgeable, and 13% (n=9) reporting that they had extensive knowledge of Sun Wu Kong (The Monkey King).

The participants' reported levels of knowledge of Ne Zha (Marshal of the Central Altar), which is a legendary figure in Chinese mythology and folklore, especially in Daoist traditions and literary adaptations such as Fengshen Yanyi (Investiture of the Gods), are displayed in Figure 6.57.

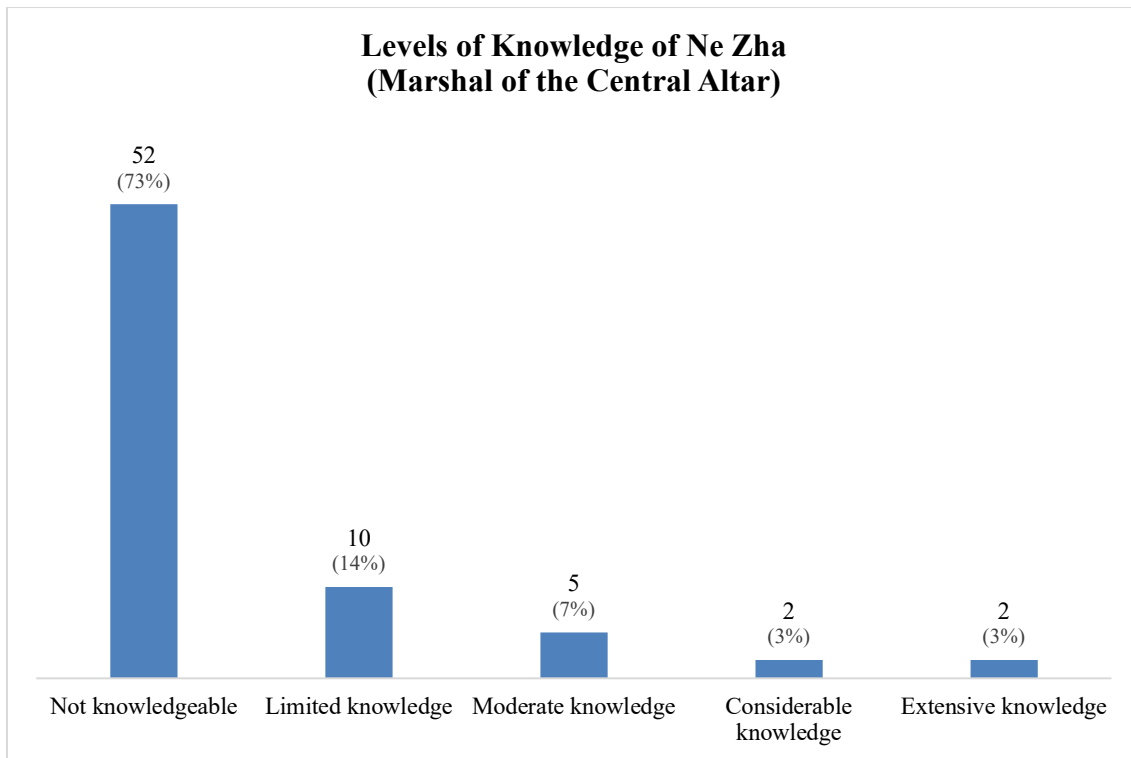


Figure 6.57 Participants' Reported Levels of Knowledge of Ne Zha (Marshal of the Central Altar)

Most participants (73%, n=52), reported that they were not knowledgeable regarding the levels of knowledge of Ne Zha (Marshal of the Central Altar), with 14% (n=10) reporting that they had limited knowledge, 7% (n=5) reporting that they were moderately knowledgeable, 3% (n=2) reporting that they had considerable knowledge and another 3% (n=2) reporting that they had extensive knowledge of Ne Zha (Marshal of the Central Altar).

The participants' reported levels of knowledge of Deng Long (Red Lanterns), which is a cultural symbol in China commonly associated with celebrations, good fortune, and traditional festivals such as the Chinese New Year and the Mid-Autumn Festival, are displayed in Figure 6.58.

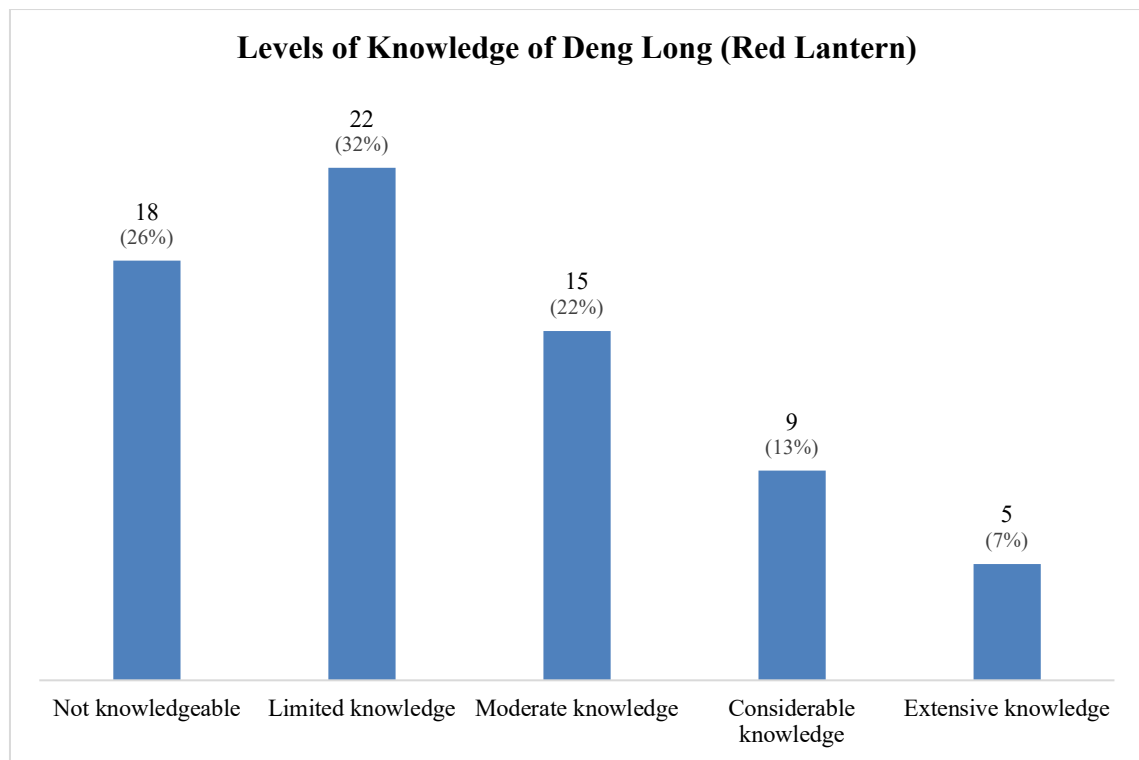


Figure 6.58 Participants' Reported Levels of Knowledge of Deng Long (Red Lanterns)

More than one third of participants (32%, n=22) reported that they had limited knowledge regarding the levels of Deng Long (Red Lanterns), with 26% (n=18) reporting that they were not knowledgeable, 22% (n=15) reporting that they were moderately knowledgeable, 13% (n=9) reporting that they had considerable knowledge, and 7% (n=5) reporting that they had extensive knowledge of Deng Long (Red Lanterns).

The participants' reported levels of knowledge of Bao Zhu (Firecrackers), which is an exploding bamboo, a traditional Chinese firecracker commonly used during celebrations such as the Lunar New Year to ward off evil spirits and bring good luck, are displayed in Figure 6.59.

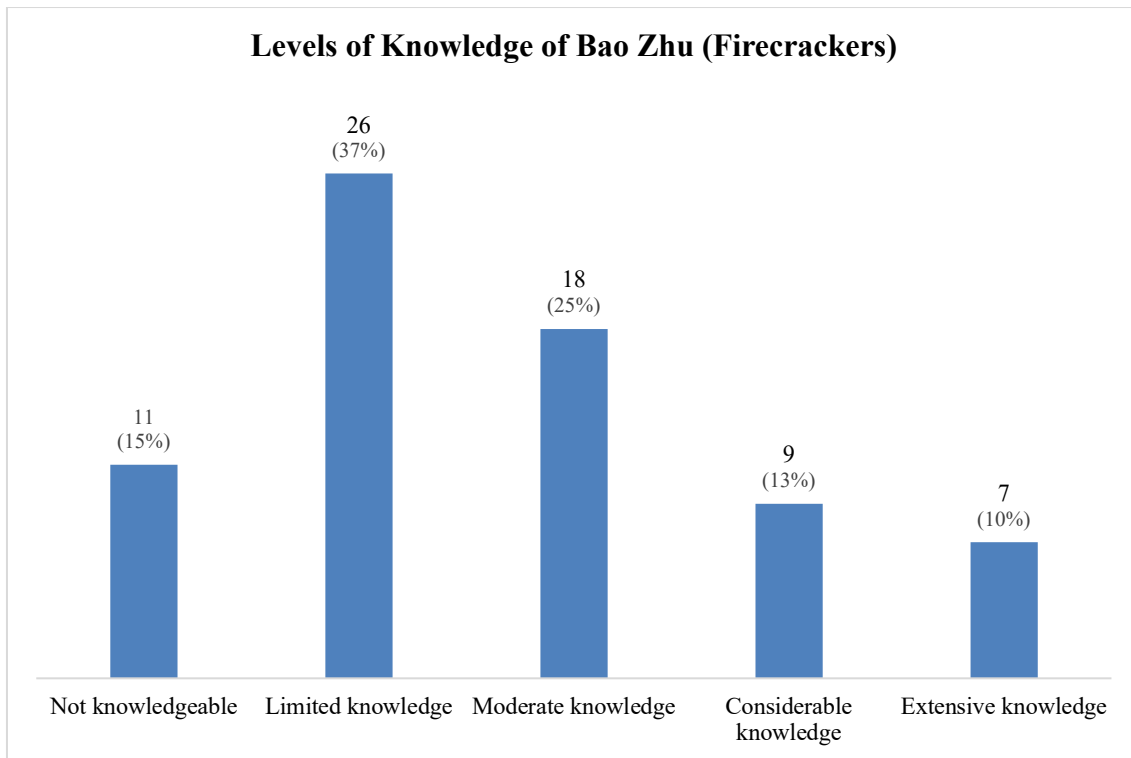


Figure 6.59 Participants' Reported Levels of Knowledge of Bao Zhu (Firecrackers)

More than one third of the participants (37%, n=26) reported limited knowledge regarding the levels of knowledge of Bao Zhu (Firecrackers), with 25% (n=18) reporting that they were moderately knowledgeable, 15% (n=11) reporting that they were not knowledgeable, 13% (n=9) reporting that they had considerable knowledge, and 10% (n=7) reporting that they had extensive knowledge of Bao Zhu (Firecrackers).

The participants' reported levels of knowledge of Chun Jie (The Spring Festival), which is the most significant traditional Chinese holiday celebrated at the beginning of the lunar new year, are displayed in Figure 6.60.

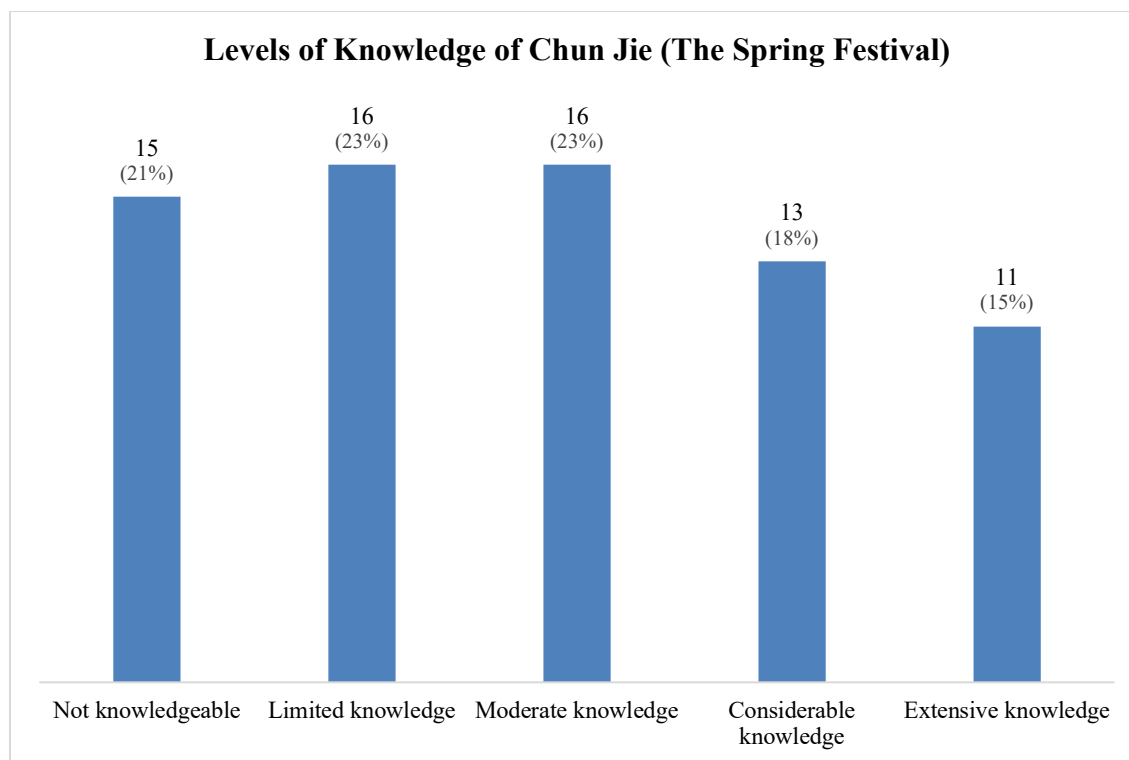


Figure 6.60 Participants' Reported Levels of Knowledge of Chun Jie (The Spring Festival)

Among the participants, 23% (n=16) reported that they had limited knowledge regarding the levels of knowledge of Chun Jie (The Spring Festival), with 23% (n=16) reporting that they were moderately knowledgeable, 21% (n=15) reporting that they were not knowledgeable, 18% (n=13) reporting that they had considerable knowledge, and 15% (n=11) reporting that they had extensive knowledge of Chun Jie (The Spring Festival).

The participants' reported levels of knowledge of Zhong Qiu Jie (Mid-Autumn Festival), which is one of the most important traditional Chinese festivals widely celebrated in East Asian cultures, are displayed in Figure 6.61.

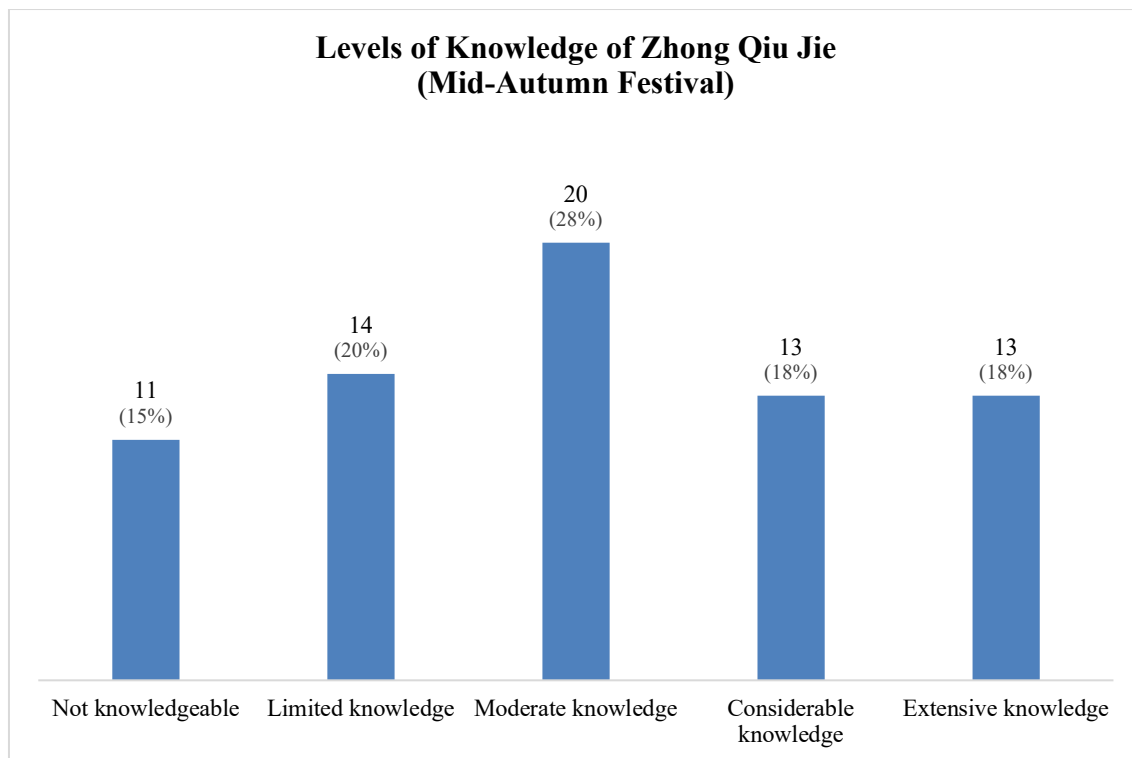


Figure 6.61 Participants' Reported Levels of Knowledge of Zhong Qiu Jie (Mid-Autumn Festival)

Among the participants, 28% (n=20) reported that they had moderate knowledge regarding the levels of knowledge of Zhong Qiu Jie (Mid-Autumn Festival), with 20% (n=14) reporting that they had limited knowledge, 18% (n=13) reporting that they had considerable knowledge, another 18% (n=13) reporting that they had extensive knowledge, and 15% (n=11) reporting that they were not knowledgeable of Zhong Qiu Jie (Mid-Autumn Festival).

The participants' reported levels of knowledge of Qi Pao/Chengsam (Traditional dress), which is culturally significant and widely recognised in Chinese fashion and heritage as a culturally significant and historically recognised Chinese fashion symbol, often associated with elegance and historical importance, are displayed in Figure 6.62.

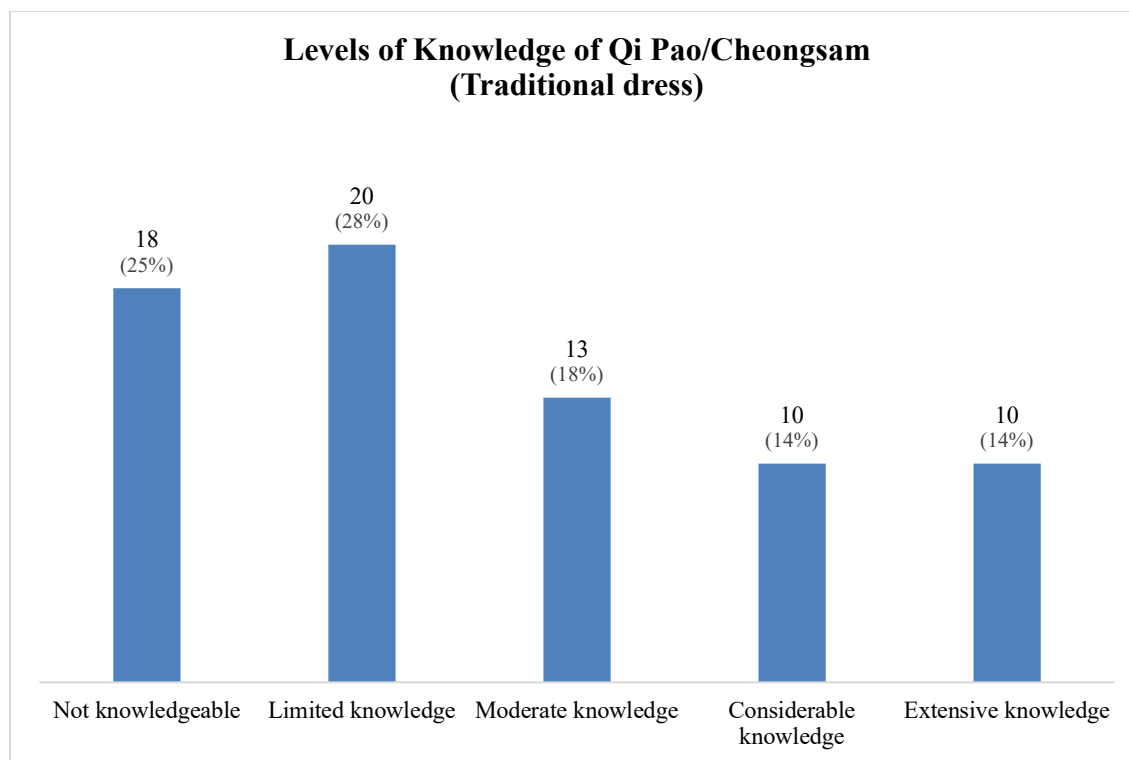


Figure 6.62 Participants' Reported Levels of Knowledge of Qi Pao/Cheongsam (Traditional Dress)

Among the participants, 28% (n=20) reported that they had limited knowledge regarding the levels of knowledge of Qi Pao/Cheongsam (Traditional dress), with 25% (n=18) reporting that they were not knowledgeable, 18% (n=13) reporting that they were moderately knowledgeable, 14% (n=10) reporting that they had considerable knowledge, and another 14% (n=10) reporting that they had extensive knowledge of Qipao/Cheongsam (Traditional dress).

The participants' reported levels of knowledge of Tang Zhuang (Tang suits), which is a traditional Chinese style of attire often associated with formal occasions, cultural celebrations, and historical representations of Chinese identity, are displayed in Figure 6.63.

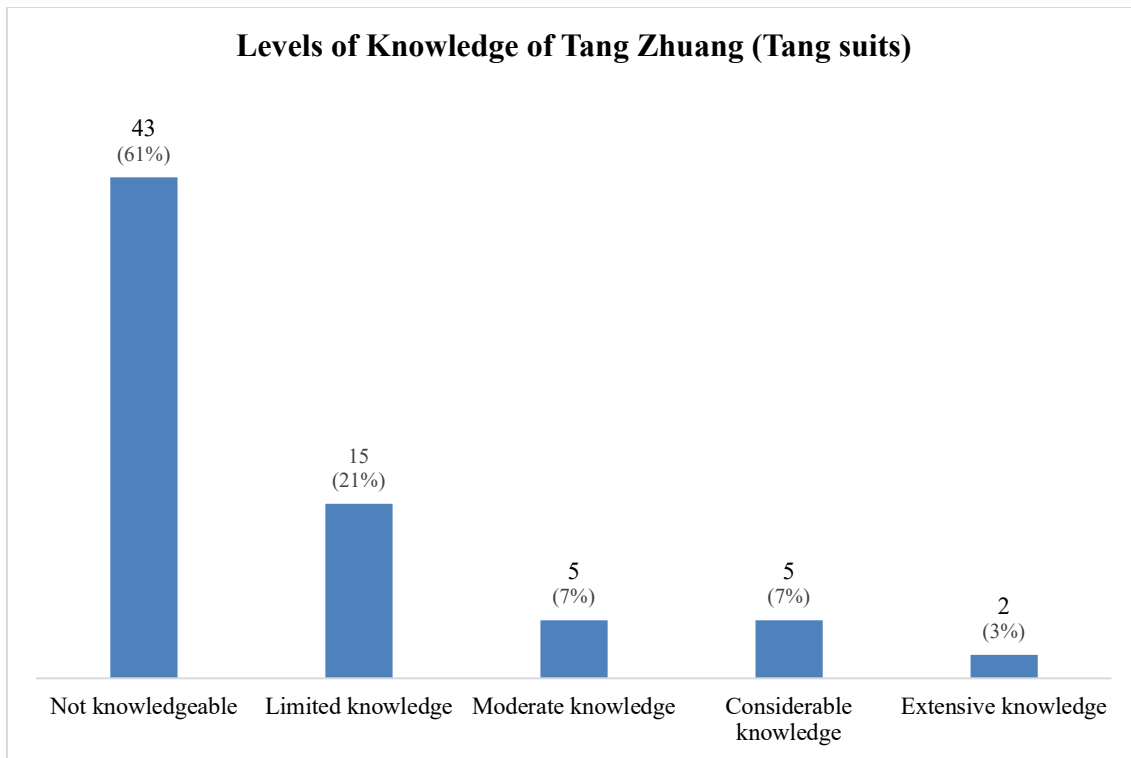


Figure 6.63 Participants' Reported Levels of Knowledge of Tang Zhuang (Tang suits)

Most of the participants (61%, n=43) reported that they were not knowledgeable regarding the levels of knowledge of Tang Zhuang (Tang Suits), with 21% (n=15) reporting that they had limited knowledge, 7% (n=5) reporting that they had considerable knowledge, and another 7% (n=5) reporting that they were moderately knowledgeable, and 3% (n=2) reporting that they had extensive knowledge of Tang Zhuang (Tang suits).

The participants' reported levels of knowledge of Han Zu (Han, Majority Ethnic Group), which is the largest ethnic group in China, an ethnic group among East Asian people, which makes up over 90% of the population and plays a central role in Chinese cultural and historical narratives, are displayed in Figure 6.64.

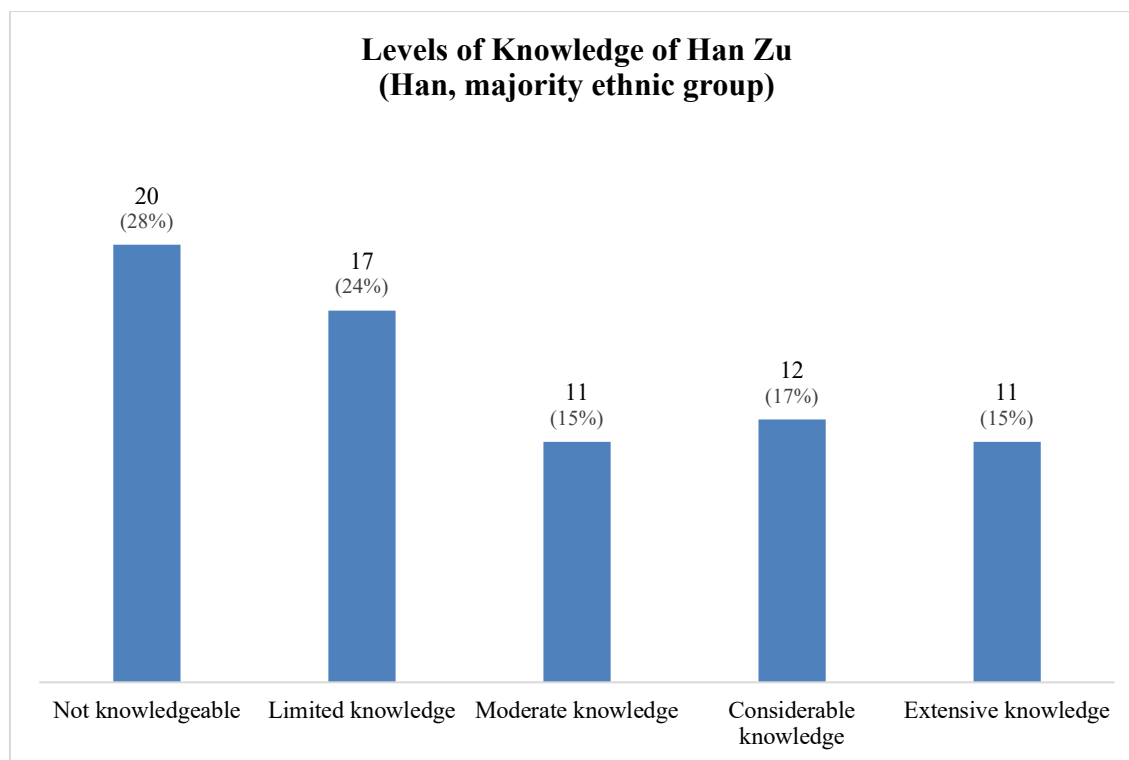


Figure 6.64 Participants' Reported Levels of Knowledge of Han Zu (Han, Majority Ethnic Group)

Among the participants, 28% (n=20) reported that they were not knowledgeable regarding the levels of knowledge of Han Zu (Han, Majority ethnic group), with 24% (n=17) reporting that they had limited knowledge, 17% (n=12) reporting that they had considerable knowledge, 15% (n=11) reporting that they were moderately knowledgeable, another 15% (n=11) reporting that they had extensive knowledge of Han Zu (Han, Majority ethnic group).

The participants' reported levels of knowledge of Zang Zu (Tibetan, Minority Ethnic Group), which is the Tibetan ethnic group with a distinct cultural and linguistic identity within China. This group is one of China's 55 officially recognised minority groups, which is renowned for its unique cultural, linguistic, and religious heritage, are displayed in Figure 6.65.

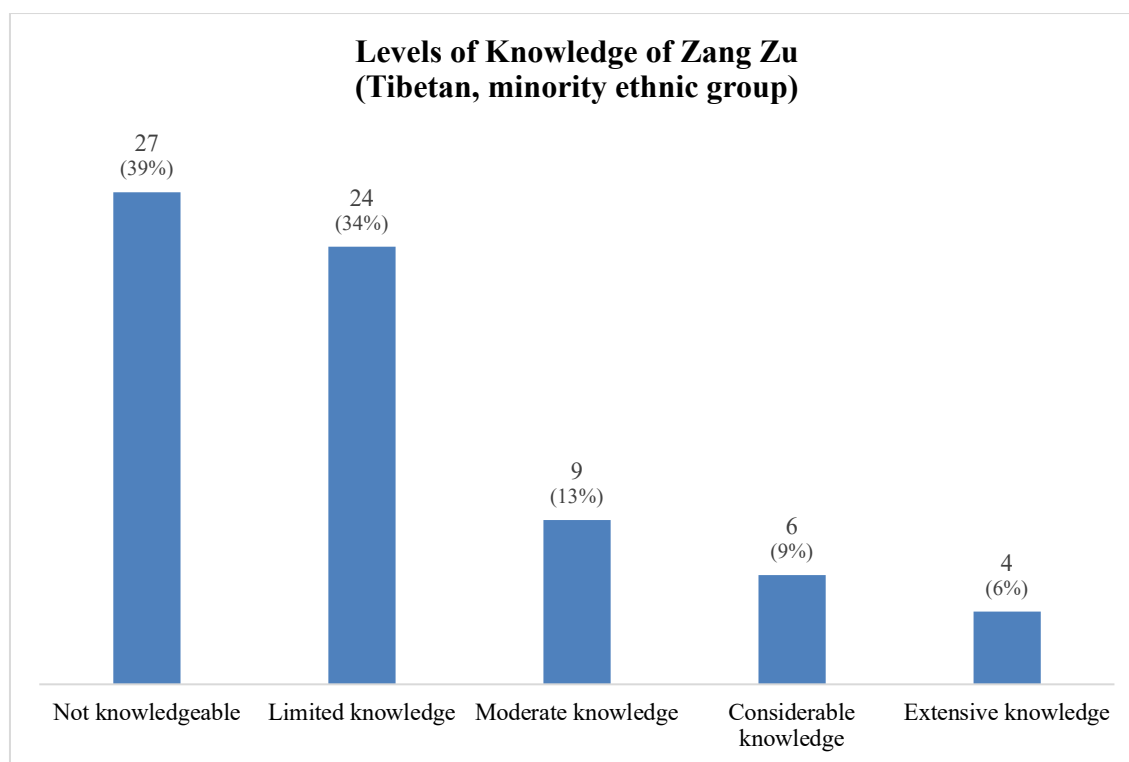


Figure 6.65 Participants' Reported Levels of Knowledge of Zang Zu (Tibetan, Minority Ethnic Group)

More than one third of participants (39%, n=27) reported that they were not knowledgeable regarding the levels of knowledge of Zang Zu (Tibetan, Minority Ethnic Group), with 34% (n=24) reporting that they had limited knowledge, 13% (n=9) reporting that they were moderately knowledgeable, 9% (n=6) reporting that they had considerable knowledge, and 6% (n=4) reporting that they had extensive knowledge of Zang Zu (Tibetan, Minority Ethnic Group).

6.3 Mean Scores for the whole sample on levels of Knowledge of Chinese cultural elements

Table 6.1 displays the mean scores on levels of knowledge of elements of Chinese culture for the whole sample, providing descriptive statistics for 36 paired variables of different elements of Chinese culture, each assessed on a Likert scale ranging from 1 (not knowledgeable) to 5 (extensive knowledge).

Table 6.1 Mean Scores for the Whole Sample's Levels of Knowledge of Chinese Cultural Elements

Category	Chinese Cultural elements	Statistics		Category Mean
		Mean	Std. Deviation	
Chinese Food	Knowledge of Jiao Zi (Dumpling)	3.8	1.1	3.6
	Knowledge of Huo Guo (Hot Pot)	3.4	1.3	

Lifestyles	Knowledge of Hong Bao (Red envelope with money in it)	3.2	1.4	2.5
	Knowledge of Putting up couplets (including Spring couplets and Fu characters)	1.7	1.0	
Cultural Relic collection	Knowledge of Chang Cheng (The Great Wall)	3.1	1.0	2.9
	Knowledge of Bing Ma Yong (The Terracotta Army)	2.7	1.2	
Traditional Festival	Knowledge of Zhong Qiu Jie (Mid-Autumn Festival)	3.0	1.3	2.9
	Knowledge of Chun Jie (The Spring Festival)	2.8	1.4	
Ideas	Knowledge of Ying and Yang	3.0	1.1	2.7
	Knowledge of The Art of War	2.3	1.1	
Chinese Tea	Knowledge of Oolong Tea (Wu-lung)	2.9	1.3	2.7
	Knowledge of Long Jing Tea (Dragon Well Tea)	2.4	1.2	
Religion	Knowledge of Buddhism	2.8	1.2	2.5
	Knowledge of Taoism	2.1	1.2	
Chinese Ethnic groups	Knowledge of Han Zu (Han, majority ethnic group)	2.7	1.4	2.4
	Knowledge of Zang Zu (Tibetan, minority ethnic group)	2.1	1.2	
Metaphor & traditional rules	Knowledge of Bao Zhu (Firecrackers)	2.6	1.2	2.5
	Knowledge of Deng Long (Red Lantern)	2.4	1.2	
Ethnic customs	Knowledge of Qi Pao/Cheongsam (traditional dress)	2.6	1.4	2.2
	Knowledge of Tang Zhuang (Tang suits)	1.7	1.1	
non-verbal Language etiquette	Knowledge of Etiquette of Alcohol Culture	2.5	1.2	2.3
	Knowledge of Gong Shou Li	2.1	1.2	
Education	Knowledge of Gao Kao (Annual national undergraduate admission exam of China)	2.5	1.3	2.2
	Knowledge of Jun Xun (Mandatory Military Training)	1.8	1.0	
Mythology	Knowledge of Sun Wu Kong (The Monkey King)	2.5	1.5	2.0
	Knowledge of Ne Zha (Marshal of the Central Altar)	1.5	1.0	
Ideology	Knowledge of Mao Zedong Thought	2.3	1.2	2.3
	Knowledge of Xi Jin Ping Thought	2.2	1.0	
Philosophy	Knowledge of Rujia Sixiang (Confucian philosophy)	2.3	1.1	2.1
	Knowledge of Daojia Sixiang (Taoist philosophy)	1.9	1.0	
Values	Knowledge of Tai Chi (Chinese martial arts)	2.3	1.1	2.2
	Knowledge of Peking Opera (Beijing Opera)	2.0	1.1	

Art	Knowledge of Shui Mo Hua (Ink and wash painting)	1.9	1.1	1.8
	Knowledge of Gong Bi Hua (Meticulous painting)	1.6	.9	
Literature, Literature figure	Knowledge of Romance of The Three Kingdoms	1.9	1.3	1.7
	Knowledge of Mo Yan	1.4	1.0	

The mean score of the participants' overall Chinese cultural knowledge elements was (M=3.6). Among the Chinese cultural elements reported by the participants, the mean score that reported a relatively high level of knowledge (mean score of 2.5 or higher) are as follows: Jiao Zi (Dumpling) (M=3.8), Huo Guo (Hot Pot) (M=3.4), Hong Bao (Red envelope with money in it) (M=3.2), Chang Cheng (The Great Wall) (M=3.1), Zhong Qiu Jie (Mid-Autumn Festival) (M=3.0), Ying and Yang (M=3.0), Oolong tea (Wu-lung) (M=2.9), Buddhism (M=2.8), Chun Jie (The Spring Festival) (M=2.8), Bing Ma Yong (The Terracotta Army) (M=2.7), Han Zu (Han, majority ethnic group) (M=2.7), Bao Zhu (Firecrackers) (M=2.6), Qi Pao/Cheongsam (traditional dress) (M=2.6), Etiquette of Alcohol Culture (M=2.5), Gao Kao (Annual national undergraduate admission exam of China) (M=2.5), and Sun Wu Kong (The Monkey King) (M=2.5).

Among the Chinese cultural elements reported by the participants, the mean score that reported a relatively lower level of knowledge (mean score below 2.0) are as follows: Mo Yan (M=1.4), Ne Zha (Marshal of the Central Altar) (M=1.5), Gong Bi Hua (Meticulous painting) (M=1.6), Putting up couplets (including Spring couplets and Fu characters) (M=1.7), Tang Zhuang (Tang suits) (M=1.7), Jun Xun (Mandatory Military Training) (M=1.8), Daojia Sixiang (Taoist philosophy) (M=1.9), Shui Mo Hua (Ink and wash painting) (M=1.9), and Romance of The Three Kingdoms (M=1.9). The following section presents a description of linguistic factors and levels of knowledge of Chinese culture.

6.4 Linguistic Factors and Levels of Knowledge of Chinese Culture

This section outlines the correlations between participants' linguistic factors, including Participants' ability to distinguish between Simplified and Traditional Chinese, Chinese words with non-equivalence, reported Chinese proficiency level (CEFR and HSK),

and levels of knowledge of Chinese culture, followed by the ANOVA analysis line graph results among the linguistic variables. (Table 6.2, APPENDIX I).

Table 6.2 displays the mean scores and standard deviations, which comprise details of participants' linguistic backgrounds.

Table 6.2 Mean Scores for Linguistic Factors

Linguistic Factors	Statistics	
	Mean	Std. Deviation
Participants' ability to distinguish between Simplified and Traditional Chinese	2.8	1.4
Chinese words with non-equivalence	2.5	1.2
Reported Chinese proficiency level (CEFR and HSK)	2.4	1.6

Participants reported the ability to distinguish between Simplified and Traditional Chinese characters (M=2.8), Chinese words with non-equivalence (M=2.5) were higher than the mean score for reported Chinese proficiency level (CEFR and HSK) (M=2.4).

Table 6.3 displays the correlations between participants' linguistic background factors and participants' level of cultural knowledge, followed by the ANOVA analysis line graph results in the linguistic section category's items. The details of all the other correlations related to these linguistic factors among the variables available (APPENDIX I).

Table 6.3 Correlations Between the Linguistic Factors and Cultural Knowledge Level Scale

		Participants' ability to distinguish between Simplified and Traditional Chinese	Chinese words with non-equivalence	Reported Chinese proficiency level (CEFR and HSK)	Language in which survey was completed	Identification with Chinese heritage	Cultural Knowledge Level Scale
Participants' ability to distinguish between Simplified and Traditional Chinese	Pearson Correlation	1	.475**	.706**	.327**	.160	.517**
	Sig. (2-tailed)		<.001	<.001	.006	.186	<.001
	N	70	70	70	70	70	70
Chinese words with non-equivalence	Pearson Correlation	.475**	1	.443**	.212	.167	.277*
	Sig. (2-tailed)	<.001		<.001	.076	.163	.020
	N	70	71	71	71	71	71
Reported Chinese proficiency level (CEFR and HSK)	Pearson Correlation	.706**	.443**	1	.345**	.103	.412**
	Sig. (2-tailed)	<.001	<.001		.003	.392	<.001
	N	70	71	71	71	71	71

Language in which survey was completed	Pearson Correlation	.327**	.212	.345**	1	-.087	.065
	Sig. (2-tailed)	.006	.076	.003		.473	.588
	N	70	71	71	71	71	71
Identification with Chinese heritage	Pearson Correlation	.160	.167	.103	-.087	1	.277*
	Sig. (2-tailed)	.186	.163	.392	.473		.019
	N	70	71	71	71	71	71
Cultural Knowledge Level Scale	Pearson Correlation	.517**	.277*	.412**	.065	.277*	1
	Sig. (2-tailed)	<.001	.020	<.001	.588	.019	
	N	70	71	71	71	71	71

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

* . Correlation is significant at the 0.05 level (2-tailed).

There were several significant correlations between the linguistic variables and the Chinese cultural knowledge level scale, and these are highlighted above in the Table. The figures and tables below display these highlighted correlations and the results of ANOVA line graphs of the linguistic factors and the Chinese cultural knowledge level scale.

Chinese words with non-equivalence in English were positively correlated with participants' ability to distinguish between Simplified and Traditional Chinese ($r=.475$, $p<.001$) (Figure 6.66).

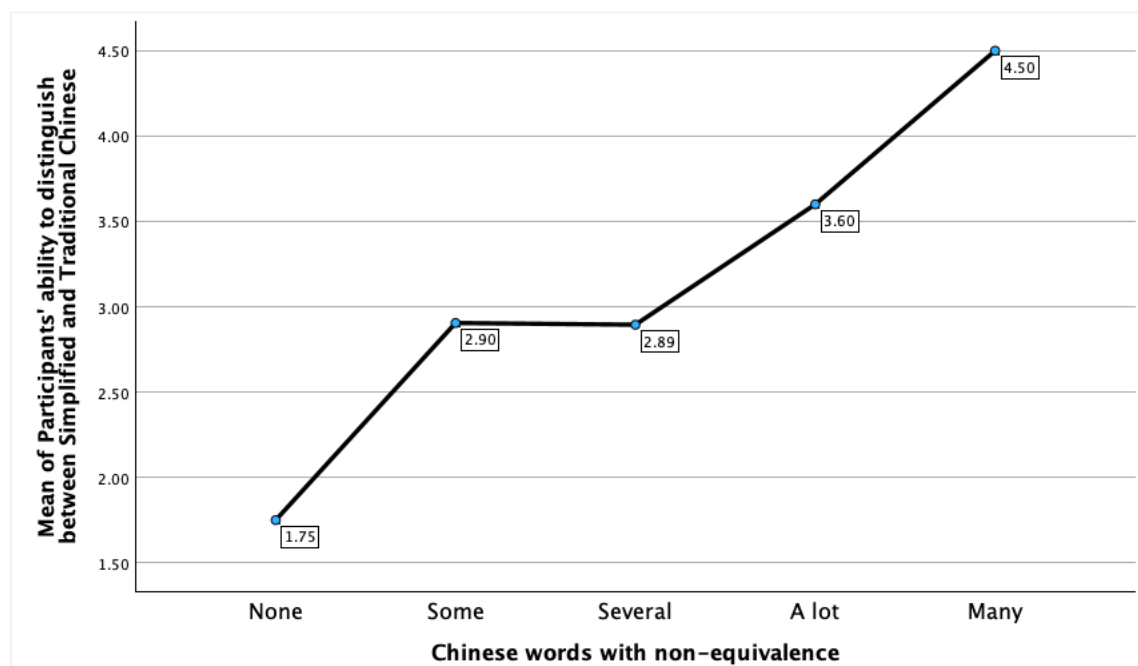


Figure 6.66 Chinese Words with Non-Equivalence and Mean of Participants' Ability to Distinguish Between Simplified and Traditional Chinese

Participants who had a higher ability to distinguish between simplified and traditional Chinese were significantly more able to think of Chinese words or phrases that did not have a direct equivalent in their native language ($F(4)=8.986$, $p<.001$).

Participants’ ability to distinguish between the simplified and traditional Chinese characters and their language choice in which they completed the survey were significantly correlated ($r=.327$, $p<.01$) (Figure 6.67).

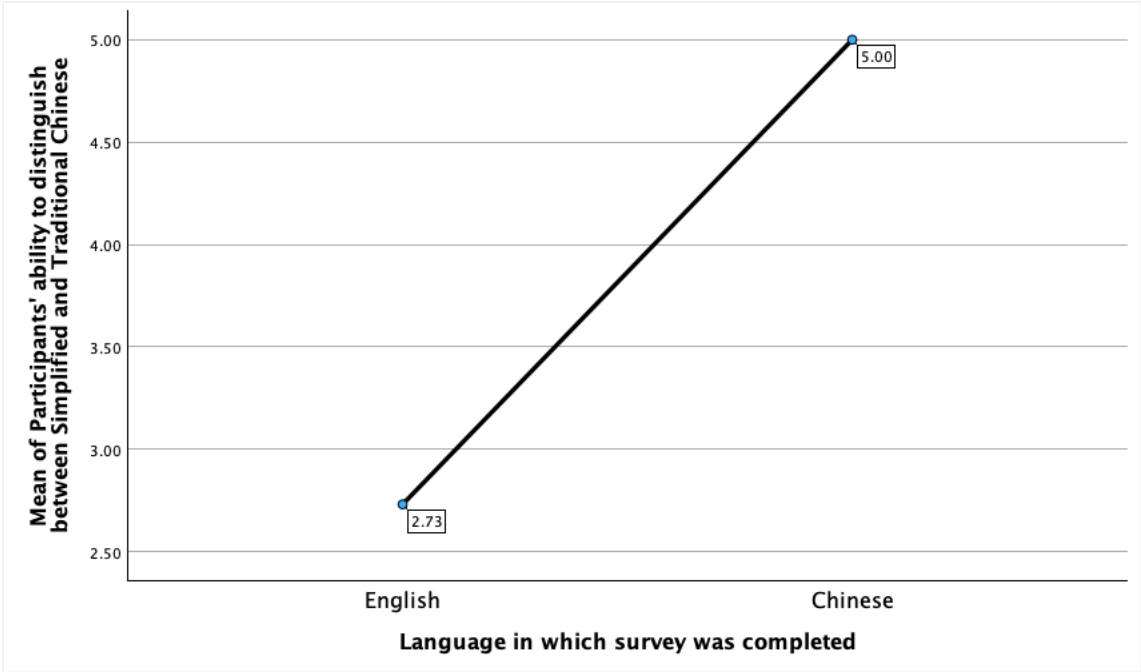


Figure 6.67 Language in Which Survey Was Completed and Mean of Participants’ Ability to Distinguish Between Simplified and Traditional Chinese

Most participants took the survey in English as their primary language, and only a few of these participants could distinguish between simplified and traditional Chinese. In contrast, participants who took the survey in the Chinese language could distinguish between simplified and traditional Chinese significantly more than those who took the survey in English ($F(1)=14.779$, $p<.01$).

Participants’ Identification with Chinese Heritage and their Reported Chinese proficiency level (CEFR and HSK) by continent of origin, the group statistics of ANOVAs of the factors displayed in Table 6.4.

Table 6.4 Participants’ Identification with Chinese Heritage and Their Reported Chinese Proficiency Level (CEFR and HSK) by Continent

Independent Variables	Statistics
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Continent of Origin		Identification with Chinese Heritage (Y/N)	Mean	Std. Deviation	Std. Error Mean
Asia	Reported Chinese proficiency level (CEFR and HSK)	Don't have	3.4	1.7	.36431
		Have	2.0	1.5	.63246
Europe	Reported Chinese proficiency level (CEFR and HSK)	Don't have	1.8	1.2	.23295
		Have	3.0	1.4	1.00000
Americas	Reported Chinese proficiency level (CEFR and HSK)	Don't have	2.1	1.4	.43333
		Have	3.0	1.8	.91287

The Asian (M=3.4) participants without Chinese heritage had significantly higher Chinese proficiency scores than the Asian (M=2.0) groups with Chinese heritage. Conversely, among the participants, the European (M=3.0) and American (M=3.0) groups with Chinese heritage had significantly higher Chinese proficiency scores than the European (M=1.8) and American (M=2.1) groups without Chinese heritage.

Participants' Identification with Chinese Heritage and their Reported Chinese proficiency level (CEFR and HSK) by continent of origin, the group statistics of t-test of the factors displayed in Table 6.5.

Table 6.5 Participants' Identification with Chinese Heritage and Chinese Proficiency Level (CEFR and HSK) by Continent

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Differenc e	Std. Error Differenc e	95% Confidence Interval of the Difference	
							One- Side d p	Two- Side d p			Lower	Upper
Asia	Reported Chinese proficienc y level (CEFR and HSK)	Equal variance s assumed	2.64 5	.11 6	1.82 2	26	.040	.080	1.40909	.77341	-.18068	2.9988 6
		Equal variance s not assumed			1.93 1	8.64 2	.043	.087	1.40909	.72988	-.25249	3.0706 8
Europe	Reported Chinese proficienc y level (CEFR and HSK)	Equal variance s assumed	.004	.95 1	- 1.43 5	25	.082	.164	-1.24000	.86400	- 3.01944	.53944
		Equal variance s not assumed			- 1.20 8	1.11 1	.212	.424	-1.24000	1.02677	- 11.5691 1	9.0891 1
Americas	Reported Chinese proficienc y level	Equal variance s assumed	.924	.35 5	- 1.01 6	12	.165	.330	-.90000	.88577	- 2.82992	1.0299 2

(CEFR and HSK)	Equal variance not assumed	-.891	4.429	.209	.419	-.90000	1.01050	-	1.80153
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Chinese proficiency level (CEFR and HSK) and the ability to distinguish between simplified and traditional Chinese were significantly correlated ($r=.706$, $p<.001$) (Figure 6.68).

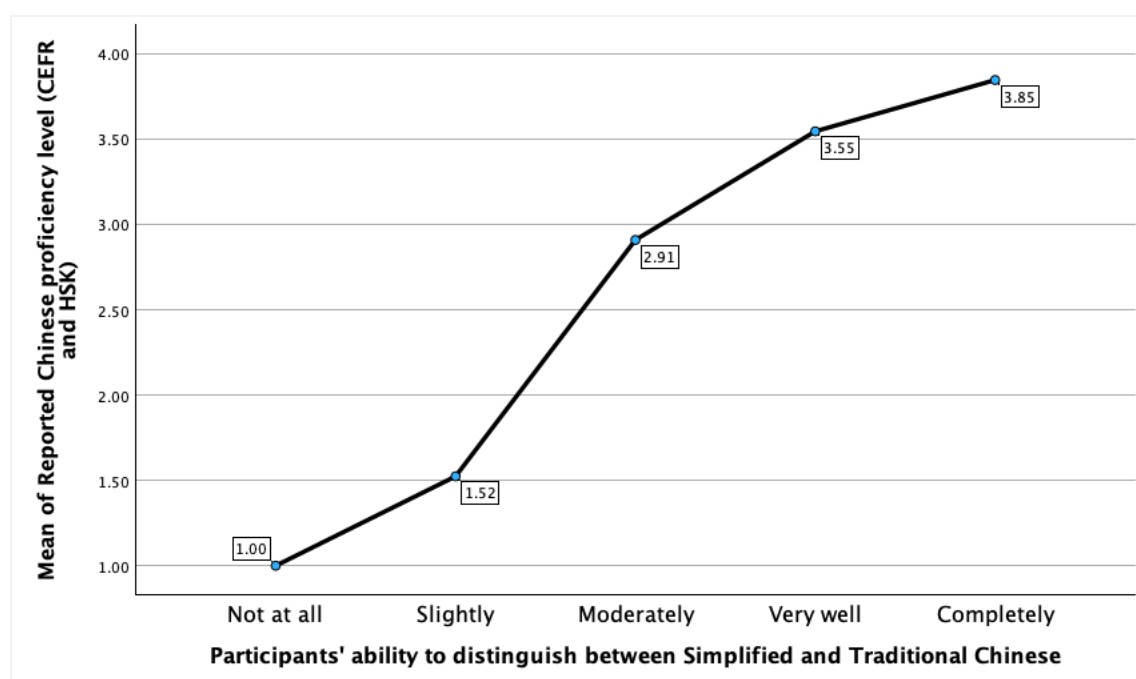


Figure 6.68 Participants' Ability to Distinguish Between Simplified and Traditional Chinese and Chinese Cultural Knowledge Level Mean Score

Participants with higher levels of Chinese language proficiency were better able to distinguish between simplified and traditional Chinese characters ($F(4)=22.005$, $p<.001$).

Chinese proficiency level (CEFR and HSK) and the Linguistic Non-Equivalence of Chinese terms were significantly correlated ($r=.443$, $p<.001$) (Figure 6.69).

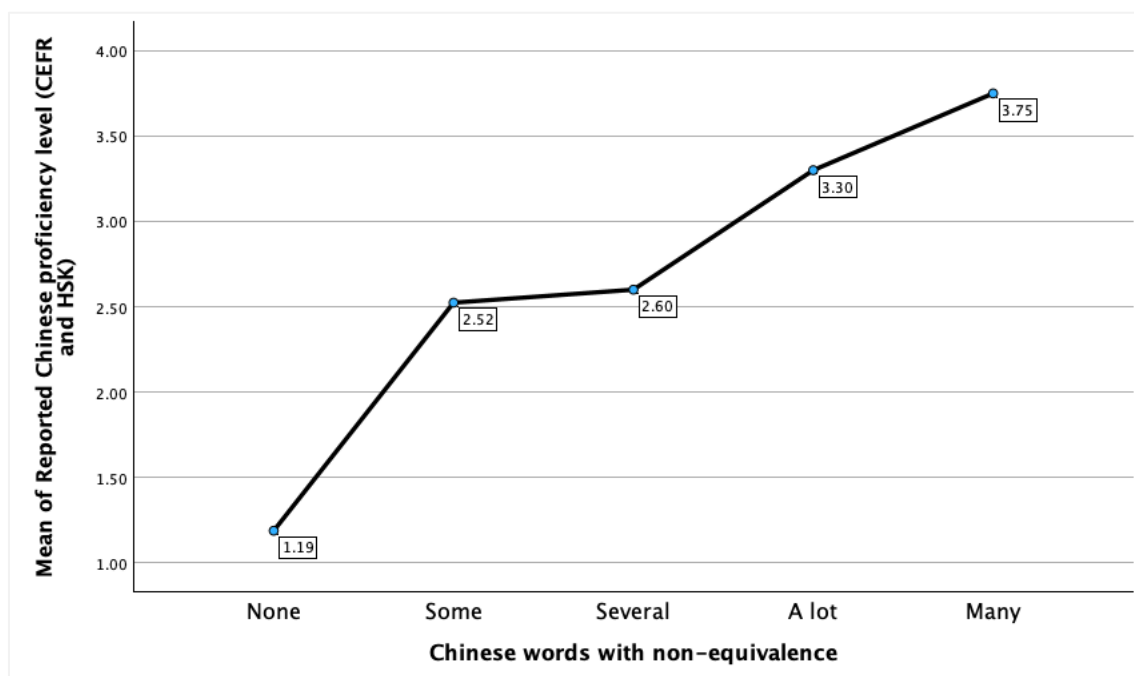


Figure 6.69 Chinese Words with Non-Equivalence and Mean of Reported Chinese Proficiency Level (CEFR And HSK)

Participants with higher Chinese proficiency were significantly better able to think of Chinese words or phrases that do not have direct equivalents in their native language ($F(4)=10.000$, $p<.001$).

Chinese proficiency level (CEFR and HSK) and the language in which the survey was completed were significantly correlated ($r=.345$, $p<.01$) (Figure 6.70).

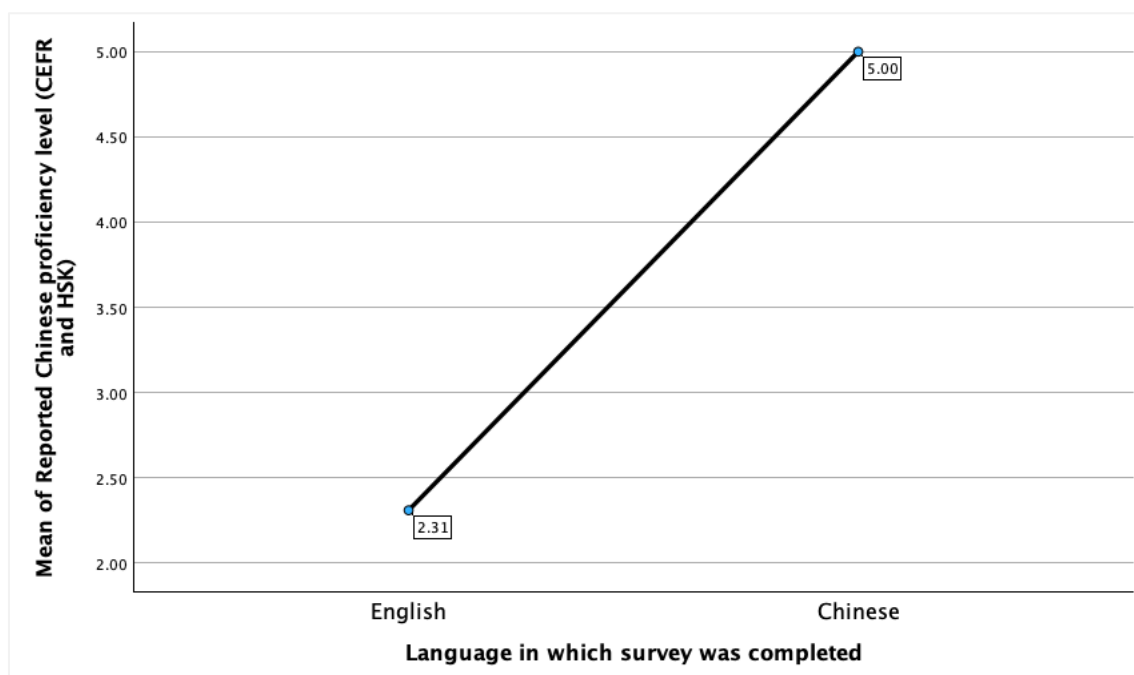


Figure 6.70 Language in Which Survey Was Completed and Mean of Reported Chinese Proficiency Level (CEFR And HSK)

Participants with higher Chinese language proficiency were more likely to choose Chinese as their survey language ($F(1)=20.809$, $p<.01$).

Participants were divided into two groups by country of origin based on their reported Chinese language proficiency level (CEFR and HSK), High and Low, with the higher group having a mean score of 2.5 or more highlighted, is displayed in Table 6.6.

Table 6.6 Cultural Knowledge Mean Score and Chinese Proficiency Level by Continent

Participant Continent of Origin	Variables		Statistics		
		Chinese proficiency level (CEFR and HSK) (Low/High)	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Mean	Low	2.7	.87862	.24369
	Score	High	2.9	.88212	.22776
Europe	Cultural Knowledge Mean	Low	1.8	.35315	.07897
	Score	High	2.4	.62684	.23692
Americas	Cultural Knowledge Mean	Low	2.1	.32992	.11664
	Score	High	2.8	.60342	.24635

All continent groups of participants showed that a higher Chinese proficiency had higher cultural knowledge mean scores. Participants from Asia with higher Chinese proficiency showed higher cultural knowledge mean scores ($M=2.9$), participants from Europe with higher Chinese proficiency showed higher cultural knowledge mean scores ($M=2.4$), and participants from the Americas also with higher Chinese proficiency showed higher cultural knowledge mean scores ($M=2.8$). However, among all the participants, Asian participants had the highest cultural knowledge mean scores ($M=2.9$); regardless of their lower Chinese proficiency levels, they had higher cultural knowledge mean scores ($M=2.7$).

Participants from the Americas with higher Chinese proficiency had significantly higher cultural knowledge mean scores ($M=2.8$), which shows higher than Europe's cultural knowledge mean scores over both higher ($M=2.4$) and lower ($M=1.8$) Chinese proficiency level groups. Participants from the Americas with higher Chinese proficiency had significantly higher cultural knowledge mean scores ($M=2.8$) than lower Chinese proficiency level groups' cultural knowledge mean score ($M=2.7$) from Asia. The independent sample tests of cultural knowledge mean score and learning method by continent are displayed in Table 6.7.

Table 6.7 Participants' Cultural Knowledge Mean Score and Chinese Proficiency Level by Continent

Participant Continent of Origin			Levene's Test for Equality of Variance s		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Differenc e	Std. Error Differenc e	95% Confidence Interval of the Difference	
							One- Side d p	Two- Side d p			Lower	Uppe r
Asia	Cultural Knowledg e Mean Score	Equal variance s assumed	.028	.869	-.443	26	.331	.662	-.14766	.33365	-.83349	.53818
		Equal variance s not assumed			-.443	25.466	.331	.662	-.14766	.33355	-.83399	.53867
Europe	Cultural Knowledg e Mean Score	Equal variance s assumed	.700	.411	-3.384	25	.001	.002	-.64623	.19096	1.03952	-.25294
		Equal variance s not assumed			-2.588	7.378	.017	.034	-.64623	.24974	1.23068	-.06178
Americas	Cultural Knowledg e Mean Score	Equal variance s assumed	.751	.403	-2.788	12	.008	.016	-.69851	.25054	1.24439	-.15263
		Equal variance s not assumed			-2.563	7.234	.018	.036	-.69851	.27257	1.33883	-.05819

Among the participants from the Asian continent, the difference in Chinese cultural knowledge between the high Chinese language proficiency group (M=2.9) and the low Chinese language proficiency group (M=2.7) was small. However, the level of knowledge of Chinese culture of the high group of participants with a high level of Chinese language proficiency in Europe was (M=2.4) ($t=-3.384$, $p<.001$), and the Chinese cultural knowledge level of the low Chinese language proficiency group in Europe was (M=1.8), showing a significant difference between the two groups. Also, the Chinese cultural knowledge level of the high Chinese language proficiency group in the American continent was (M=2.8) ($t=-2.788$, $p<.01$), and the Chinese cultural knowledge level of the low Chinese language proficiency group in the American continent was (M=2.1), showing a significant difference between the two groups. Participants reported Chinese language proficiency HSK levels divided into the higher group and the lower group, and their Chinese Cultural Knowledge by continent of origin correlation displayed in Table 6.8.

Table 6.8 *Correlations Between Chinese Proficiency Level and Cultural Knowledge Level by Continent*

Participant Continent of Origin			Reported Chinese proficiency level (CEFR and HSK)	Cultural Knowledge Level Scale
Asia	Spearman's rho	Reported Chinese proficiency level (CEFR and HSK)	Correlation Coefficient	1.000
			Sig. (2-tailed)	.200
			N	.307
		Cultural Knowledge Level Scale	Correlation Coefficient	.200
			Sig. (2-tailed)	1.000
			N	.307
Europe	Spearman's rho	Reported Chinese proficiency level (CEFR and HSK)	Correlation Coefficient	1.000
			Sig. (2-tailed)	.624**
			N	<.001
		Cultural Knowledge Level Scale	Correlation Coefficient	.624**
			Sig. (2-tailed)	1.000
			N	.307
Americas	Spearman's rho	Reported Chinese proficiency level (CEFR and HSK)	Correlation Coefficient	1.000
			Sig. (2-tailed)	.532
			N	.050
		Cultural Knowledge Level Scale	Correlation Coefficient	.532
			Sig. (2-tailed)	1.000
			N	.050

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

European participants with higher HSK levels of Chinese language proficiency had significantly higher levels of Chinese cultural knowledge for ($r=.559$, $p<.01$) as was the case for American participants ($r=.532$, $p<.05$). However, HSK level for Asian participants was not significantly correlated with level of Chinese cultural knowledge. This finding suggests that for people from Asia, who broadly share a similar culture with China, learning about Chinese culture is separate from learning the Chinese language.

Participants' ability to distinguish between Simplified and Traditional Chinese and their cultural knowledge level were significantly correlated ($r=.388$, $p<.001$) (Figure 6.71).

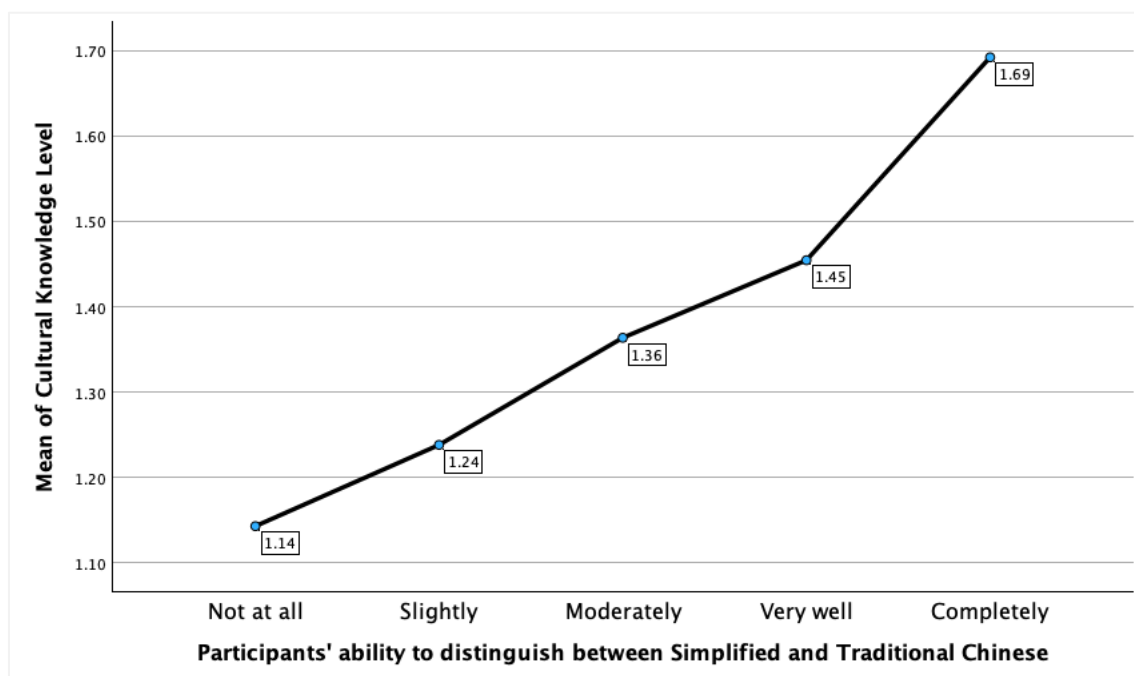


Figure 6.71 Participants' Ability to Distinguish Between Simplified and Traditional Chinese and Mean of Cultural Knowledge Level

Participants with higher levels of knowledge of Chinese culture were to be able to distinguish between Simplified and Traditional Chinese characters ($F(4)=.626$, $p<.05$).

Participants' mean of cultural knowledge level scale and Chinese words with non-equivalence (the ability to think of Chinese words or phrases that have no direct equivalence in their native language) were significantly correlated ($r=.277$, $p<.05$) (Figure 6.72).

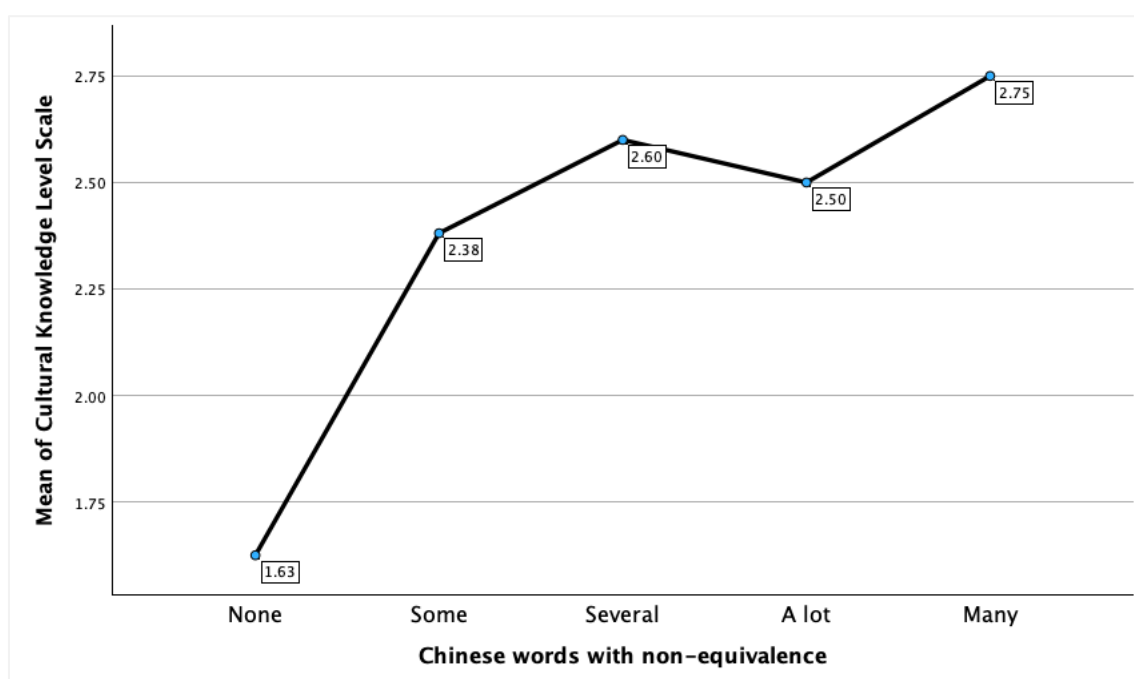


Figure 6.72 Chinese Words With Non-Equivalence and Mean of Cultural Knowledge Level Scale

Participants with higher levels of Chinese cultural knowledge were more able to think of Chinese words or phrases that have no direct equivalence in their native language ($F(4)=2.608, p<.05$).

Participants' Cultural knowledge level scale and Chinese proficiency level (CEFR and HSK) were significantly correlated ($r=.412, p<.001$) (Figure 6.73)

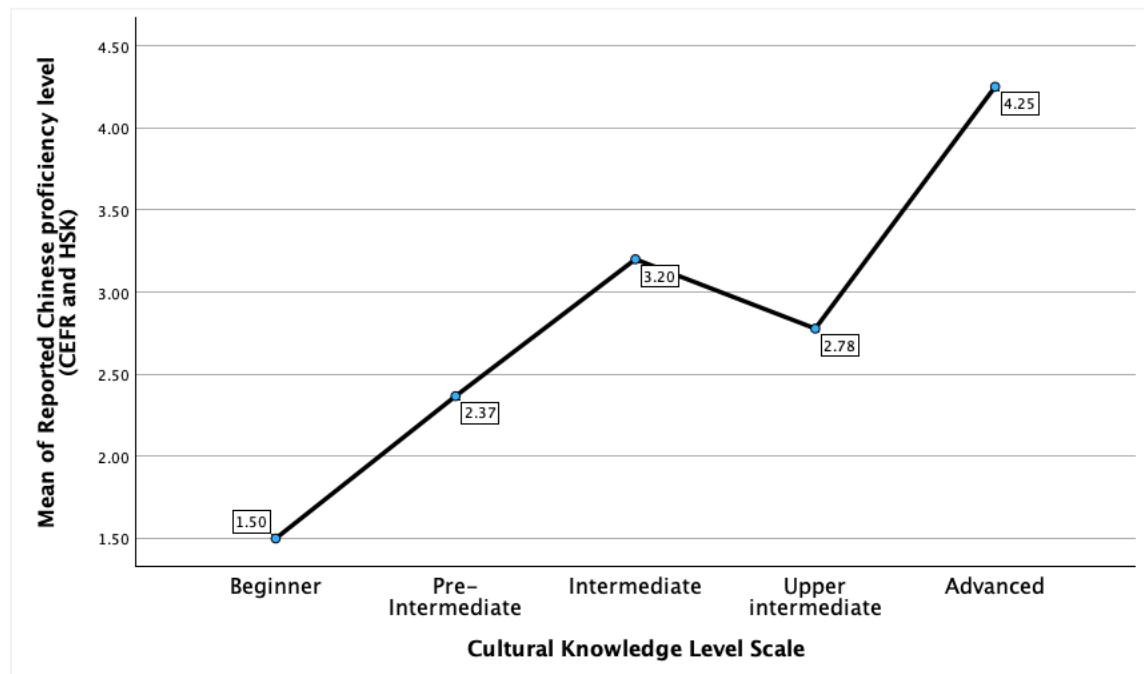


Figure 6.73 Cultural Knowledge Level Scale and Mean of Reported Chinese Proficiency Level (CEFR and HSK)

Participants with higher Chinese language proficiency had higher levels of knowledge about Chinese culture. However, participants with an upper intermediate level of Chinese cultural knowledge had a lower Chinese language proficiency than expected ($F(4)=8.988, p<.01$).

Among the participants, those with upper-intermediate levels of knowledge of culture but relatively low levels of Chinese proficiency are noticeable. To understand their factors, this particularity was analysed separately, and the findings are outlined in the following sections.

6.4.1 Unique patterns among participants with Upper-intermediate level of Chinese cultural knowledge

This subsection focuses on the inconsistency phenomenon demonstrated by participants at the upper-intermediate level. In the Anova line graph above (Figure 6.73),

which are participants' levels of knowledge of Chinese culture scale and Chinese proficiency level (CEFR and HSK).

Participants with an upper-intermediate levels of knowledge of Chinese culture and their methods of studying Chinese is displayed in Figure 6.74.

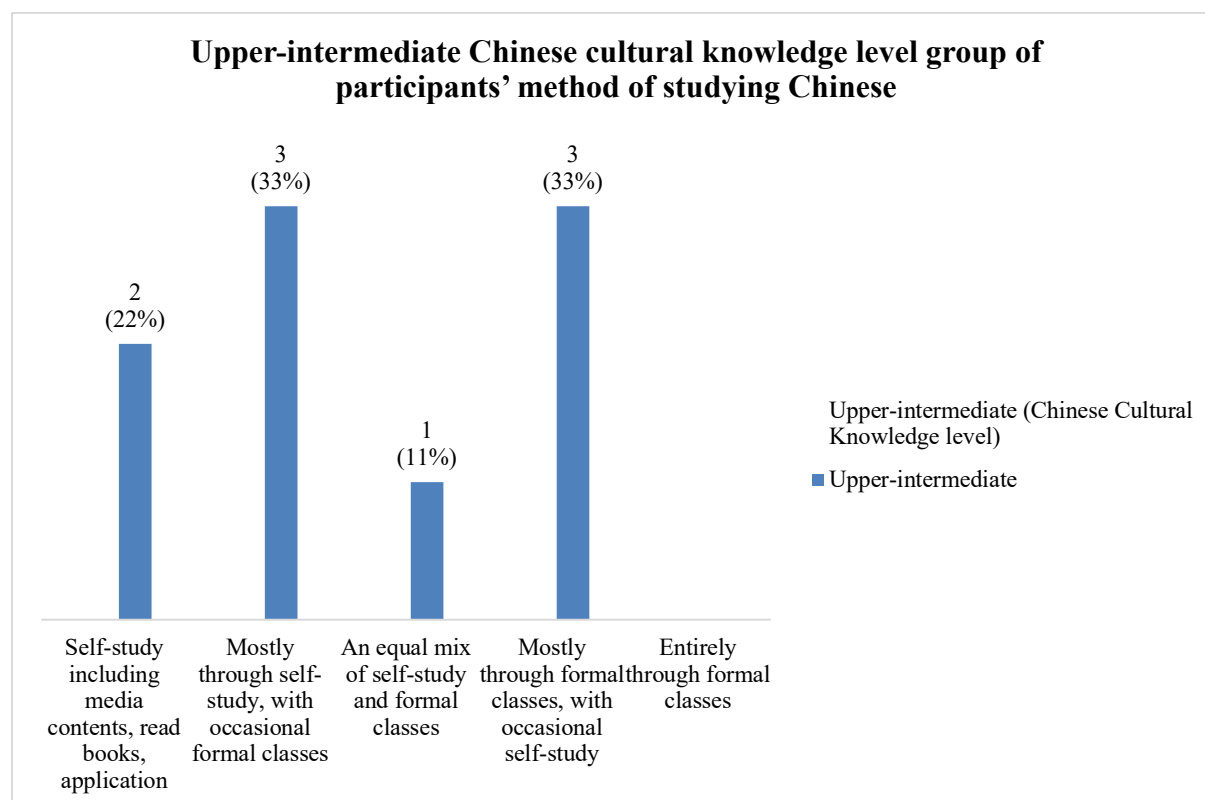


Figure 6.74 Participants with Upper-intermediate Level of Chinese Cultural Knowledge Methods of Studying Chinese

Participants with upper intermediate levels of Chinese cultural knowledge either studied Chinese mostly through self-study, with occasional formal classes (33%, n=3), or they studied Chinese mostly through formal classes, with occasional self-study (33%, n=3). Only 22% (n=2) reported that they studied through self-study including media contents, read books, application, only 11% (n=1) reported they studied through an equal mix of self-study, with occasional formal classes.

The duration of studying Chinese of the participants with upper intermediate levels of Chinese cultural knowledge is displayed in Figure 6.75.

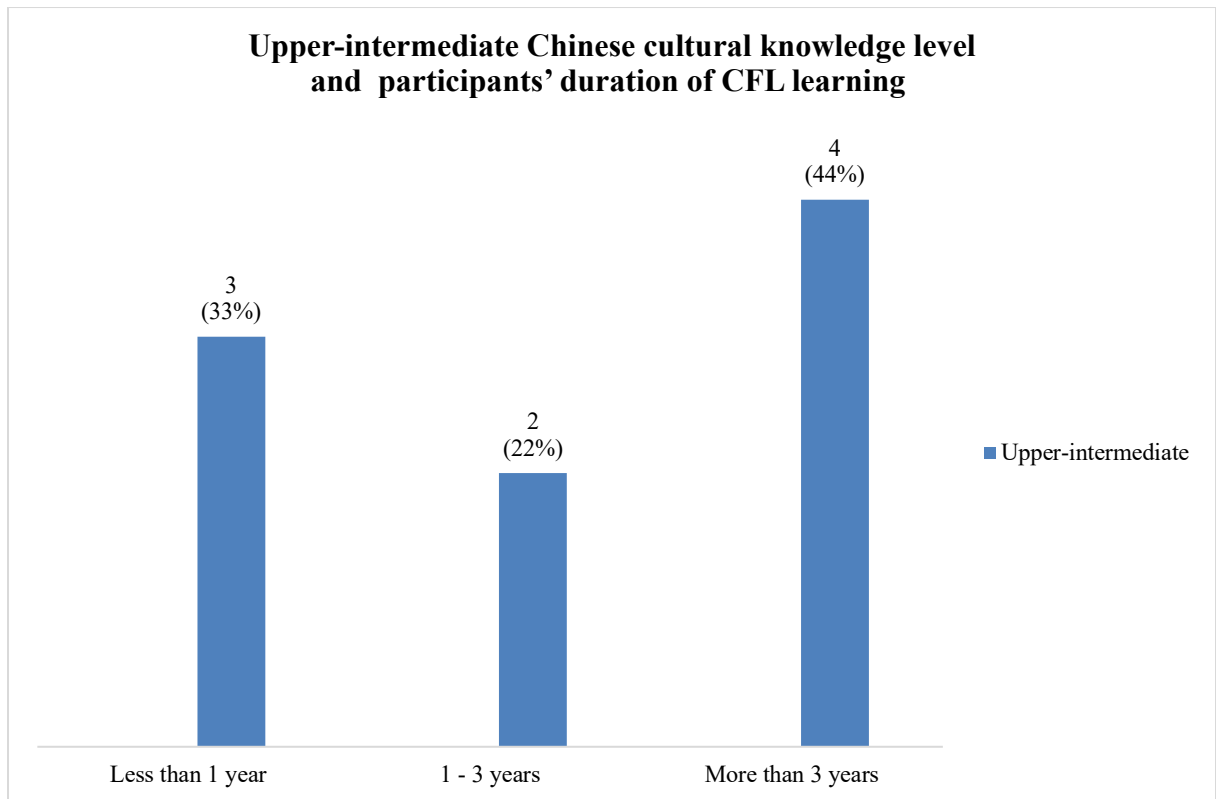


Figure 6.75 *Upper-Intermediate Chinese Cultural Knowledge Level and Participants' Duration of CFL Learning*

Participants who had upper intermediate Chinese cultural knowledge level had mostly studied for more than three years (44%, n=4), with 33% (n=3) of the participants reporting that they had studied less than one year and 22% (n=2) of the participants reporting that they had studied one to three years

The continents of origin of the participants who had upper intermediate levels of Chinese cultural knowledge is displayed in Figure 6.76.

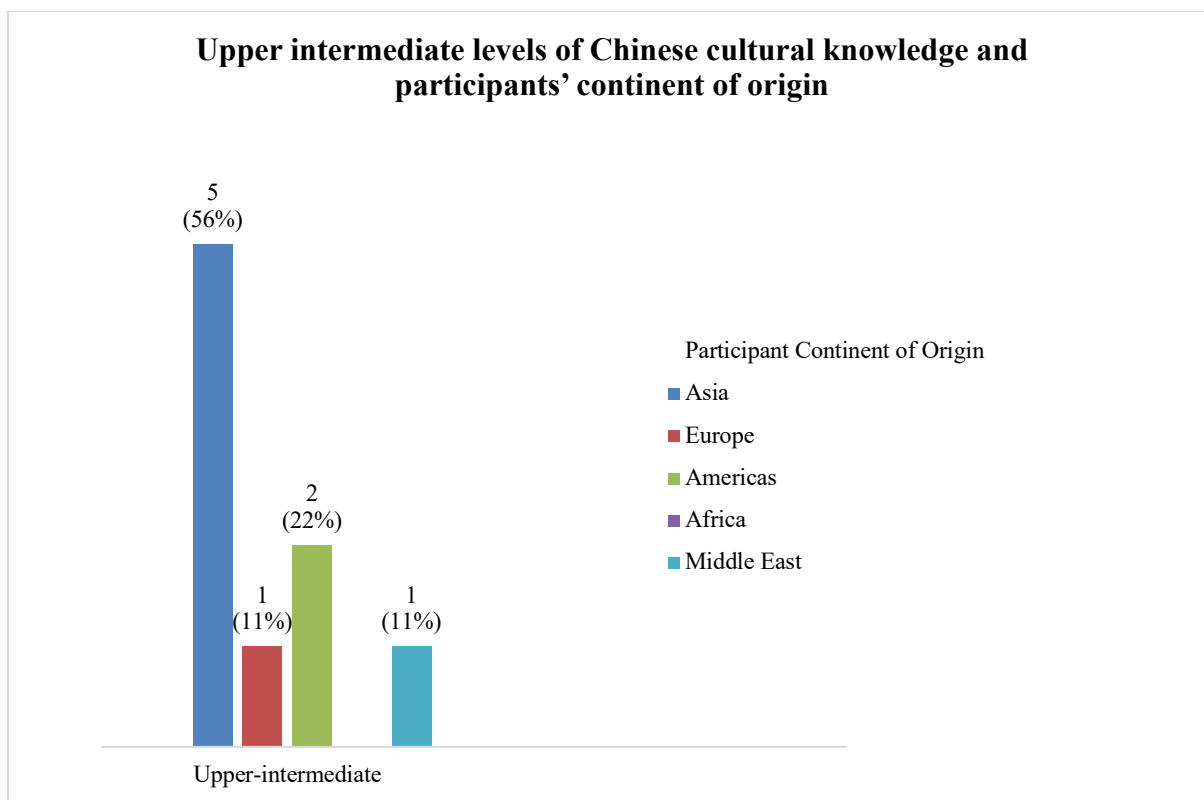


Figure 6.76 *Upper Intermediate Levels of Chinese Cultural Knowledge and Participants' Continent of Origin*

The majority of participants (56%, $n=5$) who had upper intermediate levels of knowledge of Chinese culture were from Asia, and 22% ($n=2$) of the next highest number of participants who had upper intermediate levels of knowledge of Chinese culture were from America. Participants from Europe in the upper-intermediate accounted for 11% ($n=1$) and another 11% ($n=1$) from the Middle East. The following section presents a description of learning factors and levels of knowledge of Chinese culture.

6.5 Learning Factors and Levels of Knowledge of Chinese Cultural Elements

This section presents various statistics related to participants' learning factors and the levels of knowledge of Chinese culture, with mean score, correlations, ANOVAs, group statistics and line graphs. This section outlines the correlations between participants' learning factors, including the Importance of learning Chinese cultural aspects in Chinese language study, Extent of Chinese cultural incorporation in participants' Chinese language classes, and the Method of studying Chinese, Impact of Chinese language learning on participants' cultural perception, Duration of participant Chinese language learning, Weekly time dedication to studying Chinese, and levels of knowledge of Chinese culture,

followed by the ANOVA analysis line graph results among the learning variables. (Table 6.9 and APPENDIX I)

The mean scores for learning factors from the survey are displayed in Table 6.9.

Table 6.9 Mean Scores for Learning Factors

Variables	Mean	Std. Deviation
Importance of learning Chinese cultural aspects in Chinese language study	4.3	.8
Extent of Chinese cultural incorporation in participants' Chinese language classes	3.1	1.1
Method of studying Chinese	3.0	1.3
Impact of Chinese language learning on participants' cultural perception	3.0	1.2
Duration of participant Chinese language learning	2.9	1.8
Weekly time dedication to studying Chinese	1.9	.9

The following learning factor variables that were deemed to be of high importance as they had mean scores that greater than 2.5: Chinese cultural aspects in Chinese language study (M=4.3), the extent of Chinese cultural incorporation in participants' Chinese language classes (M=3.1), method of studying Chinese (the higher the value the more formal the study method) (M=3.0), the impact of Chinese language learning on participants' cultural perception (M=3.0), the duration of participant Chinese language learning (M=2.9). Weekly time dedication to studying Chinese (M=1.9) was the only learning variable with a mean score less than 2.5 and therefore it was deemed to be of lower importance to participants' learning.

Table 6.10 displays the correlations between participants' learning factors of background and participants' level of cultural knowledge, followed by the ANOVA analysis line graph results in the linguistics section category's items. Additional details of correlated learning factors are available in APPENDIX I.

Table 6.10 Correlations between the learning variables and Chinese cultural knowledge

		Importance of learning Chinese cultural aspects in Chinese language study	Extent of Chinese cultural incorporation in participants' Chinese language classes	Method of studying Chinese	Impact of Chinese language learning on participants' cultural perception	Duration of participant Chinese language learning	Weekly time dedication to studying Chinese	Cultural Knowledge Level Scale
Importance of learning Chinese cultural aspects in	Pearson Correlation	1	.119	.005	.292*	.040	-.012	.111
	Sig. (2-tailed)		.324	.970	.013	.740	.923	.357

Chinese language study	N	71	71	71	71	71	71	71
Extent of Chinese cultural incorporation in participants' Chinese language classes	Pearson Correlation	.119	1	.409**	.491**	.069	.094	.010
	Sig. (2-tailed)	.324		<.001	<.001	.570	.437	.932
	N	71	71	71	71	71	71	71
Method of studying Chinese	Pearson Correlation	.005	.409**	1	.257*	-.173	.074	-.046
	Sig. (2-tailed)	.970	<.001		.031	.148	.540	.703
	N	71	71	71	71	71	71	71
Impact of Chinese language learning on participants' cultural perception	Pearson Correlation	.292*	.491**	.257*	1	.264*	.319**	.113
	Sig. (2-tailed)	.013	<.001	.031		.026	.007	.347
	N	71	71	71	71	71	71	71
Duration of participant Chinese language learning	Pearson Correlation	.040	.069	-.173	.264*	1	-.065	.467**
	Sig. (2-tailed)	.740	.570	.148	.026		.587	<.001
	N	71	71	71	71	71	71	71
Weekly time dedication to studying Chinese	Pearson Correlation	-.012	.094	.074	.319**	-.065	1	-.012
	Sig. (2-tailed)	.923	.437	.540	.007	.587		.918
	N	71	71	71	71	71	71	71
Cultural Knowledge Level Scale	Pearson Correlation	.111	.010	-.046	.113	.467**	-.012	1
	Sig. (2-tailed)	.357	.932	.703	.347	<.001	.918	
	N	71	71	71	71	71	71	71

*. Correlation is significant at the 0.05 level (2-tailed).

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

There were several significant correlations between learning variables and (Chinese) cultural knowledge level scale. The figures below display the significant correlations, which are highlighted in the table above. The figures below display the correlations and the results of ANOVAs of the learning factors and (Chinese) cultural knowledge level scale.

Participants' opinions on the importance of learning Chinese cultural aspects while learning the Chinese language were positively correlated with the impact of Chinese language learning on participants' cultural perception ($r=.292$, $p<.05$) (Figure 6.77).

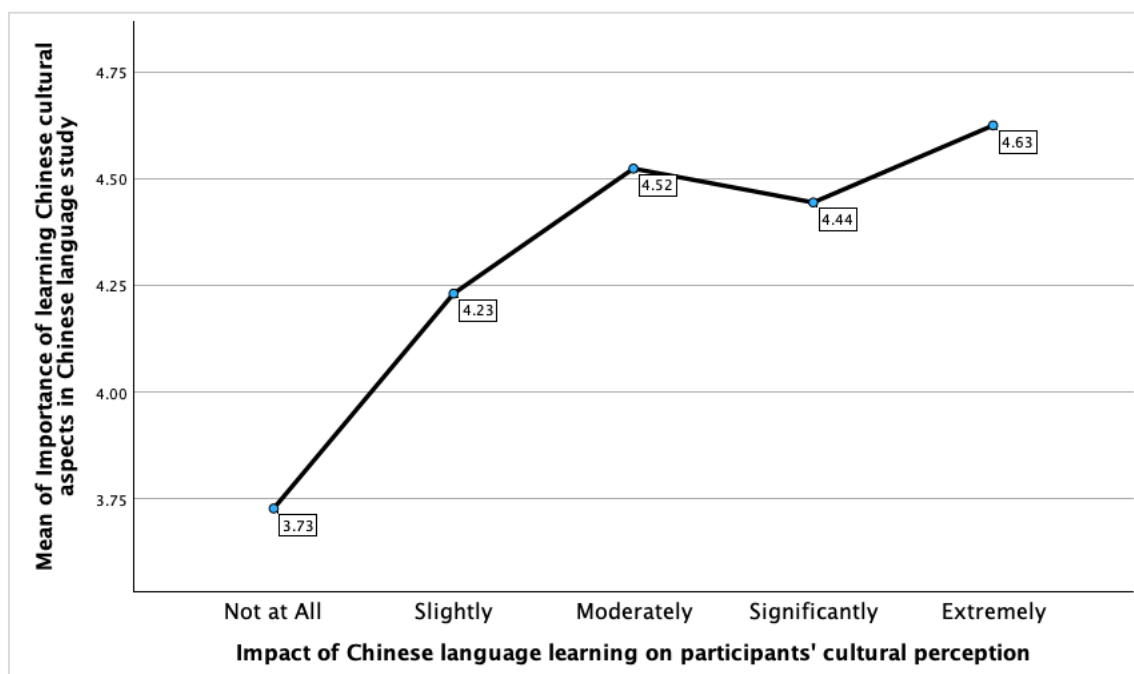


Figure 6.77 Impact of Chinese Language Learning on Participants' Cultural Perception and Mean of Importance of Learning Chinese Cultural Aspects in Chinese Language Study

The more participants believed that learning Chinese culture was important in studying Chinese, the more their perception of Chinese culture influenced their learning of Chinese ($F(4)=1.460$, $p<.05$).

The extent of Chinese cultural learning was incorporated in the participants' Chinese language classes was positively correlated with the method of studying Chinese ($r=.409$, $p<.001$) (Figure 6.78).

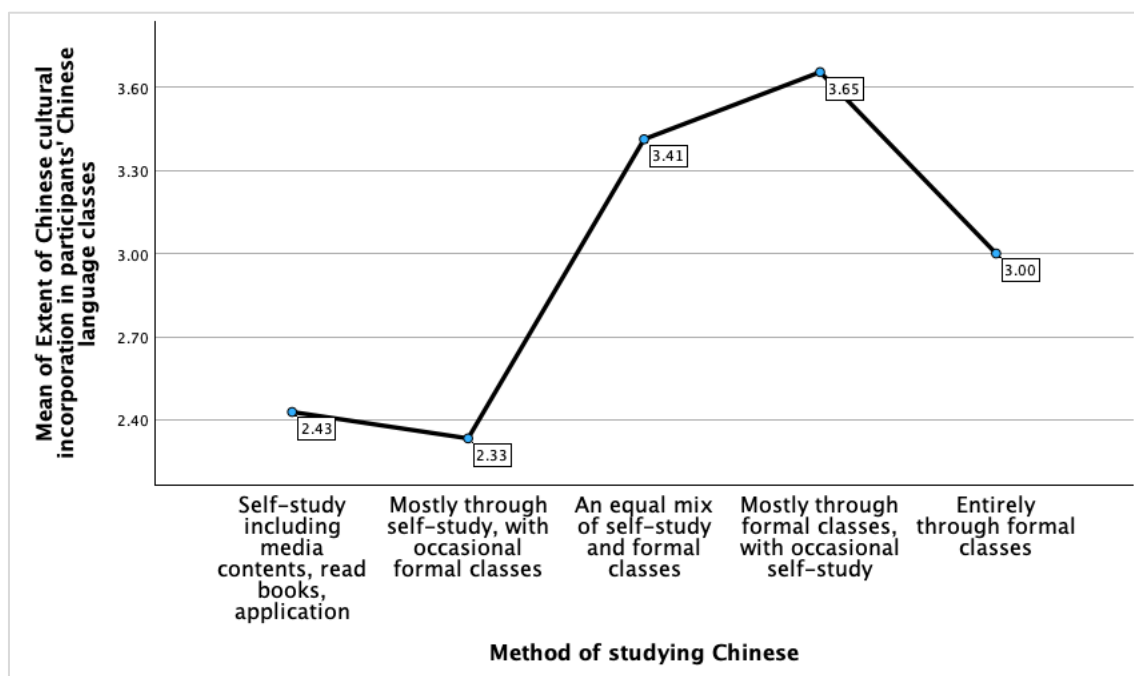


Figure 6.78 Method of Their Studying Chinese and Mean of Extent of Chinese Cultural Incorporation in the Participants' Chinese Language Classes

The participants who learned Chinese mostly through formal classes, with the occasional self-study, and participants who learned Chinese an equal mix of self-study and formal classes, and formal reported that Chinese cultural elements were incorporated to a greater extent in their classes than those who were learning Chinese mostly through self-study, with occasional formal classes and self-study including media contents, read books, application ($F(4)=5.290$, $p<.001$).

The extent of Chinese cultural incorporation in the participants' Chinese language classes was positively correlated with the impact of Chinese language learning on participants' cultural perception ($r=.491$, $p<.001$) (Figure 6.79).

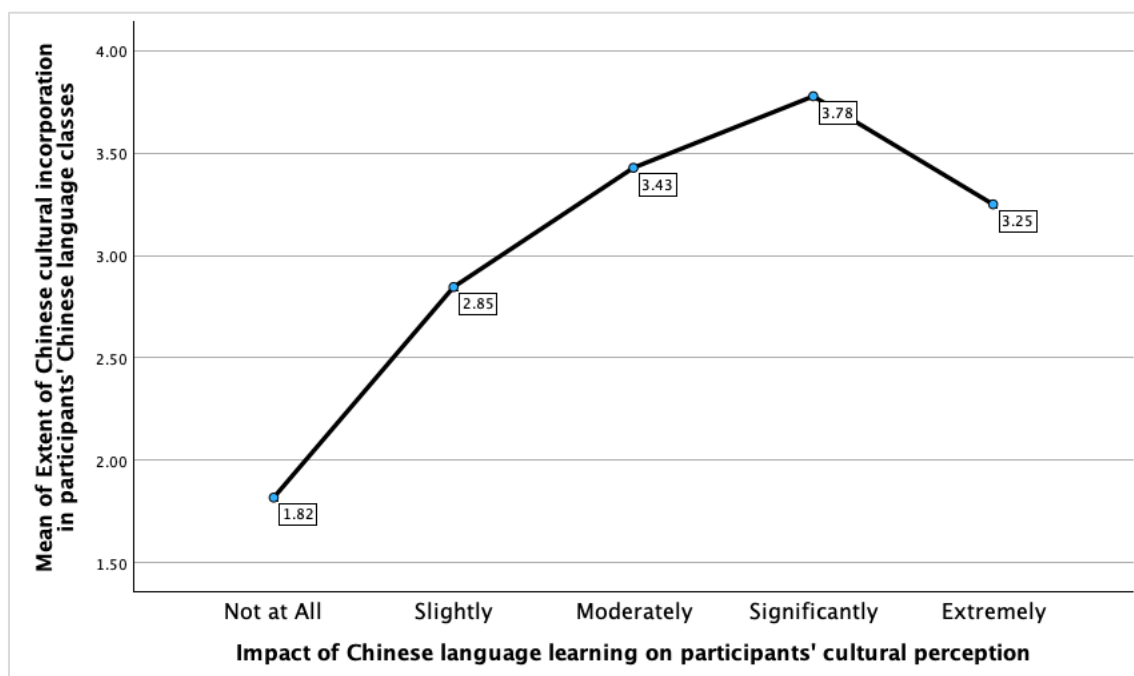


Figure 6.79 Impact of Chinese Language Learning on Participants' Cultural Perception and Mean of Extent of Chinese Cultural Incorporation in the Participants' Chinese Language Classes

The bigger the extent to which Chinese cultural elements were incorporated in the participants' Chinese language classes, the more significant the impact on participants' cultural perception ($F(4)=7.377$, $p<.001$).

The impact of Chinese language learning on participants' cultural perception was positively correlated with their method of studying Chinese ($r=.257$, $p<.05$) (Figure 6.80).

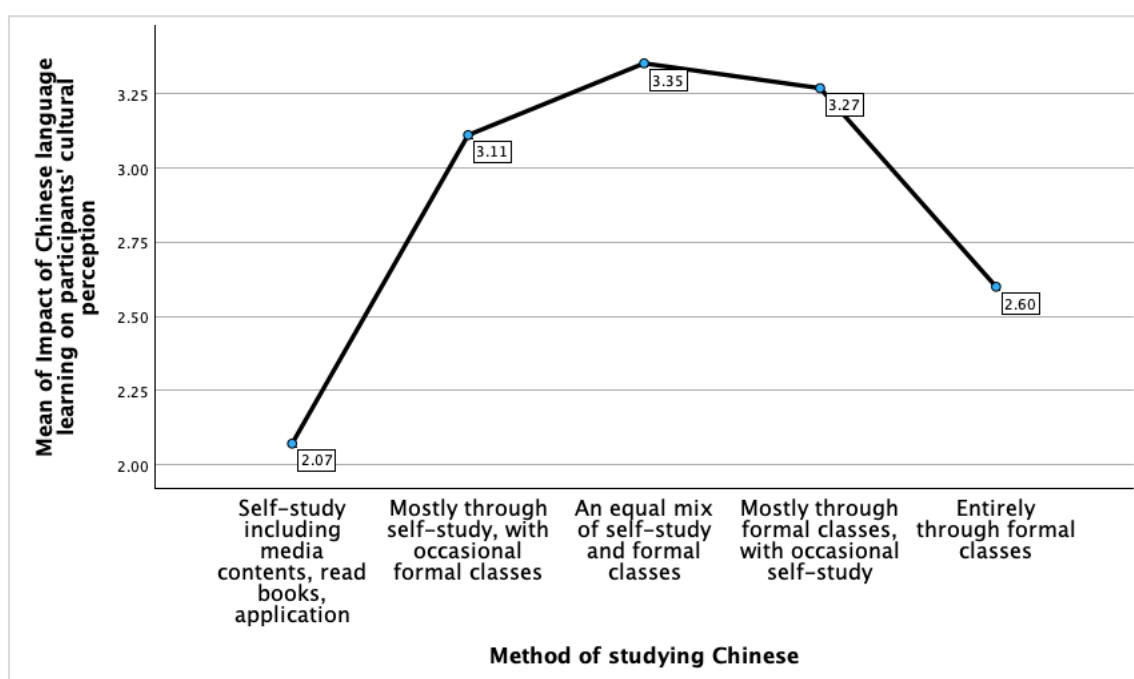


Figure 6.80 Method of Studying Chinese and Mean of Impact of Chinese Language Learning on Participants' Cultural Perception

Among the participants who learned Chinese through an equal mix of self-study and formal classes, a significantly higher number had a high impact of Chinese language learning on their cultural perception ($F(4)=4.243$, $p<.05$).

Participants' CFL learning method and their Cultural knowledge mean scale by continent and the correlations, ANOVAs of the factors displayed in Table 6.11.

Table 6.11 Mean Scores for Cultural Knowledge Level and Learning Method by Continent

Participant Continent of Origin		Variable	Statistics		
		CFL learning method	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Mean	Mostly self-study	2.6	.79688	.18282
	Score	Mostly formal class	3.1	.96787	.32262
Europe	Cultural Knowledge Mean	Mostly self-study	2.1	.30367	.09603
	Score	Mostly formal class	1.9	.60384	.14645
Americas	Cultural Knowledge Mean	Mostly self-study	2.6	.57173	.18080
	Score	Mostly formal class	2.1	.45615	.22808

a. t cannot be computed because at least one of the groups is empty.

Asian learners benefit more from mostly formal classes ($M=3.1$), whereas European ($M=2.1$) and American ($M=2.6$) learners show higher cultural knowledge mean scores in mostly self-study contexts. Participants' CFL learning method and their Cultural knowledge mean scale by continent and the correlations t-tests of the factors displayed in Table 6.12.

Table 6.12 Cultural Knowledge Mean Score by Continent

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							One-Side d p	Two-Side d p			Lower	Upper
Asia	Cultural Knowledge Mean Score	Equal variances assumed	.263	.612	-1.379	26	.090	.180	-.47620	.34523	-1.18583	.23342
		Equal variances not assumed			-1.284	13.351	.110	.221	-.47620	.37082	-1.27518	.32277

Europe	Cultural Knowledge Mean Score	Equal variances assumed	1.574	.221	.926	25	.182	.363	.19052	.20576	-.23324	.61429
		Equal variances not assumed			1.088	24.624	.144	.287	.19052	.17513	-.17044	.55149
Americas	Cultural Knowledge Mean Score	Equal variances assumed	.692	.422	1.523	12	.077	.154	.49119	.32251	-.21149	1.19387
		Equal variances not assumed			1.688	7.030	.068	.135	.49119	.29104	-.19643	1.17881

a. No statistics are computed for one or more split files

Participants from Asia who had studied Chinese mostly through formal classes (M=3.1) had higher levels of cultural knowledge than those from Asia who had studied Chinese mostly through self-study (M=2.6) ($t=-1.379$, $p<.05$). Conversely, participants from Europe who had studied Chinese mostly through self-study (M=2.1) ($t=.926$, $p<.05$) had higher levels of cultural knowledge than those from Europe (M=1.9) and also participants who were from America who had studied Chinese mostly through self-study (M=2.6) also showed significant higher levels of cultural knowledge compared to those who studied mostly through formal classes (M=2.1) ($t=1.523$, $p<.01$).

The impact of Chinese language learning on participants' cultural perception was positively correlated with the duration of participants' Chinese language learning ($r=.264$, $p<.05$) (Figure 6.81).

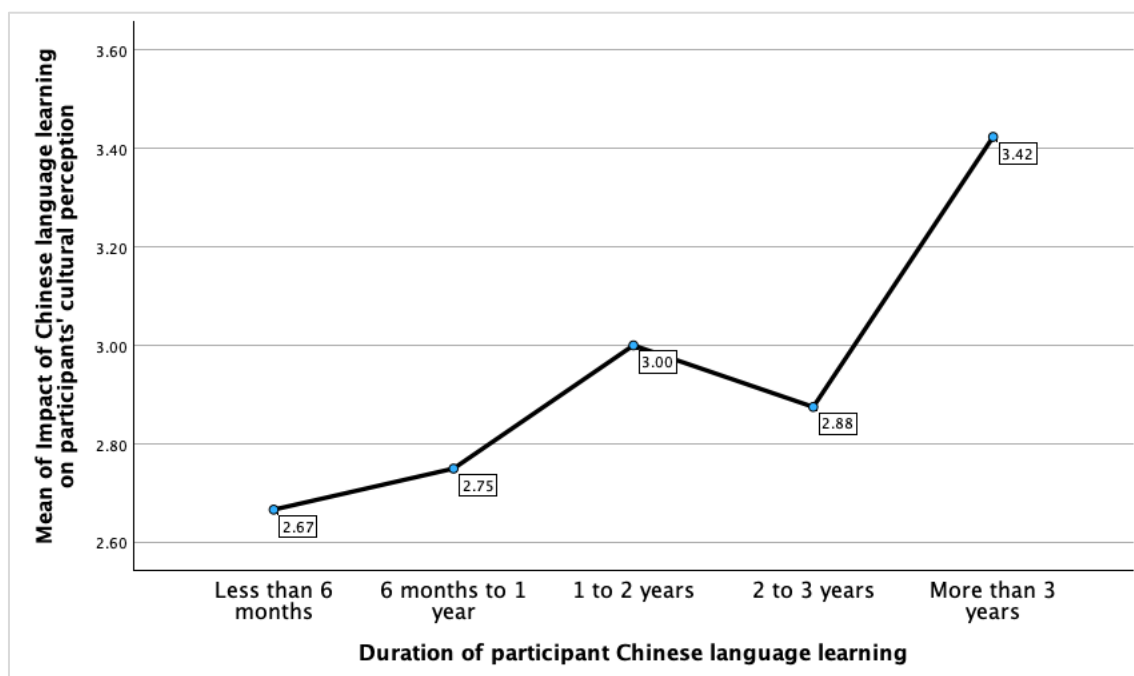


Figure 6.81 Duration of Participants' Chinese Language Learning and Mean of Impact of Chinese Language Learning on Participants' Cultural Perception

Participants who had studied Chinese for more than 3 years and participants who had studied Chinese for 1 to 2 years reported the impact of Chinese language learning on their cultural perception was high, than those who had studied Chinese for 2 to 3 years, for 6 months to 1 year and for less than 6 months ($F(4)=2.087$, $p<.05$).

The impact of Chinese language learning on participants' cultural perception was positively correlated with the participants' weekly time dedication to studying Chinese ($r=.319$, $p<.01$) (Figure 6.82).

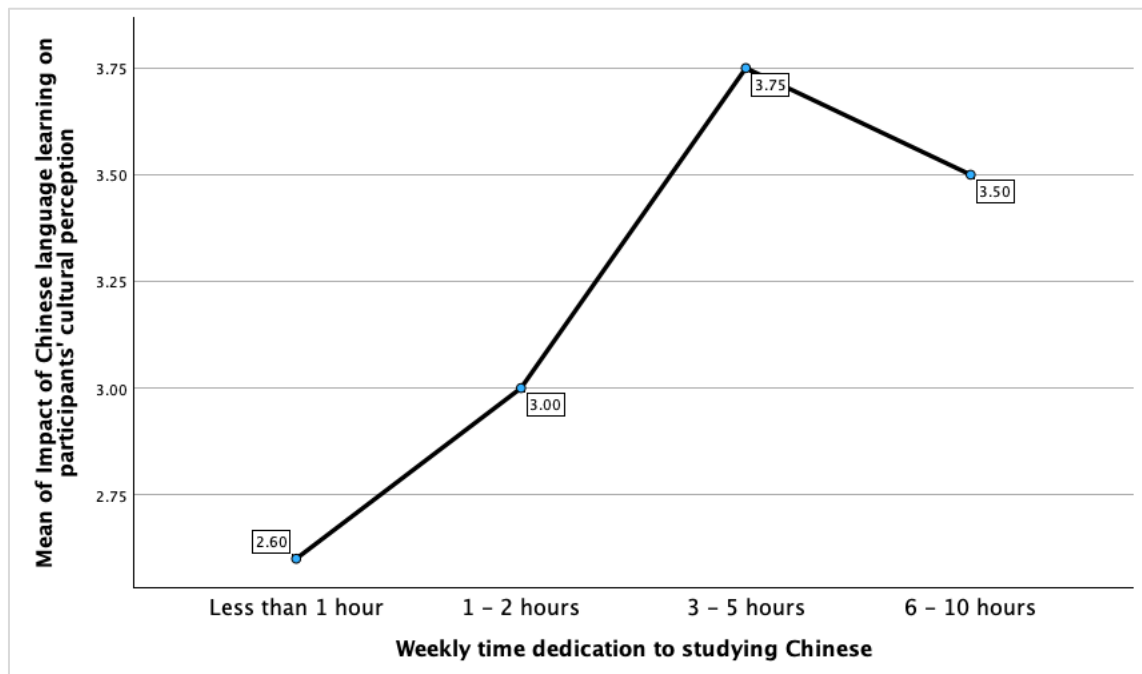


Figure 6.82 Weekly Time Dedication to Studying Chinese and Mean of Impact of Chinese Language Learning on Participants' Cultural Perception

Participants who spent more time weekly studying Chinese reported that the higher impact on their cultural perception resulted from their Chinese language learning ($F(4)=4.179$, $p<.05$).

Participants' levels of knowledge of Chinese culture were positively correlated with their duration of Chinese language learning ($r=.467$, $p<.001$) (Figure 6.83).

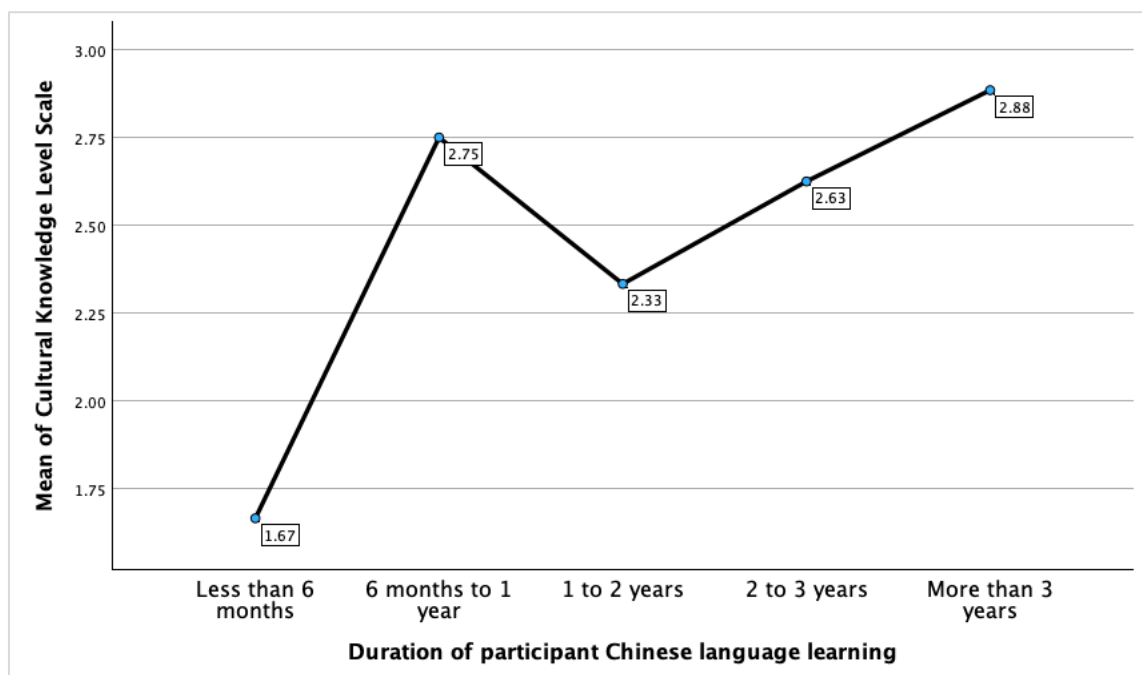


Figure 6.83 Duration of Chinese Language Learning and Mean of Cultural Knowledge Level Scale

The longer duration of the participants' Chinese language learning, the higher the Cultural knowledge the participants had. However, participants who studied Chinese for 6 months to 1 year had a significantly higher Chinese cultural knowledge level, which was almost as high as participants who studied Chinese for more than 3 years ($F(4)=5.643$, $p<.001$). The following section presents a description of cultural background factors and levels of knowledge of Chinese culture.

6.6 Cultural Background Factors and Levels of Knowledge of Chinese Cultural Elements

This section outlines the correlations between participants' cultural background factors and the levels of knowledge of Chinese culture, including a number of countries participants have visited, the influence of popular cultural elements, experience of living with Chinese people, participant relationships with Chinese individuals, experience of visiting China, initial experience of culture shock when encountering aspects of Chinese culture, engagement in Chinese cultural festivals or events, enjoyment of Chinese culture, identification with Chinese heritage, with mean score, correlations, followed by the ANOVA analysis line graph results among the cultural background variables. (Table 6.13)

Table 6.13 displays the mean scores and standard deviations for the cultural variables measured in the survey.

Table 6.13 Mean Scores for Cultural Background Factors

Cultural background factors	Statistics	
	Mean	Std. Deviation
A number of countries participants have visited	3.5	1.3
Influence of popular cultural elements	2.9	1.1
Experience of living with Chinese people	2.7	1.8
Participant relationships with Chinese individuals	2.7	1.2
Experience of visiting China	2.6	1.7
Initial experience of Culture Shock when encountering aspects of Chinese culture	2.5	1.0
Engagement in Chinese cultural festivals or events	2.4	1.0
Enjoyment of Chinese Culture	1.7	1.6
Identification with Chinese heritage	1.5	1.3

The mean scores for the cultural background factors that were measured in the survey indicate that the following variables were deemed to be of high importance (mean score > 2.5) to participants: the number of countries participants have visited ($M=3.5$), the

influence of popular cultural elements (M=2.9), experience of living with Chinese people (M=2.7), participants' relationship with Chinese individuals (the higher number indicates the more close relationship with Chinese individual) (M=2.7), Experience of visiting China (M=2.6) and Initial experience of Culture Shock when encountering aspects of Chinese culture (M=2.5).

Participants' mean scores for engagement in Chinese cultural festivals or events (M=2.4), enjoyment of Chinese culture (the lower the number indicates the more rudimentary cultural elements) (M=1.7), Identification with Chinese heritage (M=1.3) were the cultural background variable with a mean score less than 2.5 and therefore was deemed to be of lower importance to participants' cultural background influential.

Table 6.14 displays the correlations between participants' cultural background and participants' level of cultural knowledge, followed by the ANOVA analysis line graph results in the cultural backgrounds section category's items. Additional details of correlated learning factors variables are available in APPENDIX I.

Table 6.14 Correlation Between the Cultural Background Variables and Chinese Cultural Knowledge

		A number of countries participants have visited	Influence of popular cultural elements	Experience of living with Chinese people	Participant relationships with Chinese individuals	Experience of visiting China	Initial experience of Culture Shock when encountering aspects of Chinese culture	Engagement in Chinese cultural festivals or events	Enjoyment of Chinese Culture	Identification with Chinese heritage	Cultural Knowledge Level Scale
A number of countries participants have visited	Pearson Correlation	1	.018	.029	.054	.010	-.012	.045	.264*	.058	-.047
	Sig. (2-tailed)		.880	.809	.656	.931	.924	.708	.026	.630	.696
Influence of popular cultural elements	Pearson Correlation	.018	1	-.128	.216	.052	.000	.169	.033	.077	.194
	Sig. (2-tailed)	.880		.288	.071	.667	1.000	.158	.784	.523	.106
Experience of living with Chinese people	Pearson Correlation	.029	-.128	1	.039	.328**	.064	.227	.010	.287*	.182
	Sig. (2-tailed)	.809	.288		.749	.005	.598	.057	.937	.015	.129
Participant relationships with Chinese individuals	Pearson Correlation	.054	.216	.039	1	.002	-.024	.053	.032	-.030	.084
	Sig. (2-tailed)	.656	.071	.749		.988	.845	.662	.788	.805	.487
Experience of visiting China	Pearson Correlation	.010	.052	.328**	.002	1	.124	.166	-.195	.343**	.482**

	Sig. (2-tailed)	.931	.667	.005	.988		.305	.167	.102	.003	<.001
Initial experience of Culture Shock when encountering aspects of Chinese culture	Pearson Correlation	-.012	.000	.064	-.024	.124	1	-.022	-.154	.066	-.114
	Sig. (2-tailed)	.924	1.000	.598	.845	.305		.859	.203	.588	.349
Engagement in Chinese cultural festivals or events	Pearson Correlation	.045	.169	.227	.053	.166	-.022	1	.004	.263*	.494**
	Sig. (2-tailed)	.708	.158	.057	.662	.167	.859		.973	.027	<.001
Enjoyment of Chinese Culture	Pearson Correlation	.264*	.033	.010	.032	-.195	-.154	.004	1	-.160	-.100
	Sig. (2-tailed)	.026	.784	.937	.788	.102	.203	.973		.182	.407
Identification with Chinese heritage	Pearson Correlation	.058	.077	.287*	-.030	.343**	.066	.263*	-.160	1	.277*
	Sig. (2-tailed)	.630	.523	.015	.805	.003	.588	.027	.182		.019
Cultural Knowledge Level Scale	Pearson Correlation	-.047	.194	.182	.084	.482**	-.114	.494**	-.100	.277*	1
	Sig. (2-tailed)	.696	.106	.129	.487	<.001	.349	<.001	.407	.019	

*. Correlation is significant at the 0.05 level (2-tailed).

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

There were several significant correlations between participants' cultural backgrounds and their levels of Chinese cultural knowledge. The number of countries participants have visited and their Enjoyment of Chinese Culture were significantly correlated ($r=.264$, $p<.05$) (Figure 6.84).

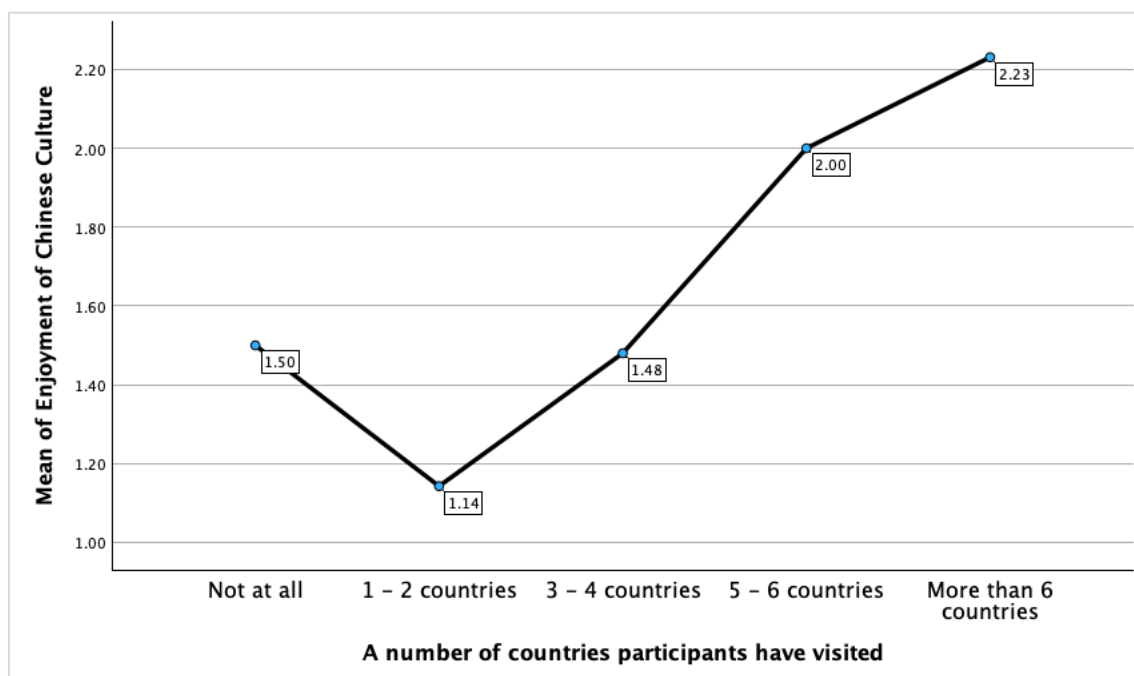


Figure 6.84 A Number of Countries Participants Have Visited and Mean of Enjoyment of Chinese Culture

Participants who had visited more countries and had had more multicultural experiences reported that they were more likely to engage in direct experiential activities with Chinese people and Chinese culture, apart from the participants who had visited 1 to 2 countries around the world, who had the lowest mean scores for enjoyment of Chinese culture ($F(4)=3.324$, $p<.05$).

Table 6.15 presents the relationship between participants' initial experience of culture shock when encountering Chinese culture and their Chinese cultural knowledge level, by continent of origin.

Table 6.15 Correlation of Participants' Initial Experience of Culture Shock Encountering Chinese Culture and Their Chinese Cultural Knowledge Level by Continent ANOVA

Participant Continent of Origin		Variable	Statistics		
		Participants' initial experience of Culture Shock (Y/N)	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Mean Score	No	3.3	.9	.3
		Yes	2.6	.8	.2
Europe	Cultural Knowledge Mean Score	No	2.0	.2	.1
		Yes	2.0	.6	.1
Americas	Cultural Knowledge Mean Score	No	.	.	.
		Yes	2.4	.6	.2

a. t cannot be computed because at least one of the groups is empty.

Table 6.16 presents the results of the t-tests examining the relationship between participants' initial experience of culture shock when encountering Chinese culture and their Chinese cultural knowledge level, by continent of origin.

Table 6.16 Participants' Cultural Knowledge Mean Score and Initial Experience of Culture Shock by Continent t-test

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							One-Sided p	Two-Sided p			Lower	Upper
Asia	Cultural Knowledge Mean Score	Equal variances assumed	.046	.832	1.725	26	.048	.096	.63039	.36538	-.12066	1.38144
		Equal variances not assumed			1.640	9.527	.067	.134	.63039	.38438	-.23186	1.49263
Europe	Cultural Knowledge Mean Score	Equal variances assumed	1.278	.269	.117	25	.454	.908	.03321	.28437	-.55247	.61889
		Equal variances not assumed			.199	9.893	.423	.846	.03321	.16655	-.33843	.40485

a. No statistics are computed for one or more split files

Participants who were from Asia had no culture shock when they encountered Chinese culture (M=3.3) and had higher levels of knowledge of Chinese culture than those from Asia who had culture shock when they encountered Chinese culture (M=2.6) (t=1.725, p<.05).

Participants' experience of living with Chinese people and experience of visiting China were significantly correlated (r=.328, p<.01) (Figure 6.85).

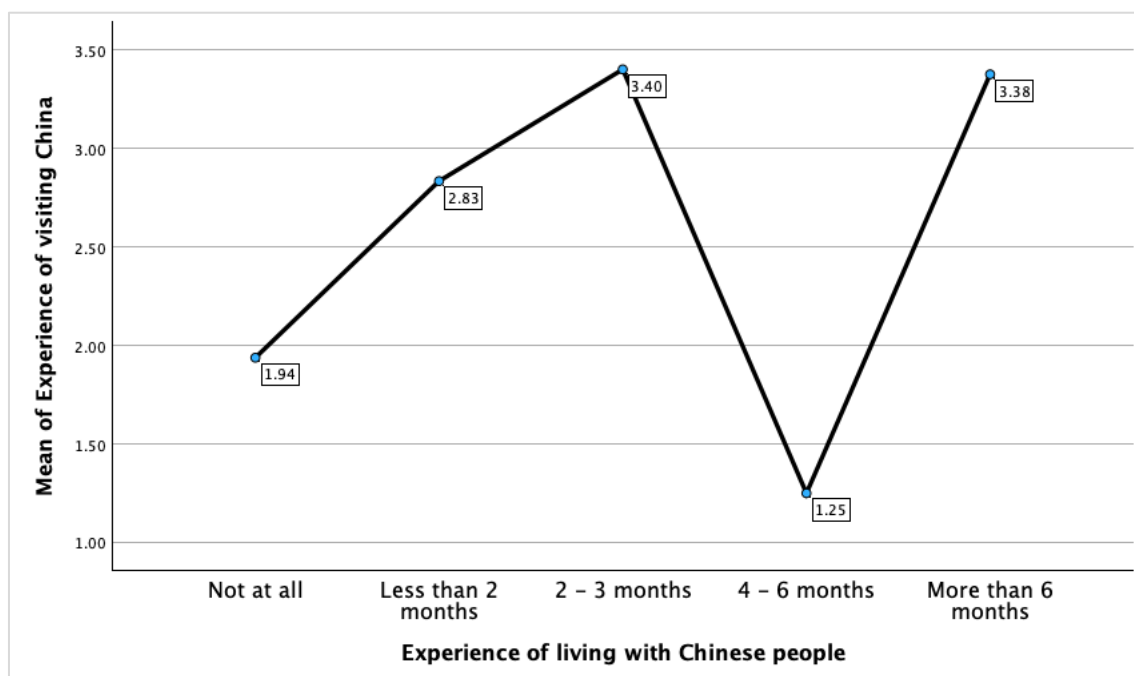


Figure 6.85 Experience of Living with Chinese People and Mean of Experience of Visiting China

Participants who had never visited China reported that they had experience of living with Chinese people for about 4-6 months. Participants who had never lived with Chinese people reported that they had visited China more than once ($F(4)=9.795$, $p<.01$).

Participants' experience of living with Chinese people and their Chinese cultural knowledge level by continent of origin and the correlations, t-tests, and ANOVAs of the Factors group statistics and independent samples tests are displayed in Table 6.17.

Table 6.17 Correlation of Participants' Experience of Living with Chinese People and Chinese Cultural Knowledge Level Scale by Continent

Participant Continent of Origin		Variable	Statistics		
		Experience of living with Chinese people	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Level Scale	No	2.8	1.4	.4
		Yes	3.0	1.2	.3
Europe	Cultural Knowledge Level Scale	No	1.7	.8	.2
		Yes	1.7	.5	.2
Americas	Cultural Knowledge Level Scale	No	2.3	1.0	.5
		Yes	2.3	1.2	.4

Participants' experience of living with Chinese people and their cultural knowledge mean score by continent ANOVA is displayed in Table 6.18.

Table 6.18 Participants' experience of living with Chinese people and Chinese cultural knowledge level scale by continent ANOVA

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							One-Sided p	Two-Sided p			Lower	Upper
Asia	Cultural Knowledge Mean Score	Equal variances assumed	.040	.843	-.549	26	.294	.588	-.18408	.33558	-.87387	.50571
		Equal variances not assumed			-.539	22.137	.298	.595	-.18408	.34164	-.89234	.52418
Europe	Cultural Knowledge Mean Score	Equal variances assumed	.003	.955	.017	25	.493	.986	.00359	.20925	-.42737	.43456
		Equal variances not assumed			.018	22.799	.493	.986	.00359	.19604	-.40215	.40934
Americas	Cultural Knowledge Mean Score	Equal variances assumed	.001	.974	.124	12	.452	.904	.04353	.35208	-.72358	.81064
		Equal variances not assumed			.122	5.404	.454	.908	.04353	.35787	-.85609	.94315

a. No statistics are computed for one or more split files

b. t cannot be computed because at least one of the groups is empty

Participants who were from Asia and had an experience of living with a person from China (M=2.9), had slightly higher levels of cultural knowledge than participants who were from Asia who had not lived with a person from China (M=2.7) but the difference between these two groups was not significant ($t=-.549$, $p<.05$).

Participants who were from America who had not lived with a person from China had higher levels of knowledge of Chinese culture than those participants from Europe, regardless of whether they had lived or not with a person from China (M=2.5)

Participants' identification with Chinese heritage and the experience of living with Chinese people were positively correlated ($r=.287$, $p<.05$) (Figure 6.86).

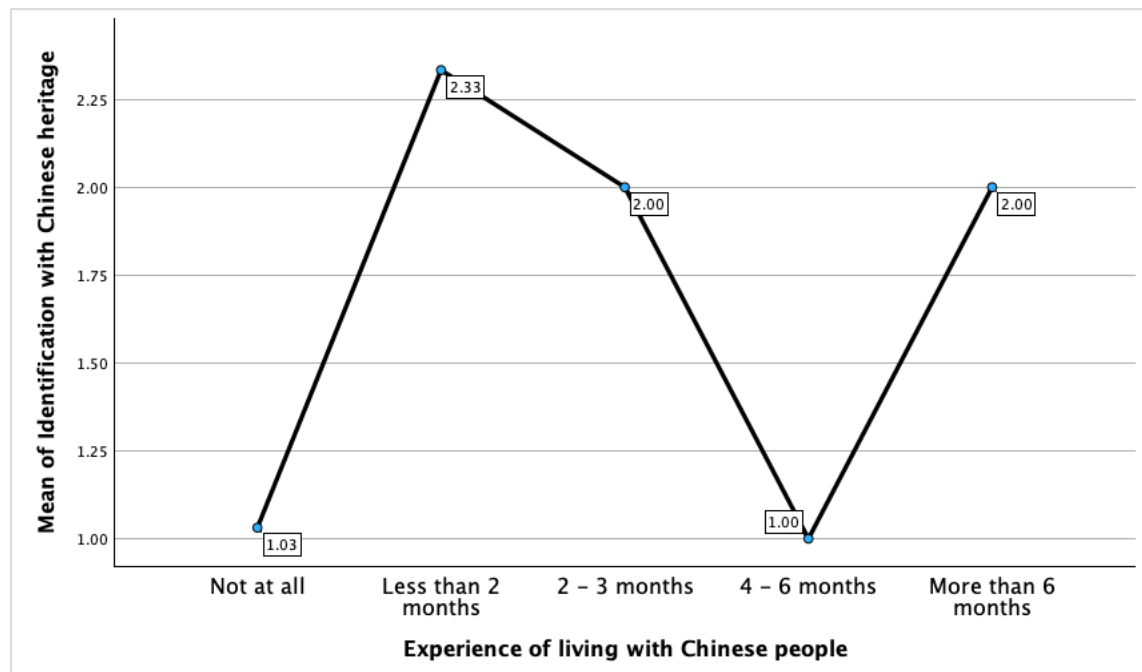


Figure 6.86 Experience of Living with Chinese People and Mean of Identification with Chinese Heritage Mean Score

Participants who had lived with Chinese people for 4 to 6 months and participants who had not lived with Chinese people had significantly lower mean scores for the identification with Chinese heritage ($F(4)=4.840$, $p<.05$).

Table 6.19 presents the cultural knowledge mean scores and the correlations, t-tests, and ANOVAs of the factors of participants by continent of origin, according to whether they had relationships with Chinese individuals.

Table 6.19 Participant Relationships with Chinese Individuals and Their Cultural Knowledge Mean Score by Continent

Participant Continent of Origin		Variable	Statistics		
		Participant relationships with Chinese individuals (Y/N)	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Mean Score	Don't have	2.3	.8	.4
		Have	2.9	.9	.2
Europe	Cultural Knowledge Mean Score	Don't have	1.8	.5	.2
		Have	2.0	.5	.1
Americas	Cultural Knowledge Mean Score	Don't have	2.4	.6	.3
		Have	2.4	.6	.2

Table 6.20 reports the independent samples t-test results for differences in cultural knowledge scores by participants' relationships with Chinese individuals, by continent of origin.

Table 6.20 Participant Relationships with Chinese Individuals and Their Cultural Knowledge Mean Score by Continent

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							One-Side d p	Two-Side d p			Lower	Upper
Asia	Cultural Knowledge Mean Score	Equal variances assumed	.142	.710	-1.425	26	.083	.166	-.59834	.42002	1.46171	.26503
		Equal variances not assumed			-1.455	6.011	.098	.196	-.59834	.41110	1.60381	.40712
Europe	Cultural Knowledge Mean Score	Equal variances assumed	.196	.662	-.591	25	.280	.560	-.15278	.25834	-.68484	.37928
		Equal variances not assumed			-.618	6.273	.279	.558	-.15278	.24713	-.75116	.44560
Americas	Cultural Knowledge Mean Score	Equal variances assumed	.094	.765	.049	12	.481	.962	.01895	.38783	-.82606	.86396
		Equal variances not assumed			.050	3.335	.481	.963	.01895	.37535	1.11043	1.14833

a. No statistics are computed for one or more split files

b. t cannot be computed because at least one of the groups is empty.

Participants from each continent showed differences in their level of Chinese cultural knowledge depending on whether or not they had personal relationships with Chinese individuals. Participants who were from Asia and had a relationship with a Chinese individual (M=2.9) had higher levels of knowledge of Chinese culture than those from Asia who had no relationship with Chinese individuals (M=2.3) ($t=-1.425$, $p<.05$). Also, participants from Europe who had a relationship with a Chinese individual (M=2.0) had higher levels of knowledge of Chinese culture than those from Europe who had no

relationship with Chinese individuals ($M=1.8$) ($t=-.591$, $p<.05$). However, participants from the Americas who had a relationship with Chinese individuals ($M=2.4$) had the same levels of knowledge of Chinese culture as those from the Americas who had no relationship with Chinese individuals ($M=2.4$) ($t=.049$, $p<.05$).

The participants' identification with Chinese heritage and experience of living with Chinese people were positively correlated ($r=.343$, $p<.01$) (Figure 6.87).

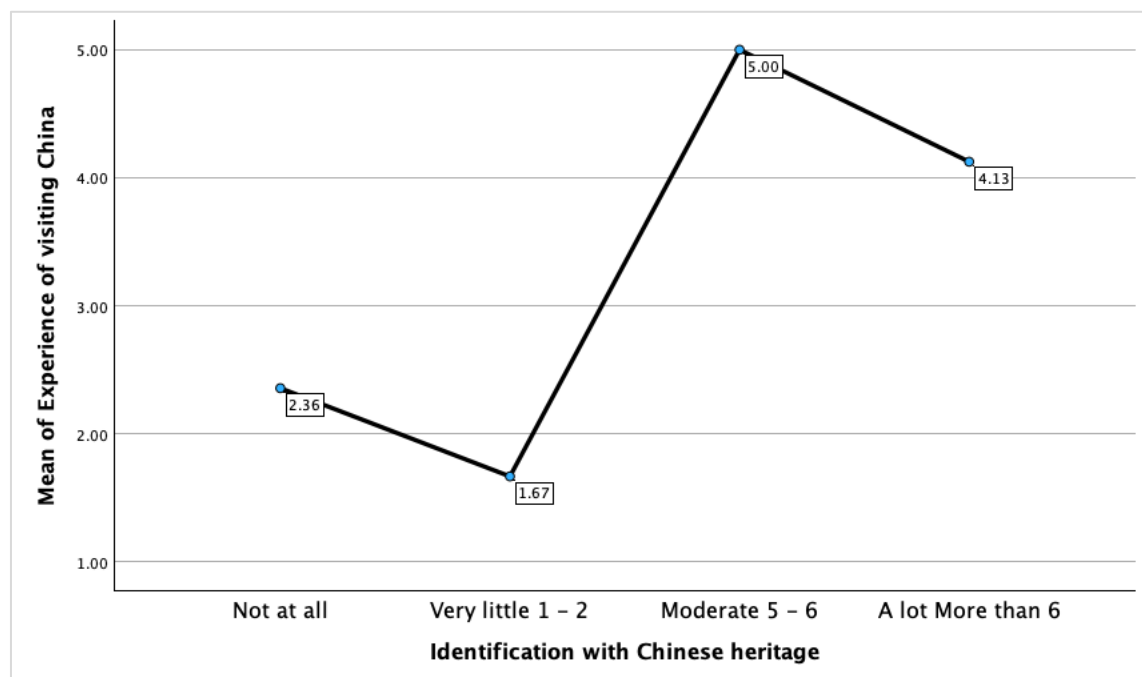


Figure 6.87 Participants' Identification with Chinese Heritage and Mean of Experience of Visiting China

The more participants had identification with Chinese heritage, the more frequently they reported experiences of visiting China ($F(4)=10.133$, $p<.05$).

Participants' identification with Chinese heritage and engagement in Chinese cultural festivals or events were positively correlated ($r=.263$, $p<.05$) (Figure 6.88).

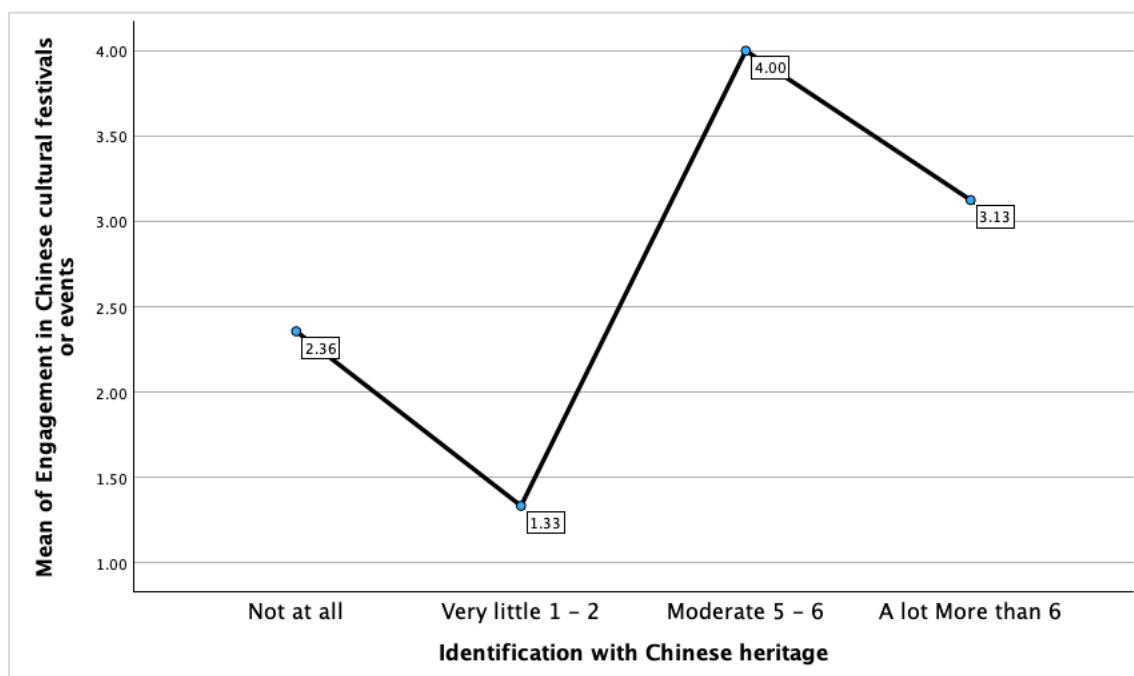


Figure 6.88 Identification with Chinese Heritage and Mean of Engagement in Chinese Cultural Festivals or Events

Participants with more Chinese heritage were significantly more likely to participate in Chinese cultural festivals or events. Yet, participants with no Chinese heritage reported that they participated in Chinese festivals and events more than participants who reported very little identification with Chinese heritage ($F(3)=3.419, p<.05$).

Engagement in Chinese cultural festivals or events and identification with Chinese heritage were significantly correlated ($r=.263, p<.05$) (Figure 6.89).

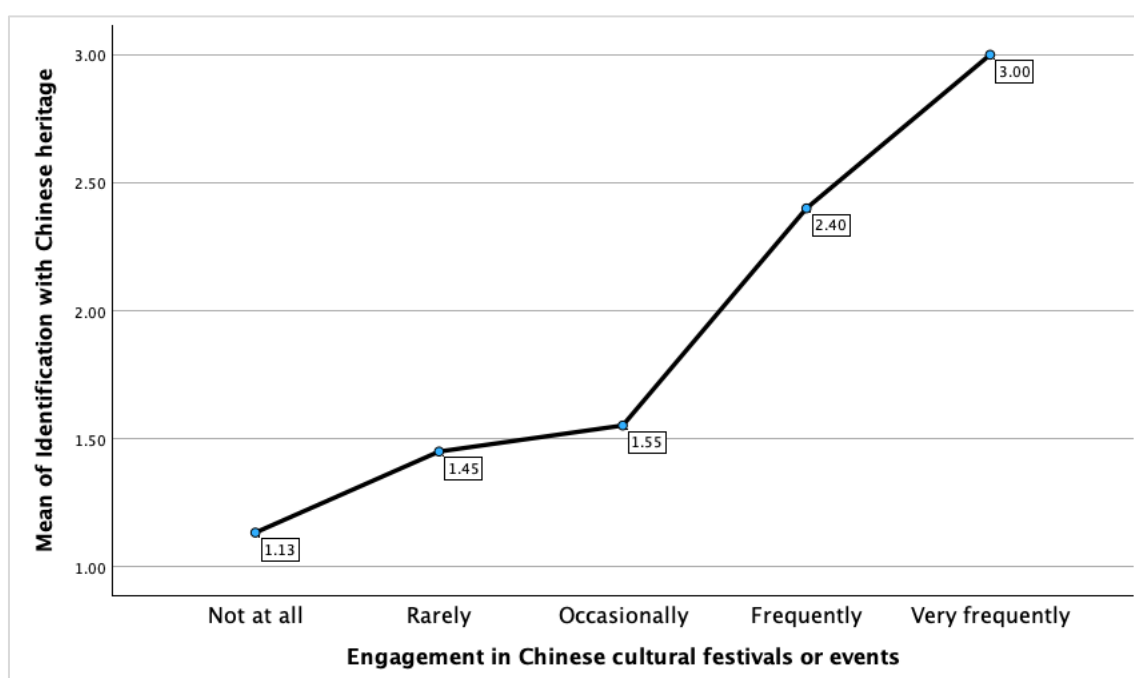


Figure 6.89 Participants' Engagement in Chinese Cultural Festivals or Events and Mean of Identification with Chinese Heritage

Participants with a higher Chinese heritage, participated in Chinese cultural festivals or events with a significantly higher frequency ($F(4)=2.652$, $p<.05$).

Participants' level of cultural knowledge and their engagement in Chinese cultural festivals or events were significantly correlated ($r=.494$, $p<.001$) (Figure 6.90).

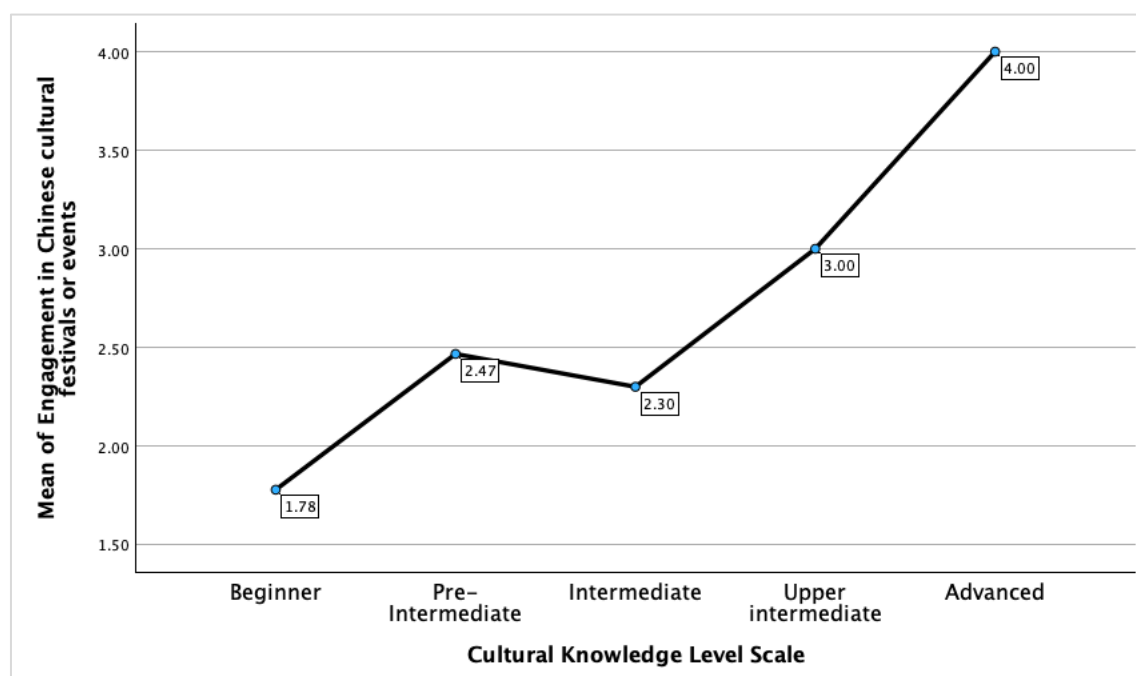


Figure 6.90 Participants' Cultural Knowledge Level Scale and Mean of Engagement in Chinese Cultural Festivals and Events

Among the participants, those with higher levels of Chinese cultural knowledge participated more frequently in Chinese cultural festivals or events ($F(4)=5.162$, $p<.001$).

Participants' Engagement in Chinese cultural Festivals or events and their Chinese cultural knowledge level by continent of origin and the correlations, t-tests, and ANOVAs of the factors displayed in Tables 6.21.

Table 6.21 Participant Engagement in Chinese cultural Festivals or Events and Their Cultural Knowledge Mean Score by Continent

Participant Continent of Origin		Variable	Statistics		
		Engagement in Chinese cultural Festivals or events (Y/N)	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Mean Score	No	2.1	.58744	.22203
		Yes	3.0	.83512	.18224
Europe	Cultural Knowledge Mean Score	No	1.5	.29807	.10538
		Yes	2.2	.45589	.10459
Americas		No	.	.	.

Cultural Knowledge Mean Score	Yes	2.4	.57213	.15291
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Participants who were from Asia engaged in Chinese cultural festivals and events (M=3.0) has significantly higher cultural knowledge scores than those who did not (M=2.1). Similarly, participants who were from Europe those who engaged in Chinese cultural festivals and events (M=2.2) scored significantly higher cultural knowledge than those who did not (M=1.5), and participants from Europe (M=2.2) had significantly higher levels of knowledge of Chinese culture than those from Asia (M=2.1) and Europe who are not engaging in Chinese cultural festivals and events (M=1.5).

Participant Engagement in Chinese cultural Festivals or events and Their Cultural Knowledge Mean Score by Continent ANOVA is displayed in Table 6.22.

Table 6.22 Participant Engagement in Chinese Cultural Festivals or Events and Their Cultural Knowledge Mean Score by Continent ANOVA

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							One-Side d p	Two-Side d p			Lower	Upper
Asia	Cultural Knowledge Mean Score	Equal variances assumed	1.688	.205	-2.639	26	.007	.014	-.90400	.34257	1.60817	-.19984
		Equal variances not assumed			3.147	14.793	.003	.007	-.90400	.28724	1.51700	-.29101
Europe	Cultural Knowledge Mean Score	Equal variances assumed	.096	.759	-3.807	25	<.001	<.001	-.67032	.17607	1.03294	-.30770
		Equal variances not assumed			4.515	20.026	<.001	<.001	-.67032	.14847	-.98001	-.36064

a. No statistics are computed for one or more split files

b. t cannot be computed because at least one of the groups is empty.

Participants who were from Asia engaged in Chinese cultural festivals and events has significantly higher cultural knowledge scores than those Asian participants who did not ($t(26)=-2.639$, $p=.01$). Similarly, participants who were from Europe those who engaged in Chinese cultural festivals and events scored significantly higher cultural knowledge than those who were from Europe did not ($t(25)=-3.807$, $p<.001$).

Participants' level of Chinese cultural knowledge and identification with Chinese heritage were significantly correlated ($r=.277$, $p<.05$) (Figure 6.91).

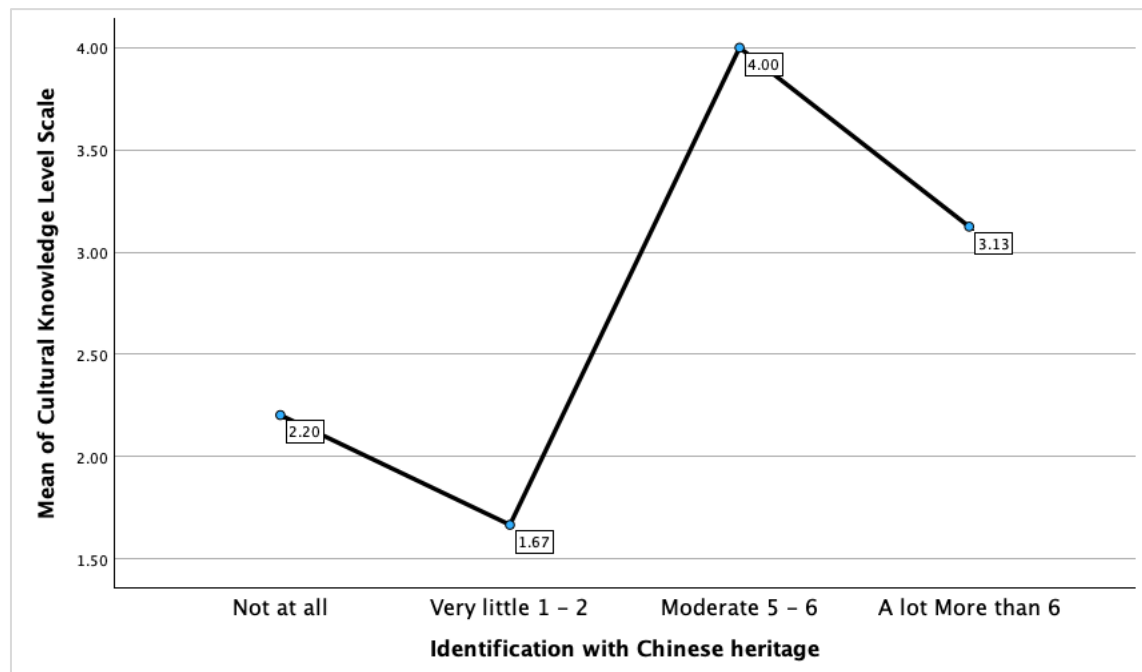


Figure 6.91 Participants' Identification with Chinese Heritage and Their Chinese Cultural Knowledge Level Mean Score

Participants with higher levels of Chinese cultural knowledge had moderate 5-6, which indicates a higher level of identification with Chinese heritage. However, participants with not at all, which indicates no Chinese heritage at all had a higher level of Chinese cultural knowledge than participants with very little 1-2 identification with Chinese heritage ($F(3)=3.361$, $p<.05$).

Participants' identification with Chinese Heritage and their Chinese cultural knowledge level by continent of origin and the correlations, t-tests, and ANOVAs of the factors displayed in Tables 6.23.

Table 6.23 Participant Identification with Chinese Heritage and Their Cultural Knowledge Mean Score by Continent

Participant Continent of Origin		Variable	Statistics		
		Identification with Chinese Heritage (Y/N)	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Mean Score	Don't have	2.8	.9	.18250
		Have	2.9	1.0	.39771
Europe	Cultural Knowledge Mean Score	Don't have	1.9	.5	.10502
		Have	2.2	.4	.27778
Americas	Cultural Knowledge Mean Score	Don't have	2.3	.5	.15846
		Have	2.7	.7	.35975

Participant Identification with Chinese heritage and their cultural knowledge mean score by continent ANOVA test is displayed in Table 6.24.

Table 6.24 Participant Identification with Chinese Heritage and Their Cultural Knowledge Mean Score by Continent ANOVA

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							One-Side d p	Two-Side d p			Lower	Upper
Asia	Cultural Knowledge Mean Score	Equal variances assumed	.624	.437	-479	26	.318	.636	-.19399	.40527	1.02704	.63906
		Equal variances not assumed			-.443	7.251	.335	.670	-.19399	.43758	1.22150	.83352
Europe	Cultural Knowledge Mean Score	Equal variances assumed	.099	.756	-.668	25	.255	.510	-.25556	.38245	1.04322	.53211
		Equal variances not assumed			-.861	1.305	.259	.519	-.25556	.29697	2.46808	1.95697
Americas	Cultural Knowledge Mean Score	Equal variances assumed	2.018	.181	-1.180	12	.130	.261	-.39353	.33348	1.12013	.33306
		Equal variances not assumed			-1.001	4.224	.185	.371	-.39353	.39310	1.46251	.67544

a. No statistics are computed for one or more split files

b. t cannot be computed because at least one of the groups is empty

Participants who had Chinese heritage and from Asia ($M=2.9$) ($t=-.479$, $p<.05$), Europe ($M=2.2$) ($t=-.668$, $p<.05$) and America ($M=2.7$) ($t=-1.180$, $p<.05$) had higher levels of cultural knowledge than those whose do not have Chinese heritage from Asia ($M=2.8$), Europe ($M=1.9$) and America ($M=2.3$), but the difference between these identification difference groups was not significant.

Participants' level of Chinese cultural knowledge and their experience of visiting China were significantly correlated ($r=.482$, $p<.001$) (Figure 6.92).

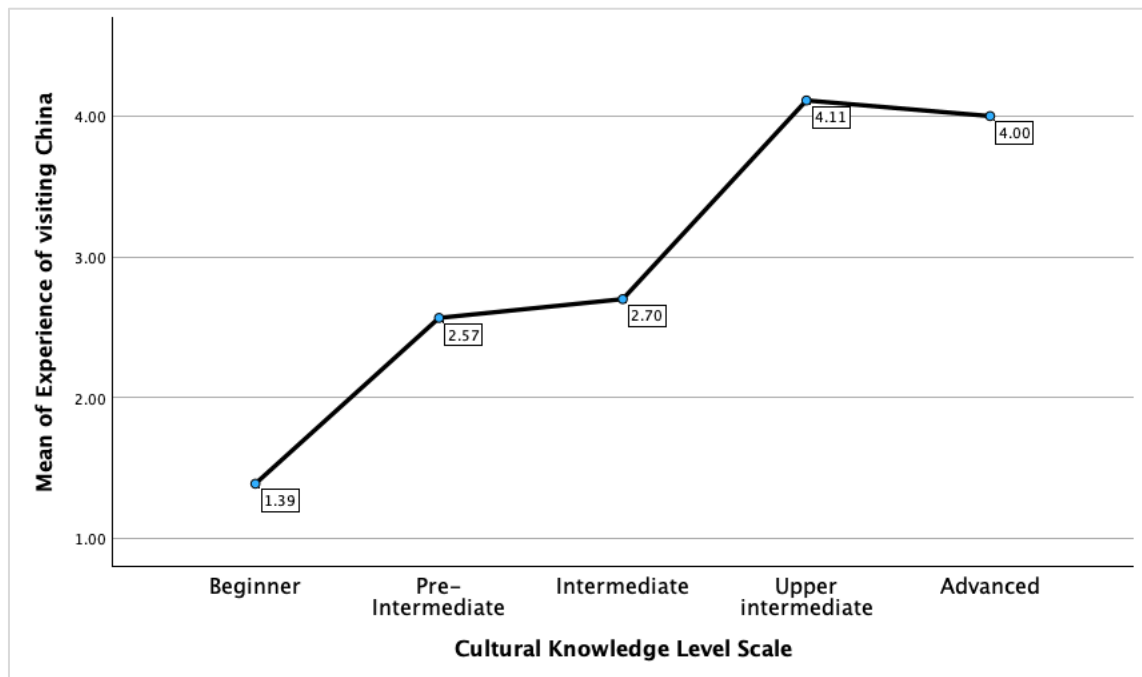


Figure 6.92 Participants' Cultural Knowledge Level Scale Mean of Experience of Visiting China Mean Score

Among the participants, those with a higher level of Chinese cultural knowledge had visited China more frequently ($F(4)=13.708$, $p<.001$).

Table 6.25 presents participants' experience of visiting China and their Chinese cultural knowledge level by continent of origin, the cultural knowledge mean scores of participants comparing those who had and had not visited China.

Table 6.25 Participant Experience of Visiting China and Their Cultural Knowledge Mean Score by Continent

Participant Continent of Origin		Variable	Statistics		
		Experience of visiting China	Mean	Std. Deviation	Std. Error Mean
Asia	Cultural Knowledge Level Scale	No	2.8	1.3	.5
		Yes	3.0	1.3	.3
Europe	Cultural Knowledge Level Scale	No	1.4	.5	.1
		Yes	2.0	.7	.2
Americas	Cultural Knowledge Level Scale	No	1.9	1.0	.4
		Yes	2.8	1.0	.4

Table 6.26 presents the independent samples t-test results examining differences in cultural knowledge scores between participants with and without experience of visiting China by continent of origin.

Table 6.26 Participants' Experience of Visiting China and Their Cultural Knowledge Mean Score by Continent
ANOVA

Participant Continent of Origin			Levene's Test for Equality of Variances		t-test for Equality of Means							
			F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							One-Side d p	Two-Side d p			Lower	Upper
Asia	Cultural Knowledge Level Scale	Equal variances assumed	.037	.849	-.374	26	.356	.711	-.20000	.53453	-1.29874	.89874
		Equal variances not assumed			-.373	12,906	.357	.715	-.20000	.53554	-1.35783	.95783
Europe	Cultural Knowledge Level Scale	Equal variances assumed	1.155	.293	-.2416	25	.012	.023	-.57143	.23654	-1.05859	-.08427
		Equal variances not assumed			-.2387	21,805	.013	.026	-.57143	.23937	-1.06812	-.07474
Americas	Cultural Knowledge Level Scale	Equal variances assumed	.050	.826	-.1796	12	.049	.098	-.95833	.53346	-2.12064	.20397
		Equal variances not assumed			-.1799	10,972	.050	.100	-.95833	.53280	-2.13138	.21472

a. No statistics are computed for one or more split files

b. t cannot be computed because at least one of the groups is empty

Participants from each continent showed differences in their level of Chinese cultural knowledge depending on whether or not they had ever visited China. Participants who were from Asia and had visited China ($M=3.0$) ($t=-.374$, $p<.05$) had higher levels of knowledge of Chinese culture than those from Asia who had not visited China ($M=2.8$). Participants who were from Europe and had visited China ($M=2.0$) ($t=-2.416$, $p<.05$) had higher levels of knowledge of Chinese culture than those from Europe who had not visited China ($M=1.4$) and participants from America ($M=2.8$) ($t=-1.796$, $p<.05$) had higher levels of knowledge of Chinese culture than those from America who had not visited China ($M=1.9$).

6.7 Demographic Factors and Levels of Knowledge of Chinese Cultural Elements

This section outlines the correlations and ANOVA between participants' demographic factors, including their age, country of origin, country of continent, current residence, and levels of cultural knowledge. Full details of these results are available in APPENDIX I.

Participants' age distribution in the survey is displayed in Figure 6.93.

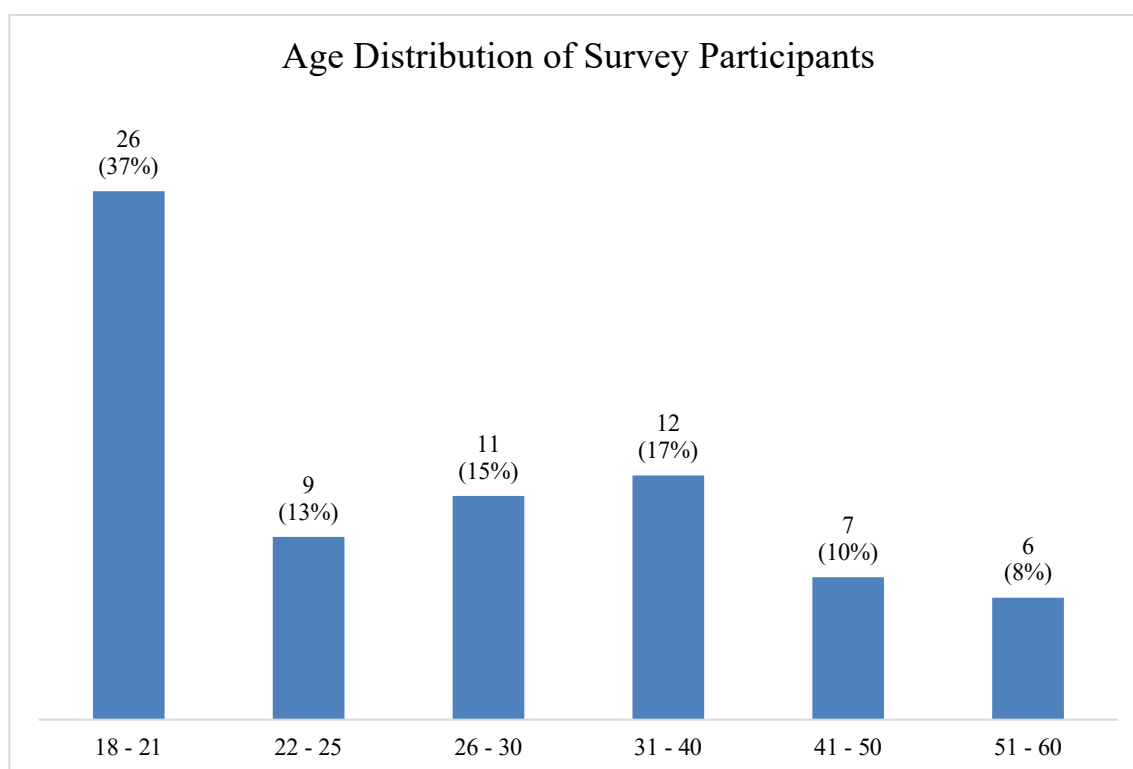


Figure 6.93 Age Distribution of Survey Participants

Most of the participants were aged between 18 and 21 (37%, n=26). 17% (n=12) in the 31 - 40 age group. Participants aged 26 - 30 accounted for 15% (n=11), and the age grouping 22 - 25 represented 13% (n=9). Smaller proportions were observed for the age grouping 41 - 50 (10%, n=7) and the 51-60 age group (8%, n=6).

Asian participants' age distribution is displayed in Figure 6.94.

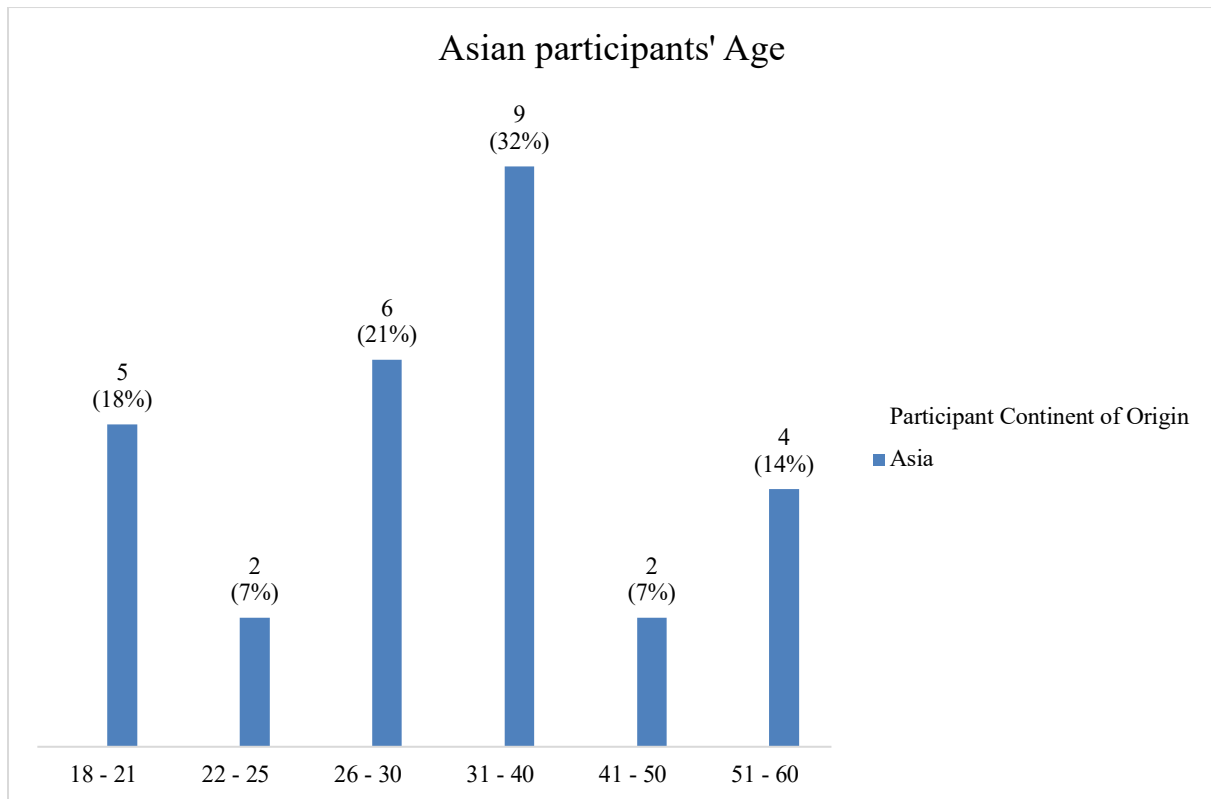


Figure 6.94 Asian Participants' Age

Participants from Asia were aged between 18 and 21 years old, with 2% (n=9) of the Asian participants reporting they were age 31-40, 21% (n=6) reporting they were age 26-30, 18% (n=5) reporting that they were age 18-21, 14% (n=4) reporting they were between 51-60 years of age, 7% (n=2) reporting that they were between 22-25 years of age, and 7% (n=2) reporting they were between 41-50 years of age.

European participants' age distribution is displayed in Figure 6.95.

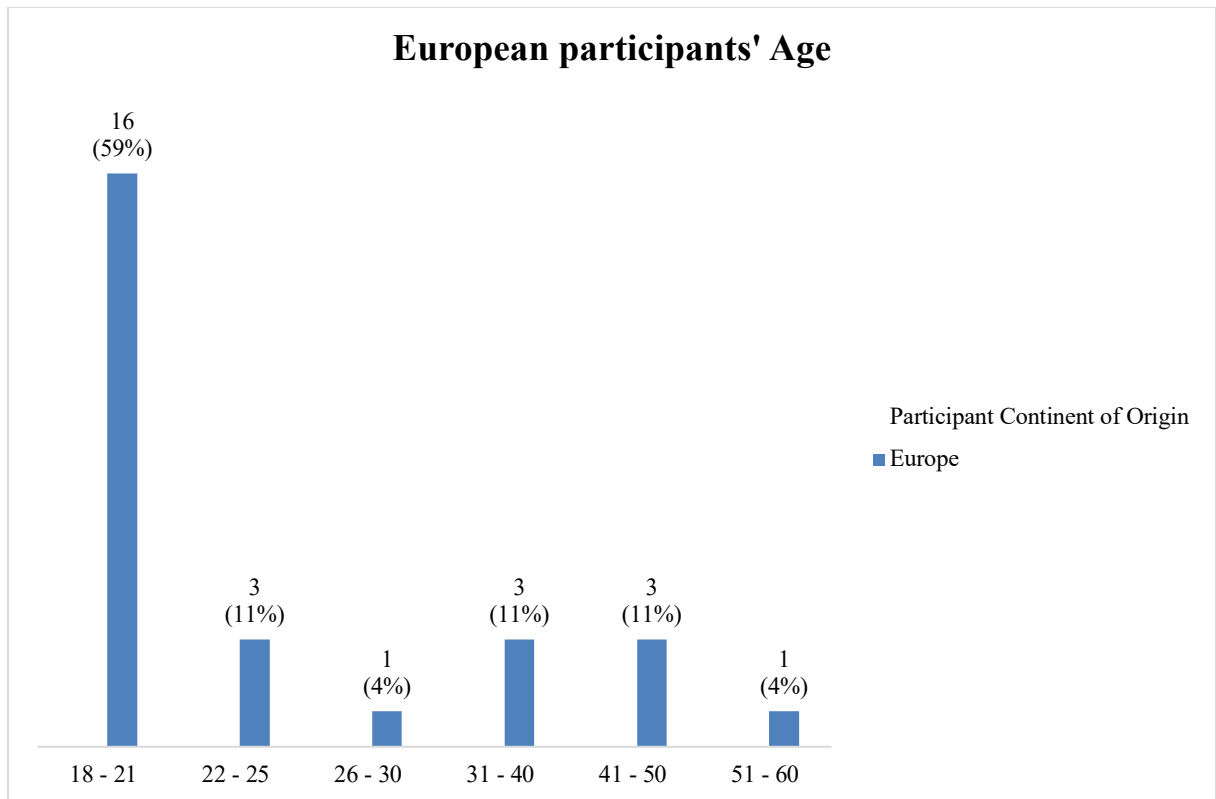


Figure 6.95 European Participants' Age

Most of the participants from Europe were between 18 and 21 years old. The majority of the European participants (59%, $n=16$) reported age 18 - 21, 11% ($n=3$) reported age 22 - 25, and 11% ($n=3$) reported age 31 - 40, 11% ($n=3$) reported age 41 - 50, and 4% ($n=1$) reported age 26-30, another 4% ($n=1$) reported age 51 - 60 years old.

American participants' age distribution is displayed in Figure 6.96.

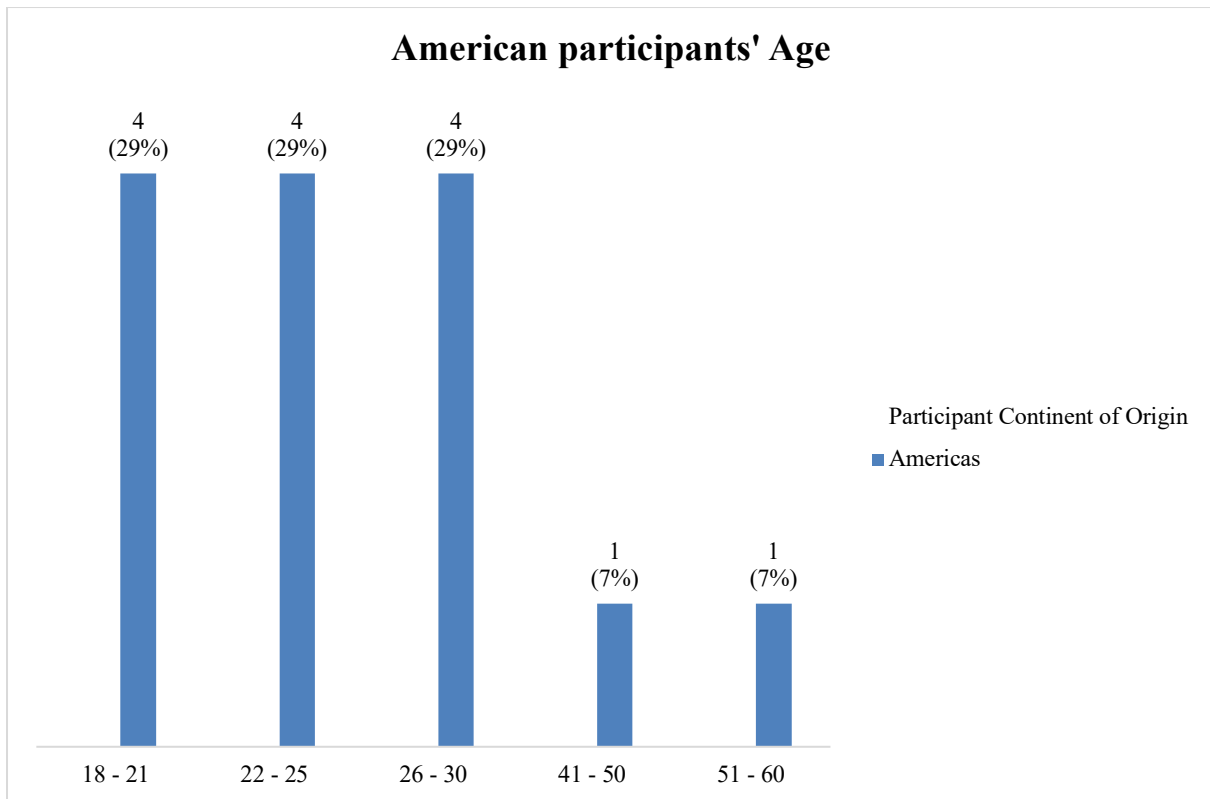


Figure 6.96 American Participants' Age

Most of the participants from the Americas were between 18 and 30 years old, with the average age for the American participants being 22.6 years old. Almost one third of the American participants (29%, $n=4$) reported age 18 - 21, 29% ($n=4$) reported age 22 - 25, and 29% ($n=4$) reported age 26 - 31. Only 7% ($n=1$) reported that they were between 41-50 years of age and only 7% ($n=1$) reported that they were between 51 - 60 years old. There was one participant from the African continent who was aged between 18-21 years. There was also one participant from the Middle East who was aged between 41 and 50 years of age.

Participants' age and the Cultural Knowledge level were significantly correlated ($r=.281$, $p<.05$) (Figure 6.97).

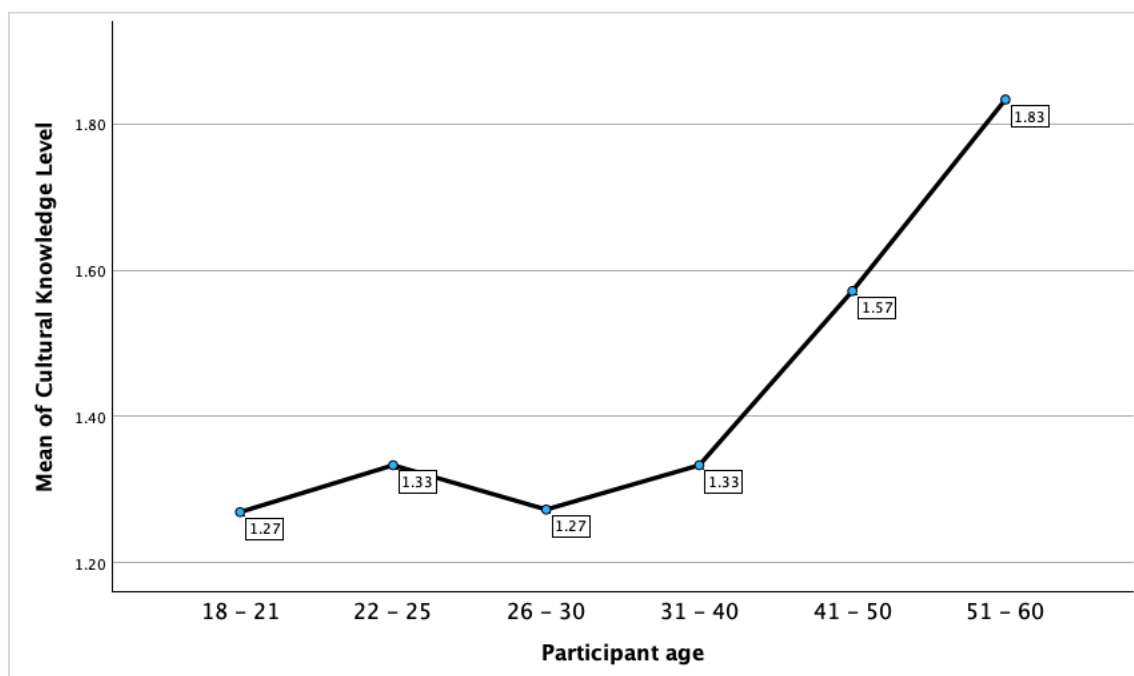


Figure 6.97 Participants' Age and Mean of Cultural Knowledge Level

Older age groups of participants had a significantly higher level of Chinese cultural knowledge ($F(5)=.393$, $p<.05$).

Participants reported their Chinese proficiency level (CEFR and HSK) and participant age were significantly correlated ($r=.356$, $p<.01$) (Figure 6.98).

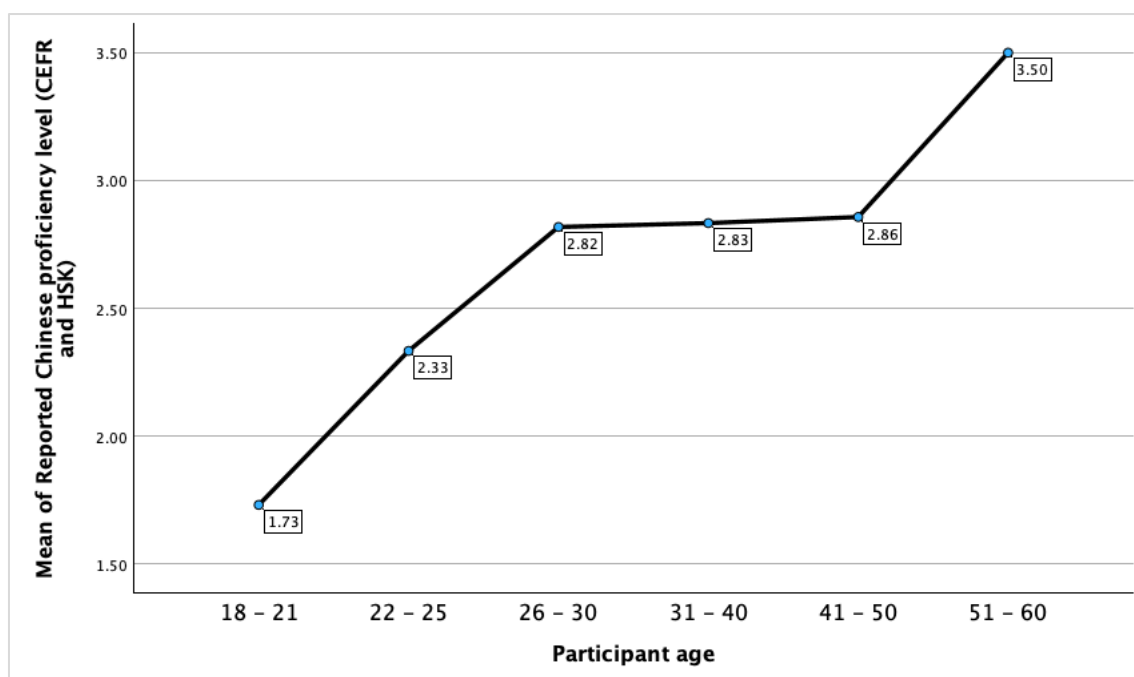


Figure 6.98 Participants' Age and Mean of Reported Chinese Proficiency Level (CEFR and HSK)

Participants in the older age group 51 to 60 had significantly higher levels of Chinese proficiency ($F(5)=4.910$, $p<.05$).

Participants' weekly time dedication to studying Chinese and participants' age were significantly correlated ($r=-.302$, $p<.05$) (Figure 6.99).

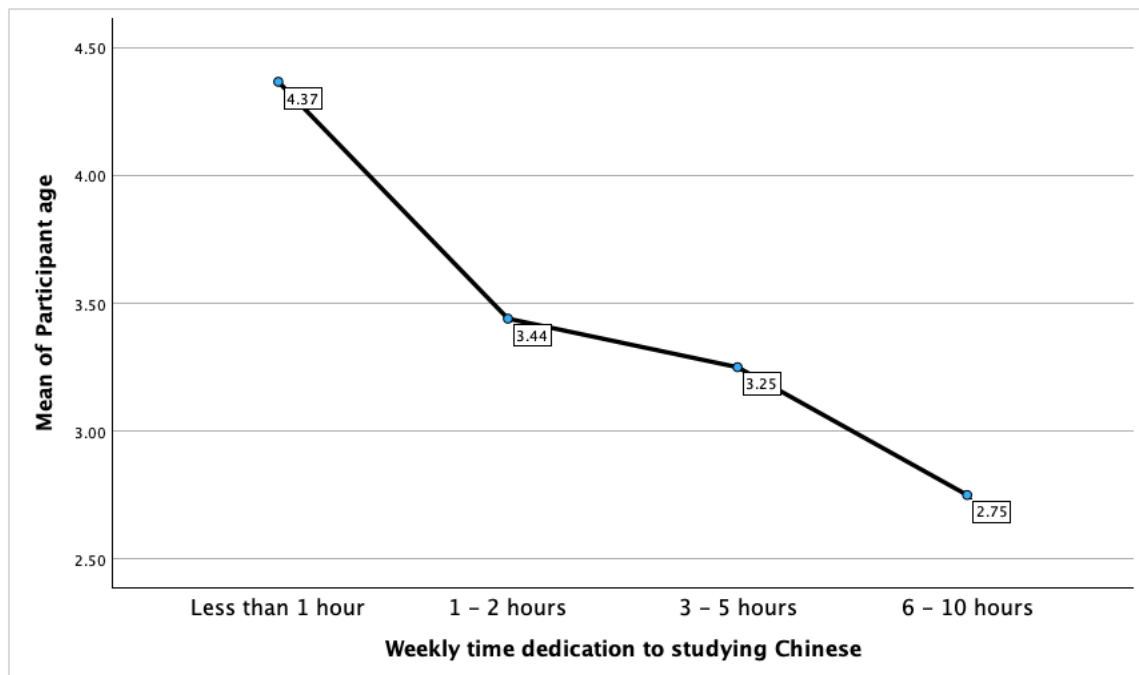


Figure 6.99 Participants' Weekly Time Dedication to Studying Chinese and Mean of Participant Age

The younger the participants were, the shorter the time they spent studying Chinese per week, with an average of less than one hour ($F(3)=6.934$, $p<.05$).

The participants' experience of visiting China and participant age were significantly correlated ($r=.365$, $p<.01$) (Figure 6.100).

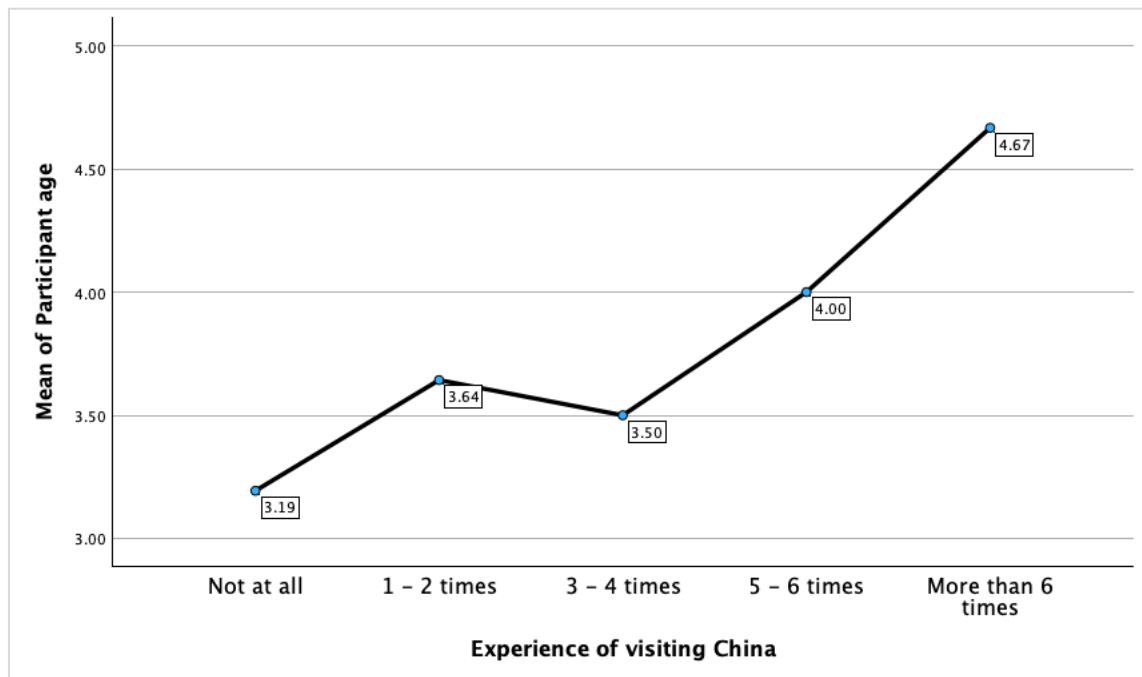


Figure 6.100 Participants' Experience of Visiting China and Mean of Participant Age

The older participant group had a significantly higher number of experiences of visiting China compared to the younger groups ($F(5)=6.572$, $p<.05$).

Participants' ability to distinguish between Simplified and Traditional Chinese and participant age were significantly correlated ($r=.335$, $p<.01$) (Figure 6.101).

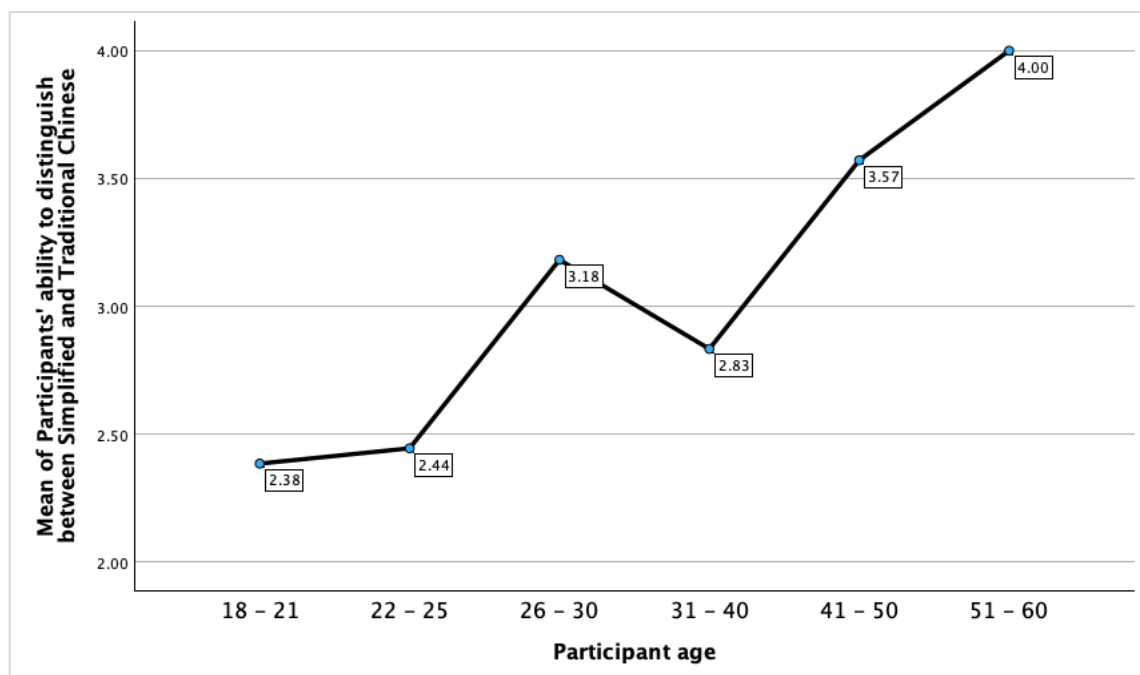


Figure 6.101 Participants' Age and Mean of Participants' Ability to Distinguish Between Simplified and Traditional Chinese

The older the age groups of participants, the higher the mean scores on the ability to distinguish Simplified and Traditional Chinese ($F(5)=3.710, p<.05$).

Participants' levels of cultural knowledge and participants' age were significantly correlated ($r=.281, p<.05$) (Figure 6.102).

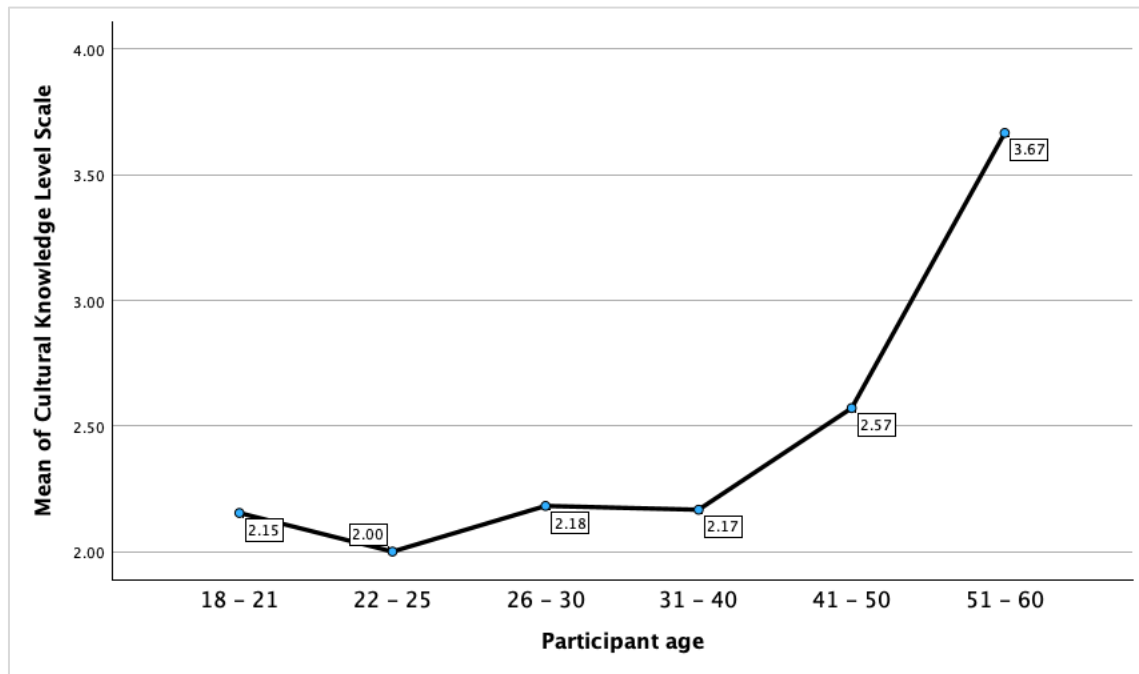


Figure 6.102 Participant Age and Mean of Cultural Knowledge Level Scale

Participants in the age group 51 to 60 had significantly higher Chinese cultural knowledge level scales ($F(5)=2.193, p<.01$).

Participants' age and their continent of origin were significantly correlated ($r=.271, p<.05$) (Figure 6.103).

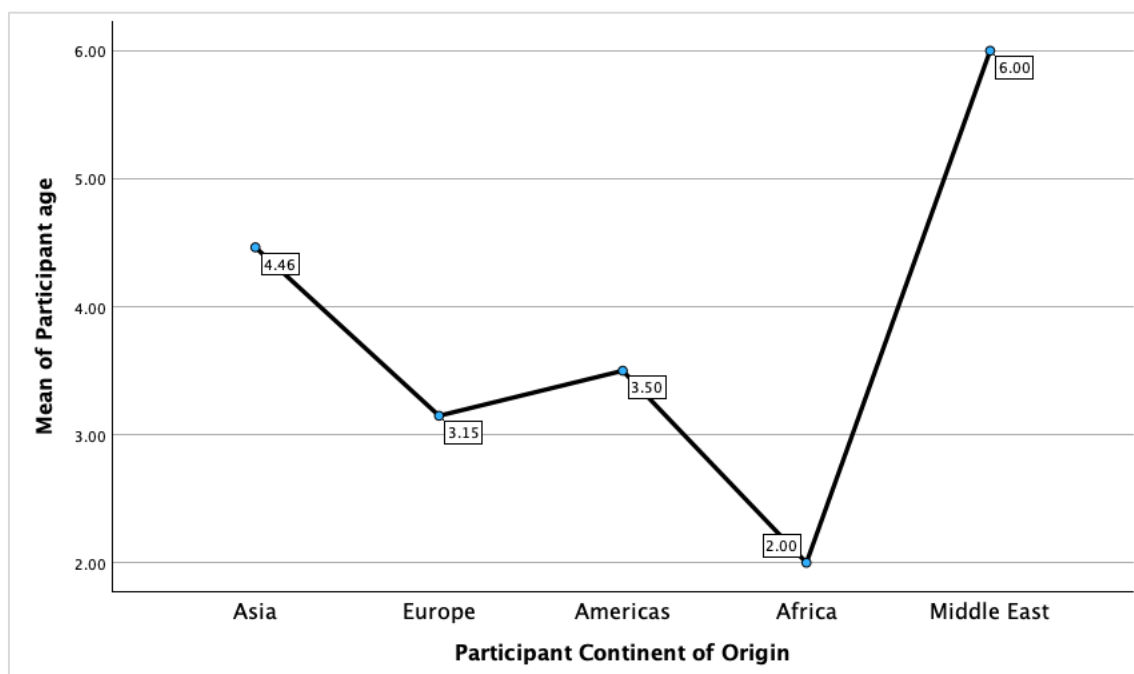


Figure 6.103 Participant Continent of Origin and Mean of Participant Age

Participants from the Middle East were significantly older than participants from the other continents. Participants from the Asian continent were the second oldest grouping in the sample. European, American and African participants were relatively younger ($F(4)=8.264, p<.05$).

Participants reported Chinese proficiency level (CEFR and HSK) and participants' continent of origin were negatively correlated ($r=-.280, p<.05$) (Figure 6.104).

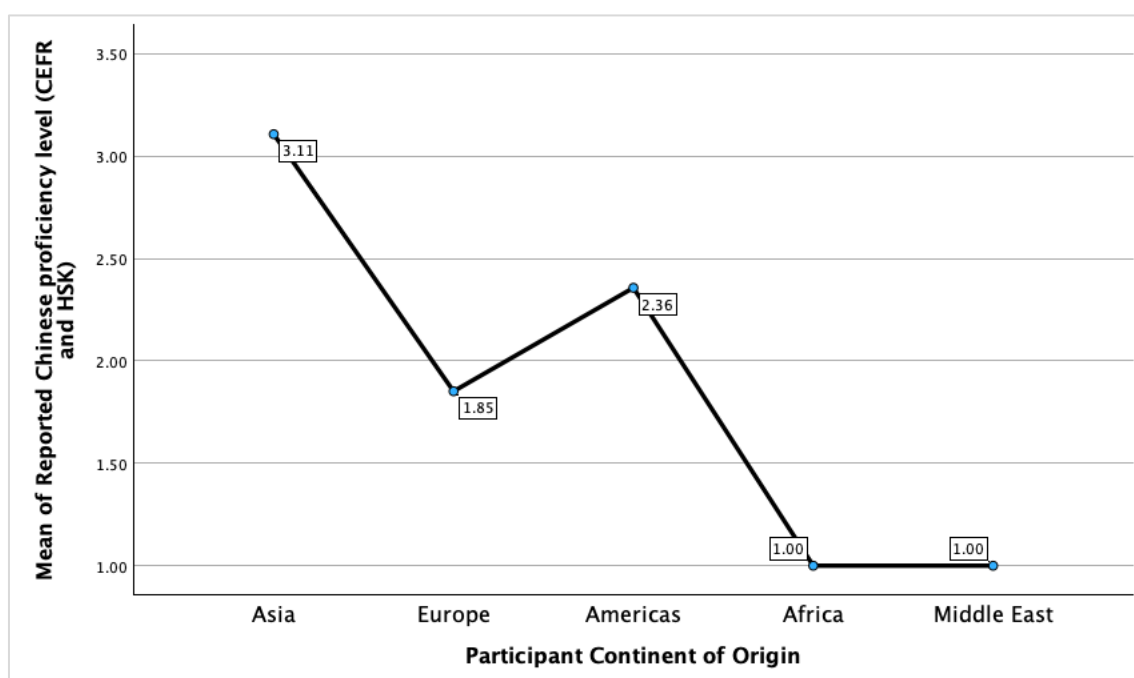


Figure 6.104 Participant Continent of Origin and Mean of Reported Chinese Proficiency Level (CEFR and HSK)

The average level of Chinese proficiency (CEFR and HSK) of the Asian participants was significantly higher than that of other country of origin groups in the sample. The Chinese proficiency level of the participants from the Americas was the second highest, followed by the proficiency levels of the participants from Europe, Africa and the Middle East ($F(4)=6.506$, $p<.05$).

6.8 Multiple Regression A: Contributions of Linguistic Factors, Learning Factors, and Participants' Cultural Background on Levels of Knowledge of Chinese Culture of the Whole Sample

This section outlines the results of the multiple regression analysis that was conducted to investigate the contributions of linguistic factors, learning factors and cultural background on the total score for the whole sample on the level of knowledge of Chinese culture variable. Table 6.27 presents the correlations between cultural knowledge levels, linguistic factors, learning experience factors, and cultural background across the whole sample.

Table 6.27 *Correlations Between Cultural Knowledge Levels by, Linguistic Factors, Learning Factors, and Cultural Background of the Whole Sample*

		Cultural Knowledge Level Scale	Linguistic Factors	Learning Factors	Cultural Background
Pearson Correlation	Cultural Knowledge Level Scale	1.000	.490 ($p<.001$)	.315 ($p<.001$)	.400 ($p<.001$)
	Linguistic Factors	.490 ($p<.000$)	1.000	.501 ($p<.000$)	.501 ($p<.000$)
	Learning Factors	.315 ($p<.001$)	.501 ($p<.000$)	1.000	.228 ($p<.01$)
	Cultural Background	.400 ($p<.000$)	.501 ($p<.000$)	.228 ($p<.01$)	1.000

The Pearson correlation analysis from the regression model indicated significant positive relationships between Cultural Knowledge and all three predictors (factors), with the strongest correlation shown for Linguistic Factors ($r=.490$, $p<.001$), followed by Cultural Background ($r=.400$, $p<.001$), and Learning Factors ($r=.315$, $p<.01$).

Table 6.28 displays the results of the multiple regression analysis predicting levels of knowledge of Chinese culture based on linguistic factors, learning factors, and participants' cultural backgrounds.

Table 6.28 *Results of Multiple Regression for Prediction of Levels of Knowledge of Chinese Culture: Analyses of the Whole Sample*

Scale	Variables	Beta	F (df)	p-value	Adjusted R ²
Cultural Knowledge Level Scale	(Constant)	-.135	8.640 (3, 67)	< .001	.247
	Linguistic Factors	.335			
	Learning Factors	.099			
	Cultural Background Factors	.210			

a. Dependent Variable: Cultural Knowledge Level Scale

b. Predictors: (Constant), Cultural Background Factors, Learning Factors, Linguistic Factors

The overall model was significant ($R=.528$, $R^2=.279$, Adjusted $R^2=.247$, $F(3,67)=8.604$, $p<.001$) with Linguistic Factors ($\beta=.335$) contributing most strongly, followed by participants' Cultural Background ($\beta=.210$). Learning Factors ($\beta=.099$) was the least significant predictor of cultural knowledge for the sample as a whole.

Figure 6.105 presents the partial regression plot depicting the relationship between linguistic factors (independent variable) and participants' cultural knowledge level (dependent variable).

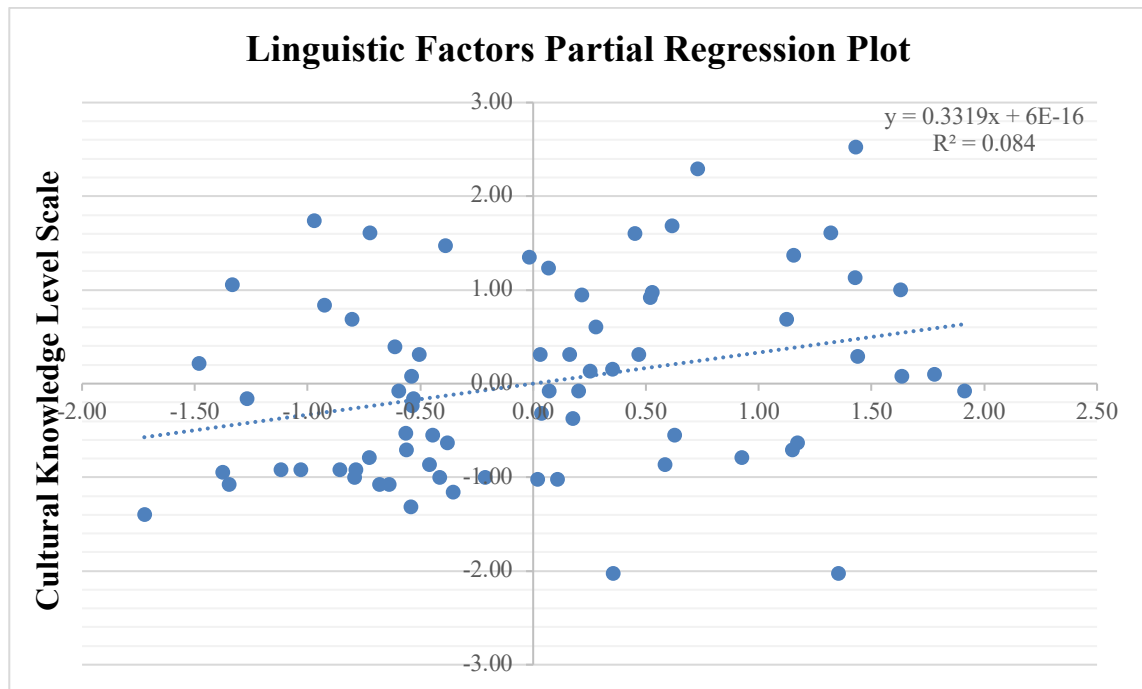


Figure 6.105 Cultural Knowledge Level Scale Linguistic Factors Partial Regression Plot

The regression line demonstrates a weak positive correlation, indicated by a slope coefficient ($\beta=.335$). The coefficient of determination ($R^2=0.084$) indicates that linguistic factors explain approximately 8.4% of the variance in participants' cultural knowledge levels. Thus, linguistic factors have a modest predictive influence on cultural knowledge within the participants.

Figure 6.106 displays the partial regression plot depicting the relationship between cultural background factors (independent variable) and participants' cultural knowledge level (dependent variable).

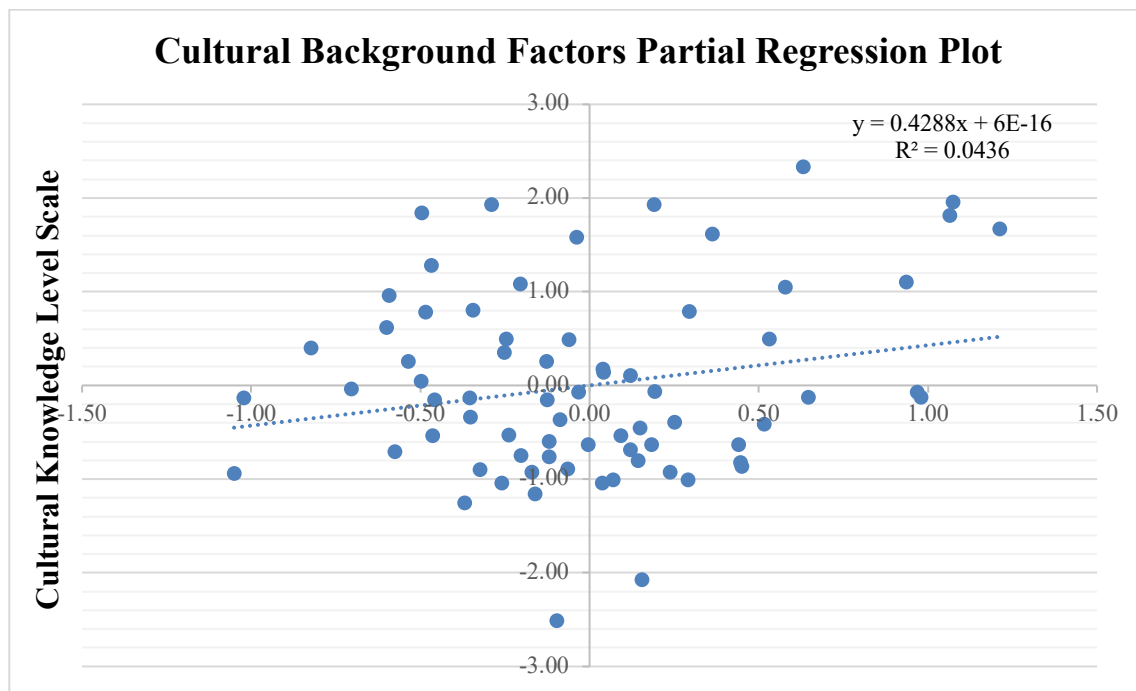


Figure 6.106 Cultural Knowledge Level Scale Cultural Background Factors Partial Regression Plot

The regression analysis indicates a weak position correlation, represented by the slope ($\beta = .210$). However, the coefficient of the determination ($R^2 = 0.0436$) suggests that cultural background factors explain only approximately 4.36% of the variance in participants' cultural knowledge levels. This indicates a relatively minor contribution of cultural background factors in predicting cultural knowledge within the whole sample of participants.

Figure 6.107 presents the partial regression plot depicting the relationship between learning factors (independent variable) and participants' cultural knowledge level (dependent variable).

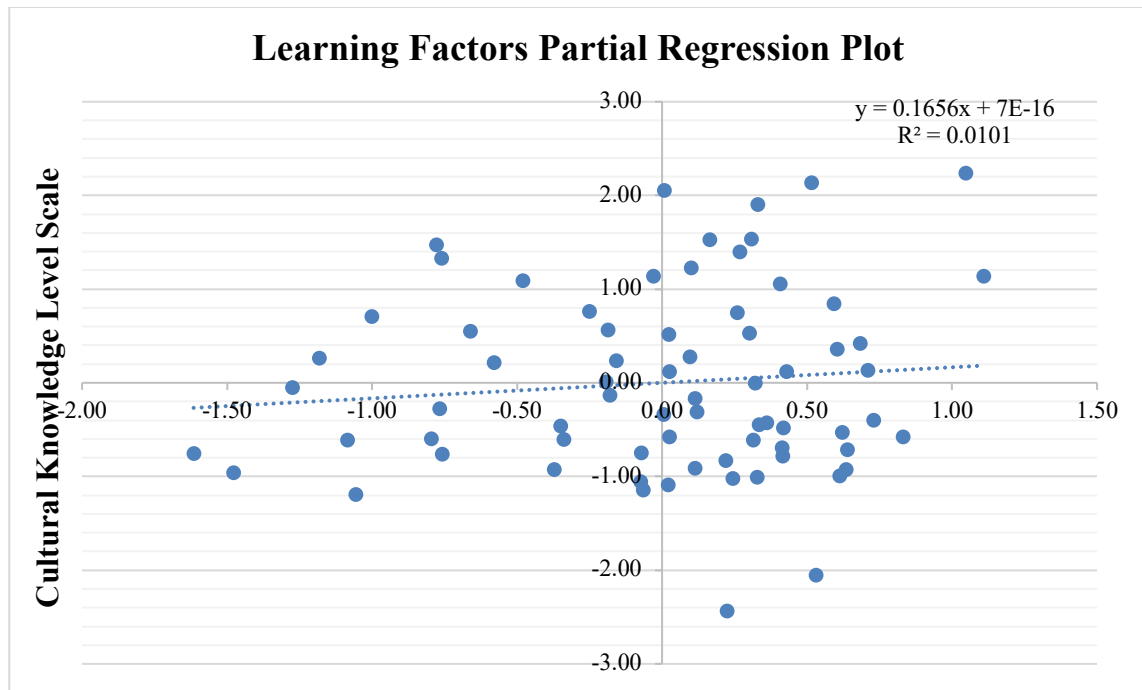


Figure 6.107 Cultural Knowledge Level Scale Learning Factors Partial Regression Plot

The regression line indicates a very weak position relationship with a slop coefficient ($\beta=.099$). The coefficient of determination ($R^2=0.0101$) reveals that learning factors account for only approximately 1.01% of the variance observed in participants' cultural knowledge levels. This suggests that learning factors contribute minimally to predicting cultural knowledge within the whole sample of the participants.

6.8.1 Multiple Regression B: Contribution of Linguistic Factors, Learning Factors, and Participants' Cultural Background on Levels of Knowledge of Chinese Culture by Continent, Asia, Europe and the Americas

This section outlines the results of the multiple regression analysis that investigated the contribution of linguistic, learning, and cultural background on the total score by the continent of the participants' level of knowledge of Chinese culture in the study. These correlations in the Table 6.29 highlight the substantial differences between participants from each continent represented in the sample.

Table 6.29 Pearson Correlations of Cultural Knowledge Levels, by Linguistic Factors, Learning Factors, and Cultural Background by continent, Asia, Europe, the Americas

Participant Continent of Origin			Linguistic Factors	Learning Factors	Cultural Background
Asia	Cultural Knowledge Mean Score	Pearson Correlation	.253	.424	.474
		Sig. (2-tailed)	.097	.012	.005

Europe	Cultural Knowledge Mean Score	Pearson Correlation	.680	.522	.217
		Sig. (2-tailed)	.000	.003	.138
Americas	Cultural Knowledge Mean Score	Pearson Correlation	.528	.216	.236
		Sig. (2-tailed)	.026	.229	.208

The Pearson correlation analysis from the regression model indicated that Linguistic Factors and levels of Chinese cultural knowledge were linked most significantly for European participants ($r=.680$, $p<.000$) and participants from the Americas ($r=.528$, $p<.05$). Cultural Background was significantly correlated with levels of Chinese cultural knowledge for only the Asian participants ($r=.474$, $p<.001$). Learning Factors were correlated with levels of Chinese cultural knowledge for the European participants ($r=.522$, $p<.01$) and Asian participants ($r=.424$, $p<.01$). The results of multiple regression analyses for the prediction of levels of knowledge of Chinese culture by continent are displayed in Table 6.30.

Table 6.30 Results of Multiple Regression Analyses for the Prediction of Levels of Knowledge of Chinese Culture by Continent

Continent	Variables	B	F (df)	p-value	Adjusted R ²
Asia			3.100 (3, 24)	< .001	.528
	Linguistic Factors	-.089		.248	
	Learning Factors	.447		.047	
	Cultural Background Factors	.846		.013	
Europe			9.676 (3, 23)		.747
	Linguistic Factors	.538		<.001	
	Learning Factors	.084		.004	
	Cultural Background	-.502		.135	
Americas			1.438 (3, 10)		.549
	Linguistic Factors	.593		.059	
	Learning Factors	-.261	3.100 (3, 24)	.650	
	Cultural Background	.083		.617	

Asian participants ($n=28$) showed a significant model predicting levels of Chinese cultural knowledge (Adjusted $R^2=.528$, $F(3,24)=3.100$, $p<.001$). Among the predictors, Cultural Background showed as the strongest and most significant factors ($\beta=.846$, $p<.05$), followed by Learning factors ($\beta=.447$, $p<.05$), while Linguistic factors were not significant ($\beta=-.089$, $p=.248$). In the correlation analysis, Cultural Background Factors demonstrated the highest significant positive correlation with cultural knowledge ($r=.474$, $p<.005$), followed by Learning Factors ($r=.424$, $p<.012$).

European participants ($n=27$) showed the most substantial explanatory power among the three groups, significantly predicting cultural knowledge (Adjusted $R^2=.747$,

$F(3,23)=9.676$, $p<.001$). Linguistic Factors showed as a highly significant predictor ($\beta=.538$, $p<.001$), Learning Factors ($\beta=.084$, $p<.678$) and Cultural Background ($\beta=-.502$, $p<.072$). In correlation analyses, Linguistic Factors demonstrated the highest and most highly significant positive correlation with cultural knowledge ($r=.680$, $p<.000$; $\rho=.716$, $p<.001$), Learning Factors ($r=.522$, $p=.003$; $\rho=.489$, $p<.010$). For the European participants, a Spearman correlation showed a significant correlation between Cultural Background and level of Chinese cultural knowledge ($\rho=.395$, $p<.010$).

For the Participants from the Americas ($n=14$), the factor that was most predictive in the model was the regression analysis did not produce a statistically significant (Adjusted $R^2=.549$, $F(3,10)=1.438$, $p<.05$). For the Participants from the Americas, the factor that was most predictive in the model was Individually, none of the predictors (factors) showed significant results. Linguistic Factors ($\beta=.593$, $p=.059$), Learning Factors ($\beta=-.261$, $p=.650$), Cultural Background ($\beta=.083$, $p=.617$). Correlation analyses with cultural knowledge showed that Cultural Background ($r=.236$, $p<.208$), and Learning Factors ($r=.216$, $p<.229$), indicated that Linguistic Factors had a moderate and statistically significant positive correlation with cultural knowledge ($r=.528$, $p<.026$).

6.9 Conclusion

This chapter presented the detailed analysis results of the anonymous survey, the differences in participants' linguistic background, learning experiences, cultural background, and demographic personal factors that significantly affected and substantially contributed to their levels of knowledge of Chinese culture. Section 6.9.1 below outlines the key findings from the anonymous survey and section 6.9.2 outlines the general findings that put the key findings from the survey into contexts related to the description of the sample.

6.9.1 Key findings

The first key finding of the study was that participants with higher Chinese language proficiency (HSK) had higher levels of knowledge of Chinese culture. The relationship between linguistic proficiency and cultural knowledge correlations varied, however, depending on the context. For European ($r=.624$, $p<.001$) and American participants ($r=.532$, $p=.050$), proficiency in Chinese (CEFR and HSK levels) strongly correlated with cultural knowledge. However, for Asian learners, this correlation was much weaker

($r=.200$, $p=.307$), suggesting that Asian participants in learning the Chinese language and culture might follow different ways.

The second key finding of the study was that the duration of Chinese language learning was significantly correlated with cultural knowledge ($r=.467$, $p<.001$). The longer the duration of the participants' study of Chinese, the higher their levels of knowledge regarding Chinese culture. An unexpected finding was that some of the participants who had only engaged in short-term intensive courses, such as between 6 months to 1 year, had high levels as of Chinese cultural knowledge as high as other participants who had studied the Chinese language for much longer. The participants who had studied the language for a short duration and had high levels of cultural knowledge took mostly formal language classes, with occasional self-study, and 56% of them were from Asian backgrounds. Interestingly, these same participants tended to have lower linguistic proficiency levels, while having higher levels of cultural knowledge. This suggests that the early stages of CFL learning can be designed in a strategically structured way to maximise effective and rapid cultural learning.

This finding leads to the third key finding of the study, which was that the method of learning Chinese was a key factor in their having higher levels of knowledge of Chinese culture for the whole sample. However, results differed on the method of learning factor, depending on the continent, with participants from Asia who had studied Chinese mostly through formal classes having higher levels of cultural knowledge than those from Asia who had studied Chinese mostly through self-study ($t=-1.379$, $p<.05$). Conversely, participants from Europe who had studied Chinese mostly through self-study ($M=2.1$) had higher levels of knowledge of Chinese culture than those from Europe who studied Chinese mostly through formal classes ($t=962$, $p<.05$), the difference was not significantly different. Participants from America who had studied Chinese mostly through self-study ($M=2.6$) also showed significantly higher levels of cultural knowledge compared to those who studied Chinese mostly through formal classes ($t=1.523$, $p<.01$), also the difference was not significant.

The fourth key finding of the study was that participants who had visited China showed higher levels of knowledge of Chinese culture ($F(4)=13.708$, $p<.001$). A series of t-tests were carried out on higher levels of knowledge and whether or not participants had

visited China ($r=.483$, $p<.001$). Participants who were from Asia and had visited China had higher levels of knowledge of Chinese culture than those from Asia who had not visited China ($t=-.374$, $p<.05$). Participants who were from Europe and had visited China had higher levels of knowledge of Chinese culture than those from Europe who had not visited China ($t=-2.416$, $p<.05$), and participants from America had higher levels of knowledge of Chinese culture than those from America who had not visited China ($t=-1.796$, $p<.05$).

The fifth key finding of the study was that cultural engagement was significantly linked with the level of knowledge of Chinese culture ($F(4)=5.162$, $p<.001$). Among the participants across all continents, those with higher levels of Chinese cultural knowledge participated more frequently in Chinese cultural festivals or events. Participants who had more experience participating in Chinese cultural festivals or events had higher levels of Chinese cultural knowledge ($r=.494$, $p<.001$). Among the participants from the Asian continent, those who participated more frequently in Chinese cultural festivals or events showed significantly higher levels of Chinese cultural knowledge than those who did not participate as frequently ($t=-2.639$, $p<.01$). Similarly, among the participants from the European continent, those who participated more frequently in Chinese cultural festivals or events showed significantly higher Chinese cultural knowledge levels than those who did not participate as frequently ($t=-3.807$, $p<.001$).

The sixth key finding of the study was that participants who had personal relationships with Chinese individuals had higher levels of knowledge of Chinese culture ($r=.084$, $p<.487$). Participants who were from Asia and had a relationship with a Chinese individual had higher levels of knowledge of Chinese culture than those from Asia who had no relationship with Chinese individuals ($t=-1.425$, $p<.05$). Also, participants from Europe who had a relationship with a Chinese individual ($t=-.591$, $p<.05$) had higher levels of knowledge of Chinese culture than those from Europe who had no relationship with Chinese individuals. However, participants from the Americas who had a relationship with Chinese individuals ($t=.049$, $p<.05$) had the same levels of knowledge of Chinese culture as those from the Americas who had no relationship with Chinese individuals.

The seventh key finding of the study was that participants with an identification with Chinese heritage have higher levels of knowledge of Chinese culture ($F(3)=3.361$, $p<.05$). Chinese heritage and Chinese cultural knowledge level showed a significant

positive correlation ($r=.277$, $p<.05$). For example, participants who were from Asia and had Chinese heritage had higher levels of knowledge of Chinese culture ($t=-.479$, $p<.318$). Participants who were from Europe and had Chinese heritage had higher levels of knowledge of Chinese culture ($t=-.668$, $p<.255$). Participants who were from the Americas and had Chinese heritage had higher levels of knowledge of Chinese culture ($t=-1.180$, $p<.130$). Also, participants who had Chinese heritage were more likely to engage in Chinese cultural festivals and events ($r=.263$, $p<.05$) and consequently, had higher levels of cultural knowledge. These findings highlight that identifying as a person with Chinese heritage is a key factor, and cultural knowledge.

The figure 6.108 depicts the main results of the correlation and multiple regression analysis by continent.

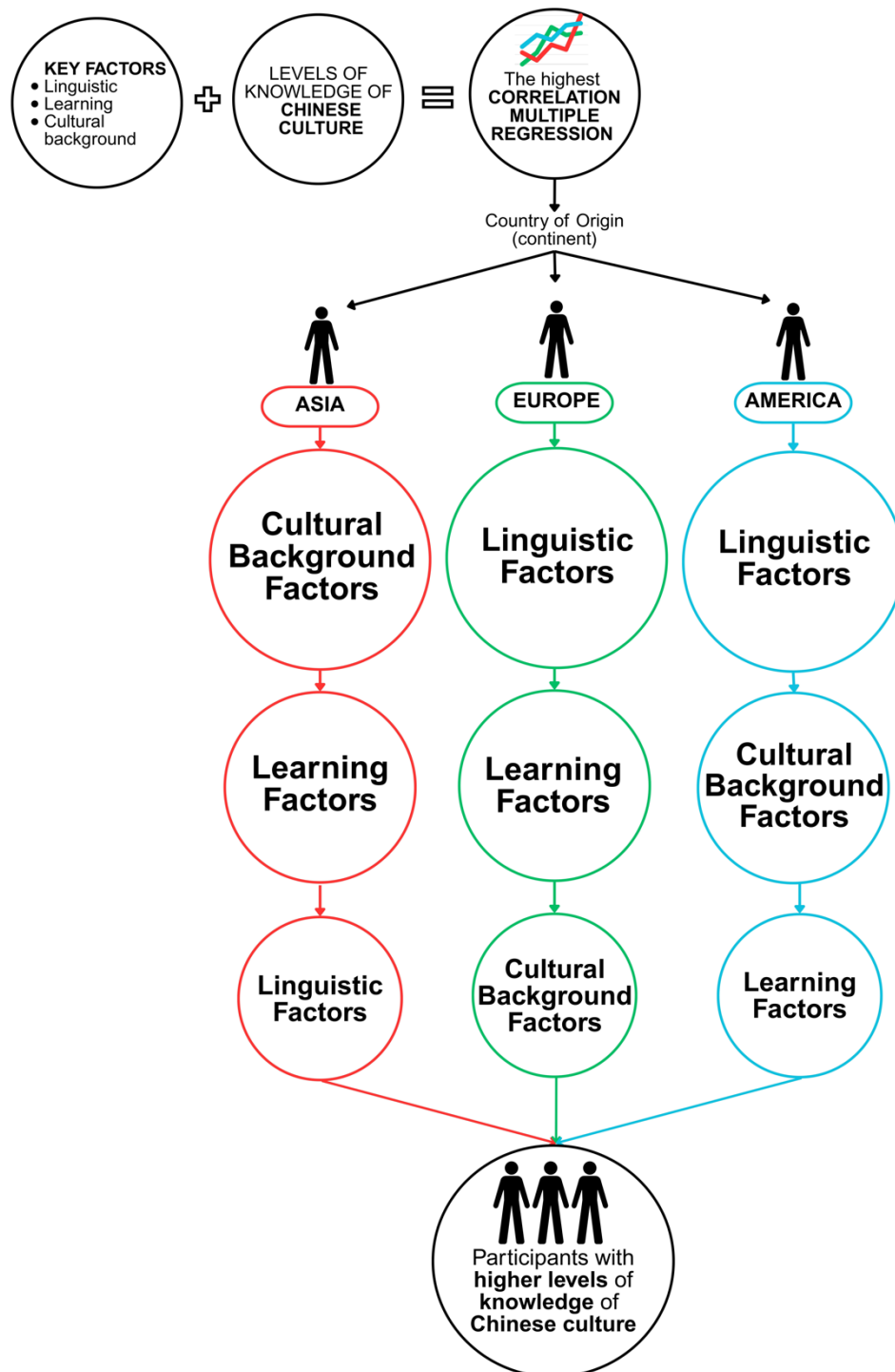


Figure 6.108 Significantly Influenced Factors Participants' Knowledge of Chinese Culture by Continent in Order of the Multiple Regression Statistical Results

The findings reveal that each factor significantly differs by continent. It shows the factors linked to the knowledge levels of participants in the three cohorts, multiple regression statistics showed that for the participants from the Asian continent, Cultural Background was the most influential factor influencing their level of Chinese cultural

knowledge, followed by Learning Factors, and Linguistic Factors were the least influential factor.

For the European participants, the Linguistic Factor was found to have the most significant influence on their level of Chinese cultural knowledge than the Asian and American participants. The regression model for the European participants was strong, explaining around 50% of the differences in cultural knowledge (Adjusted $R^2=.500$, $F(3,23)=9.676$, $p<.001$). This highlights the key role of linguistic proficiency and how significant language proficiency is for the European participants, followed by Learning Factors, and Cultural Background had the least influence. For the participants from the Americas, the Linguistic Factor was found to have the most significant influence on their level of Chinese cultural knowledge, followed by their Cultural Background, while their Learning Background had the least influence.

6.9.2 General findings

The participants in the sample were relatively young, with most of them between the ages of 18 to 21 (37%, $n=26$), among the participants, the older the age, the higher the level of knowledge of Chinese culture they had ($F(5)=.393$, $p<.05$). More than half of the participants were native English speakers (54%, $n=38$), and participants originated from a diverse range of countries. The largest participant groups by country were from Ireland (27%, $n=19$) and South Korea (27%, $n=19$). Most participants had no personal Chinese heritage in their family background, with 83% ($n=59$) reporting none; however, higher heritage identification correlated positively with participation in Chinese cultural festivals and events ($r=.263$, $p<.05$). The more participants had identification with Chinese heritage, the more frequently they reported experiences of visiting China ($F(4)=10.133$, $p<.05$). Participants' experiences with living with Chinese people varied. A significant number of participants (45%, $n=32$) had not at all indicated they had never lived with Chinese people, and most participants reported that Chinese people were in their lives as friends (62%, $n=44$) as their primary relationship.

Most participants had international travel experience. However, the frequency of their visits to China was much lower, as 44% ($n=31$) had never visited China, indicating a significant subgroup with extensive immediate exposure to Chinese culture. The popular

Chinese cultural elements in their understanding of Chinese culture, for example, well-known aspects such as the Silk Road, traditional Chinese medicine, symbolism, etc., influenced participants' cultural understanding 35% (n=25). However, the largest group reported that they attended Chinese festivals or cultural events only occasionally (41%, n=29), and many participants had some interaction with Chinese culture through personal preferences or activities. The most common Chinese cultural element participants engaged with was Chinese foods (63%, n=45).

The participants had a wide range of durations in learning the Chinese language. Nearly half the participants were beginners with under a year of learning experience in Chinese, and another large portion, 37% (n=26) of participants, was quite experienced, such as more than 3 years, while relatively few were in between. In line with these durations, self-reported Chinese proficiency levels (CEFR or HSK) were slanted towards the lower levels. Nearly half of the participants (45%, n=32) identified as beginners in Chinese proficiency (CEFR A1 or HSK 1). Participants with higher Chinese proficiency demonstrated a higher ability to distinguish between Simplified and Traditional Chinese characters ($F(4)=22.005, p<.001$), and higher Chinese proficiency correlated with increased recognition of Chinese words or phrases without direct equivalence in their native language ($F(4)=10.000, p<.001$). Participants with higher proficiency were more likely to complete the survey in the Chinese version ($F(1)=20.809, p<.01$).

However, linguistic proficiency by itself doesn't always predict high cultural knowledge. A specific group of participants, despite having only intermediate language proficiency, highlighted that substantial cultural knowledge can be acquired independently of advanced linguistic proficiency. CFL learners can gain a rich understanding and cultural knowledge without being a language expert, possibly through direct cultural exposure to Chinese cultural experiences or focused self-study. Most participants spent only limited time studying Chinese per week, reflecting the prevalence of beginners and casual learners in the sample; about 77% (n=55) of participants spent two hours or less per week on Chinese language learning. Participants who had studied for a longer durations and spent more weekly hours reported more significant cultural influence on their perceptions ($F(4)=2.087, p<.05$) and formal instruction was significant for many of the participants and was frequently enhanced by a self-study method ($F(4)=4.179, p<.05$). Some participants reported that speaking or using the Chinese language influenced their thinking or behaviour

in ways aligned with Chinese culture. thought processes. Also, learning the Chinese language also somewhat impacted the participants' perceptions of Chinese culture. Furthermore, the majority (77%, $n=55$) of participants reported at least some Chinese words or phrases without direct equivalence in their native language (L1). The results highlighted how crucial participants felt it was to intertwine culture into language education settings. Among the participants, those who emphasised cultural learning's importance within CFL learning also reported a stronger impact of language learning on their cultural perceptions ($r=.292$, $p<.05$). This shows that when educators make cultural elements a priority in their teaching in CFL learning settings, it significantly enhances CFL learners' cultural awareness and understanding of Chinese cultures.

Regarding the participants' perception of the importance of learning Chinese cultural aspects, over half of the sample (51%, $n=36$) reported that learning about Chinese cultural aspects alongside the language is very important. However, regarding the participants' Chinese language learning setting, the extent of Chinese cultural incorporation was reported to vary. This suggests that while Chinese cultural elements are present in many Chinese language programs and Chinese learning settings, the depth of integration differs widely among CFL learners. Participants' levels of cultural knowledge correlated positively with their age, with older groups of participants' reports showing significantly higher levels of cultural knowledge ($r=.281$, $p<.05$). Age also positively correlated with Chinese proficiency, with older participants reporting higher Chinese language proficiency levels ($r=.356$, $p<.01$). Participants from Asia showed the highest average Chinese language proficiency, followed by those from the Americas and Europe ($F(4)=6.506$, $p<.05$).

The mean score for level of knowledge of Chinese culture for the whole sample of participants 3.6 out of a possible score of 5. The participants reported significantly higher levels of knowledge of Chinese culture regarding the categories of Chinese food ($M=3.6$), cultural relic collection ($M=2.9$), traditional festival ($M=2.9$), ideas ($M=2.7$), Chinese tea ($M=2.7$), metaphors & traditional rules ($M=2.5$), lifestyles ($M=2.5$), and religion ($M=2.5$). Conversely, the participants reported significantly lower levels of knowledge of Chinese culture regarding the categories of Chinese Ethnic Groups ($M=2.4$), nonverbal Language etiquette ($M=2.3$), Ideology ($M=2.3$), Ethnic customs ($M=2.2$), Education ($M=2.2$), Values ($M=2.2$), Philosophy ($M=2.1$), Mythology ($M=2.0$), Art ($M=1.8$), Literature and Literature figure ($M=1.7$).

These findings highlight that cultural knowledge for language learners is a multi-dimensional phenomenon and a complex process, shaped and influenced by various factors, including, significantly, by linguistic proficiency, heritage, experiential engagement, cultural background, teaching methods, and the duration of CFL study. In Chapter 7, the research study's key findings are discussed in the context of the existing literature and the theoretical framework.

Chapter 7 Discussion and Conclusion

7.1 Introduction

In this chapter, the results of this study are outlined in relation to the research question and they are discussed in the context of the existing literature and the theoretical framework for the study. The contribution of this study to the existing literature is outlined, the limitations are discussed and recommendations for future research are provided in this chapter.

7.2 Overview of the study's theoretical framework

The following theories were included in the theoretical framework for this study: Sapir-Whorf's Linguistic Relativity Theory (1929a) , Vygotsky's Sociocultural Theory (1978 ; 1987) and Bronfenbrenner's Bioecological Systems Theory (2005a). Bronfenbrenner explains "what kind of environment CFL learners experience", Vygotsky explains "how CFL learners interact and learn", and Sapir-Whorf explains "what kind of cognitive framework CFL learners acquire as a result of learning Chinese". Suppose this is the CFL learners' journey of forming Chinese cultural knowledge from these three perspectives. CFL learners come from various individual social environments and cultural backgrounds. These environments provide various opportunities and constraints. CFL learners acquire and internalise cultural knowledge through social interactions, such as talking with parents (Chinese heritage, N/A), learning from teachers, discussing with Chinese friends, and interacting with local Chinese people, including Chinese neighbours. During this process, the language plays an important role as a means of mediation. The cultural knowledge acquired in this way is not a simple listing of information about a country, but rather it is the acquired ability to understand the world from the perspective of that culture.

As a result, the CFL learners acquire a new frame of thought through social processes that are transformative under the influence of multiple environments. In theoretical terms, the macro-cultural environment, including other systems (Bronfenbrenner, 2005a), leads to changes in the CFL learners' cognition (Sapir, 1929a) through the social learning processes (Vygotsky, 1978 ; Vygotsky, 1987). In the following sections of this chapter, the key findings are discussed in the context of this theoretical

framework and the existing literature to address the research question for this study which was as follows: *How do linguistic proficiency, learning experiences, cultural background, and other contributing factors influence CFL learners' levels of knowledge of Chinese culture?*

7.3 Key Findings

This study identified seven key findings related to CFL learners' levels of knowledge of Chinese culture, and they are displayed in relation to participants' linguistic, learning and cultural backgrounds in Figure 7.1.

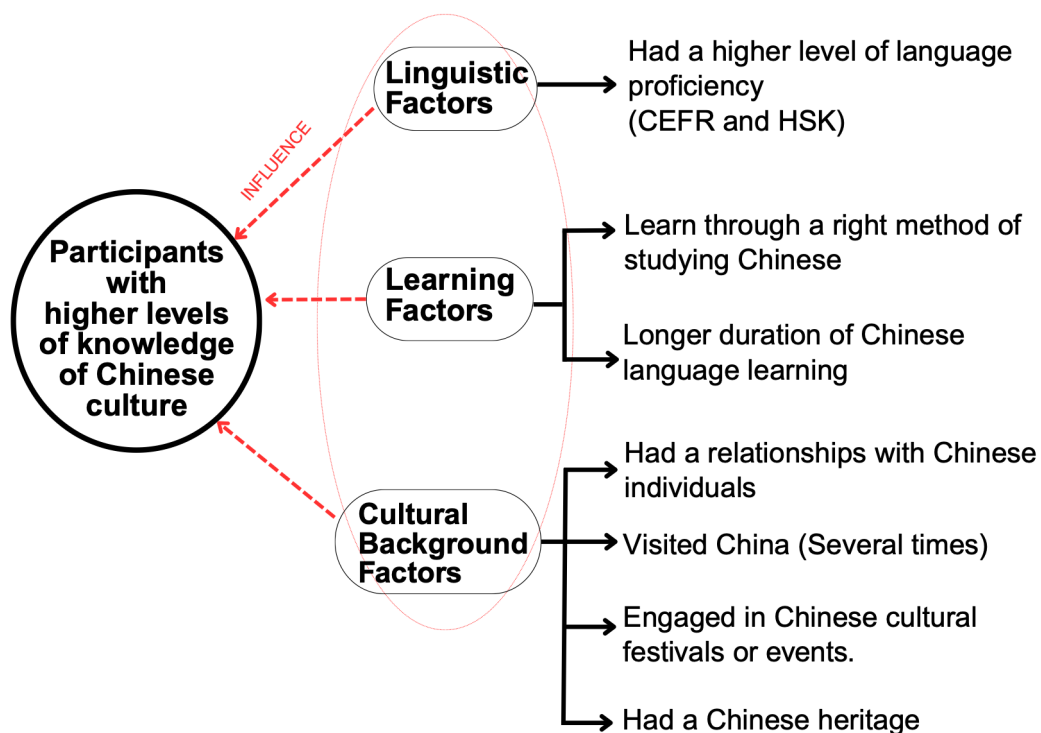


Figure 7.1 Key Factors for Participants with a High Level of Knowledge of Chinese Culture

The factors linked to the participants' levels of knowledge of Chinese culture were multifaceted and included linguistic, learning, and cultural background factors, which influenced the participants' Chinese cultural knowledge. The seven main findings of this research study were as follows:

1. The first main finding of this study was that participants with higher Chinese language proficiency (HSK) had higher levels of knowledge of Chinese culture.

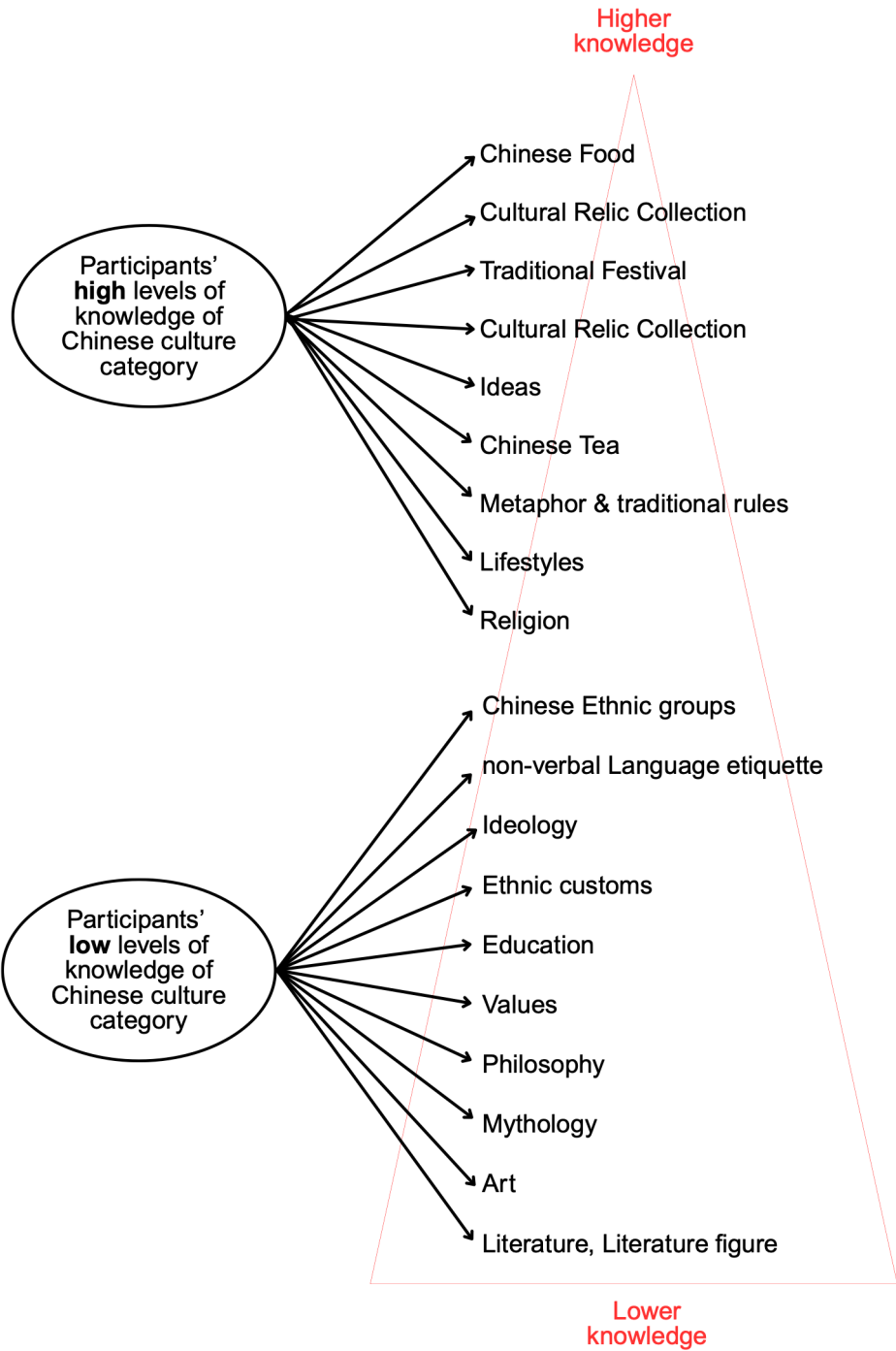
2. The second main finding of this study was that the longer the participants learned Chinese, the higher their level of knowledge of Chinese culture.
3. The third main finding of this study was that participants' high level of Chinese cultural knowledge depended on their method of learning Chinese.
4. The fourth main finding of this study was that participants who had previously visited China had higher levels of knowledge about Chinese culture.
5. The fifth main finding of this study was that participants who had engaged more in Chinese cultural festivals or events had higher levels of knowledge of Chinese culture.
6. The sixth main finding of this study was that participants who had personal relationships with Chinese individuals had higher levels of knowledge about Chinese culture.
7. The seventh main finding of this study was that participants with an identification with Chinese heritage have higher levels of knowledge of Chinese culture.

The following subsection discusses these findings related to participants' levels of knowledge of Chinese culture and the factors linked to their knowledge levels in the context of the Bioecological, Sociocultural, and linguistic theoretical perspectives.

7.4 Addressing the Research Question

This section directly addresses the research question: *How do linguistic proficiency, learning experiences, cultural background, and other contributing factors influence CFL learners' levels of knowledge of Chinese culture?* The results of a comprehensive assessment of the research participants' level of knowledge of Chinese culture showed that the mean score indicated a higher than average level of knowledge overall for the entire research sample. Figure 7.2 displays a model that categorises participants' knowledge of Chinese culture, broken into high knowledge and low knowledge categories. This model was developed by interpreting and synthesising the participants' mean scores on the elements of Chinese culture that were measured in this study. The mean scores for these

elements of Chinese culture were sorted from high (mean score of 2.5 or higher) to low (mean score below 2.5) on the item sets from the survey for the cultural knowledge



elements.

Figure 7.2 Participants Reported High and Low Categories of Levels of Knowledge of Chinese Culture

Participants had a relatively high level of knowledge about well-known Chinese traditional and modern popular culture categories. Their knowledge about historical events

or deep social and cultural contexts, however, was relatively limited. For example, most participants had higher knowledge about Chinese food, cultural relic collection, traditional festivals, ideas, Chinese tea, metaphors, traditional rules, lifestyles, and religion. Participants, however, often had very limited knowledge of specific events in Chinese history or regional cultural differences, such as Chinese ethnic groups, nonverbal language etiquette, ideology, ethnic customs, education, values, philosophy, mythology, art, literature and literature figures.

These results suggest that participants had some superficial exposure to Chinese culture and relatively limited opportunities for in-depth Chinese cultural learning. These results suggest that CFL participants' learning backgrounds and environments have a significant impact on their level of Chinese cultural knowledge. Depending on the extent to which Chinese cultural elements were included in participants' Chinese classes and learning environment, participants' knowledge about different areas of Chinese culture differed. The more Chinese cultural elements were included in the participants' learning environment settings, the bigger the impact on the participants' cultural perceptions. Moreover, participants who learned Chinese mostly through formal classes, with occasional self-study, and those who learned it through an equal mix of self-study and formal classes, reported integration of elements of Chinese culture into their learning settings than those participants who learned Chinese mostly through self-study. The more that learning Chinese cultural aspects was important in Chinese language study, the more participants reported that their perception of Chinese culture was impacted by their Chinese language learning. The results also indicate that participants' opinions on the importance of learning Chinese cultural aspects while learning the language correlated positively with the impact of Chinese language learning on their cultural perception. This suggests that learners who value cultural learning were more likely to experience perspective transformation through language learning. This aligns with (Dörnyei & Al-Hoorie, 2017) research on motivation in language learning, which found that learners' attitudes toward the target language culture influence their engagement with cultural content and, thus, their cultural learning outcomes.

Participants' mode of learning the Chinese language is linked to their levels of exposure to different elements of Chinese culture. Vygotsky's Sociocultural Theory (1978) emphasises collaborative learning and co-construction of knowledge. The results of the

current study suggest that the method of learning Chinese can significantly affect participants' levels of Chinese cultural knowledge. Asian learners benefited more from participating in mostly formal classes and had a significantly higher level of knowledge of Chinese culture than Asian participants who mostly self-studied Chinese. In contrast, European and American learners, who mostly learned the Chinese language through self-study, had slightly higher mean scores for knowledge of Chinese culture than European participants and American participants who mostly studied the Chinese language through formal classes; however, these differences were not statistically significant. These differences in Chinese language learning methods between participants from different continents can be interpreted with Hofstede's (2011) cultural dimensions Theory of individualism versus collectivism. According to Hofstede's (2011) study, learning in collectivist cultures, which are common in the continent of Asia, often occurs in a social context with a clear and formal structure, and learners may include cultural learning as part of belonging to a group or meeting group expectations (Nguyen et al., 2009; Volet & Ang, 2012). This finding can be interpreted through Holliday's (2018) 'small cultures' framework, which recognises that learning preferences and effective pedagogical approaches may differ among different cultural groups. The effectiveness of formal instruction for Asian learners might reflect educational traditions that emphasise structured learning environments (Jin & Cortazzi, 2017). In contrast, the success of self-directed learning among Western participants may align with educational philosophies that value learner autonomy (Little et al., 2017).

Despite the fact that Asian participants demonstrated significantly higher levels of Chinese cultural knowledge, Asian participants reported significantly stronger initial experiences of culture shock when first encountering Chinese culture than participants from other continents. This pattern may be interpreted through the lens of perceived cultural proximity. CFL learners from Asian contexts may assume a degree of shared cultural heritage with China, particularly in relation to Confucian values, collectivist orientations, educational practices, lifestyles and historical interconnections. Such assumptions can generate expectations of familiarity and cultural continuity for the Asian CFL learners of participants. When these expectations are confronted with lived differences, whether in communication styles, social norms, institutional practices, or contemporary sociopolitical realities, the resulting disconfirmation may produce intensified and higher culture shock, in this sense, cultural proximity does not necessarily ease against confusion (Spencer-

Rodgers et al., 2010). It may heighten sensitivity to divergence when expected similarity is not realised. This expectation-dissonance dynamic provides a possible explanation for why Asian CFL learners of participants reported stronger reported significantly stronger initial experiences of culture shock despite having higher levels of cultural knowledge. On the contrary, Western CFL learners may approach Chinese culture with fewer or without assumptions of similarity. The absence of expected cultural continuity may reduce the psychological impact of difference, as divergence is expected rather than surprising. Therefore, culture shock in this result may reflect objective cultural distance, and subjective expectations shaped by regional narratives of cultural relatedness. This finding suggests that intercultural adaptation is influenced by knowledge acquisition or motivation type, and the alignment or misalignment, between expected and experienced cultural realities.

This result also suggests that Asian participants tended to learn the Chinese language as part of social belonging or as part of a community, as, according to recent research, more than half of the HSK (Hanyu Shuiping Kaoshi, Chinese proficiency test) Chinese proficiency test takers were Korean (Paik, 2018; S. Wang, 2021). However, according to this research result, when Asian continent participants actually encountered Chinese culture, they may have experienced unexpectedly stark cultural differences (De Mente, 2012) or strong Chinese cultural characteristics as a culture shock (Chen, 2021; Jang, 2012). In Western cultures that value individual autonomy more, learners are more likely to pursue personal goals and self-directed projects (Lee, 2006), and language learning tends to be treated as a personal growth activity rather than as a collective effort (Kennedy, 2002). Asian learners were more integrated into the social education system, while Western learners often acted more as independent agents in their own academic growth and cross-cultural curiosity.

These research findings suggest that regardless of the approach used, if one learns through a more appropriate method that suits the individual learner, one can achieve a higher level of knowledge of Chinese culture. This finding supports the existing literature, which indicates that if learners adopt a learning method or system that does not suit them, it is highly likely to result in negative learning outcomes (Eom et al., 2006). For example, Asian students who are placed in self-directed learning and self-study learning environments may lose their learning direction or become less motivated (Al-Qahtani & Higgins, 2013; Linh & Van Loi, 2024). Thus, optimal learning environments for language

learners result in higher levels of cultural knowledge. These findings underscore existing literature in educational psychology that found that learner autonomy is perceived differently depending on culture (Ahmed & Hossain, 2024; Ivanovska, 2015; Palfreyman, 2003).

These results from most of the participants for the European and American continents reflect the complexity of social interactions that occur in a variety of learning contexts. According to Vygotsky's view, learning is very often a social endeavour, but the nature and effectiveness of that social interaction can vary depending on cultural context and individual factors (Vygotsky, 1978 ; Vygotsky, 1987). While formal class settings provide scaffolding opportunities for collaborative interaction with teachers and fellow learners (Rachels & Rockinson-Szapkiw, 2018), self-study such as, TicTok, Duolingo, AI tools and other educational and social media application can give CFL learners the self-sufficiency to adapt their learning to their own cultural backgrounds, language levels, and interests (Hong, 2023; Shadiev et al., 2017; Wang et al., 2019), such as those from the European and American continents, who were particularly exposed to Chinese culture and the Chinese language mostly through self-study, and still had significantly high levels of Chinese cultural knowledge. These results demonstrate that they are likely to be exposed to idiomatic expressions, Chinese Metaphors and traditional rules, cultural relic collection, Ethnic groups, Ethnic customs, and nonverbal Language etiquette, which opens new perspectives and new windows on Chinese values and historical stories and improves their awareness of Chinese cultural concepts at a different level from general and traditional textbooks.

In addition, the participants' diverse learning methods significantly impacted their levels of knowledge of Chinese culture, and their levels of Chinese cultural knowledge also differed depending on the learning period. It is interpreted that each learning method had a positive effect on the learners. For example, students who learn through independent self-learning online can study according to their preferences and optional topics, adjusting the learning effect and progress as needed (Chen et al., 2017; Shadiev et al., 2017; Zhang & Zou, 2022). This allows them to learn optimally through customised learning, thereby increasing their learning motivation (Wang et al., 2019). Some participants demonstrated extensive knowledge of Chinese culture, comparable to that of native Chinese people, while others possessed only a limited understanding of Chinese culture. These results can be

interpreted as being the result of not only the learner's learning style but also other external factors surrounding the learner. However, the result showed that the longer the period of participants' Chinese language learning, the higher their levels of knowledge of Chinese culture. Furthermore, the more time the participants spent studying Chinese per week, the greater the impact of Chinese language learning on their Chinese cultural perspectives. The way participants were exposed to Chinese culture varied, and the complex factors of individual differences also played a significant role in participants' levels of knowledge of Chinese culture.

Another key concept in Vygotsky's Sociocultural Theory (1978) is the mediation of learning by cultural tools and language is one of the most important cultural mediating tools, playing a part in structuring learners' thinking and learning. The results of this study showed that CFL participants with higher Chinese language proficiency (HSK) also had higher levels of knowledge of Chinese culture. These results support Vygotsky's view that language is more than just a tool for communication; it is a medium for conveying cultural meanings and perspectives. In learning Chinese, learners acquire vocabulary and grammar and internalise the conceptual system and worldview of Chinese culture (Pennycook, 2000; Xing, 2006; Xing, 2010). For example, among the participants from the Asian continent, the difference in Chinese cultural knowledge between the high Chinese language proficiency group and the low Chinese language proficiency group was small. However, for the participants from the European continent, the level of Chinese cultural knowledge in the high Chinese language proficiency group was relatively high, while the level of Chinese cultural knowledge in the low Chinese language proficiency group was lower, and this difference between the two groups was statistically significant. Similarly, participants from the American continent had a higher level of Chinese cultural knowledge in the high Chinese language proficiency group, while the level of Chinese cultural knowledge in the low Chinese proficiency group was lower, showing a significant difference between the two groups. For example, the finding that Asian participants, particularly those from Korea and Japan, showed different levels and patterns of cultural knowledge compared to the European and American participants supports studies on cultural distance and its impact on intercultural learning (Kennedy, 2020; Kim, 2001).

However, overall, regardless of the participants' country of origin and their linguistic and cultural backgrounds, the CFL participants with higher linguistic proficiency

had significantly higher knowledge of Chinese culture. This finding underscores Sapir-Whorf's Linguistic Relativity Theory (1929b), which states that language gives a broader worldview, which can be interpreted as wider linguistic ability is linked to having a broader worldview, which leads to a broader understanding of culture (Everett, 2013; Train, 2003; Underhill, 2009). These findings are in line with the study by Kangwon-gu (2014) argued that learning a language is equivalent to learning about a comprehensive culture because it includes the target language society, nation, behavioural patterns, lifestyle, way of thinking, values, and consciousness, and on top of the research Javor (2016) the objective language, culture, and people also improve their capacity for intersubjectivity and perspectives. Thus, it proved that CFL learners with a high level of Chinese language proficiency have a high level of Chinese cultural knowledge as a result. This finding suggests that learning the Chinese language and learning Chinese culture often go hand-in-hand, each potentially reinforcing the other. Language proficiency provides access to cultural content (e.g. through literature, media, or conversations with native speakers), which may explain why more proficient learners have acquired deeper cultural knowledge. This finding is closely linked to the research finding by Schulz (2007) which suggested that language learning and cultural competence are fundamentally intertwined. This view is supported by the current research results, which suggest that participants' Chinese language proficiency significantly impacts CFL learners' levels of knowledge of Chinese culture. Also, learning a foreign language introduces learners to multiple aspects of the culture related to the target language (Saricoban & Caliskan, 2011; Sato et al., 2025)

These findings underscore that learners' linguistic and cultural background factors have an important effect on their understanding and knowledge of the target culture and language (Wang & Wang, 2022). Learners' Chinese language proficiency and cultural background have an interactive effect, and the closer the background culture of CFL learners is to Chinese culture, the more positive the influence is. CFL learners use their linguistic and cultural knowledge of the target language (Wang & Wang, 2022), and the connection of historical and cultural roots and continuous contact between countries have a profound impact on culture (Y. Wang et al., 2022), and these factors are linked to CFL learners' acquisition and understanding of cultural knowledge. This finding suggests that the continent of origin, and the associated cultural milieu, is an important factor linked to the amount of Chinese cultural knowledge CFL that learners reported having. This finding aligns with Byram and Wagner's (2018) argument that language and cultural competence

develop together and reinforce each other. As learners improve their language skills, they develop deeper cultural insights, forming a mutual relationship between linguistic and cultural learning.

Participants with higher levels of Chinese cultural knowledge were better able to think of Chinese words or phrases that did not have direct equivalents in their native language. This is especially true for participants from Europe and America whose cultural backgrounds are often quite different to the Chinese culture. The positive correlation between Western CFL learners' Chinese language proficiency level and their levels of knowledge of Chinese culture strongly supports the idea that language learning and cultural learning are closely related. CFL learners with higher Chinese language proficiency have substantial knowledge of Chinese culture, ranging from classical Chinese texts and idioms to modern media and lifestyle of native speakers, and thus, it can be inferred that they have access to a wide range of Chinese cultural content.

This study identified several learning factors that were significantly correlated with the cultural knowledge level of CFL learners. In particular, the duration of Chinese language learning was a strong predictor of cultural knowledge, with a significant positive correlation. This finding supports the longitudinal nature of cultural acquisition proposed by Deardorff (2020), who argued that cultural competence develops progressively through sustained engagement with the target language and culture. The significant correlation between the duration of learning and cultural knowledge highlights the long-term commitment to CFL education. For example, according to the research by Deardorff (2008), the intercultural competence model, language ability contributes more to the deep and interpretive aspects. CFL Learners with relatively low Chinese proficiency or who had studied Chinese for a short period of time may know superficial popular Chinese cultural elements. In contrast, participants with relatively high Chinese proficiency or who had studied Chinese for a long period of time may know more Chinese cultural elements in the same category. This distinction was clearly evident in the results of the current study. Learners with higher Chinese language proficiency showed higher levels of comprehensive Chinese cultural knowledge in all categories of Chinese cultural elements. Linguistic ability can accumulate subtle Chinese cultural knowledge. This is consistent with research by cognitive and linguistic scholars, such as supporters of Linguistic Relativity Theory (1929b), which suggests that language proficiency expands conceptual frameworks

(Liddicoat & Scarino, 2013). Language is more than just a means of communication; it serves as a gateway and window into the culture in which it is used (Bonvillain, 2019; Rabiah, 2018). As CFL learners in the process of learning Chinese, participants inevitably come into contact with various Chinese cultural knowledge (Dainian & Zhang, 2002). For example, if they learn Chinese idioms and proverbs, they will learn about the historical stories of China, Chinese thought, and Chinese philosophy that serve as the background, which will lead to an understanding of Chinese values and wisdom (Lai, 2017; Wong, 2008). In addition, since they can directly access literary works or media content through language, they can acquire information about Chinese culture from the perspective of an insider in the Chinese-speaking world, unlike indirect knowledge gained through superficial textbooks or translations.

The differences in the preference for learning methods, duration of learning, and experience with learning language and culture patterns observed among groups of CFL participants from diverse cultural backgrounds highlight the importance of considering learners' starting points in cultural learning. As Holliday (2018) argued, learners approach new cultures through their own cultural frameworks, which can facilitate or obstruct their understanding of certain aspects of the target culture. For example, the cultural concept of Ying and Yang (阴阳), the two complementary forces that make up all aspects and phenomena of life, for which participants scored a higher knowledge level, encompasses the actual process of the universe and all that is in it. Ying and yang are depicted as the light and dark halves of a circle (Wang, 2013). The fact that the participants showed a high level of knowledge in these Chinese cultural categories may indicate that the participants with high cultural knowledge did not simply know a lot of factual information but had a way of thinking that showed an understanding of the Chinese cultural context. This result aligns with research by Boroditsky (2001), which suggested that Mandarin Chinese speakers and English speakers think about time differently due to differences in language. Mandarin Chinese speakers use vertical metaphors for time, such as (up and down), to influence temporal reasoning. As CFL learners become more fluent in Chinese, Western CFL learners might internalise cultural concepts related to these linguistic structures. Also, another example that participants scored a higher knowledge level is the cultural concept of Hong Bao (红包), which is a red envelope with money in it symbolising a gift of money packed into a red packet. Red is considered a symbol of luck, life and happiness. Hong

Bao is given as tokens of good wishes during auspicious occasions such as the Chinese New Year and wedding days (Lockett, 2024; Saxena, 2024). For example, in terms of having a high level of knowledge of these Chinese cultural elements, participants tended to consider the surface when looking at Chinese behaviour or social phenomena, and they also likely considered the values and customs behind them. This can be interpreted as the ability to read the context of the culture as if they knew the “language” of that culture. This ability to understand the context is partly facilitated by language acquisition, but it suggests that it is not limited to language, but rather is the result of learning the deep meaning system of Chinese culture as a whole.

Among the three factors that were entered into the multiple regression model, linguistic, learning, and cultural background, only the linguistic factor showed statistical significance across the total participant sample. This result suggests that the linguistic factor had the greatest overall influence on the participants’ level of knowledge of Chinese culture. Pearson’s correlation analysis showed that there was a significant positive relationship between cultural knowledge and the three predictor variables (factors), with the linguistic factor showing the strongest correlation, followed by cultural background and learning factor. According to Whorf (Whorf, 1997), the grammatical system of each language is a frame of thought, and it emphasise that the segment the world along the lines set by our native language. This means that different languages can have different ways of understanding and categorising the world. A person who speaks Chinese fluently naturally accepts the unique conceptual system, classification method, and expression style contained in Chinese, which means that a frame of thought for understanding Chinese culture is formed. Furthermore, as Kozulin (2018) highlighted, language learning provides access to new cultural meaning systems, which shape learners' cognitive development and cultural understanding. Also, when the participants more able to think of the survey question of the Chinese words or phrases with no direct equivalent in the participants’ native language, the participants showed that they had higher Chinese proficiency and they were more likely to complete the survey in the Chinese version. Participants with higher Chinese proficiency were also better able to distinguish between simplified and traditional Chinese. This result connects directly to Linguistic Relativity, demonstrating their awareness of culturally bound meanings, reflecting a Whorfian effect where language provides concepts that might not exist in the CFL learner’s native language.

The results showed a significant correlation between the impact of Chinese language learning on participants' perception of Chinese culture and their level of Chinese cultural knowledge. The impact of Chinese language learning on participants' perception of Chinese culture was significantly correlated with participants' perceptions of the importance of learning the cultural aspects of the Chinese language. This supports Vygotsky's view that language learning mediates changes in cultural awareness. These cultural elements can be understood as lexical items and concepts that form a profound interpretation of Chinese culture. The higher Chinese cultural knowledge scores of learners who are proficient in Chinese language skills reflect this. That is, the results indicate that CFL learners gain insight into Chinese thinking and Chinese cultural logic through language. This underscores the findings from Lucy (1997) who reviewed evidence that grammatical and lexical differences between languages, that is, the way languages categorise objects or relationships, can direct speakers' attention to different aspects of reality. In this context, CFL learners with higher Chinese language proficiency are more likely to notice and learn about cultural differences, such as Chinese ideology and Chinese lifestyles, than learners with lower Chinese language proficiency. This reflects Lucy's (1997) concept of structure-centred relativity, as acquiring the structure and underlying meaning of the Chinese language enables CFL learners to develop new cognitive structures. Other studies have reported similar empirical findings. For example, Bialystok (2017) argued that bilinguals adjust their cognitive processes to the language they speak, resulting in systematic modifications of the brain and cognitive systems as a result of their bilingual experience. According to this view, it is possible that CFL learners have adapted to Chinese language patterns by learning Chinese and speaking both Chinese and their native language, as the result indicates participants with higher Chinese proficiency were more able to distinguish between simplified and traditional Chinese, and as mentioned above, participants with higher Chinese proficiency were significantly better able to think of Chinese words or phrases that did not have a direct equivalent in their native language, which may have improved their ability to perceive Chinese cultural patterns and elements. This acculturation may manifest itself as improved attention to cultural elements when switching cultural norms or increased cross-cultural tolerance, which are skills related to exploring new cultures (McChesney et al., 2015). These results, when interpreted through the lens of the theoretical framework and the existing literature on language and culture, highlights the inextricable links between language and cultural thinking supporting Sapir-Whorf's (1929b) claim that language shapes thought. It is clear that Chinese language

learning significantly contributes to the restructuring of CFL learner's thinking to better align with Chinese cultural perspectives.

Although a learner's individual language ability has an important effect on cultural knowledge, as the research results from the current study indicate, learners' social context and surrounding environment also significantly impact the CFL learners' level of Chinese cultural knowledge. Viewing the results through the lens of Bronfenbrenner's Bioecological System Theory (2005a), the findings can help understand how those environmental factors, such as travel to China, living with Chinese people, Chinese language learning environment, personal relationships with Chinese people, presence of Chinese cultural heritage background, and through the "individualism versus collectivism" (Hofstede, 2011, p. 8) social environment, affected CFL participants' level of Chinese cultural knowledge. These findings suggest that CFL learners' level of knowledge of Chinese culture is a complex and multifaceted process influenced by interconnected factors within linguistic, learning, cultural background, and other demographic areas. This complexity is consistent with Deardorff's (2020) process model of intercultural competence, which conceptualises cultural learning as a dynamic and ongoing process. The significant correlations between language proficiency, duration of study, cultural contact, and level of cultural knowledge support Byram's (2020) model of integrated intercultural communication competence, which assumes that language proficiency, cultural knowledge, and intercultural skills develop together. The research findings suggest that effective CFL instruction should address these dimensions simultaneously and recognise their interdependence. For example, while some CFL learners of the participants had a detailed cultural knowledge of the Chinese local lifestyle and culture due to their personal experience, such as studying abroad in China, visiting China several times, living with Chinese people, having Chinese friend, having Chinese heritage other participants had only fragmentary or sometimes stereotypical knowledge of Chinese culture due to their exposure to mass media such as social media applications or secondary information.

All three variables, linguistic, learning environment, and cultural background, were significantly correlated with the participants' level of Chinese cultural knowledge. In other words, the closer the participants' cultural background was to the Chinese culture, the higher their Chinese language proficiency was, and the richer their learning experiences (especially direct experiences related to China), the higher the participants' level of Chinese

cultural knowledge tended to be. It is also important to highlight that language learning is rooted in a specific Sociocultural context (Lantolf & Poehner, 2012, 2014; Lantolf et al., 2014). An individual's cultural background shows the cultural environment in which the individual grew up, experienced, and was socialised, which was found to have a very significant impact on the CFL participants' levels of knowledge of Chinese culture. For example, participants with a Chinese heritage cultural background are likely to have some level of Chinese proficiency and have had more exposure to Chinese culture, for example, through use at home or in a bilingual environment. The results of the multiple regression analysis conducted in this study showed that cultural background, language ability, and learning experience each independently had significant predictive power. This explains that each factor contributed independently in its own unique way, suggesting that cultural knowledge is shaped through language use, learning experiences, and their prior cultural background, even though these elements overlap in practice, and the influential factors on the participants' level of Chinese cultural knowledge varied by continent.

According to the results, Asian participants, the regression model significantly explained the variance in cultural knowledge. Cultural background showed as the strongest predictor, indicating that prior exposure to Chinese culture within participants' sociocultural environments was most influential in shaping their Chinese cultural knowledge, followed by the linguistic factor. Correlation analysis demonstrated this pattern; cultural background showed the highest and most significant positive correlation with levels of knowledge of Chinese culture, followed by the learning factor. However, in Pearson and Spearman analyses, the linguistic factor did not show a significant correlation. These findings suggest that cultural background factors were the most decisive in determining Asian participants' levels of Chinese cultural knowledge. For European participants, the regression model demonstrated the most influential explanation overall, and cultural knowledge significantly predicted the outcome. The linguistic factor was a highly significant predictor, followed by the learning factor, while the cultural background factor was not a significant predictor of higher levels of cultural knowledge. In the correlation analysis, the linguistic factor showed the strongest and most significant positive correlation with their levels of knowledge of Chinese culture, followed by the learning factor. The cultural background factor was only significant in Spearman's analysis, but not in Pearson's analysis. For participants from the Americas, the regression analysis showed no statistically significant results for individual predictor variables, including linguistic,

learning, and cultural background factors, and no significant group differences were observed for this cohort. In terms of relative order, the predictors followed the sequence of language factor, learning experience factor, and cultural background factor. According to the correlation analysis, the linguistic factor showed a statistically significant positive correlation with the levels of knowledge of Chinese culture, followed by cultural background and the learning factor. Spearman correlation was also conducted due to the smaller sample size, but this analysis similarly found no significant associations between predictor variables and cultural knowledge in the American participant group. Figure 7.3 below categorises the factors that had the most significant influence on participants' Chinese cultural knowledge level by continent.

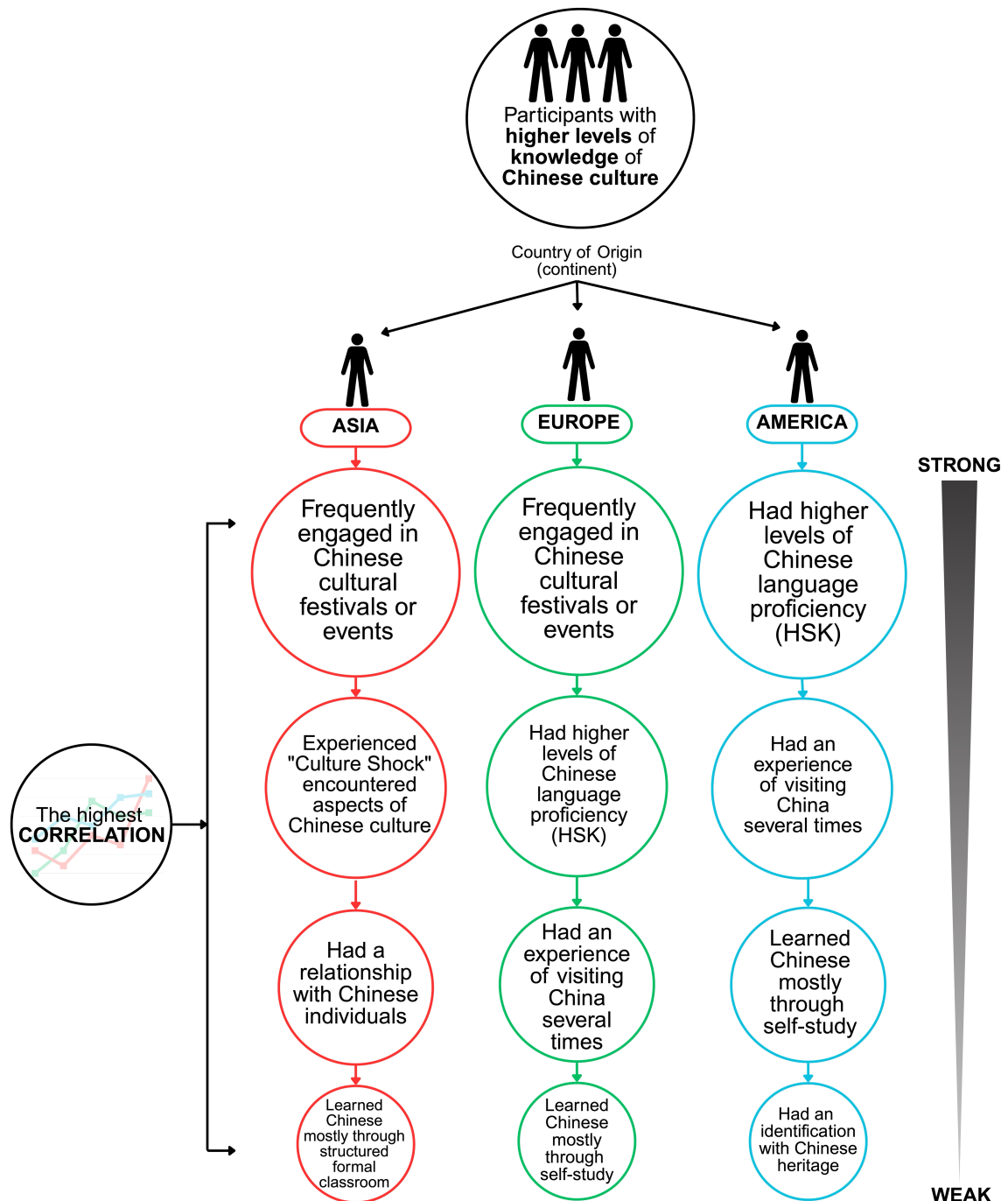


Figure 7.3 Participants' Statistical Results Outlined by the Most Significant Correlations Between the Specific Factors and Knowledge of Chinese Culture by the Continent

The cultural background factor and linguistic factor for participants from all continents had a relatively large influence, and learning experience was also significant but relatively low. These results suggest that the accessibility of the participants' home environment and cultural background, as well as their culture of origin and their personal linguistic and cultural experience environment, are key foundations for forming their level of knowledge of Chinese culture, and that the participants' experience of learning Chinese

culture served as a factor leading to additional growth. Participants' engagement in Chinese cultural festivals or events also significantly correlated with Chinese cultural knowledge levels. The participants, those from Asia and Europe likely had participated more frequently in Chinese cultural festivals and events and these experiences contributed significantly to their level of Chinese cultural knowledge. This finding supports Hua and Kramsch's (2016) argument that participation in cultural practices provides access to the symbolic dimensions of culture that may not be accessible through explicit instruction alone. Cultural festivals and events offer opportunities for learners to experience the affective and performative aspects of culture, engaging intellectually and emotionally with cultural practices (Dervin & Gross, 2016).

The study also found a significant correlation between the influence of popular cultural elements on participants' levels of knowledge of Chinese culture for the whole sample. This result aligns with recent research by Hua and Kramsch (2016), highlighting the growing importance of popular culture as a pathway to cultural learning, particularly for younger language learners. Exposure to Chinese films, music, literature, and digital social media can provide learners with insights into contemporary Chinese cultural values, social issues, and linguistic practices that complement traditional cultural learning approaches. According to a study by Byram and Wagner (2018), active participation in cultural exchanges or community-based cultural events can help foreign learners gain a deeper understanding of the target country's intercultural awareness and improve practical language skills. The social and environmental contexts inherent in cultural festivals or events provide CFL learners with a genuine opportunity to use their Chinese language skills in meaningful interactions with Chinese culture and to experience and feel similarities and differences between the cultures as more practical and authentic communication experiences, thereby enhancing the comprehensive CFL learning process. Dall'Alba and Sidhu (2015) underscored, direct cultural exposure significantly shapes Sociocultural identity, allowing for the adoption of more sophisticated linguistic expressions and cultural interpretations. Their study supports the current study's finding that culturally engaged learners achieve higher levels of cultural knowledge due to their active engagement in the culture of the country of the language in a deeper Sociocultural target cultural context. Also, the teaching strategies recommended Kuo and Lai (2006) , such as the use of cultural capsules and comparative analysis through proverbs and part-playing for interaction, were indirectly verified by the results of this study. Participants who actively participated in

cultural exchange events had improved cross-cultural awareness and thus had higher levels of Chinese cultural knowledge, which reflects the practical significance of integrating cultural pedagogy and language education. These results support the existing literature that advocates the value of direct participation experiences, such as cultural festivals and social activities, and immersion in culturally rich environments and systems in foreign language learning (Jingyi & De Dios, 2025; Kana 'iaupuni et al., 2017; Kearney, 2010). They emphasise that active participation in culturally rich environments improves cultural awareness of the target language and improves linguistic accuracy and practical skills, providing essential insights into effective foreign language teaching practices.

It is interesting to note that 92% of the participants said that they had some form of a relationship with Chinese people, including friends, colleagues, neighbours, and partners. The learning experience through direct communication with Chinese people by these participants is a concept that encompasses formal education and informal learning activities, which indicates that the participants likely encountered and learned about Chinese culture through their personal relationships. These results support the importance of social interaction emphasised in Vygotsky's Sociocultural Theory (1978). According to Vygotsky (1978), interactions with native speakers, constructing knowledge, and interacting with culturally knowledgeable individuals of the target language serve as essential moments (Alkhudiry, 2022; Sarmiento-Campos et al., 2022) for CFL learners to internalise complex cultural and linguistic nuances, which is closely consistent with the results of the present study. This also highlights Kinginger's (2011) finding that personal relationships with native speakers of the target language can significantly improve the power of the culture beyond mere linguistic ability. Thus, learners' personal relationships facilitate access to culturally embedded knowledge that is often not adequately provided in formal educational and learning environments. In this context, Gómez Rodríguez (2015) also emphasised that incorporating substantive cultural elements and promoting intercultural awareness development among foreign language learners can facilitate continuous and meaningful interactions with native speakers. The level of practical interaction and understanding of the target language country beyond shallow cultural elements is a significant key when studying a foreign language (Gómez Rodríguez, 2015). This is especially true for the concept of mediated learning through social interaction, which provides a theoretical basis for this result. Vygotsky's Sociocultural Theory (1978) emphasises that learning occurs within a Sociocultural context.

Participants' direct interaction with Chinese people and their participation in cultural activities provide scaffolding (1976) for learners to reach levels of cultural understanding that would be difficult to achieve on their own (Fani & Ghaemi, 2011). As Lantolf et al. (2014) argued, these social interactions do more than transfer knowledge, they facilitate the process by which learners co-construct and internalise cultural meaning. This indicates that direct exposure to the target language culture has a significant impact on the cultural perspectives of CFL learners. These results demonstrate the importance of contextualised learning, which Vygotsky's Sociocultural Theory (1978) and other theorists emphasized that language learning is rooted in a specific Sociocultural context (Lantolf & Poehner, 2012, 2014; Lantolf et al., 2014).

The study also found that CFL participants' experience of visiting China was significantly correlated with their cultural knowledge levels, particularly among European and American continent participants. As Jones and Bond's research showed, regardless of the length of stay, learners have improvements occur in personal adjustment, language acquisition, and culture learning in short-term immersion (Jones & Bond, 2019). This result is also supported by Anderson et al. (2006), which confirmed the positive effects of short-term study abroad programs on learners' intercultural sensitivity and openness to the target culture and emphasised that even brief exposure to an authentic cultural context can significantly improve learners' cultural understanding and knowledge of the cultural elements of the target language country. This supports research by Engle and Engle (2004), which highlighted the effectiveness of direct cultural immersion in significantly enhancing the target language's intercultural competence and language proficiency. Similarly, Jackson's (2010, 2015) research supports with empirical evidence that students who participated in overseas experiences showed significant improvements in cultural sensitivity, linguistic adaptability, and global perspectives. It is clear that immersive cultural experiences enable CFL learners to acquire and internalise the target language country's multifaceted cultural knowledge, including cultural norms and attitudes, in a way that is often not achieved in traditional immersion settings, such as classroom or self-study settings (Bronfenbrenner & Morris, 2007). Thus, this result extends and confirms the significant educational impact of direct cultural experience. It also provides empirical evidence for the claim that immersive cultural exposure enriches CFL learners' language skills and significantly improves their Chinese cultural knowledge level, providing

significant insights for CFL language educators and curriculum design. The study also found that the impact of visiting China varied within participant groups, with European and American participants showing stronger correlations between China visits and their cultural knowledge than Asian continent participants. This differential impact can be comprehended through Bennett and Hammer's (2017) Developmental Model of Intercultural Sensitivity, which suggests that individuals move from ethnocentric to ethnorelative stages in their intercultural development.

For European and American CFL learners, whose native cultures typically differ more substantially from Chinese culture, visits to China may represent more significant opportunities for perspective transformation than for Asian continent CFL learners, who may already share some cultural reference points with Chinese culture (Hsieh, 2014; Osborne et al., 2020). The immersive nature of cultural visits allows language learners to observe cultural practices in authentic contexts and engage in meaningful interactions with members of the target culture (Diao & Trentman, 2021; Tseng et al., 2024). This finding supports Hua and Kramsch's (2016) concept of symbolic competence, which involves reframing one's perspective and interpreting cultural phenomena from multiple viewpoints. As CFL learners engage with the Chinese language and culture, they develop knowledge about Chinese culture and new ways of perceiving cultural differences and similarities. Participants' international travel experience in several countries beyond China was also positively correlated with Chinese cultural knowledge levels. This finding supports Jackson's (2018) concept of 'intercultural citizenship', which suggests that experiences of cultural diversity in various contexts can develop transferable intercultural competencies. CFL learners with extensive international travel experience may have developed general frameworks for understanding cultural differences that they can apply to Chinese cultural learning (Deardorff, 2020). This supports Jackson's (2010; 2018) research on study abroad experiences, which indicates that direct immersion in the target culture provides unique opportunities for cultural learning that cannot be fully replicated in classroom settings. For example, they may have learned through observation and guidance on site during their visit to China. Their high level of Chinese cultural knowledge suggests that non-linguistic factors such as motivation, observational learning, and the ability to find meaning in Chinese culture beyond language and understand Chinese culture also have a key effect.

These results underscore the Linguistic Relativity Theory (Sapir, 1921) by suggesting that human cognitive ability uses adaptive strategies to acquire cultural insight even when lacking language ability (Auganbayeva et al., 2024). In particular, the effect of the participants' experiential learning was significant, based on the results that the participants had direct experience seeing and hearing in China, which is more extensive and realistic knowledge of Chinese culture than the knowledge they learned from textbooks in the classroom. Vygotsky's Sociocultural Theory (1978 ; 1987) provides a framework for interpreting the influence of such learning experiences. These results support Vygotsky's emphasis that human cognitive development and learning are achieved through social interaction, that individual knowledge and thinking are products of the social and cultural context to which the individual belongs (Vygotsky, 1978 ; Vygotsky, 1987). These results also support Linguistic Relativity Theory (Sapir, 1929a), which states that the grammatical structure of each language serves as a framework for thought, influencing how individuals perceive the world based on their native language.

Learning Chinese is not simply learning expressions, but about the cultural world of the people who use the language (Liu, 2009). However, since language proficiency does not directly lead to the acquisition of cultural knowledge (Grosse, 2004), the effect of language proficiency is maximised when intentional and reflective cultural learning is carried out together (Tang, 2006). Based on the fact that participants with high Chinese proficiency have high knowledge of Chinese culture, these results contribute empirically to Linguistic Relativity Theory. This means that different languages can lead to different ways of understanding and categorising the world (Sharifian, 2011). CFL learners who can speak Chinese more fluently have a better framework for understanding Chinese culture and the unique cultural conceptual system, classification method, and expression style contained in the Chinese language.

The various learning methods preferences support the idea that people from different cultural backgrounds use different languages, and these cultural differences affect the language learning process and outcomes (Deneme, 2010; Lengkanawati, 2004). Interestingly, was that most of the participants from Europe and the Americas learned Chinese mostly through self-study. Thus, there were differences in the quality and style of learning between the European and American participants and the Asian participants in terms of factors related to their learning experiences. The results indicate that it was not

simply the duration of the time that participants learned Chinese, but how they learned it that often determined the content and depth of their Chinese cultural knowledge. Most of the participants with higher levels of Chinese cultural knowledge had studied the Chinese language for 6 months to 1 year, which means that they acquired culture relatively quickly compared to the time they spent. It can be seen that they chose situational and environmental learning methods that suited them, while also engaging in practical learning through active interaction with Chinese people. This supports Vygotsky's Sociocultural Theory (Vygotsky, 1978) in that CFL learners in Europe and the Americas actively participate in the language and culture learning process and participate in social interactions through experiences such as visiting China and personal relationships with Chinese friends, leading to more effective internalisation. The influence of the CFL learners' different environmental and linguistic backgrounds is significant, and the learners' learning experience and foreign language proficiency level also have a significant influence on the learning strategy selection (Hsieh, 2014). As the research by Hsieh (2014), he argued, the individual's learning strategy selection comprehensively affects the learner's situational and social factors, which decisively affect the acquisition speed and ultimate achievement level (Kuo & Lai, 2006).

Through Bronfenbrenner's Bioecological System Theory Model (Bronfenbrenner, 2005a), the environmental factors that most influenced the participants' levels of knowledge of Chinese culture by continent, are organised as shown below. The Bioecological System Theory Model, when applied to the results of this study, maps each group of CFL participants by categorising the key findings by continent of origin. The more influential the factor, the thicker the line. Figure 7.4 displays the influential environmental factors of significance to Asian CFL participants.

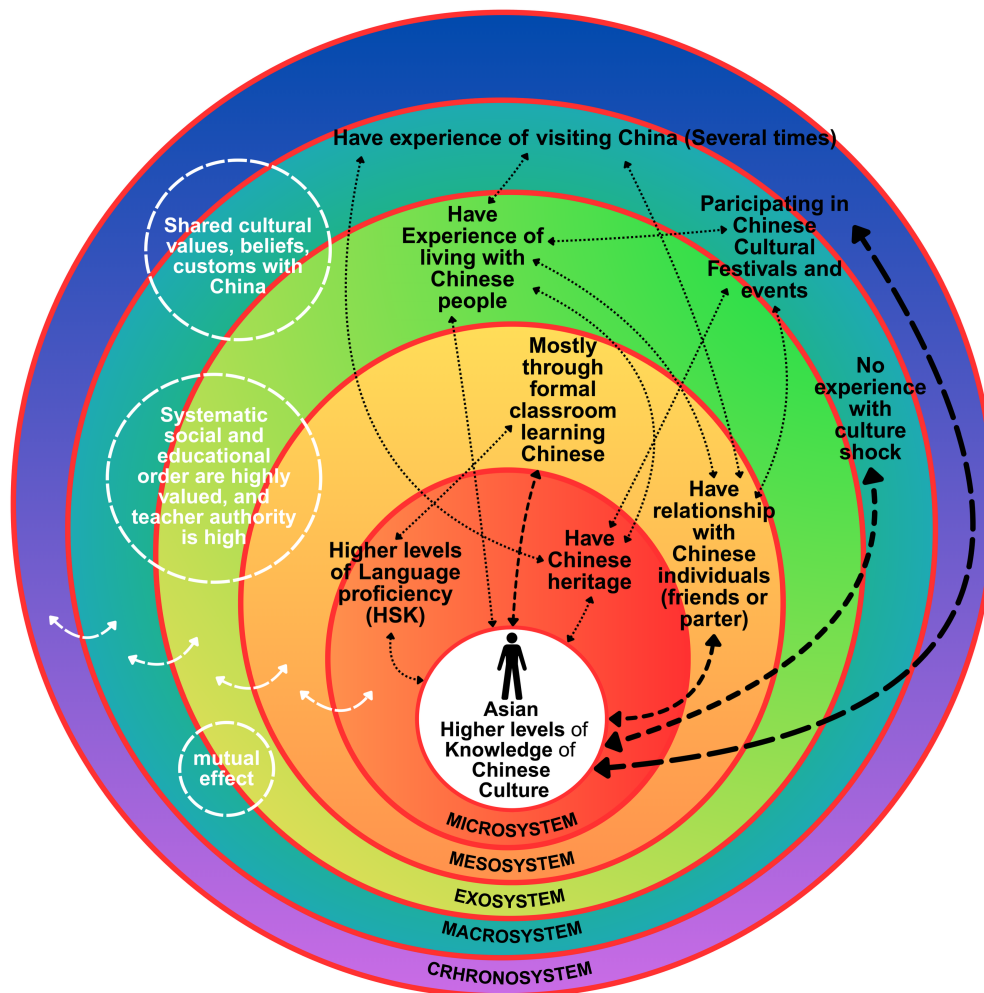


Figure 7.4 Key Factors Influencing the Higher Levels of Chinese Cultural Knowledge Among the Asian CFL Learners, Mapped to Bronfenbrenner's Bioecological System Theory Model

According to the total scores of the cultural knowledge levels, the Asian CFL participants had the highest level of Chinese cultural knowledge. Their macrosystem, such as home culture, may share many elements with the Chinese macrosystem (Shwalb et al., 2004; 2010 ; Zhang et al., 2005). For example, Japanese or Korean CFL learners can understand Chinese Confucian or cultural values even if their Chinese proficiency level is medium or low because they have historically shared similar values with China. This phenomenon suggests that although each language influences human thinking, cross-cultural universals and nonverbal cognitive mechanisms can also work together (Matsumoto & Hwang, 2016). In fact, critics of the Linguistic Relativity Theory, such as Pinker (2003), have pointed out that humans can understand new concepts through explanations or analogies even if there are no words in the language. Thus, even if Chinese

cultural elements were not widely included in one of the Asian participants' microsystems, such as the Chinese content of classes and the extent of Chinese culture inclusion in their classes, the extensive Confucian and Taoist philosophical traditional environment inherent in their lives which is similar to China plays an environmental part in supplementing some of their Chinese cultural knowledge. Thus, the results of this study can support and interpret this phenomenon to some extent, for example, Asian people are more likely to have indirect cultural knowledge about China, such as Korean or Japanese CFL learners are likely to have naturally learned about Chinese history at home, which is their common roots, or to have shared East Asian Confucian values like Xiao (孝, filial piety) (Ames & Rosemont Jr, 2016). Asian participants were able to understand cultural concepts by identifying specific elements of Chinese culture through equivalent concepts in their own culture.

Participants who had Chinese heritage or had experience living with Chinese people had higher overall knowledge of Chinese culture than participants who did not have Chinese heritage or live with a person from China (Figure 7.4, 7.5, and 7.6). Because they had more direct and indirect exposure to the Chinese language and cultural customs, they appear to have naturally acquired various Chinese cultural information through the process of everyday socialisation. In this context, the participants' experience of living with Chinese people, although indirect, still provided a kind of powerful immersion that constituted a microsystem rich in Chinese cultural elements. These positive effects underscore the existing literature that states that the home environment serves as a site for cultural learning (Mudiappa & Kluczniok, 2015). According to Bronfenbrenner's Bioecological System Theory (2005a), introducing elements of foreign culture into the immediate environment as a form of micro-cultural integration can affect the development of cultural knowledge (Kamali, 2024; Tadmor & Tetlock, 2006). For example, the finding in the current study that participants from Asia who had lived with Chinese people had slightly higher levels of cultural knowledge than Asians who had not lived with Chinese people. This underscores the research by Heinzmann et al. (2015), that found that the length of stay is an essential factor affecting the ultimate success of acquiring cultural knowledge, and the results may differ depending on how often the learners are exposed to cultural elements with their actual intercultural development opportunities.

Figure 7.5 shows the influential environmental factors of significance of European CFL participants.

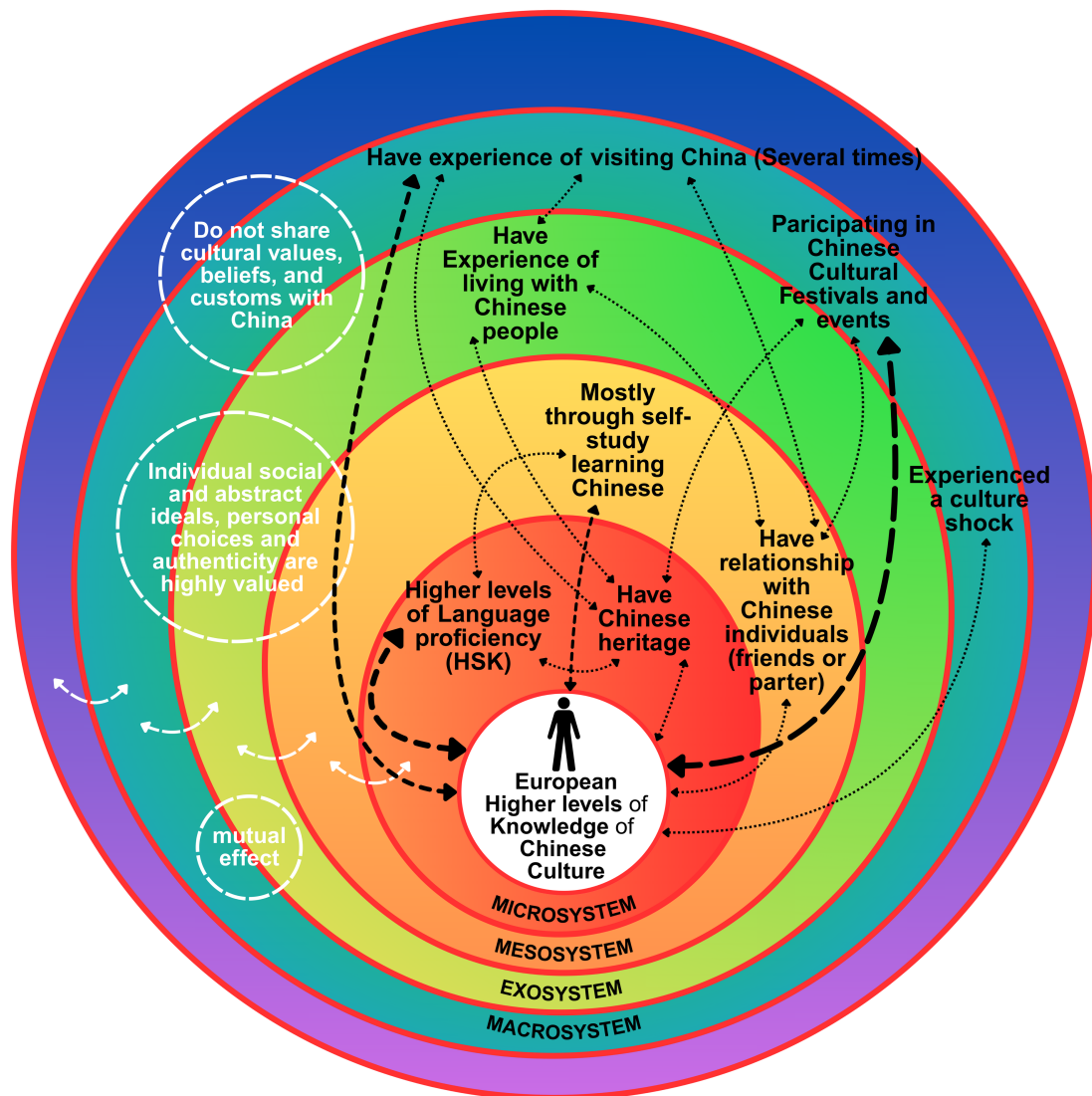


Figure 7.5 Key Factors Influencing the Higher Levels of Chinese Cultural Knowledge Among the European CFL Learners, Mapped to Bronfenbrenner's Bioecological System Theory Model

In contrast to the Asian participants, American and European participants learned about Chinese cultural elements through other channels, such as media exposure and self-study applications (Figures 7.5 and 7.6). Interestingly, participants from Europe and the Americas did not show higher levels of cultural knowledge linked to their experiences of living with Chinese people, which may suggest that simply living with Chinese people without the active or personal participation of the participants is not sufficient. In the participants' experience of living with Chinese people, when cultural exchange with roommates or housemates was minimal, a passive environment may produce little or no

results. This indicates that the quality of interaction in the microsystem among the principles of Bronfenbrenner's system is as significant as the existence of the microsystem itself.

This situational phenomenon is similar to how children from multicultural families naturally acquire multiple cultures along with their bilingualism (Bialystok, 2007; Mushi, 2002). For CFL learners, their experiences of living with Chinese people can lead to learning in their daily lives, such as cooking Chinese food, celebrating traditional Chinese festivals such as Zhong Qiu Jie (Mid-Autumn Festival) and Chun Jie (The Spring Festival) or even listening or speaking Chinese regularly or reading Chinese indirectly, even if the CFL learner does not fully understand it. All of this suggests that this kind of exposure can increase familiarity and effectively lower the barriers to learning about a foreign culture. For example, CFL learners with Chinese heritage may have acquired knowledge of Chinese culture, such as through cooking traditional foods together at home or participating in holiday events (Lin et al., 2020). In fact, cultural socialisation research shows that parents and families use a variety of activities, such as preparing food and participating in holiday events, to pass on their cultural heritage to their children. Through this type of socialisation within the home, participants develop knowledge of Chinese culture and a sense of belonging (Xue et al., 2022).

The study also found that participants with Chinese heritage backgrounds had higher levels of Chinese cultural knowledge than participants without Chinese heritage because they naturally became familiar with Chinese culture through their family environment. Bronfenbrenner's Bioecological System Theory Model (2005a) provides a theoretical framework to support these results. According to the Bioecological System Theory Model, human development occurs in the interaction of multilayered environmental systems surrounding the individual. For example, the microsystem, the most intimate layer, is the environment with which an individual has direct and continuous contact on a daily basis, such as family, peers, and school, and the mesosystem, exosystem, and macrosystem outside of it are composed of a wider range of indirect environments and Sociocultural influences (Bronfenbrenner, 2005a). In particular, the macrosystem, in Bronfenbrenner's Bioecological System Theory Model (2005a), refers to the broad sociocultural context to which an individual belongs, including the values, customs, laws, and cultural norms of a society (Bronfenbrenner, 2005a). In this study, the cultural background of an individual can be considered to be part of their macrosystem in terms of Bronfenbrenner's Theory. In other

words, the cultural environment that the participants encountered through their families, for example, Chinese heritage vs. non-Chinese heritage background, had a long-term impact on the formation of their Chinese cultural knowledge. If they grew up in a Chinese heritage microsystem and macrosystem, they would most likely encounter Chinese cultural elements everywhere in their daily lives, strengthening their Chinese cultural knowledge. In this way, Chinese heritage is likely to have played a significant role in the accumulation of Chinese cultural knowledge for participants who grew up in a Chinese heritage microsystem and macrosystem.

On the other hand, European and American CFL learners, who generally come from a macrosystem with little Chinese cultural influence (see Figures 7.5 and 7.6), tended to be influenced more by the Chinese language itself to access the Chinese macrosystem. This highlights that language's impact on cultural learning varies within contexts (Rafieyan et al., 2014). It is also consistent with the concept of cultural distance (De Santis et al., 2016). The further the cultural distance in the participants' macrosystems and microsystems, the more effort linguistic and immersion are required to overcome it (Cáceres-Lorenzo, 2015). Western CFL learners who struggled to succeed with high Chinese language proficiency (HSK) effectively reduced their cultural distance through language learning efforts and gained Chinese cultural knowledge similar to that of Chinese natives. From Bronfenbrenner's Bioecological systems perspective, CFL learners' Chinese language skills are a significant key to their entry into broad-scale Chinese media, social networks such as Red Note 小红书, Weibo 微博 and cultural and academic records CNKI (中国知网), and this ability increases the possibility of effectively connecting the original and new macrosystems.

Participants who were far from Chinese cultural backgrounds had relatively fewer opportunities for socialisation, so their knowledge level was lower on average. However, interestingly, there were some participants with no Chinese heritage (from continents other than Asia) who had quite high levels of Chinese cultural knowledge. These are cases where they were naturally exposed to Chinese cultural content, such as Chinese movies or Chinese books, due to personal interests or the influence of Chinese friends or partners around them, but not from a family background, or where they acquired knowledge of Chinese culture through frequent interactions. This can be seen as an influence at the exosystem or mesosystem levels in the Bronfenbrenner Bioecological System Theory Model (2005a).

These indirect environments, such as Chinese cultural events or learning about China in school, can also contribute to acquiring some Chinese cultural knowledge. The results showed that CFL learners who had more direct exposure to Chinese culture, for example, the experience of visiting China (several times), the experience of living with Chinese people, having a relationship with Chinese individuals, having neighbouring Chinese communities, or participating in Chinese cultural festivals or events, had higher levels of Chinese cultural knowledge. In Bronfenbrenner's Bioecological System Theory Model, the CFL participants in this study were participating in a new or expanded Chinese cultural microsystem sphere (Figures 7.4, 7.5, and 7.6). For example, visiting China or staying in a Chinese friend's house can introduce CFL learners to a Chinese family microsystem where some Chinese cultural knowledge can be learned through participation in the microsystem.

Figure 7.6 displays the significant environmental factors influencing American CFL participants.

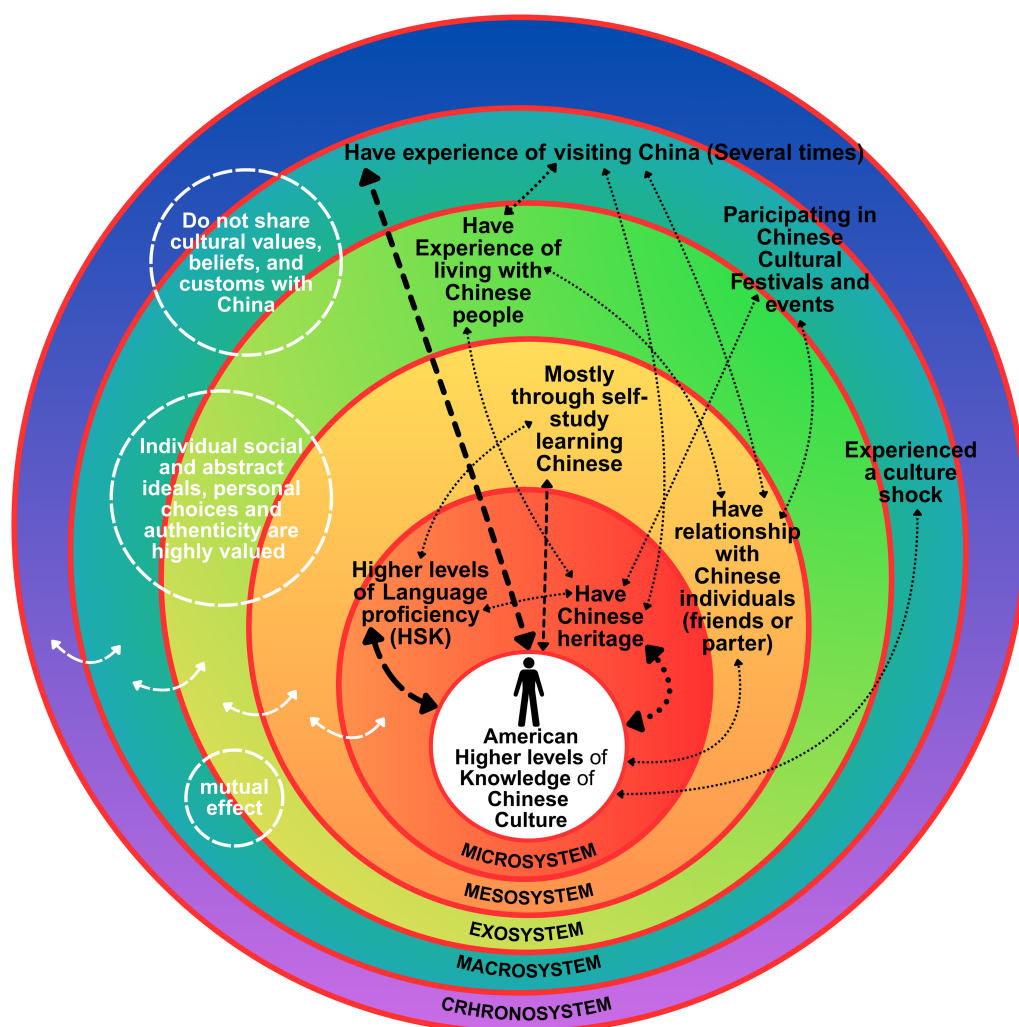


Figure 7.6 Key Factors Influencing the Higher Levels of Chinese Cultural Knowledge Among the American CFL Learners, Mapped to Bronfenbrenner's Bioecological System Theory Model

Similarly, travelling or spending time living in China can expose CFL learners to Chinese social values, and it places them in a macrosystem that includes China's social and institutional structures. These results align with Bronfenbrenner's Bioecological Systems Theory (2005a), which suggested that learning is maximised when individuals are directly involved and exposed to multiple environments that reinforce their target language country's cultural knowledge. For example, viewing historical sites or Cultural Relic collections such as Chang Cheng (长城, The Great Wall) and Bing Ma Yong (兵马俑, The Terracotta Army) can enhance one's textbook knowledge of Chinese culture. Everyday interactions can help CFL learners improve their practical Chinese language skills and observe Chinese lifestyles, for example, Putting up couplets (including "Spring, 春"

couplets and "Fu 副" characters) that hang on the main door of every house, Bao Zhu (爆竹 Firecrackers) which are firecrackers that are used to celebrate all special days, and Deng Long (灯笼 Red Lantern) which is hanging on most of the streets, gate of buildings and towns, can have a positive influence on clarifying the previously abstract and vague cultural concepts of Chinese cultural elements that many have only been previously learned through textbooks or reading books (Figure 7.4, 7.5, and 7.6).

These findings support research on immersion learning, which shows that local experiences such as visiting or living in the target language country significantly improve cultural knowledge (Pasfield-Neofitou et al., 2016; Wu, 2016). This finding aligns with Allport's (1954) contact hypothesis, which was later developed by Pettigrew and Tropp (2013), which suggested that meaningful interpersonal contact between members of different cultural groups can reduce prejudice and improve cross-cultural understanding. The quality of these relationships with Chinese individuals appears to be more important than simple exposure, as CFL participants who reported closer relationships, mostly friends and partners, demonstrated higher levels of knowledge of Chinese culture than those reporting more distant relationships with neighbours and coworkers. Research on the impact of overseas visits and study abroad experiences has demonstrated that foreign language learners often have significantly improved intercultural awareness and factual cultural knowledge through their experiences visiting the target country (McChesney et al., 2015), and the results from the current study support this as participants who had more experience visiting China reported significantly higher levels, such as upper-intermediate or advanced levels of knowledge of Chinese culture.

Participants who had experienced real China through immersion in the Chinese cultural environment in China had direct participation that enabled experiential learning. Kolb (2013) described this, as critical for acquiring a deep understanding (Figures 7.4, 7.5, and 7.6). CFL learners connect these overseas experiences to their environment, even after they return to their home country and continue to learn Chinese, and this works in their mesosystem. For example, CFL learners can relate what they observed in China to discussions or vivid descriptions in the CFL learning environment, which connects the two microsystems of the learners' overseas experiences and the classroom. Close Chinese-speaking friends or partners constitute the immediate social environment that can

significantly impact CFL learning. Participants who reported having Chinese friends or partners had higher levels of knowledge of Chinese culture. This tendency was most pronounced among Asian and European CFL participants. For example, European learners who have Chinese friends or partners reported higher levels of knowledge of Chinese culture. On the other hand, the pattern was less pronounced for American participants, however, Americans who had no Chinese friends had higher cultural knowledge through other channels. It is evident in the results that personal relationships with individuals and members of the target language culture serve as powerful mediators for cultural learning. These relationships provide authentic and ongoing interactions in which cultural exchange occurs naturally.

The findings of this study align with many studies that emphasise that social interaction is key for acquiring practical, cultural knowledge. The results show that CFL learners are more likely to be exposed to Chinese cultural value systems and daily Chinese practices, including colloquial language (high language proficiency), not simply learned from textbooks, through friendships with friends and relationships with partners. This reflects how Bronfenbrenner's (2005a) microsystem facilitates cultural learning, and the mesosystem (the connections between the systems in different contexts) may amplify these effects. For example, among the most reported relationships with Chinese individuals, it suggests that Chinese friends are more likely to invite and introduce CFL learners to traditional Chinese cultural festivals or events, and this finding strongly supports Bronfenbrenner's Bioecological System Theory. Social relationships serve as a bridge to the target culture, providing support and motivation that may be lacking in formal settings. In Bronfenbrenner's framework, participation in Chinese cultural festivals and events falls within the microsystem of Chinese cultural practices, albeit temporarily, for CFL learners. For example, attending a Lunar New Year event in a local Chinatown creates a microsystem environment in which Chinese social norms apply, such as Gong Xou Li (拱手礼, the way people greet each other), the importance of red decorations such as Deng Long (灯笼, Red lanterns), and the traditional Chinese performance, such as Peking Opera (京剧), and CFL learners become inner participants rather than outside observers. This direct environmental exposure can be an effective educator for foreign language learners. For example, teachers or friends might invite CFL learners to Chinese cultural festivals and events, linking the educational environment with a community environment with native

Chinese speakers. The research findings suggest that such connections can lead to learning cultural environments (Figures 7.4, 7.5, 7.6). They also reflect the concepts of situated learning and communities of practice. As CFL learners engage directly with Chinese cultural practices, they begin to internalise Chinese cultural norms and values as insiders with cultural understanding rather than simply as foreign language linguistic subjects. As a result, their overall Chinese cultural proficiency is improved. Many studies have highlighted that creating these microsystem opportunities, such as engaging in cultural festivals and events, is invaluable for significantly improving students' multicultural awareness and global competence (Elsamanoudy, 2024; Peng & Abd Rahman, 2024; Ratanakarn, 2011). This suggests that language ability alone cannot completely capture the overall cultural context and cultural knowledge, which means the level of cultural knowledge can be raised through many environmental interactions to language ability. Based on these results, it is possible to infer that the temporal system, that is, the time dimension, can be affected. For example, CFL learners may have accumulated more cultural knowledge from learning the language for a long time, or they may have acquired cultural knowledge as a result of having visited China multiple times.

The current study yielded some unexpected findings, for example, that participants with lower Chinese language proficiency had higher levels of knowledge of Chinese culture, often acquired through self-study (Figures 7.5 and 7.6). In comparison, those with higher Chinese language proficiency had relatively lower levels of knowledge of Chinese culture. For example, there were participants whose cultural knowledge was at an upper-intermediate level, but whose Chinese language proficiency was relatively low. An example of this is seen in the Chinese heritage backgrounds, even if they did not speak Chinese well, were found to know more about Chinese culture than other participants who does not have Chinese heritage backgrounds. This finding contradicts the theoretical assumption made at the beginning of the study that knowledge of the language would lead to knowledge of the culture. A possible explanation of this is that the ability of early socialisation is immense; naturally, indirectly accumulated cultural knowledge remains as a kind of cultural intuition or background knowledge (Mu & Dooley, 2015), indicating that the influence of cultural background, family, and learning environment was as strong as the influence of language proficiency. So even if the language ability is low, cultural knowledge can still be high in some cases. For example, even if second-generation Chinese immigrants are not fluent in Chinese, they are likely to have an intuitive understanding of Chinese culture through

stories they hear and customs they experience at home (Mu & Dooley, 2015). On the other hand, CFL learners who have become fluent in Chinese as adults may lack this intuitive cultural sense, even though their Chinese language skills are excellent. This can also be seen as a difference between explicit knowledge and implicit knowledge (Lu, 2017). Unexpected results are interpreted in this area; explicit knowledge is acquired through books or classes through language (Kennedy, 2020), while implicit knowledge is embedded in the process of growth.

The second unexpected result concerns the quality of learning experiences rather than the quantity. The primary expectation was that there is a simple linear relationship that the more learning experiences, for example, participation in various Chinese cultural festivals and events, and long-term study of Chinese, the higher the levels of knowledge of Chinese culture. However, the results indicate that once the quantity of learning experiences exceeded a certain level, the qualitative aspect becomes more important. For example, the interaction between language proficiency and learning experience, in the group with low Chinese proficiency, overseas experience did not make a significant difference. This could be due to the language barrier or other reasons, but among the participants with higher Chinese language proficiency, the group that had local Chinese experience had a significantly higher level of cultural knowledge than the group that did not. This finding indicates that having a certain level of language proficiency helps to better absorb the Chinese cultural knowledge that is gained through the immersive experiences.

Conversely, when considering the interaction between cultural background and learning experience, even people without a Chinese background can have Chinese cultural knowledge as high as those with a Chinese cultural background or Chinese heritage if they have sufficient cultural learning opportunities, for example, long-term residence with Chinese people or personal relationships with Chinese people. In other words, there are many ways to gain higher knowledge of Chinese culture. This is a very positive message to consider is that cultural understanding can be acquired in a number of ways. It is important to note that correlation does not necessarily mean causality in statistical interpretation. For example, even if Chinese language proficiency and Chinese cultural knowledge are highly correlated, it cannot be concluded that improving Chinese language proficiency automatically increases levels of knowledge of Chinese culture. A confounding variable may be at play here, such as personal motivation or intellectual curiosity. CFL

learners with a strong interest in culture may tend to study the language more diligently and focus on learning the culture simultaneously, so this could be a hidden relationship between variables at play here. In this research, a pattern of higher levels of cultural knowledge was found for CFL learners with higher linguistic proficiency, more cultural learning opportunities, and who had a Chinese cultural background.

7.5 Synthesis of the discussion

The results have been discussed through the lens of the following three core theoretical perspectives that formed the theoretical framework for this study: Sapir-Whorf's Linguistic Relativity Theory (1929a), Vygotsky's Sociocultural Theory (1978), and Bronfenbrenner's Bioecological Systems Theory (2005a). In addition, the results were discussed in the context of a wide range of related existing literature. Figure 7.7 displays a conceptual model that illustrates how higher levels of knowledge of Chinese culture among CFL learners are influenced by three major theoretical perspectives: Linguistic Relativity Theory (Sapir, 1929b), Sociocultural Theory (Vygotsky, 1978), and Bioecological System Theory (Bronfenbrenner, 2005a).

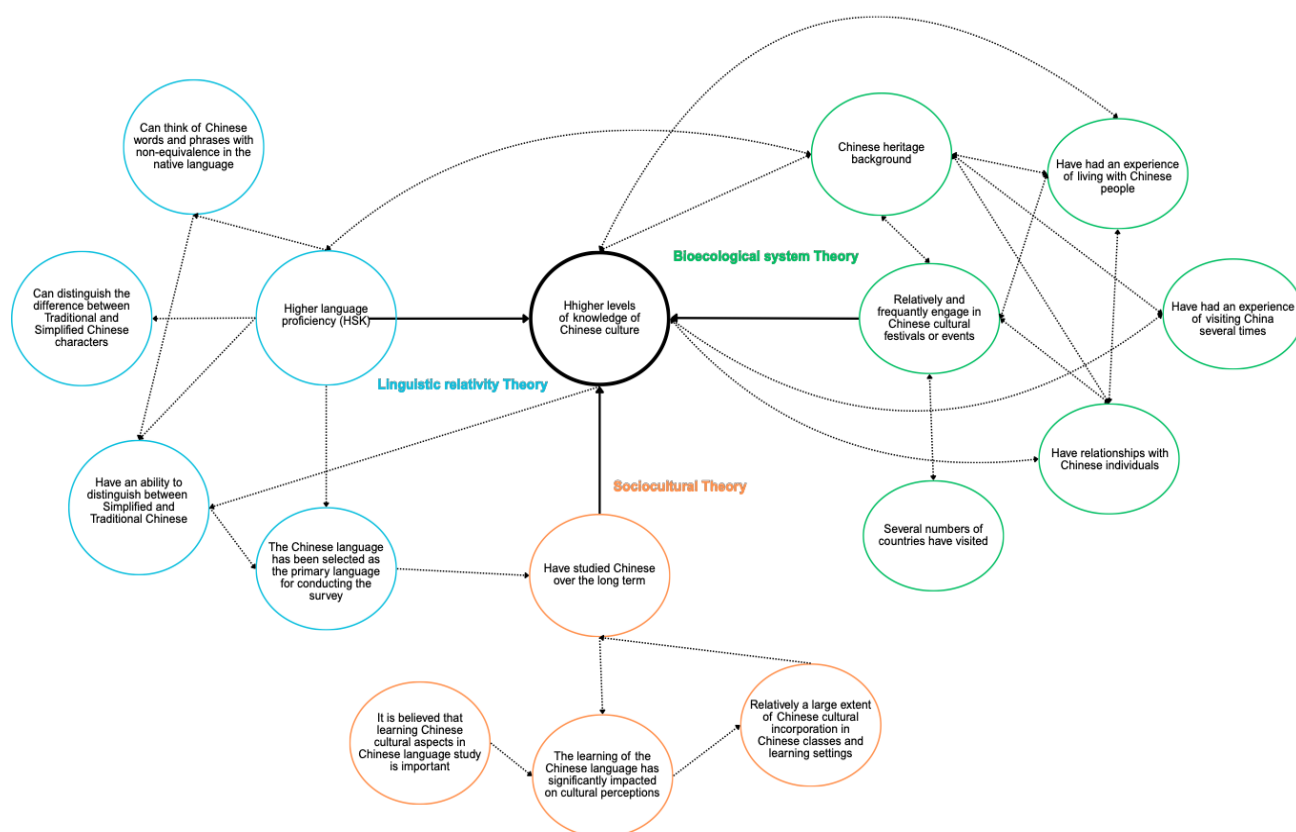


Figure 7.7 Analysis of CFL Learners with Higher Levels of Knowledge of Chinese Culture Through a Theoretical Lens

Each Theory is represented through thematically grouped factors that contribute to cultural understanding, and the level of knowledge in distinct yet interconnected ways. From the perspective of Linguistic Relativity Theory (shown in blue colour), factors such as higher language proficiency (HSK), the ability to distinguish between simplified and traditional Chinese characters, and the capacity to conceptualise non-equivalent Chinese expressions in the native language are emphasised. These elements highlight the role of linguistic structure in shaping cognitive patterns and cultural comprehension, as well as levels of cultural knowledge, supporting the view that language influences habitual thought. Sociocultural Theory (shown in orange colour) frames cultural knowledge as emerging from long-term exposure to language learning and the integration of cultural content within educational contexts. Learners who have studied Chinese over an extended period and encountered cultural aspects through classes and social interaction with Chinese people are shown to develop deeper cultural insights and understanding. This aligns with Vygotskian principles that emphasise the mediated, socially embedded nature of learning. Bioecological System Theory (shown in green colour) expands the framework by incorporating a broader environmental background and interpersonal influences. These include having a Chinese heritage background, experience living with Chinese people, repeated visits to China, engagement with cultural festivals and events, and relationships with Chinese individuals. This Theory underscores the significance of context and interaction across multiple ecological systems in shaping CFL learners' cultural levels of knowledge and competence. Higher levels of knowledge of Chinese culture are informed by multiple overlapping dimensions, including linguistic proficiency and conceptual sensitivity, Sociocultural immersion and educational exposure, and personal experience within social and Bioecological environments. The lines connecting variables across three theories illustrate the dynamic and reciprocal nature of these influences, reinforcing the interdisciplinary foundation of the research study. The following sections describe this study's conclusions and overall focus and suggest limitations and future research directions.

7.6 Contributions of the Study

The findings of this study have some important implications for CFL pedagogy and research. First, the results suggest that effective CFL instruction should integrate linguistic and cultural learning. This finding underscores Liddicoat and Scarino's (2013) conclusion

that language and culture are inseparable, and pedagogical approaches should reflect this interconnection. This study's strong correlation between linguistic proficiency levels (HSK) and levels of cultural knowledge highlights the importance of including cultural content as a main learning element throughout language curricula. Another contribution of this study is that the findings highlight the value of experiential learning in the development of cultural knowledge. The significant correlations between levels of knowledge of Chinese culture and experiences such as visiting China, participating in Chinese cultural festivals or events, and having relationships with Chinese individuals suggest that CFL education should incorporate opportunities for authentic Chinese cultural engagement in as many aspects as possible. When direct immersion is not possible, Dervin and Gross (2016) suggested that technology-mediated cross-cultural exchange and virtual immersion experiences can provide alternative ways to experiential cultural learning. These results are consistent with contemporary research and theoretical frameworks that conceptualise cultural levels, learning and teaching in foreign language education as multidimensional and dynamic processes influenced by linguistic, educational, social, and personal factors (Metsäpelto et al., 2022; Zhou, 2025). These results extend these perspectives by identifying specific patterns between language learning factors and levels of cultural knowledge, and they highlight how these patterns differ across diverse groups of CFL learners from different cultural, linguistic, learning and environmental backgrounds.

This study extends the work of other researchers in this area by providing a comprehensive interpretation of the results through the lens of theoretical perspectives from Sapir-Whorf's Linguistic Relativity Theory (1929b), Vygotsky's Sociocultural Theory (1978), and Bronfenbrenner's Bioecological Systems Theory (2005a). The study contributes to CFL education by identifying key linguistic and cultural influences and providing pedagogical recommendations. Future research should build on these findings to refine CFL education and policy approaches. This study also makes a methodological contribution by systematically and comprehensively measuring CFL learners' Chinese cultural knowledge levels using a multidimensional, large-scale, anonymous online survey. It provides a clear foundation for future studies investigating CFL learners' Chinese cultural knowledge. The statistical analyses (correlations, t-tests, ANOVAs and multiple regressions) provided strong and quantitative evidence linking a variety of specific variables, such as language proficiency, learning background, cultural immersion experiences, and demographic backgrounds, to measurable differences in Chinese cultural

knowledge levels. The rigorous statistical analysis of data provides clear empirical evidence that supports the integration of language and culture in CFL curriculum design, L2 pedagogy, and foreign language pedagogy.

Another contribution of this study relates to the finding that the different patterns among participants' from different continent groups are suggestive of the significance of culturally responsive pedagogy in CFL instruction. Formal class settings were more effective learning environments for Asian participants, and conversely, self-study settings were more effective learning environments for European and American participants. This finding suggests that a single language learning environment may not improve cultural learning outcomes for all CFL learner groups. As Jin and Cortazzi (2017) claimed, effective language and culture instruction should consider learners' cultural backgrounds and adjust instructional approaches correspondingly. This study contributes to the growing body of evidence related to the integration of language and culture in foreign language teaching, providing empirical support for an educational approach that treats language and culture learning as interconnected processes. A further contribution is the finding that exposure to popular culture is an important factor that contributes to CFL learners' Chinese cultural knowledge. These findings suggest that Chinese foreign language learning curricula would be enhanced by the incorporation of contemporary cultural materials alongside traditional content. He and Xiao (2008) noted, that popular culture provides insights into evolving cultural values and practices that may not be captured in more traditional cultural materials. Incorporating films, music, social media, and other popular cultural forms can improve learners' engagement with Chinese culture and provide windows into contemporary Chinese society.

7.7 Limitations of the Study and Future Directions

It is important to consider the limitations of the study and to provide suggestions for further research that may address these limitations. While the research successfully recruited 104 participants through an online anonymous survey via SurveyMonkey (UC, n.d.) platforms, the final usable data set was 71 participants from the initial sample after the data were cleaned. Also, while the participants in this study came from diverse backgrounds, the anonymous survey is only available in English and Chinese, and therefore, participants had to have sufficient English or Chinese to respond to the survey.

Consequently, the results cannot be generalised to all Chinese learners whose native language is not English or Chinese, and therefore, the results may not be representative of all CFL learners. While the survey was accessible to global Chinese language learners, its reach was limited by the inherent difficulty of targeting and engaging a diverse and representative sample of Chinese language learners with varying degrees of exposure to Chinese culture. The survey recruitment process also relied heavily on participants who were self-motivated individuals who were members of online communities such as Xiao Hong Shu (小红书), WeChat (微信), Weibo (微博) and other networks. Future studies could consider enhancing recruitment strategies by extending the reach of the data collection process by providing the survey in additional languages. Another limitation of the study is the relatively small sample size and the unequal distribution of samples by continent. A suggestion for future research would be to conduct a study with a larger overall sample size and ensure that samples are of similar size for the continent cohorts.

One of the limitations of this study was that participants' levels of knowledge of Chinese culture were self-assessed and therefore they may not always reflect their actual understanding of Chinese culture. Social desirability bias and overestimation of competence cannot be ruled out, particularly for culturally valued knowledge items. Self-reported measures are inherently subjective and may not accurately reflect participants' actual understanding or depth of knowledge towards the cultural elements. For instance, participants selecting "extensive knowledge" might have varying levels of knowledge and depth of knowledge, ranging from surface-level recognition to complete understanding of concepts. Future research could incorporate objective assessments of cultural knowledge so that they are not reliant on self-report to determine participants' levels of knowledge. For example, a validated cultural knowledge assessment tool could be designed to test participants' understanding of specific cultural elements through quizzes, case studies, or actual China scenario-based questions. In this way, research could test CFL learners' Chinese cultural knowledge of the specific Chinese cultural elements. In addition, future studies could utilise longitudinal designs to explore how CFL learners' cultural knowledge develops over time and place the findings into the context of the Chronosystem (Bronfenbrenner, 2005a). Such studies could concentrate on assessing the long-term effects of engagement with Chinese cultural activities on Chinese as a foreign language (CFL) learners' acquisition of cultural knowledge. Another limitation of this study is that a

relatively small amount of information was collected about participants' cultural and linguistic backgrounds. While the anonymous survey collected information on CFL participants' native languages (L1), the duration of learning Chinese, and methods of Chinese language learning, the study did not collect data on other variables, such as the frequency of participants' prior exposure to the language and culture through travel, cultural elements through media, family or friend connections. These additional variables might have influenced participants' reported knowledge of Chinese cultural elements. In addition, it is important to acknowledge potential researcher related limitations. The online anonymous survey instrument and the categorisation of Chinese cultural elements were self-developed by a single researcher and therefore reflect a series of methodological choices regarding what counted as Chinese "cultural knowledge" and how familiarity was operationalised. Although expert review and pilot study feedback were used to improve the clarity and face validity of the instrument, decisions about the wording of individual cultural items, cultural framing, and item-set category boundaries inevitably involved researcher judgement. In particular, the researcher's disciplinary experience, backgrounds, and prior familiarity with Chinese cultural content may have influenced the development... and the interpretation of patterns in the findings (Chapter 6). To minimise this risk, the study documented design decisions transparently and sought supervisory consultation at every key stages. Nevertheless, future research can further reduce single-researcher interpretive influence by incorporating multi-researcher development, discussion for qualitative components, or participatory input from CFL learners when defining Chinese cultural elements and item framings.

Future research could develop broader and deeper systematic survey questions to capture the complexity of CFL participants' cultural, learning and linguistic backgrounds. Detailed questions about participants' exposure to Chinese culture, the frequency and intensity of their language learning practices, and their motivations for learning Chinese could collect further data, and potentially, more comprehensive insights could be gained. Another limitation relates to the online nature of the study, which limits the generalisability of the findings to all Chinese as a Foreign Language (CFL) learners. The study's participants opted to participate in the survey, and therefore, the sample was made up of CFL learners who ended up participating in research surveys rather than a fully representative sample of CFL learners. Future studies could employ multiple data collection methods to go some way toward addressing this limitation. Although the study

provided a good overview of the participants' knowledge of various cultural elements, the depth of investigation of their understanding of each cultural element was limited. The survey questions were designed to cover a wide range of categories, and it was successful in doing that. However, this approach has resulted in an overview assessment rather than a deep exploration of any single cultural aspect. Future research could focus on fewer cultural elements but investigate them more deeply from different perspectives. For example, researchers could investigate participants' detailed understanding of a specific cultural theme, such as Confucian philosophy or traditional Chinese arts, instead of surveying broad knowledge across multiple elements

There are also some limitations of the scoping review that need to be acknowledged. First, the evidence base was uneven across regions and research designs. Most of the included research studies were small-scale, cross-sectional investigations, which restricts the comparability and generalisability of findings. Second, the search was limited by the availability of published materials in English and the restricted access to important Chinese electronic databases, such as CNKI. The exclusion of non-English research publications and the difficulty in translating additional relevant Chinese-language resources, due to time and resource limitations, may have caused this scoping review to miss out on some potentially valuable research studies. As screening and extraction were primarily conducted by the researcher, some degree of selection and interpretation bias is also possible despite several consultation and documented procedures.

7.8 Conclusion

This research explored the levels of knowledge of Chinese culture among a sample of Chinese as a Foreign Language (CFL) learners. In particular, the study examined how CFL learners' levels of knowledge of Chinese culture vary and to what extent their levels of cultural knowledge are influenced by learners' linguistic proficiency, learning experiences, cultural background and other contributing factors. The study was conducted in two phases. In phase one of the study, a scoping review was conducted in order to identify the published research on how learners of Chinese as a foreign language (CFL) gain insights into Chinese cultural knowledge, recognise the cultural elements inherent in the language, and identify these cultural aspects to what extent. and to inform the formation of the research question for phase two of the study, the anonymous survey phase. The most

significant finding from the anonymous survey phase of the study was that CFL learners with higher levels of Chinese language proficiency (CEFR and HSK) also had higher levels of knowledge of Chinese culture. Similarly, CFL learners with longer durations of Chinese language learning were more likely to exhibit higher levels of knowledge of Chinese culture. These findings support the central assumption of Sapir-Whorf's Linguistic Relativity Theory (1929a) by indicating that deeper engagement with the target language, which increases linguistic ability, correlates with an enhanced awareness of its cultural content. Although general patterns were observed between Chinese language proficiency and levels of knowledge of Chinese culture, there was an unexpected finding related to language proficiency.

However, a small number of CFL learners demonstrated relatively high levels of cultural knowledge despite having lower levels of linguistic proficiency. They learned Chinese as a foreign language mostly through self-study, with occasional formal classes, mostly studied for more than three years, and more than half of them were from Asia. The findings suggest that, as for the characteristics of Asian CFL learners, as mentioned above, their macrosystem, such as home culture, may share many elements with the Chinese macrosystem (Shwalb et al., 2004; 2010 ; Zhang et al., 2005). For example, Japanese or Korean CFL learners can understand Chinese Confucian or cultural values even if their Chinese proficiency level is medium or low because they have historically shared similar cultural values with China. And this group's CFL learners learned Chinese and Chinese culture through self-study, which can be interpreted as them exploring and selectively studying Chinese cultural topics that interested them, rather than focusing on acquiring linguistic features. In such cases, the CFL learners' interest in Chinese culture naturally led them to have a high level of knowledge of Chinese culture. Still, due to the lack of linguistic support and the relative lack of systematic linguistic learning, it is interpreted that their Chinese proficiency is low despite their high level of knowledge of Chinese culture.

Higher levels of knowledge of Chinese culture among CFL learners were linked to their methods of learning Chinese. Asian learners, who studied mostly through formal, structured learning, achieved a high level of Chinese cultural knowledge. European and American learners, who studied mostly through self-study and self-directed learning, also achieved a high level of Chinese cultural knowledge during their studies. It appears from these results that optimal learning is achieved via differing modalities for learners from

different cultural backgrounds; however, it seems that the preference for the modality that suits the learners most is what is important to positive learning outcomes. Another factor that influenced CFL learners' levels of knowledge of Chinese culture was the extent to which they engaged in travel, Chinese cultural activities or with family or friends who had Chinese heritage. Chinese as a foreign language learners who had visited China, who had engaged more in Chinese cultural festivals or events, or who had personal relationships with Chinese individuals, had higher levels of knowledge about Chinese culture. CFL learners with an identification with Chinese heritage had higher levels of knowledge of Chinese culture. CFL learners' continent of origin also influenced their levels of knowledge of Chinese culture. In terms of geographical and environmental background, participants from Asia demonstrated the highest levels of knowledge of Chinese culture, highlighting the potential influence of ecological regional proximity and intercultural shared familiarity. These insights align with Bronfenbrenner's Bioecological System Theory (2005a), which emphasises the role of the environment in shaping CFL learners' development. Immersive social experiences like frequent travel to China, interpersonal interactions with Chinese people, and participation in Chinese cultural festivals and events were linked to CFL learners' levels of knowledge about Chinese culture, and this finding supports the main premise of Vygotsky's Sociocultural Theory (1978), which assumes that human cognition is fundamentally shaped by social interaction and cultural context; and that cognitive development is inseparable from the culture in which it occurs, as a society's beliefs, values, and tools influence what and how learners learn.

The results also revealed that there were varying levels of knowledge across different Chinese cultural elements. Most of the CFL learners were familiar and had knowledge of highly visible and universal cultural symbols such as the red envelope (红包), Ying and Yang (阴阳), the Great Wall (长城), Huo Guo (火锅), Jiao Zi (饺子), and Zhong Qiu Jie (中秋节), and fewer CFL learners demonstrated levels of knowledge of more philosophical concepts and historical traditions, such as Ne Zha (哪吒), Daojia Sixiang (道家思想), Mo Yan (莫言), and Mao Zedong Thought (毛泽东思想). These results suggest that Chinese cultural knowledge among CFL learners tends to be concentrated on the more visible and commonly taught aspects of Chinese culture. The findings of this study contribute to the literature related to foreign language learning and target language cultural learning by highlighting the variance in levels of knowledge of

Chinese culture that different cohorts of CFL learners have. The findings point to the influences of cognitive, environmental and social factors in relation to cultural learning in the context of CFL learning. These findings have practical implications for CFL learning, CFL teaching and curriculum design. The findings highlight the importance of integrating Chinese cultural elements with CFL language teaching and learning and the importance of moving beyond superficial representations of culture. Integrating social activities, authentic Chinese cultural festivals and events, along with culturally rich materials in CFL classrooms or on CFL learning forums, would enable learners to attain a deeper understanding of Chinese culture. In formal language classes, it would be of great benefit if CFL educators took into consideration the CFL learners' cultural backgrounds when designing instruction. The findings may be beneficial to learners of the Chinese language who access instruction via independent learning modalities. The importance of immersive engagement in Chinese cultural activities is a key finding that could be acted on by independent learners to enhance their engagement and understanding of Chinese culture.

While this research provides important insights into the factors that influence CFL learners' levels of Chinese cultural knowledge, several interesting questions arise from the study's findings. For example, while the findings indicate that participants with higher the levels of Chinese language proficiency had higher levels of knowledge of Chinese culture, it should be noted that higher levels of Chinese linguistic proficiency may not be the direct reason for higher levels of Chinese cultural knowledge. A possible future direction for this research could be to explore motivational factors that may contribute to higher levels of knowledge of Chinese culture among CFL learners. Additionally, developing a standardised measure for assessing CFL learners' knowledge of Chinese cultural elements, similar to Chinese language proficiency standardised tests like the HSK (Hanyu Shuiping Kaoshi) and HSKK (Hanyu Shuiping Kouyu Kaoshi), could provide a useful tool for researchers, CFL educators and CFL learners interested in target language cultural learning.

Additionally, future research studies could consider the nature of and amount of Chinese culture that is incorporated in CFL teaching modules and explore teaching strategies that effectively enhance learners' cultural competence in parallel with enhancing language proficiency. It would be interesting to examine how specific types of Chinese cultural content are incorporated into CFL teaching modules and to evaluate which instructional approaches best support CFL learners in acquiring knowledge of Chinese

culture. This study highlights the multifaceted nature of Chinese cultural knowledge among diverse CFL learners. It contributes to a deeper understanding of how linguistic proficiency, learning experiences, environmental and cultural background factors influence CFL learners' Chinese cultural knowledge levels, offering valuable insights for CFL researchers, educators and learners. The findings of this study highlight that exposure to more Chinese cultural elements and social activities as a component of CFL language learning and teaching enhances learners' levels of knowledge of Chinese culture. Only after cultural elements become an inherent part of CFL language curricula, in both formal learning settings and via alternative learning modalities, can learners gain more knowledge and insight into the culture of the target language.

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APPENDICES

APPENDIX A Anonymous Survey Instrument (English)

Chinese cultural awareness among Chinese Foreign Language (CFL) learners

1. Please indicate your age

- ☐ Under 18 (**Survey end**)
- ☐ 18 - 21
- ☐ 22 - 25
- ☐ 26 - 30
- ☐ 31 - 40
- ☐ 41 - 50
- ☐ 51 - 60

2. Please indicate your native language (L1)

3. Please indicate your current country of residence.

4. I have multicultural experience of countries around the world

Not at all	1 - 2 countries	3 - 4 countries	5 - 6 countries	More than 6 countries
☐	☐	☐	☐	☐

5. Please select the option that applies to you the most: "I enjoy..."

- ☐ Chinese foods
- ☐ Chinese tea
- ☐ Buying Chinese clothes or accessories
- ☐ Watching Chinese media contents
- ☐ Spend time with Chinese
- ☐ Other (please specify)

6. I have been to China

Not at all	1 - 2 times	3 - 4 times	5 - 6 times	More than 6 times
☐	☐	☐	☐	☐

7. I have lived with Chinese people

Not at all	Less than 2 months	2 - 3 months	4 - 6 months	More than 6 months
☐	☐	☐	☐	☐

8. I have Chinese heritage

Not at all	Very little 1 - 2	Some 3 - 4	Moderate 5 - 6	A lot More than 6
☐	☐	☐	☐	☐

9. Please select all that apply to you. "I have a Chinese..."

- ☐ None
- ☐ Partner
- ☐ Friend(s)
- ☐ Co-worker(s)
- ☐ Neighbour(s)
- ☐ Other (please specify)

10. How important do you think it is to learn about Chinese cultural aspects when studying Chinese?

Not Important at All	Slightly Important	Moderately Important	Important	Very Important
☐	☐	☐	☐	☐

11. Popular cultural elements such as the Silk Road, Chinese Medicine, Symbolism, and others have influenced my understanding of Chinese culture.

Not at all	Slightly	Moderately	Very	Extremely
☐	☐	☐	☐	☐

12. On occasions when I am speaking the Chinese language, my thinking and behavior take on aspects of the Chinese culture

Not at all	Slightly	Moderately	Very	Extremely
☐	☐	☐	☐	☐

13. Initially, when I experienced some aspects of Chinese culture, I felt a bit of "culture shock."

Not at all	Slightly	Moderately	Very	Extremely
☐	☐	☐	☐	☐

14. I participate in Chinese cultural festivals or events

Not at all	Rarely	Occasionally	Frequently	Very frequently
☐	☐	☐	☐	☐

15. I can think of Chinese words or phrases that have no direct equivalence in my native language

None	Some	Several	A lot	Many
☐	☐	☐	☐	☐

16. I have been learning Chinese as a Foreign Language or Bilingual for

Never (Survey end)	Less than 6 months	6 months to 1 year	1 to 2 years	2 to 3 years	More than 3 years
☐	☐	☐	☐	☐	☐

17. I dedicate time each week to studying Chinese

Less than 1 hour	1 - 2 hours	3 - 5 hours	6 - 10 hours	More than 10 hours
☐	☐	☐	☐	☐

18. "My level of Chinese proficiency is..." based on the CEFR and the new HSK

A1 or HSK 1 (Beginner)	A2 or HSK 2 (Pre- Intermediate)	B1 or HSK 3 (Intermediate)	B2 or HSK 4 (Upper intermediate)	Higher than C1 or HSK 5 (Advanced)
☐	☐	☐	☐	☐

19. Please indicate how you are studying Chinese

Self-study including media contents, read books, application	Mostly through self- study, with occasional formal classes	An equal mix of self- study and formal classes	Mostly through formal classes, with occasional self-study	Entirely through formal classes
☐	☐	☐	☐	☐

20. How much of Chinese culture was incorporated into your Chinese language classes?

Not at All	To a Small Extent	To a Moderate Extent	To a Large Extent	To a Very Large Extent
☐	☐	☐	☐	☐

21. How much did your perception of Chinese culture change as a result of your language studies?

Not at All	Slightly	Moderately	Significantly	Extremely
☐	☐	☐	☐	☐

22. Please indicate your country of origin.

Please rate your level of knowledge of the following Chinese cultural elements.

23. Yin and Yang

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

24. The Art of War

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

25. Xi Jinping Thought

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

26. Mao Zedong Thought

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

27. Peking Opera (Beijing Opera)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

28. Tai Chi (Chinese martial arts)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

29. Rujia Sixiang (Confucian philosophy)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

30. Daojia Sixiang (Taoist philosophy)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

31. Putting up couplets (including "Spring" couplets and "Fu" characters)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

32. Hong Bao (Red envelope with money in it)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

33. Gao Kao (The annual national undergraduate admission exam of China)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

34. Jun Xun (Mandatory Military training)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

35. Buddhism

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

36. Taoism

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

37. Mo Yan

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

38. Romance of The Three Kingdoms

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

39. Shui Mo Hua (Ink and wash painting)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

40. Gong Bi Hua (Meticulous painting)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

41. Etiquette of Alcohol Culture (e.g., Seating arrangement, toasting, pouring, and drinking customs)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

42. Gong shou li (The fist-and-palm traditional Chinese greeting)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

43. Chang Cheng (The Great Wall)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

44. Bing Ma Yong (The Terracotta Army)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

45. Huo Guo (Hot Pot)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

46. Jiao Zi (Dumplings)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

47. Long Jing tea (Dragon Well Tea)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

48. Oolong tea (Wu-lung)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

49. Sun Wu Kong (The Monkey King)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

50. Ne Zha (Marshal of the Central Altar)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

51. Deng Long (Red Lanterns)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

52. Bao Zhu (Firecrackers)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

53. Chun Jie (The Spring Festival)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

54. Zhong Qiu Jie (Mid-Autumn Festival)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

55. Qi Pao/Cheongsam (Traditional dress)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

56. Tang Zhuang (Tang suits)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

57. Han Zu (Han, Majority Ethnic Group)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

58. Zang Zu (Tibetan, Minority Ethnic Group)

Not knowledgeable	Limited knowledge	Moderate knowledge	Considerable knowledge	Extensive knowledge
☐	☐	☐	☐	☐

59. I can distinguish between simplified Chinese and traditional Chinese characters

Not at all	Slightly	Moderately	Very well	Completely
☐	☐	☐	☐	☐

60. Please indicate your second language (L2)

61. Please indicate your third language (L3)

62. Please indicate your fourth language (L4)

Thank you so much for sharing your valuable experience and opinions.

APPENDIX B Anonymous Survey Instrument (Chinese)

汉语学习者的中国文化意识

1. 请告知您的年龄

- ☐ 18岁以下 (调查结束)
- ☐ 18 - 21
- ☐ 22 - 25
- ☐ 26 - 30
- ☐ 31 - 40
- ☐ 41 - 50
- ☐ 51 - 60

2. 请注明您的母语 (L1)

3. 请注明您当前的居住国家

4. 我有来自世界各国的多文化经验

完全没有 1到2个国家 3到4个国家 5到6个国家 超过6个国家

☐ ☐ ☐ ☐ ☐

5. 请选择最适合您的选项：“我喜欢……”

- ☐ 中国食物 (中餐)
- ☐ 中国茶
- ☐ 购买中国服饰或配饰
- ☐ 观看中国媒体内容
- ☐ 与中国人共度时光
- ☐ 其他 (请说明)

6. 我去过中国

完全没有 1到2次 3到4次 5到6次 超过6次

☐ ☐ ☐ ☐ ☐

7. 我曾与中国人同住过

完全没有 少于2个月 2到3个月 4到6个月 超过6个月

☐ ☐ ☐ ☐ ☐

8. 我有中国血统

完全没有	非常少, 1到2人	一些, 3到4人	适中, 5到6人	很多, 超过6人
☐	☐	☐	☐	☐

9. 请选择所有适用的选项：“我有一个中国的……”

- ☐ 都没有
- ☐ 伴侣 (爱人)
- ☐ 朋友 (们)
- ☐ 同事 (们)
- ☐ 邻居 (们)
- ☐ Other (please specify)

10. 您认为在学习中文时了解中国文化方面的重要性如何？

一点也不重要	稍微重要	中等重要	重要	非常重要
☐	☐	☐	☐	☐

11. 丝绸之路、中医、象征主义等流行文化元素对我理解中国文化产生了影响

完全没有	稍微有一些	中等程度地有影响	非常有影响	极大地有影响
☐	☐	☐	☐	☐

12. 在我使用中文的场合，我的思维和行为会体现出一些中国文化的特点

完全没有	稍微有一些	中等程度地有一些	非常有体现	极大地有体现
☐	☐	☐	☐	☐

13. 最初，当我体验到一些中国文化的方面时，我感到有些“文化冲击”

完全没有	稍微有一些	中等程度地有一些	非常有一些	极大地有一些
☐	☐	☐	☐	☐

14. 我参与中国文化节或活动

完全没有	很少	偶尔	频繁	非常频繁
☐	☐	☐	☐	☐

15. 我能想到一些中文词语或短语在我的母语中没有直接对应的表达

没有	一些	几个	很多	许多
☐	☐	☐	☐	☐

16. 我学习中文作为外语或者双语已经有

从未学习过 (调查结果)	少于6个月	6个月到1年	1到2年	2到3年	超过3年
☐	☐	☐	☐	☐	☐

17. 我每周都会花时间学习中文

少于1小时	1到2小时	3到5小时	6到10小时	超过10小时
☐	☐	☐	☐	☐

18. 我的中文水平是..." 根据CEFR和新版HSK标准

A1或HSK 1 (初学者)	A2或HSK 2 (初级)	B1或HSK 3 (中级)	B2或HSK 4 (中高级)	高于C1或HSK 5 (高级)
☐	☐	☐	☐	☐

19. 请说明你是如何学习中文的。

自学, 包括媒体内容、 阅读书籍、使用应用程序	主要通过自学, 偶尔参 加正式课程	自学和正式课程相结合	主要通过正式课程, 偶 尔进行自学	完全通过正式课程
☐	☐	☐	☐	☐

20. 在你的中文课程中, 融入了多少中国文化?

一点也没有	很小程度上	适度程度上	较大程度上	非常程度上
☐	☐	☐	☐	☐

21. 由于语言学习, 你对中国文化的认知改变了多少?

一点也没有	稍微	适度	显著	非常
☐	☐	☐	☐	☐

22. 请注明你的原籍国家

请评价你对以下中国文化元素的了解程度

23. 阴阳

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

24. 《孙子兵法》

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

25. 习近平思想

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

26. 毛泽东思想

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

27. 京剧	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
28. 太极拳（中国武术）	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
29. 儒家思想	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
30. 道家思想	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
31. 贴春联（包括“春”联和“福”字）	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
32. 红包（内含钱的红色信封）	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
33. 高考	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
34. 军训（强制性军事训练）	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
35. 佛教	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
36. 道教	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐
37. 莫言	不了解	了解有限	适度了解	较多了解	非常了解
	☐	☐	☐	☐	☐

38. 《三国演义》

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

39. 水墨画

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

40. 工笔画

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

41. 酒文化礼仪（如敬酒、倒酒和饮酒习俗）

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

42. 拱手礼（传统的中式问候）

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

43. 长城

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

44. 兵马俑

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

45. 火锅

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

46. 饺子

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

47. 龙井茶

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

48. 乌龙茶

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

49. 孙悟空

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

50. 哪吒

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

51. 灯笼

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

52. 爆竹

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

53. 春节

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

54. 中秋节

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

55. 旗袍

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

56. 唐装

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

57. 汉族

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

58. 藏族

不了解	了解有限	适度了解	较多了解	非常了解
☐	☐	☐	☐	☐

59. 我可以区分简体字和繁体字的程度

一点也不能区分	稍微能区分	适度能区分	非常能区分	完全能区分
☐	☐	☐	☐	☐

60. 请注明你的第二语言 (L2)

61. 请注明你的第三语言 (L3)

62. 请注明你的第四语言 (L4)

APPENDIX C Ethics Approval Document



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Application	Academic Year 2023/4
Applicant Code	HT68
Applicant/Supervisor Name	Minyeong Ha / Dr. Lorna Carson and Dr. Kathleen McTiernan
Title of Research	To what extent do Chinese foreign language learners (CFL), with different first languages (L1), report having different levels of knowledge of various aspects of Chinese culture?
Date of this letter	02.05.24

Dear Minyeong,

Your submission for ethical approval for the research project above was considered by the Research Ethics Committee, School of Linguistic, Speech and Communication Sciences, Trinity College Dublin on 02.05.24 and has been approved in full.

Please note:

- (i) On completion of research projects, applicants should complete the *End of Project Report Form* (which can be found at: <https://www.tcd.ie/slscs/research/ethics/>) and submit one electronic copy (to slscs@tcd.ie)
- (ii) The REC requests, in particular, that you attend to your commitments regarding the storage and destruction of data arising from this research, in keeping with REC policy and General Data Protection Regulation (GDPR) guidelines.

We wish you every luck with your research.

Best wishes,

Dr Bronagh Ćatibušić
Chair, Research Ethics Committee
School of Linguistic, Speech and Communication Sciences

Scoil na nEolaíochtaí Teangeolaíochta,
Uirlabhra agus Cumarsáide,
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School of Linguistic, Speech &
Communication Sciences,
Trinity College,
Dublin 2, Ireland

T 353 (0)1 896 1560
slscs@tcd.ie
www.tcd.ie/slscs

APPENDIX D Participant Recruitment Infographic (English)



The infographic is set against a red background with traditional Chinese decorative elements. In the top left, four red lanterns hang vertically. In the top right, there is a red geometric pattern resembling a stylized '囍' (double happiness) character. In the bottom left, another red geometric pattern is visible. The central text is in a bold, black, sans-serif font. Below the main title, there is a line of smaller text and an illustration of two red envelopes (one with the character '福' - fortune). The call to action is in a large, bold, black font. The survey link is in blue text with underlines. A QR code is located in the bottom right corner, with the text 'Scan QR' above it.

ARE YOU LEARNING CHINESE?

Are you over 18? Join an anonymous survey
and dive into the wonders of Chinese culture!



Click the link to begin

[https://eu.surveymonkey.com
/r/englishversion2024](https://eu.surveymonkey.com/r/englishversion2024)

Scan QR





学汉语吗?

你是否已满18岁? 参与匿名调查
探索奇妙的中国文化吧!

请点击以下链接开始

<https://eu.surveymonkey.com/r/chineseversion2024>

扫描开始



APPENDIX F Email Recruitment Leaflet (Screenshot)

Minyeong Ha <hami@tcd.ie>

Request for Collaboration in Anonymous Survey Distribution [Ph.D. in TCD]

Dear [Institution/Coordinator/Administrator]

I am writing to request your kind assistance with participant recruitment for my PhD research at Trinity College Dublin.

The dissertation is titled: Chinese as a Foreign Language Learners' Knowledge of Chinese Culture and the Chinese Language.

The central research question guiding this study is: How do linguistic proficiency, learning experiences, and cultural exposure influence Chinese as a Foreign Language (CFL) learners' knowledge of Chinese culture and language?

To address this question, I am conducting an anonymous online survey among CFL learners. I would be very grateful if you could share this survey with your learners. The survey will take approximately 5-10 minutes to complete, participation is entirely voluntary, and all responses will be kept strictly confidential.

Your support in sharing this with your learners would make a valuable contribution to the completion of my PhD research.

Thank you very much for your time and kind cooperation.

Sincerely,

Minyeong Ha

PhD Candidate

Attached file (Appendix A / B / C / D / E)

APPENDIX G Social Media Recruitment Leaflet (Screenshot)

ARE YOU LEARNING CHINESE?

Are you over 18? Join an anonymous survey
and dive into the wonders of Chinese culture!



Click the link to begin

[https://eu.surveymonkey.com
/r/englishversion2024](https://eu.surveymonkey.com/r/englishversion2024)

Scan QR



CFL 对外汉语

#汉语 #对外汉语 #汉语国际教育
#汉语言文学 #cfl #CFL
#chinese #china
#chineselanguage
#language_exchange



Like



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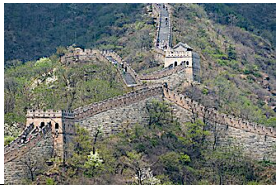
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APPENDIX H Explanation of Selected Chinese Cultural Elements Included in the Survey

Cultural elements (Image description)	Brief Explanation	Question No.
Ying and Yang (阴阳) 	A foundational concept in classical Chinese philosophy describing the dynamic interaction of complementary forces in nature and society. Yin and yang represent interdependence and balance and the idea has influenced Chinese cosmology, medicine, ethics, and daily life practices.	(Q23)
The Art of War 《孙子兵法》 	An ancient Chinese military treatise attributed to Sun Zi (Sun Tzu), dating to the Eastern Zhou period. It presents strategic principles concerning warfare, leadership, and conflict management and has influenced military thought and strategic studies globally.	(Q24)
Xi Jinping Thought 习近平思想 	A contemporary political ideology formally known as “Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era.” It outlines guiding principles for China’s governance, development strategy, and national policy in the 21st century.	(Q25)
Mao Zedong Thought 毛泽东思想 	A political and ideological framework developed from Mao Zedong’s interpretation of Marxism - Leninism adapted to Chinese historical and social conditions. It shaped China’s revolutionary movement and early state formation in the 20th century.	(Q26)
Peking Opera (Beijing Opera) 京剧 	A traditional form of Chinese opera combining music, vocal performance, dance, mime, and acrobatics. It is recognised as a major cultural heritage genre and is known for its stylised costumes, facial makeup, and symbolic stage movements.	(Q27)
Tai Chi (Chinese martial arts) 太极拳 	A traditional Chinese martial art characterised by slow, flowing movements and emphasis on balance and internal energy (qi). It is practised both as self-defence and as a form of exercise associated with health and meditation.	(Q28)

Rujia sixiang (Confucian philosophy) 儒家思想 	A philosophical tradition originating from Confucius (551–479 BCE), emphasising ethical conduct, social harmony, filial piety, and moral cultivation. It has profoundly shaped Chinese social values, education, and political thought.	(Q29)
Daojia sixiang (Taoist philosophy) 道家思想 	A philosophical tradition associated with Laozi and Zhuangzi, centred on harmony with the Dao (the Way), naturalness, and non-action (wu wei). It has influenced Chinese spirituality, cosmology, and aesthetics.	(Q30)
Putting up couplets (including "Spring" couplets and "Fu" characters) 贴春联(包括“春”联和“福”字) 	Red paper banners with poetic phrases displayed on doorways during the Spring Festival. They symbolise good fortune, prosperity, and hopes for the coming year.	(Q31)
Hong Bao (Red envelope with money in it) 红包 	Red envelopes containing money traditionally given during festivals, weddings, and celebrations. They symbolise blessings, prosperity, and good luck.	(Q32)
Gao Kao (The annual national undergraduate admission exam of China) 高考 	Gaokao (高考) refers to the National Higher Education Entrance Examination in China. It functions as the primary mechanism for university admission and plays a central role in shaping educational trajectories and social mobility.	(Q33)
Jun Xun (Mandatory Military training) 军训 	Mandatory military training commonly required for secondary school or university students in China. It is intended to promote discipline, physical fitness, and collective identity.	(Q34)

Buddhism 佛教 	A major world religion introduced to China during the Han dynasty. It has significantly influenced Chinese philosophy, art, literature, and religious practices.	(Q35)
Taoism 道教 	An indigenous Chinese religious tradition based on Daoist philosophy, incorporating ritual practices, cosmology, and beliefs in immortality and spiritual cultivation.	(Q36)
Mo Yan 莫言 	A contemporary Chinese novelist and Nobel Prize laureate in Literature (2012). His works often blend historical narrative, folklore, magical realism, and social commentary rooted in rural China. His literary style is noted for its vivid imagery, satirical tone, and engagement with modern Chinese historical experience.	(Q37)
Romance of the Three Kingdoms 《三国演义》 	A classical Chinese historical novel attributed to Luo Guanzhong, depicting events during the late Eastern Han dynasty. It is one of China's Four Great Classical Novels and has deeply influenced Chinese popular culture, political imagination, and moral archetypes. Many idioms, strategic concepts, and historical figures familiar to Chinese speakers originate from this text.	(Q38)
Shui Mo Hua (Ink and wash painting) 水墨画 	A traditional Chinese painting style using black ink with varying intensities. It emphasises expressive brushwork, negative space, and philosophical symbolism. The style reflects broader aesthetic principles associated with literati culture and Daoist-influenced notions of harmony with nature.	(Q39)
Gong Bi Hua (Meticulous painting) 工笔画 	A detailed and meticulous Chinese painting technique characterised by precise brushwork and careful colouring. Gongbi emphasises accuracy, clarity, and refined detail. It has historically been associated with court art and decorative traditions.	(Q40)
Etiquette of Alcohol Culture	Social customs surrounding alcohol consumption in Chinese culture, including	(Q41)

(e.g., Seating arrangements, toasting, pouring, and drinking customs) 酒文化礼仪 (如敬酒、倒酒和饮酒习俗) 	seating arrangements, toasting rituals, and hierarchical respect during banquets. These practices often reflect social hierarchy, relational obligations, and concepts of reciprocity. Alcohol etiquette plays a significant role in business, political, and familial gatherings.	
Gong shou li (The fist-and-palm traditional Chinese greeting) 拱手礼 (传统的中式问候) 	A traditional Chinese greeting gesture involving clasped hands, symbolising respect and courtesy. Historically used in formal interactions, it has reappeared in contemporary contexts as a cultural symbol. The gesture reflects embodied expressions of hierarchy and politeness.	(Q42)
Chang Cheng (The Great Wall) 长城 	A series of ancient defensive fortifications built across northern China. It is a symbol of Chinese civilisation, territorial continuity, and historical endurance. The structure has become an internationally recognised emblem of China.	(Q43)
Bing Ma Yong (The Terracotta Army) 兵马俑 	A collection of life-sized clay soldiers buried with the first Emperor of China (Qin Shi Huang). It is recognised as a major archaeological discovery and UNESCO World Heritage site. The site illustrates early imperial authority and military organisation in ancient China.	(Q44)
Jiao Zi (Dumpling) 饺子 	Traditional Chinese dumplings commonly eaten during the Spring Festival and other celebrations, symbolising prosperity. Their shape is often associated with ancient Chinese currency, reinforcing the symbolism of wealth. Jiaozi are closely linked to family reunion practices.	(Q45)
Huo Guo (Hot Pot) 火锅 	A communal dining style in which ingredients are cooked in simmering broth at the table. It reflects social interaction, shared participation, and regional culinary traditions. Different regions of China are known for distinctive hot pot flavours and preparation styles.	(Q46)

Long Jing tea (Dragon Well Tea) 龙井茶 	A famous variety of green tea produced in Zhejiang Province. It is valued for its distinctive flavour and historical association with imperial patronage. Longjing tea is often regarded as representative of refined Chinese tea culture.	(Q47)
Oolong tea (Wu-lung Tea) 乌龙茶 	A partially oxidised tea originating from China, known for its complex flavour profile and traditional tea preparation practices. It occupies an intermediate category between green and black tea. Oolong tea culture emphasises careful brewing techniques and sensory appreciation.	(Q48)
Sun Wu Kong (The Monkey King) 孙悟空 	A legendary figure from the classical novel <i>Journey to the West</i>. He is depicted as a rebellious, powerful monkey king possessing supernatural abilities. The character symbolises wit, defiance, and spiritual transformation in Chinese narrative tradition.	(Q49)
Ne Zha (Marshal of the Central Altar) 哪吒 	A mythological hero appearing in Chinese folklore and classical literature. Nezha is often portrayed as a youthful warrior figure with supernatural powers and themes of resistance and filial conflict.	(Q50)
Deng Long (Red Lanterns) 灯笼 	Traditional decorative lanterns displayed during festivals and celebrations. They symbolise prosperity, reunion, and festive joy. Lantern imagery is closely associated with the Lunar New Year and the Lantern Festival.	(Q51)
Bao Zhú (Firecrackers) 爆竹	Explosive devices traditionally used during festivals to ward off evil spirits and celebrate important occasions. Their loud sound is	(Q52)

	symbolically linked to protection and renewal. Firecrackers remain a prominent element of New Year celebrations despite modern safety regulations.	
Chun Jie (The Spring Festival) 春节 	The most important traditional festival in China, marking the Lunar New Year. It involves family reunion, ritual practices, gift exchange, and symbolic customs. The festival represents renewal, ancestral continuity, and social cohesion.	(Q53)
Zhong Qiu Jie (Mid-Autumn Festival) 中秋节 	A traditional harvest festival celebrating reunion and the full moon, commonly associated with mooncakes. It symbolises completeness, harmony, and familial unity.	(Q54)
Qi Pao/Cheongsam (Traditional dress) 旗袍 	A traditional Chinese dress style associated with 20th-century urban fashion. It is often regarded as a symbol of Chinese femininity and cultural identity. The garment reflects the historical blending of Manchu and Han clothing traditions.	(Q55)
Tang Zhuang (Tang suits) 唐装 	A style of traditional Chinese jacket characterised by a mandarin collar and decorative fastenings. It is frequently worn during formal occasions and cultural events. The garment has become a modern symbolic representation of traditional Chinese attire.	(Q56)
Han Zu (Han, Majority Ethnic Group) 汉族 	The majority ethnic group in China, comprising over 90% of the population. Han culture has historically shaped mainstream Chinese language, customs, and political structures. The term is central to discussions of ethnicity and national identity in China.	(Q57)
Zang Zu (Tibetan, Minority Ethnic Group) 藏族	One of China's recognised ethnic minority groups, with distinct linguistic, religious, and cultural traditions rooted in Tibetan Buddhism. Tibetan cultural practices include unique architectural styles, ritual systems,	(Q58)

		and artistic traditions. The group plays an important role in discussions of cultural diversity within China.	
<i>Image source: Wikimedia Commons, licensed under CC BY-SA 4.0.</i>			

APPENDIX I Correlation Analysis Results for the Whole Dataset (SPSS Output)

		Correlations																					
		Participant age	A number of countries participants have visited	Enjoyment of Chinese Culture	Experience of visiting China	Experience of living with Chinese people	Identification with Chinese heritage	Participant relationships with Chinese individuals	Importance of learning Chinese aspects in Chinese language study	Effect of Chinese language use on behaviour	Initial experience of "Culture Shock" when encountering aspects of Chinese culture	Engagement in Chinese cultural festivals or events	Linguistic Non-Equivalence of Chinese Terms	Duration of participant Chinese language learning	Weekly time dedication to studying Chinese	Reported Chinese proficiency level (CEFR and HSK)	Method of studying Chinese	Extent of Chinese cultural incorporation in participants' Chinese language classes	Impact of Chinese language learning on participants' cultural perception	Participants' Country of Origin	Knowledge of Ying and Yang	Knowledge of The Art of War	Knowledge of Xi Jinping Thought
Participant age	Pears on Correlation	1	-.093	.038	.365**	-.034	-.224	-.047	.067	.088	.055	.094	.229	.192	-.302*	.356**	-.175	-.206	-.158	.016	.150	.182	.352**
	Sig. (2-tailed)		.440	.752	.002	.779	.060	.696	.578	.467	.649	.434	.054	.108	.010	.002	.145	.086	.189	.898	.213	.128	.003
A number of countries participants have visited	Pears on Correlation	-.093	1	.264*	.010	.029	.058	.054	-.038	-.133	-.012	.045	-.062	-.024	.169	-.094	-.303*	-.182	-.364**	-.063	.061	.105	-.039
	Sig. (2-tailed)	.440		.026	.931	.809	.630	.656	.750	.268	.924	.708	.609	.843	.158	.435	.010	.128	.002	.602	.613	.385	.747
Enjoyment of Chinese Culture	Pears on Correlation	.038	.264*	1	-.195	.010	-.160	.032	-.067	.061	-.154	.004	-.038	-.040	.262*	.031	-.088	-.084	.034	.025	-.088	-.184	-.133

	Sig. (2-tailed)	.752	.026		.102	.937	.182	.788	.582	.613	.203	.973	.754	.741	.027	.797	.467	.484	.776	.834	.464	.125	.267
Experience of visiting China	Pearson Correlation	.365**	.010	-.195	1	.328**	.343**	.002	-.073	.166	.124	.166	.467**	.583*	-.287*	.686**	-.297*	-.058	-.056	-.189	.213	.211	.346**
	Sig. (2-tailed)	.002	.931	.102		.005	.003	.988	.544	.166	.305	.167	<.001	<.001	.015	<.001	.012	.632	.642	.115	.075	.078	.003
Experience of living with Chinese people	Pearson Correlation	-.034	.029	.010	.328**	1	.287*	.039	-.065	.011	.064	.227	.090	.086	-.084	.128	-.165	-.069	-.155	.150	.127	.096	-.015
	Sig. (2-tailed)	.779	.809	.937	.005		.015	.749	.592	.926	.598	.057	.458	.476	.488	.289	.170	.569	.197	.213	.292	.426	.903
Identification with Chinese heritage	Pearson Correlation	-.224	.058	-.160	.343**	.287*	1	-.030	-.140	.062	.066	.263*	.167	.203	.089	.103	-.282*	-.114	-.110	-.005	.019	.051	.046
	Sig. (2-tailed)	.060	.630	.182	.003	.015		.805	.243	.609	.588	.027	.163	.089	.459	.392	.017	.343	.360	.970	.872	.672	.701
Participant relationships with Chinese individuals	Pearson Correlation	-.047	.054	.032	.002	.039	-.030	1	.109	.152	-.024	.053	-.050	.109	.002	.100	.157	.194	.150	-.140	.032	.288*	-.073
	Sig. (2-tailed)	.696	.656	.788	.988	.749	.805		.367	.206	.845	.662	.681	.367	.984	.405	.191	.105	.211	.245	.794	.015	.543
Importance of learning Chinese cultural aspects	Pearson Correlation	.067	-.038	-.067	-.073	-.065	-.140	.109	1	.349*	.026	.117	.071	.040	-.012	-.098	.005	.119	.292*	.126	.091	.175	.058
	Sig. (2-tailed)	.578	.750	.582	.544	.592	.243	.367		.003	.833	.333	.558	.740	.923	.417	.970	.324	.013	.296	.453	.144	.630

in Chinese language study	tailed)																							
Influence of popular cultural elements	Pearson Correlation	-.028	.018	.033	.052	-.128	.077	.216	.376**	.419*	.000	.169	.141	.054	.102	.024	.051	.311**	.367**	-.076	.197	.259*	.007	
	Sig. (2-tailed)	.816	.880	.784	.667	.288	.523	.071	.001	<.001	1.000	.158	.240	.655	.399	.840	.675	.008	.002	.529	.099	.029	.953	
Effect of Chinese language use on behavior	Pearson Correlation	.088	-.133	.061	.166	.011	.062	.152	.349**	1	.349**	.414**	.521**	.299*	.081	.252*	.084	.263*	.457**	.191	-.066	.089	.101	
	Sig. (2-tailed)	.467	.268	.613	.166	.926	.609	.206	.003		.003	<.001	<.001	.011	.499	.034	.484	.027	<.001	.111	.583	.462	.401	
Initial experience of "Culture Shock" when encountering aspects of Chinese culture	Pearson Correlation	.055	-.012	-.154	.124	.064	.066	-.024	.026	.349*	1	-.022	.149	.090	.016	.169	-.057	.040	.075	.122	-.340*	-.168	.034	
	Sig. (2-tailed)	.649	.924	.203	.305	.598	.588	.845	.833	.003		.859	.219	.459	.896	.163	.638	.745	.535	.313	.004	.165	.777	
Engagement in Chinese cultural festivals or events	Pearson Correlation	.094	.045	.004	.166	.227	.263*	.053	.117	.414*	-.022	1	.345**	.436*	.211	.139	-.132	-.016	.191	.325**	.179	.331**	.182	
	Sig. (2-tailed)	.434	.708	.973	.167	.057	.027	.662	.333	<.001	.859		.003	<.001	.077	.248	.273	.893	.111	.006	.135	.005	.129	
Linguistic Non-	Pearson	.229	-.062	-.038	.467**	.090	.167	-.050	.071	.521*	.149	.345**	1	.451*	-.054	.443**	-.152	.079	.275*	.121	-.011	.009	.164	

Equivalence of Chinese Terms	Correlation Sig. (2-tailed)	.054	.609	.754	<.001	.458	.163	.681	.558	<.001	.219	.003		<.001	.655	<.001	.206	.514	.020	.316	.927	.938	.171
Duration of participant Chinese language learning	Pearson Correlation Sig. (2-tailed)	.192	-.024	-.040	.583**	.086	.203	.109	.040	.299*	.090	.436**	.451**	1	-.065	.726**	-.173	.069	.264*	-.051	.076	.106	.260*
Weekly time dedication to studying Chinese	Pearson Correlation Sig. (2-tailed)	.108	.843	.741	<.001	.476	.089	.367	.740	.011	.459	<.001	<.001		.587	<.001	.148	.570	.026	.673	.527	.378	.029
Reported Chinese proficiency level (CEFR and HSK)	Pearson Correlation Sig. (2-tailed)	-.302*	.169	.262*	-.287*	-.084	.089	.002	-.012	.081	.016	.211	-.054	-.065	1	-.088	.074	.094	.319**	.099	-.028	.001	-.087
Method of studying Chinese	Pearson Correlation Sig. (2-tailed)	.010	.158	.027	.015	.488	.459	.984	.923	.499	.896	.077	.655	.587		.465	.540	.437	.007	.411	.815	.991	.469
Extent of Chinese cultural incorporation	Pearson Correlation Sig. (2-tailed)	.356**	-.094	.031	.686**	.128	.103	.100	-.098	.252*	.169	.139	.443**	.726**	-.088	1	-.155	.098	.120	-.073	.113	.095	.227
	Pearson Correlation Sig. (2-tailed)	.002	.435	.797	<.001	.289	.392	.405	.417	.034	.163	.248	<.001	<.001	.465		.198	.417	.319	.547	.349	.432	.057
	Pearson Correlation Sig. (2-tailed)	-.175	-.303*	-.088	-.297*	-.165	-.282*	.157	.005	.084	-.057	-.132	-.152	-.173	.074	-.155	1	.409**	.257*	-.020	.000	.003	-.041
	Pearson Correlation Sig. (2-tailed)	.145	.010	.467	.012	.170	.017	.191	.970	.484	.638	.273	.206	.148	.540	.198		<.001	.031	.868	1.000	.979	.734
	Pearson Correlation Sig. (2-tailed)	-.206	-.182	-.084	-.058	-.069	-.114	.194	.119	.263*	.040	-.016	.079	.069	.094	.098	.409**	1	.491**	-.130	.070	.046	.060

ation in participa nts' Chinese language classes	Sig. (2- tailed)	.086	.128	.484	.632	.569	.343	.105	.324	.027	.745	.893	.514	.570	.437	.417	<.00 1		<.001	.280	.560	.703	.621
Impact of Chinese language learning on participa nts' cultural percepti on	Pears on Corre lation	-.158	-.364* *	.034	-.056	-.155	-.110	.150	.292*	.457* *	.075	.191	.275*	.264*	.319* *	.120	.257* *	.491**	1	.016	-.031	-.028	-.042
	Sig. (2- tailed)	.189	.002	.776	.642	.197	.360	.211	.013	<.00 1	.535	.111	.020	.026	.007	.319	.031	<.001		.897	.798	.818	.730
Participa nts' Country of Origin	Pears on Corre lation	.016	-.063	.025	-.189	.150	-.005	-.140	.126	.191	.122	.325**	.121	-.051	.099	-.073	-.02 0	-.130	.016	1	.087	.002	.031
	Sig. (2- tailed)	.898	.602	.834	.115	.213	.970	.245	.296	.111	.313	.006	.316	.673	.411	.547	.868	.280	.897		.471	.987	.800
Knowled ge of Ying and Yang	Pears on Corre lation	.150	.061	-.088	.213	.127	.019	.032	.091	-.066	-.340**	.179	-.011	.076	-.028	.113	.000	.070	-.031	.087	1	.514**	.402**
	Sig. (2- tailed)	.213	.613	.464	.075	.292	.872	.794	.453	.583	.004	.135	.927	.527	.815	.349	1.00 0	.560	.798	.471		<.001	<.001
Knowled ge of The Art of War	Pears on Corre lation	.182	.105	-.184	.211	.096	.051	.288*	.175	.089	-.168	.331**	.009	.106	.001	.095	.003	.046	-.028	.002	.514**	1	.295*
	Sig. (2- tailed)	.128	.385	.125	.078	.426	.672	.015	.144	.462	.165	.005	.938	.378	.991	.432	.979	.703	.818	.987	<.001		.013

Knowledge of Xi Jin Ping Thought	Pearson Correlation	.352**	-.039	-.133	.346**	-.015	.046	-.073	.058	.101	.034	.182	.164	.260*	-.087	.227	-.041	.060	-.042	.031	.402**	.295*	1
	Sig. (2-tailed)	.003	.747	.267	.003	.903	.701	.543	.630	.401	.777	.129	.171	.029	.469	.057	.734	.621	.730	.800	<.001	.013	
Knowledge of Mao Zedong Thought	Pearson Correlation	.259*	-.013	-.210	.495**	.032	.127	-.005	.118	.182	-.068	.295*	.255*	.338**	-.064	.262*	.013	.053	.052	-.029	.507**	.443**	.820**
	Sig. (2-tailed)	.029	.917	.079	<.001	.789	.292	.966	.327	.128	.577	.012	.032	.004	.596	.027	.916	.660	.666	.813	<.001	<.001	<.001
Knowledge of Peking Opera (Beijing Opera)	Pearson Correlation	-.035	.103	-.036	.179	.018	.349**	.157	.036	.224	-.283*	.500**	.056	.285*	.091	.133	.104	.129	.043	.021	.361**	.320**	.244*
	Sig. (2-tailed)	.774	.390	.763	.135	.881	.003	.191	.766	.060	.018	<.001	.642	.016	.450	.268	.389	.285	.725	.859	.002	.007	.040
Knowledge of Tai Chi (Chinese martial arts)	Pearson Correlation	.004	.017	.085	.060	.042	.214	.005	.126	.172	-.231	.458**	.037	.143	.090	-.063	.003	-.110	.181	.227	.449**	.276*	.121
	Sig. (2-tailed)	.975	.885	.479	.620	.730	.073	.966	.295	.150	.055	<.001	.758	.234	.457	.602	.978	.361	.131	.057	<.001	.020	.313
Knowledge of Rujia Sixiang (Confucius philosophy)	Pearson Correlation	.228	-.102	-.216	.327**	.107	.146	.077	.187	.188	.033	.338**	.159	.419**	-.051	.363**	.055	.067	.046	.142	.413**	.361**	.392**
	Sig. (2-tailed)	.056	.398	.070	.005	.377	.226	.521	.119	.117	.784	.004	.186	<.001	.673	.002	.647	.581	.706	.239	<.001	.002	<.001
Knowledge of	Pearson	.187	-.046	-.066	.209	-.010	.094	.109	.231	.317**	-.007	.389**	.163	.413**	-.004	.367**	-.023	.144	.122	.093	.372**	.284*	.347**

Daojia Sixiang (Taoist philosophy)	Correlation Sig. (2-tailed)	.119	.700	.584	.081	.935	.437	.366	.052	.007	.954	<.001	.174	<.001	.973	.002	.846	.230	.310	.439	.001	.016	.003
Knowledge of Putting up couplets (including "Spring" couplets and "Fu" characters)	Pearson Correlation Sig. (2-tailed)	.331**	-.010	.086	.209	.181	.250*	-.030	.209	.264*	.099	.421**	.164	.337*	.029	.327**	-.111	.070	.070	.082	.231	.176	.288*
		.005	.938	.482	.086	.137	.038	.806	.084	.028	.420	<.001	.177	.005	.810	.006	.364	.570	.568	.500	.056	.149	.017
Knowledge of Hong Bao (Red envelope with money in it)	Pearson Correlation Sig. (2-tailed)	.146	-.093	-.125	.411**	.279*	.291*	-.024	.012	.166	-.070	.496**	.287*	.483*	.001	.372**	-.040	-.137	.010	.116	.330**	.288*	.340**
		.223	.440	.299	<.001	.018	.014	.841	.923	.166	.566	<.001	.015	<.001	.991	.001	.739	.253	.932	.335	.005	.015	.004
Knowledge of Gao Kao (Annual national undergraduate admission exam of China)	Pearson Correlation Sig. (2-tailed)	.077	-.130	-.025	.438**	.197	.347**	.159	.098	.345*	-.050	.480**	.374**	.499*	.113	.413**	-.048	.109	.370**	-.029	.314**	.351**	.397**
		.525	.279	.837	<.001	.100	.003	.186	.417	.003	.680	<.001	.001	<.001	.349	<.001	.691	.364	.001	.807	.008	.003	<.001
Knowledge of Jun Xun (Mandate)	Pearson Correlation	.206	-.251*	.026	.159	.084	.229	.245*	.125	.387*	.008	.291*	.163	.099	.131	.296*	.152	.167	.300*	.103	.280*	.290*	.206

ory Military Training)	Sig. (2- tailed)	.085	.035	.829	.186	.485	.055	.040	.298	<.00 1	.951	.014	.175	.411	.275	.012	.206	.164	.011	.391	.018	.014	.085
Knowled ge of Buddhis m	Pears on Corre lation	.223	-.094	-.124	.056	.133	.080	-.040	.172	.100	-.115	.223	-.149	-.100	-.027	-.040	.008	-.126	-.192	.103	.420**	.492**	.180
	Sig. (2- tailed)	.062	.435	.302	.642	.269	.505	.738	.151	.409	.344	.062	.216	.408	.822	.742	.948	.296	.108	.394	<.001	<.001	.134
Knowled ge of Taoism	Pears on Corre lation	.175	-.095	-.051	.015	-.141	.003	.146	.237*	.320* *	-.191	.443**	.069	.223	.092	.131	.147	.105	.249*	.136	.373**	.379**	.140
	Sig. (2- tailed)	.145	.431	.673	.898	.242	.980	.223	.046	.007	.113	<.001	.570	.062	.447	.276	.221	.383	.036	.259	.001	.001	.245
Knowled ge of Mo Yan	Pears on Corre lation	.295*	-.103	.016	.350**	.057	.200	.121	.098	.399* *	.053	.360**	.237*	.260*	.056	.454**	-.05 4	.078	.151	.055	.254*	.422**	.230
	Sig. (2- tailed)	.013	.393	.892	.003	.638	.095	.316	.416	<.00 1	.664	.002	.047	.029	.642	<.001	.652	.519	.209	.648	.032	<.001	.054
Knowled ge of Romanc e of The Three Kingdo ms	Pears on Corre lation	.325**	-.072	-.007	.265*	.141	.141	.000	.070	.182	-.111	.320**	.091	.183	-.134	.326**	-.31 5**	-.152	-.179	.047	.167	.336**	.185
	Sig. (2- tailed)	.006	.548	.956	.025	.241	.242	.998	.563	.128	.362	.007	.452	.126	.264	.006	.007	.206	.136	.699	.165	.004	.123
Knowled ge of Shui Mo Hua (Ink and	Pears on Corre lation	.104	-.039	-.112	.205	.070	.175	.134	.125	.190	-.063	.338**	.098	.253*	-.120	.205	-.07 1	-.086	.020	-.095	.416**	.410**	.421**
	Sig. (2- tailed)	.388	.747	.351	.086	.564	.144	.264	.300	.113	.603	.004	.414	.033	.318	.087	.558	.474	.870	.433	<.001	<.001	<.001

wash painting)	tailed)																						
Knowledge of Gong Bi Hua (Meticulous painting)	Pearson Correlation Sig. (2-tailed)	.165	-.079	-.099	.239*	.050	.320**	.104	.082	.286*	.008	.464**	.104	.357*	-.078	.323**	.034	.050	.008	.022	.357**	.363**	.348**
		.170	.511	.410	.045	.681	.007	.387	.497	.016	.945	<.001	.388	.002	.516	.006	.777	.682	.949	.852	.002	.002	.003
Knowledge of Etiquette of Alcohol Culture	Pearson Correlation Sig. (2-tailed)	.344**	-.035	-.005	.299*	.141	.159	.151	.196	.368*	-.096	.446**	.375**	.280*	-.164	.212	.004	-.007	.082	.096	.267*	.330**	.224
		.003	.772	.965	.011	.240	.186	.207	.101	.002	.428	<.001	.001	.018	.170	.076	.971	.953	.497	.427	.024	.005	.060
Knowledge of Gong Shou Li	Pearson Correlation Sig. (2-tailed)	.183	-.072	-.126	.256*	.141	.199	.116	.023	.272*	-.035	.318**	.106	.168	-.091	.178	.085	.086	.029	-.065	.334**	.334**	.352**
		.126	.548	.297	.031	.242	.096	.336	.851	.022	.771	.007	.380	.161	.449	.138	.483	.474	.808	.588	.004	.004	.003
Knowledge of Chang Cheng (The Great Wall)	Pearson Correlation Sig. (2-tailed)	.119	.038	-.172	.282*	.183	.118	.110	.216	.152	-.174	.410**	.137	.299*	-.197	.071	.122	-.004	.058	-.025	.461**	.424**	.402**
		.324	.756	.154	.018	.129	.329	.364	.073	.208	.149	<.001	.259	.012	.103	.560	.314	.976	.635	.834	<.001	<.001	<.001
Knowledge of Bing Ma Yong (The Terracotta Army)	Pearson Correlation Sig. (2-tailed)	.108	-.123	-.192	.365**	.003	.105	-.050	.185	.111	-.136	.156	.062	.233	-.183	.113	.154	.012	.129	-.110	.447**	.228	.234*
		.371	.306	.108	.002	.982	.384	.678	.121	.356	.263	.195	.608	.050	.127	.350	.198	.922	.283	.363	<.001	.056	.050

Knowledge of Huo Guo (Hot Pot)	Pearson Correlation	.225	.013	-.016	.343**	.208	.199	.016	-.085	.190	-.056	.379**	.358**	.253*	.029	.309**	-.014	-.065	.040	.060	.268*	.054	.266*
	Sig. (2-tailed)	.059	.917	.895	.003	.082	.096	.895	.479	.113	.646	.001	.002	.033	.809	.009	.909	.589	.741	.619	.024	.656	.025
Knowledge of Jiao Zi (Dumpling)	Pearson Correlation	.146	-.042	-.086	.300*	.076	.251*	.019	-.114	.127	-.183	.279*	.312**	.266*	.016	.251*	-.041	-.164	-.016	-.005	.313**	.167	.239*
	Sig. (2-tailed)	.227	.731	.478	.012	.532	.036	.875	.347	.295	.133	.020	.009	.026	.894	.036	.733	.175	.897	.968	.008	.168	.047
Level of Knowledge of Long Jing tea	Pearson Correlation	.373**	.014	-.010	.315**	-.007	.163	.205	.243*	.298*	-.017	.364**	.310**	.134	-.130	.185	-.015	.034	-.061	.098	.450**	.510**	.284*
	Sig. (2-tailed)	.001	.907	.934	.007	.952	.175	.087	.041	.011	.886	.002	.008	.264	.280	.122	.903	.780	.611	.415	<.001	<.001	.016
Knowledge of Oolong tea	Pearson Correlation	.281*	-.044	.003	.184	.087	.104	.171	.114	.142	-.150	.351**	.180	.096	-.169	.106	-.077	-.154	-.087	.185	.504**	.399**	.357**
	Sig. (2-tailed)	.018	.715	.979	.124	.473	.386	.153	.343	.239	.214	.003	.133	.427	.159	.377	.522	.199	.469	.123	<.001	<.001	.002
Knowledge of Sun Wu Kong (The Monkey King)	Pearson Correlation	.287*	-.083	-.099	.459**	.299*	.180	.007	.025	.103	-.098	.226	.237*	.227	-.152	.406**	-.274*	-.133	-.255*	.084	.398**	.332**	.354**
	Sig. (2-tailed)	.015	.490	.413	<.001	.011	.133	.955	.837	.391	.419	.058	.047	.057	.206	<.001	.021	.268	.032	.486	<.001	.005	.002
Knowledge of Ne on	Pearson	.186	-.050	-.013	.223	.080	.261*	.081	.080	.362**	-.120	.491**	.230	.244*	.046	.271*	-.054	.113	.127	.129	.361**	.395**	.306**

Zha (Marshal of the Central Altar)	Corre lation Sig. (2- tailed)	.121	.678	.912	.062	.510	.028	.500	.508	.002	.321	<.001	.054	.040	.701	.022	.656	.347	.292	.283	.002	<.001	.009
Knowled ge of Deng Long (Red Lantern)	Pears on Corre lation Sig. (2- tailed)	.079	-.086	-.111	.325**	.125	.169	.006	.000	.123	-.276*	.437**	.145	.394*	-.049	.163	.090	-.016	.123	-.019	.541**	.368**	.323**
Knowled ge of Bao Zhu (Firecrac kers)	Pears on Corre lation Sig. (2- tailed)	.517	.481	.366	.007	.307	.166	.963	1.000	.315	.023	<.001	.234	<.001	.688	.181	.464	.899	.313	.878	<.001	.002	.007
Knowled ge of Chun Jie (The Spring Festival)	Pears on Corre lation Sig. (2- tailed)	.213	-.102	-.107	.202	.164	.068	.109	.235*	.144	-.181	.261*	.038	.175	-.114	.073	.016	.028	.143	-.024	.592**	.484**	.319**
Knowled ge of Zhong Qiu Jie (Mid- Autumn Festival)	Pears on Corre lation Sig. (2- tailed)	.075	.396	.376	.091	.171	.573	.364	.048	.230	.134	.028	.751	.145	.343	.546	.896	.817	.234	.840	<.001	<.001	.007
Knowled ge of Qi Pao/Che ongsam	Pears on Corre lation Sig. (2- tailed)	.278*	-.051	.052	.517**	.128	.143	.016	-.028	.185	-.080	.290*	.348**	.531*	.005	.532**	-.109	-.052	.058	-.104	.391**	.350**	.344**
		.019	.673	.667	<.001	.288	.235	.892	.815	.122	.511	.014	.003	<.001	.965	<.001	.366	.665	.632	.390	<.001	.003	.003
		.176	-.014	.053	.411**	.183	.119	.186	.038	.217	-.115	.387**	.228	.459*	.089	.448**	-.017	-.034	.192	-.065	.500**	.368**	.230
		.143	.909	.659	<.001	.126	.324	.121	.752	.069	.341	<.001	.056	<.001	.460	<.001	.890	.779	.108	.591	<.001	.002	.053
		.169	-.100	-.107	.452**	.260*	.261*	-.037	-.064	.273*	-.156	.449**	.280*	.484*	-.135	.380**	-.102	.016	.039	-.050	.380**	.289*	.287*

(traditional dress)	Sig. (2-tailed)	.158	.405	.375	<.001	.028	.028	.759	.595	.021	.196	<.001	.018	<.001	.263	.001	.397	.895	.747	.677	.001	.015	.015
Knowledge of Tang Zhuang (Tang suits)	Pearson Correlation	.184	.003	.003	.280*	.149	.123	.119	.132	.364*	-.070	.381**	.209	.430*	.063	.333**	.022	.172	.078	-.056	.406**	.346**	.293*
	Sig. (2-tailed)	.127	.982	.981	.019	.217	.311	.326	.278	.002	.569	.001	.082	<.001	.606	.005	.854	.155	.520	.647	<.001	.003	.014
Knowledge of HanZu (Han, majority ethnic group)	Pearson Correlation	.282*	.002	-.028	.604**	.307**	.192	.193	.138	.374*	.056	.515**	.340**	.689*	-.091	.543**	-.136	.084	.142	-.045	.424**	.436**	.457**
	Sig. (2-tailed)	.017	.984	.817	<.001	.009	.109	.107	.250	.001	.647	<.001	.004	<.001	.451	<.001	.257	.485	.239	.712	<.001	<.001	<.001
Knowledge of Zang Zu (Tibetan, minority ethnic group)	Pearson Correlation	.226	.019	-.011	.292*	.121	.080	.108	.175	.306*	.058	.358**	.265*	.246*	-.015	.179	-.031	.182	.070	.090	.275*	.438**	.279*
	Sig. (2-tailed)	.060	.877	.926	.014	.318	.511	.372	.147	.010	.634	.002	.027	.040	.905	.139	.802	.132	.564	.460	.021	<.001	.019
Participants' ability to distinguish between Simplified and Traditional Chinese	Pearson Correlation	.335**	-.011	.181	.638**	.205	.160	.156	.060	.389*	.093	.420**	.475**	.739*	-.109	.706**	-.210	.052	.214	-.051	.172	.134	.279*
	Sig. (2-tailed)	.005	.929	.135	<.001	.088	.186	.196	.623	<.001	.449	<.001	<.001	<.001	.370	<.001	.081	.668	.075	.672	.155	.269	.019
Participant	Pearson	.013	.017	.131	-.330*	-.050	-.257	-.104	.022	-.097	-.054	-.062	-.114	-.360**	.236	-.199	.135	-.007	-.081	.274*	-.086	-.077	-.126

Second Language (L2)	Correlation Sig. (2-tailed)	.923	.903	.331	.012	.710	.053	.443	.868	.471	.694	.649	.397	.006	.077	.137	.317	.960	.548	.040	.525	.571	.351
Participant Third Language (L3)	Pearson Correlation Sig. (2-tailed)	-.174	.110	-.041	-.290	-.135	-.105	-.231	.149	.162	.003	-.048	-.128	-.269	.068	-.372*	-.095	.008	.090	-.017	-.322*	-.285	-.358*
		.296	.513	.808	.077	.420	.532	.163	.373	.332	.986	.773	.444	.102	.685	.022	.571	.961	.590	.919	.049	.083	.028
Participant Fourth Language (L4)	Pearson Correlation Sig. (2-tailed)	-.176	.080	.162	-.261	-.258	.186	-.218	-.039	.260	.226	.177	.337	.211	.047	-.040	.025	-.043	.311	.197	-.250	-.351	-.112
		.422	.715	.459	.230	.235	.395	.317	.859	.231	.311	.420	.116	.334	.833	.856	.912	.844	.149	.368	.250	.100	.611
Participant Continent of Origin	Pearson Correlation Sig. (2-tailed)	-.193	.154	.261*	-.290*	.150	.085	-.021	.039	.061	.109	.177	-.034	-.164	.213	-.280*	.024	-.116	.117	.468**	-.073	-.047	-.233
		.107	.200	.028	.014	.211	.481	.864	.744	.613	.371	.140	.776	.171	.075	.018	.841	.336	.332	<.001	.547	.698	.050
Cultural Knowledge Mean Score	Pearson Correlation Sig. (2-tailed)	.308**	-.068	-.096	.454**	.180	.250*	.122	.154	.333*	-.138	.546**	.277*	.438*	-.058	.389**	-.029	.019	.083	.048	.608**	.557**	.498**
		.009	.571	.424	<.001	.134	.035	.311	.199	.005	.254	<.001	.020	<.001	.634	<.001	.812	.876	.492	.690	<.001	<.001	<.001

Correlations

Knowledge of	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Level of
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		of Mao Zedong Thought	of Peking Opera (Beijing Opera)	of Tai Chi (Chinese martial arts)	of Rujia Sixiang (Confucius philosophy)	of Daojia Sixiang (Taoist philosophy)	of Puttong couplets (including "Spring" couplets and "Fu" characters)	of Hong Bao (Red envelope with money in it)	Gao Kao (Annual national university admission exam of China)	of Jun Xun (Mandatory Military Training)	of Buddhism	of Taoism	of Mo Yan	of Romance of The Three Kingdoms	of Shui Mo Hua (Ink and wash painting)	of Gong Bi Hua (Meticulous painting)	of Etiquette of Alcohol Culture	of Gong Shou Li	of Chang Chen (The Great Wall)	of Bing Ma Yong (The Terracotta Army)	of Huo Guo (Hot Pot)	of Jiao Zi (Dumplings)	Knowledge of Long Jing tea
Participant age	Pearson Correlation	.259*	-.035	.004	.228	.187	.331**	.146	.077	.206	.223	.175	.295*	.325**	.104	.165	.344**	.183	.119	.108	.225	.146	.373**
	Sig. (2-tailed)	.029	.774	.975	.056	.119	.005	.223	.525	.085	.062	.145	.013	.006	.388	.170	.003	.126	.324	.371	.059	.227	.001
A number of countries participants have visited	Pearson Correlation	-.013	.103	.017	-.102	-.046	-.010	-.093	-.130	-.251*	-.094	-.095	-.103	-.072	-.039	-.079	-.035	-.072	.038	-.123	.013	-.042	.014
	Sig. (2-tailed)	.917	.390	.885	.398	.700	.938	.440	.279	.035	.435	.431	.393	.548	.747	.511	.772	.548	.756	.306	.917	.731	.907
Enjoyment of Chinese Culture	Pearson Correlation	-.210	-.036	.085	-.216	-.066	.086	-.125	-.025	.026	-.124	-.051	.016	-.007	-.112	-.099	-.005	-.126	-.172	-.192	-.016	-.086	-.010
	Sig. (2-tailed)	.079	.763	.479	.070	.584	.482	.299	.837	.829	.302	.673	.892	.956	.351	.410	.965	.297	.154	.108	.895	.478	.934
Experience of visiting China	Pearson Correlation	.495**	.179	.060	.327**	.209	.209	.411**	.438**	.159	.056	.015	.350**	.265*	.205	.239*	.299*	.256*	.282*	.365**	.343**	.300*	.315**

	Sig. (2-tailed)	<.001	.135	.620	.005	.081	.086	<.001	<.001	.186	.642	.898	.003	.025	.086	.045	.011	.031	.018	.002	.003	.012	.007
Experience of living with Chinese people	Pearson Correlation	.032	.018	.042	.107	-.010	.181	.279*	.197	.084	.133	-.141	.057	.141	.070	.050	.141	.141	.183	.003	.208	.076	-.007
	Sig. (2-tailed)	.789	.881	.730	.377	.935	.137	.018	.100	.485	.269	.242	.638	.241	.564	.681	.240	.242	.129	.982	.082	.532	.952
Identification with Chinese heritage	Pearson Correlation	.127	.349**	.214	.146	.094	.250*	.291*	.347**	.229	.080	.003	.200	.141	.175	.320**	.159	.199	.118	.105	.199	.251*	.163
	Sig. (2-tailed)	.292	.003	.073	.226	.437	.038	.014	.003	.055	.505	.980	.095	.242	.144	.007	.186	.096	.329	.384	.096	.036	.175
Participant relationships with Chinese individuals	Pearson Correlation	-.005	.157	.005	.077	.109	-.030	-.024	.159	.245*	-.040	.146	.121	.000	.134	.104	.151	.116	.110	-.050	.016	.019	.205
	Sig. (2-tailed)	.966	.191	.966	.521	.366	.806	.841	.186	.040	.738	.223	.316	.998	.264	.387	.207	.336	.364	.678	.895	.875	.087
Importance of learning Chinese cultural aspects in Chinese language study	Pearson Correlation	.118	.036	.126	.187	.231	.209	.012	.098	.125	.172	.237*	.098	.070	.125	.082	.196	.023	.216	.185	-.085	-.114	.243*
	Sig. (2-tailed)	.327	.766	.295	.119	.052	.084	.923	.417	.298	.151	.046	.416	.563	.300	.497	.101	.851	.073	.121	.479	.347	.041
Influence of popular	Pearson Correlation	.179	.181	.050	.106	.242*	.116	.111	.187	.266*	.176	.353**	.124	-.047	.168	.229	.145	.157	.166	.179	.021	-.021	.299*

cultural elements	Sig. (2-tailed)	.134	.132	.677	.379	.042	.343	.359	.118	.025	.142	.003	.304	.697	.162	.055	.229	.192	.169	.136	.863	.861	.011
Effect of Chinese language use on behavior	Pears on Correlation	.182	.224	.172	.188	.317**	.264*	.166	.345**	.387**	.100	.320**	.399**	.182	.190	.286*	.368**	.272*	.152	.111	.190	.127	.298*
	Sig. (2-tailed)	.128	.060	.150	.117	.007	.028	.166	.003	<.001	.409	.007	<.001	.128	.113	.016	.002	.022	.208	.356	.113	.295	.011
Initial experience of "Culture Shock" when encountering aspects of Chinese culture	Pears on Correlation	-.068	-.283*	-.231	.033	-.007	.099	-.070	-.050	.008	-.115	-.191	.053	-.111	-.063	.008	-.096	-.035	-.174	-.136	-.056	-.183	-.017
	Sig. (2-tailed)	.577	.018	.055	.784	.954	.420	.566	.680	.951	.344	.113	.664	.362	.603	.945	.428	.771	.149	.263	.646	.133	.886
Engagement in Chinese cultural festivals or events	Pears on Correlation	.295*	.500**	.458**	.338**	.389**	.421**	.496**	.480**	.291*	.223	.443**	.360**	.320**	.338**	.464**	.446**	.318**	.410**	.156	.379**	.279*	.364**
	Sig. (2-tailed)	.012	<.001	<.001	.004	<.001	<.001	<.001	<.001	.014	.062	<.001	.002	.007	.004	<.001	<.001	.007	<.001	.195	.001	.020	.002
Linguistic Non-Equivalence of Chinese Terms	Pears on Correlation	.255*	.056	.037	.159	.163	.164	.287*	.374**	.163	-.149	.069	.237*	.091	.098	.104	.375**	.106	.137	.062	.358**	.312**	.310**
	Sig. (2-tailed)	.032	.642	.758	.186	.174	.177	.015	.001	.175	.216	.570	.047	.452	.414	.388	.001	.380	.259	.608	.002	.009	.008
Duration of	Pears on	.338**	.285*	.143	.419**	.413**	.337**	.483**	.499**	.099	-.100	.223	.260*	.183	.253*	.357**	.280*	.168	.299*	.233	.253*	.266*	.134

participant	Correlation																						
Chinese language learning	Sig. (2-tailed)	.004	.016	.234	<.001	<.001	.005	<.001	<.001	.411	.408	.062	.029	.126	.033	.002	.018	.161	.012	.050	.033	.026	.264
Weekly time dedicated to studying Chinese	Pearson Correlation	-.064	.091	.090	-.051	-.004	.029	.001	.113	.131	-.027	.092	.056	-.134	-.120	-.078	-.164	-.091	-.197	-.183	.029	.016	-.130
	Sig. (2-tailed)	.596	.450	.457	.673	.973	.810	.991	.349	.275	.822	.447	.642	.264	.318	.516	.170	.449	.103	.127	.809	.894	.280
Reported Chinese proficiency level (CEFR and HSK)	Pearson Correlation	.262*	.133	-.063	.363**	.367**	.327**	.372**	.413**	.296*	-.040	.131	.454**	.326**	.205	.323**	.212	.178	.071	.113	.309**	.251*	.185
	Sig. (2-tailed)	.027	.268	.602	.002	.002	.006	.001	<.001	.012	.742	.276	<.001	.006	.087	.006	.076	.138	.560	.350	.009	.036	.122
Method of studying Chinese	Pearson Correlation	.013	.104	.003	.055	-.023	-.111	-.040	-.048	.152	.008	.147	-.054	-.315*	-.071	.034	.004	.085	.122	.154	-.014	-.041	-.015
	Sig. (2-tailed)	.916	.389	.978	.647	.846	.364	.739	.691	.206	.948	.221	.652	.007	.558	.777	.971	.483	.314	.198	.909	.733	.903
Extent of Chinese cultural incorporation in participants' Chinese language classes	Pearson Correlation	.053	.129	-.110	.067	.144	.070	-.137	.109	.167	-.126	.105	.078	-.152	-.086	.050	-.007	.086	-.004	.012	-.065	-.164	.034
	Sig. (2-tailed)	.660	.285	.361	.581	.230	.570	.253	.364	.164	.296	.383	.519	.206	.474	.682	.953	.474	.976	.922	.589	.175	.780

Impact of Chinese language learning on participants' cultural perception	Pears on Correlation	.052	.043	.181	.046	.122	.070	.010	.370**	.300*	-.192	.249*	.151	-.179	.020	.008	.082	.029	.058	.129	.040	-.016	-.061
	Sig. (2-tailed)	.666	.725	.131	.706	.310	.568	.932	.001	.011	.108	.036	.209	.136	.870	.949	.497	.808	.635	.283	.741	.897	.611
Participants' Country of Origin	Pears on Correlation	-.029	.021	.227	.142	.093	.082	.116	-.029	.103	.103	.136	.055	.047	-.095	.022	.096	-.065	-.025	-.110	.060	-.005	.098
	Sig. (2-tailed)	.813	.859	.057	.239	.439	.500	.335	.807	.391	.394	.259	.648	.699	.433	.852	.427	.588	.834	.363	.619	.968	.415
Knowledge of Ying and Yang	Pears on Correlation	.507**	.361**	.449**	.413**	.372**	.231	.330**	.314**	.280*	.420**	.373**	.254*	.167	.416**	.357**	.267*	.334**	.461**	.447**	.268*	.313**	.450**
	Sig. (2-tailed)	<.001	.002	<.001	<.001	.001	.056	.005	.008	.018	<.001	.001	.032	.165	<.001	.002	.024	.004	<.001	<.001	.024	.008	<.001
Knowledge of The Art of War	Pears on Correlation	.443**	.320**	.276*	.361**	.284*	.176	.288*	.351**	.290*	.492**	.379**	.422**	.336**	.410**	.363**	.330**	.334**	.424**	.228	.054	.167	.510**
	Sig. (2-tailed)	<.001	.007	.020	.002	.016	.149	.015	.003	.014	<.001	.001	<.001	.004	<.001	.002	.005	.004	<.001	.056	.656	.168	<.001
Knowledge of Xi Jin Ping Thought	Pears on Correlation	.820**	.244*	.121	.392**	.347**	.288*	.340**	.397**	.206	.180	.140	.230	.185	.421**	.348**	.224	.352**	.402**	.234*	.266*	.239*	.284*
	Sig. (2-tailed)	<.001	.040	.313	<.001	.003	.017	.004	<.001	.085	.134	.245	.054	.123	<.001	.003	.060	.003	<.001	.050	.025	.047	.016

	tailed)																						
Knowledge of Mao Zedong Thought	Pears on Correlation	1	.468**	.313**	.529**	.435**	.240*	.503**	.485**	.302*	.320**	.306**	.343**	.189	.473**	.434**	.399**	.453**	.578**	.475**	.405**	.355**	.430**
	Sig. (2-tailed)		<.001	.008	<.001	<.001	.047	<.001	<.001	.010	.006	.010	.003	.115	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.003	<.001
Knowledge of Peking Opera (Beijing Opera)	Pears on Correlation	.468**	1	.523**	.417**	.372**	.400**	.459**	.472**	.375**	.366**	.447**	.331**	.253*	.278*	.516**	.351**	.447**	.458**	.326**	.448**	.419**	.442**
	Sig. (2-tailed)	<.001		<.001	<.001	.001	<.001	<.001	<.001	.001	.002	<.001	.005	.033	.019	<.001	.003	<.001	<.001	.006	<.001	<.001	<.001
Knowledge of Tai Chi (Chinese martial arts)	Pears on Correlation	.313**	.523**	1	.314**	.326**	.380**	.384**	.409**	.296*	.353**	.493**	.230	.182	.414**	.343**	.372**	.325**	.516**	.265*	.211	.269*	.397**
	Sig. (2-tailed)	.008	<.001		.008	.006	.001	<.001	<.001	.012	.003	<.001	.054	.130	<.001	.003	.001	.006	<.001	.026	.078	.024	<.001
Knowledge of Rujia Sixiang (Confucius philosophy)	Pears on Correlation	.529**	.417**	.314**	1	.751**	.415**	.453**	.333**	.330**	.396**	.464**	.447**	.344**	.304**	.458**	.429**	.371**	.412**	.298*	.342**	.254*	.437**
	Sig. (2-tailed)	<.001	<.001	.008		<.001	<.001	<.001	.005	.005	<.001	<.001	<.001	.003	.010	<.001	<.001	.001	<.001	.012	.004	.034	<.001
Knowledge of Daojia Sixiang (Taoist philosophy)	Pears on Correlation	.435**	.372**	.326**	.751**	1	.585**	.452**	.318**	.467**	.340**	.701**	.510**	.418**	.485**	.653**	.468**	.443**	.368**	.309**	.172	.199	.462**
	Sig. (2-tailed)	<.001	.001	.006	<.001		<.001	<.001	.007	<.001	.004	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.002	.009	.150	.098	<.001

Knowledge of Putting up couplets (including "Spring" couplets and "Fu" characters)	Pearson Correlation	.240*	.400**	.380**	.415**	.585**	1	.442**	.356**	.550**	.329**	.443**	.447**	.416**	.421**	.655**	.463**	.483**	.394**	.221	.335**	.264*	.444**
	Sig. (2-tailed)	.047	<.001	.001	<.001	<.001		<.001	.003	<.001	.006	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.069	.005	.029	<.001
Knowledge of Hong Bao (Red envelope with money in it)	Pearson Correlation	.503**	.459**	.384**	.453**	.452**	.442**	1	.621**	.323**	.357**	.400**	.271*	.329**	.512**	.498**	.434**	.446**	.556**	.445**	.563**	.603**	.444**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001		<.001	.006	.002	<.001	.022	.005	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Knowledge of Gao Kao (Annual national undergraduate admission exam of China)	Pearson Correlation	.485**	.472**	.409**	.333**	.318**	.356**	.621**	1	.494**	.146	.297*	.380**	.166	.390**	.368**	.395**	.337**	.460**	.283*	.367**	.364**	.415**
	Sig. (2-tailed)	<.001	<.001	<.001	.005	.007	.003	<.001		<.001	.224	.012	.001	.165	<.001	.002	<.001	.004	<.001	.017	.002	.002	<.001
Knowledge of Jun Xun (Mandatory Military Training)	Pearson Correlation	.302*	.375**	.296*	.330**	.467**	.550**	.323**	.494**	1	.325**	.490**	.606**	.374**	.359**	.553**	.526**	.545**	.363**	.297*	.321**	.281*	.429**
	Sig. (2-tailed)	.010	.001	.012	.005	<.001	<.001	.006	<.001		.006	<.001	<.001	.001	.002	<.001	<.001	<.001	.002	.012	.006	.019	<.001
Knowledge of	Pearson	.320**	.366**	.353**	.396**	.340**	.329**	.357**	.146	.325**	1	.511**	.287*	.453**	.385**	.449**	.275*	.420**	.422**	.289*	.232	.262*	.430**

Buddhism	Correlation Sig. (2-tailed)	.006	.002	.003	<.001	.004	.006	.002	.224	.006		<.001	.015	<.001	<.001	<.001	.020	<.001	<.001	.014	.051	.029	<.001
Knowledge of Taoism	Pearson Correlation Sig. (2-tailed)	.306**	.447**	.493**	.464**	.701**	.443**	.400**	.297*	.490**	.511**	1	.475**	.326**	.524**	.647**	.481**	.468**	.447**	.316**	.161	.246*	.464**
		.010	<.001	<.001	<.001	<.001	<.001	<.001	.012	<.001	<.001		<.001	.006	<.001	<.001	<.001	<.001	<.001	.007	.180	.040	<.001
Knowledge of Mo Yan	Pearson Correlation Sig. (2-tailed)	.343**	.331**	.230	.447**	.510**	.447**	.271*	.380**	.606**	.287*	.475**	1	.601**	.421**	.545**	.422**	.405**	.234	.179	.274*	.177	.496**
		.003	.005	.054	<.001	<.001	<.001	.022	.001	<.001	.015	<.001		<.001	<.001	<.001	<.001	<.001	.051	.136	.021	.142	<.001
Knowledge of Romance of The Three Kingdoms	Pearson Correlation Sig. (2-tailed)	.189	.253*	.182	.344**	.418**	.416**	.329**	.166	.374**	.453**	.326**	.601**	1	.452**	.488**	.389**	.447**	.330**	.106	.206	.234	.332**
		.115	.033	.130	.003	<.001	<.001	.005	.165	.001	<.001	.006	<.001		<.001	<.001	<.001	<.001	.005	.379	.085	.052	.005
Knowledge of Shui Mo Hua (Ink and wash painting)	Pearson Correlation Sig. (2-tailed)	.473**	.278*	.414**	.304**	.485**	.421**	.512**	.390**	.359**	.385**	.524**	.421**	.452**	1	.741**	.411**	.593**	.584**	.368**	.292*	.276*	.380**
		<.001	.019	<.001	.010	<.001	<.001	<.001	<.001	.002	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001	.002	.013	.021	.001
Knowledge of Gong Bi Hua	Pearson Correlation	.434**	.516**	.343**	.458**	.653**	.655**	.498**	.368**	.553**	.449**	.647**	.545**	.488**	.741**	1	.503**	.655**	.533**	.404**	.326**	.314**	.447**

(Meticulous painting)	Sig. (2-tailed)	<.001	<.001	.003	<.001	<.001	<.001	<.001	.002	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001	.006	.008	<.001
Knowledge of Etiquette of Alcohol Culture	Pearson Correlation	.399**	.351**	.372**	.429**	.468**	.463**	.434**	.395**	.526**	.275*	.481**	.422**	.389**	.411**	.503**	1	.635**	.582**	.325**	.481**	.467**	.533**
Knowledge of Gong Shou Li	Sig. (2-tailed)	<.001	.003	.001	<.001	<.001	<.001	<.001	<.001	<.001	.020	<.001	<.001	<.001	<.001	<.001		<.001	<.001	.006	<.001	<.001	<.001
Knowledge of Chang Cheng (The Great Wall)	Pearson Correlation	.453**	.447**	.325**	.371**	.443**	.483**	.446**	.337**	.545**	.420**	.468**	.405**	.447**	.593**	.655**	.635**	1	.687**	.441**	.446**	.427**	.444**
Knowledge of Bing Ma Yong (The Terracotta Army)	Sig. (2-tailed)	<.001	<.001	.006	.001	<.001	<.001	<.001	.004	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001	<.001
Knowledge of Huo Guo (Hot Pot)	Pearson Correlation	.578**	.458**	.516**	.412**	.368**	.394**	.556**	.460**	.363**	.422**	.447**	.234	.330**	.584**	.533**	.582**	.687**	1	.594**	.403**	.461**	.495**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	.002	<.001	<.001	<.001	.002	<.001	<.001	.051	.005	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001
	Pearson Correlation	.475**	.326**	.265*	.298*	.309**	.221	.445**	.283*	.297*	.289*	.316**	.179	.106	.368**	.404**	.325**	.441**	.594**	1	.314**	.368**	.415**
	Sig. (2-tailed)	<.001	.006	.026	.012	.009	.069	<.001	.017	.012	.014	.007	.136	.379	.002	<.001	.006	<.001	<.001		.008	.002	<.001
	Pearson Correlation	.405**	.448**	.211	.342**	.172	.335**	.563**	.367**	.321**	.232	.161	.274*	.206	.292*	.326**	.481**	.446**	.403**	.314**	1	.723**	.350**
	Sig. (2-tailed)	<.001	<.001	.078	.004	.150	.005	<.001	.002	.006	.051	.180	.021	.085	.013	.006	<.001	<.001	<.001	.008		<.001	.003

	tailed)																						
Knowledge of Jiao Zi (Dumpling)	Pearson Correlation	.355**	.419**	.269*	.254*	.199	.264*	.603**	.364**	.281*	.262*	.246*	.177	.234	.276*	.314**	.467**	.427**	.461**	.368**	.723**	1	.377**
	Sig. (2-tailed)	.003	<.001	.024	.034	.098	.029	<.001	.002	.019	.029	.040	.142	.052	.021	.008	<.001	<.001	<.001	.002	<.001		.001
Level of Knowledge of Long Jing tea	Pearson Correlation	.430**	.442**	.397**	.437**	.462**	.444**	.444**	.415**	.429**	.430**	.464**	.496**	.332**	.380**	.447**	.533**	.444**	.495**	.415**	.350**	.377**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.005	.001	<.001	<.001	<.001	<.001	<.001	.003	.001	
Knowledge of Oolong tea	Pearson Correlation	.378**	.362**	.442**	.299*	.310**	.388**	.512**	.359**	.325**	.427**	.363**	.368**	.362**	.522**	.438**	.430**	.549**	.556**	.297*	.489**	.547**	.679**
	Sig. (2-tailed)	.001	.002	<.001	.011	.009	<.001	<.001	.002	.006	<.001	.002	.002	.002	<.001	<.001	<.001	<.001	<.001	.012	<.001	<.001	<.001
Knowledge of Sun Wu Kong (The Monkey King)	Pearson Correlation	.326**	.186	.137	.334**	.325**	.294*	.464**	.305**	.278*	.394**	.163	.374**	.630**	.454**	.428**	.347**	.465**	.422**	.268*	.413**	.454**	.465**
	Sig. (2-tailed)	.006	.120	.253	.004	.006	.014	<.001	.010	.019	<.001	.174	.001	<.001	<.001	<.001	.003	<.001	<.001	.024	<.001	<.001	<.001
Knowledge of Ne Zha (Marshal of the Central Altar)	Pearson Correlation	.393**	.520**	.447**	.477**	.646**	.665**	.452**	.442**	.661**	.398**	.665**	.742**	.568**	.515**	.723**	.517**	.548**	.447**	.202	.363**	.300*	.553**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.091	.002	.012	<.001

Knowledge of Deng Long (Red Lantern)	Pearson Correlation Sig. (2-tailed)	.512**	.512**	.626**	.446**	.416**	.302*	.722**	.521**	.260*	.434**	.540**	.282*	.231	.539**	.469**	.361**	.500**	.626**	.506**	.397**	.489**	.432**
		<.001	<.001	<.001	<.001	<.001	.013	<.001	<.001	.031	<.001	<.001	.019	.056	<.001	<.001	.002	<.001	<.001	<.001	<.001	<.001	<.001
Knowledge of Bao Zhu (Firecrackers)	Pearson Correlation Sig. (2-tailed)	.420**	.382**	.503**	.373**	.350**	.444**	.493**	.410**	.401**	.481**	.433**	.290*	.348**	.518**	.429**	.441**	.686**	.719**	.514**	.356**	.420**	.469**
		<.001	.001	<.001	.001	.003	<.001	<.001	<.001	<.001	<.001	<.001	.014	.003	<.001	<.001	<.001	<.001	<.001	<.001	.002	<.001	<.001
Knowledge of Chun Jie (The Spring Festival)	Pearson Correlation Sig. (2-tailed)	.403**	.336**	.260*	.404**	.443**	.437**	.651**	.505**	.346**	.333**	.375**	.337**	.328**	.519**	.455**	.386**	.479**	.410**	.379**	.543**	.561**	.420**
		<.001	.004	.028	<.001	<.001	<.001	<.001	<.001	.003	.005	.001	.004	.005	<.001	<.001	<.001	<.001	<.001	.001	<.001	<.001	<.001
Knowledge of Zhong Qiu Jie (Mid-Autumn Festival)	Pearson Correlation Sig. (2-tailed)	.347**	.482**	.429**	.412**	.445**	.476**	.625**	.561**	.470**	.342**	.527**	.370**	.318**	.497**	.507**	.421**	.527**	.532**	.466**	.552**	.600**	.457**
		.003	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.004	<.001	.001	.007	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Knowledge of Qi Pao/Cheongsam (traditional dress)	Pearson Correlation Sig. (2-tailed)	.417**	.500**	.436**	.362**	.411**	.489**	.718**	.525**	.299*	.323**	.391**	.320**	.403**	.509**	.522**	.392**	.583**	.590**	.432**	.456**	.536**	.407**
		<.001	<.001	<.001	.002	<.001	<.001	<.001	<.001	.011	.006	<.001	.007	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Knowledge of	Pearson	.423**	.390**	.304*	.458**	.656**	.565**	.535**	.401**	.449**	.345**	.648**	.504**	.307**	.435**	.597**	.522**	.556**	.521**	.285*	.277*	.373**	.490**

Tang Zhuang (Tang suits)	Correlation Sig. (2-tailed)	<.001	<.001	.011	<.001	<.001	<.001	<.001	<.001	<.001	.003	<.001	<.001	.010	<.001	<.001	<.001	<.001	<.001	.017	.020	.002	<.001
Knowledge of HanZu (Han, majority ethnic group)	Pearson Correlation Sig. (2-tailed)	.558**	.458**	.345**	.467**	.425**	.432**	.673**	.657**	.323**	.304**	.321**	.427**	.409**	.522**	.501**	.454**	.457**	.592**	.419**	.455**	.462**	.467**
Knowledge of Zang Zu (Tibetan, minority ethnic group)	Pearson Correlation Sig. (2-tailed)	<.001	<.001	.003	<.001	<.001	<.001	<.001	<.001	.006	.010	.006	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Participants' ability to distinguish between Simplified and Traditional Chinese	Pearson Correlation Sig. (2-tailed)	.391**	.412**	.234	.325**	.233	.267*	.430**	.369**	.219	.409**	.373**	.307**	.271*	.271*	.285*	.346**	.414**	.485**	.268*	.265*	.298*	.466**
Participant Second Language (L2)	Pearson Correlation Sig. (2-tailed)	<.001	<.001	.051	.006	.052	.028	<.001	.002	.068	<.001	.001	.010	.023	.023	.017	.003	<.001	<.001	.025	.027	.013	<.001
		.364**	.267*	.219	.402**	.482**	.390**	.452**	.499**	.289*	.041	.326**	.404**	.275*	.318**	.396**	.365**	.245*	.239*	.277*	.350**	.265*	.333**
		.002	.026	.068	<.001	<.001	<.001	<.001	<.001	.015	.739	.006	<.001	.021	.007	<.001	.002	.041	.047	.020	.003	.028	.005
		-.268*	-.162	.061	-.240	-.131	-.039	-.187	-.123	-.166	.108	-.006	-.120	-.152	-.185	-.171	-.254	-.285*	-.241	-.263*	-.261	-.166	-.046
		.044	.230	.650	.073	.332	.775	.163	.364	.217	.422	.964	.375	.258	.168	.205	.057	.032	.073	.048	.050	.221	.735

Participant Third Language (L3)	Pearson Correlation	-.368*	-.019	-.208	-.201	-.205	-.117	-.311	-.424**	-.192	.056	.029	-.075	.101	-.268	-.255	-.186	-.025	-.181	-.149	-.127	-.076	-.269
	Sig. (2-tailed)	.023	.910	.210	.227	.217	.491	.057	.008	.248	.739	.862	.654	.545	.104	.122	.262	.883	.278	.371	.448	.655	.102
Participant Fourth Language (L4)	Pearson Correlation	-.184	.011	.115	.158	.081	-.133	-.216	.140	-.107	-.290	-.137	-.070	-.138	-.263	-.178	.077	.057	-.130	-.337	.060	-.064	-.204
	Sig. (2-tailed)	.400	.961	.603	.471	.713	.546	.322	.523	.627	.180	.532	.750	.529	.226	.418	.728	.797	.563	.116	.787	.776	.351
Participant Continent of Origin	Pearson Correlation	-.236*	-.041	.146	-.086	-.113	-.008	-.001	-.004	.002	-.138	-.047	-.155	-.287*	-.209	-.148	-.066	-.268*	-.166	-.037	-.128	-.136	-.099
	Sig. (2-tailed)	.048	.735	.224	.474	.347	.948	.992	.974	.989	.251	.696	.196	.015	.081	.217	.586	.024	.170	.759	.289	.263	.411
Cultural Knowledge Mean Score	Pearson Correlation	.661**	.630**	.555**	.624**	.656**	.633**	.757**	.636**	.595**	.569**	.652**	.593**	.543**	.697**	.744**	.659**	.742**	.760**	.549**	.578**	.603**	.698**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001

Correlations

Knowledge of Oolong tea	Knowledge of Sun Wu Kong (The Monk)	Knowledge of Nehal of the Central	Knowledge of Deng Long (Red Lantern)	Knowledge of Bao Zhu (Firecrackers)	Knowledge of Chun Jie (The Spring)	Knowledge of Zhong Qiu Jie (Mid-Autumn)	Knowledge of Qi Pao/Cheong sam (tradition)	Knowledge of Tang Zhuan g (Tang suits)	Knowledge of HanZu (Han, majority)	Knowledge of Zang Zu (Tibetan, minority)	Participants' ability to distinguish between	Participant Second Language (L2)	Participant Third Language (L3)	Participant Fourth Language (L4)	Participant Continent of Origin	Cultural Knowledge Mean Score
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			ey King)	l Altar)			Festiv al)	n Festiv al)	onal dress)		ethnic group)	ty ethnic group)	Simpli fied and Traditi onal Chines e					
Participant age	Pearson Correlation	.281*	.287*	.186	.079	.213	.278*	.176	.169	.184	.282*	.226	.335**	.013	-.174	-.176	-.193	.308**
	Sig. (2- tailed)	.018	.015	.121	.517	.075	.019	.143	.158	.127	.017	.060	.005	.923	.296	.422	.107	.009
A number of countries participants have visited	Pearson Correlation	-.044	-.083	-.050	-.086	-.102	-.051	-.014	-.100	.003	.002	.019	-.011	.017	.110	.080	.154	-.068
	Sig. (2- tailed)	.715	.490	.678	.481	.396	.673	.909	.405	.982	.984	.877	.929	.903	.513	.715	.200	.571
Enjoyment of Chinese Culture	Pearson Correlation	.003	-.099	-.013	-.111	-.107	.052	.053	-.107	.003	-.028	-.011	.181	.131	-.041	.162	.261*	-.096
	Sig. (2- tailed)	.979	.413	.912	.366	.376	.667	.659	.375	.981	.817	.926	.135	.331	.808	.459	.028	.424
Experience of visiting China	Pearson Correlation	.184	.459**	.223	.325**	.202	.517**	.411**	.452**	.280*	.604**	.292*	.638**	-.330*	-.290	-.261	-.290*	.454**
	Sig. (2- tailed)	.124	<.001	.062	.007	.091	<.001	<.001	<.001	.019	<.001	.014	<.001	.012	.077	.230	.014	<.001
Experience of living with Chinese people	Pearson Correlation	.087	.299*	.080	.125	.164	.128	.183	.260*	.149	.307**	.121	.205	-.050	-.135	-.258	.150	.180
	Sig. (2- tailed)	.473	.011	.510	.307	.171	.288	.126	.028	.217	.009	.318	.088	.710	.420	.235	.211	.134
Identification with Chinese heritage	Pearson Correlation	.104	.180	.261*	.169	.068	.143	.119	.261*	.123	.192	.080	.160	-.257	-.105	.186	.085	.250*
	Sig. (2- tailed)	.386	.133	.028	.166	.573	.235	.324	.028	.311	.109	.511	.186	.053	.532	.395	.481	.035
Participant relationships with Chinese individuals	Pearson Correlation	.171	.007	.081	.006	.109	.016	.186	-.037	.119	.193	.108	.156	-.104	-.231	-.218	-.021	.122
	Sig. (2- tailed)	.153	.955	.500	.963	.364	.892	.121	.759	.326	.107	.372	.196	.443	.163	.317	.864	.311
Importance of learning Chinese cultural aspects in Chinese language study	Pearson Correlation	.114	.025	.080	.000	.235*	-.028	.038	-.064	.132	.138	.175	.060	.022	.149	-.039	.039	.154
	Sig. (2- tailed)	.343	.837	.508	1.000	.048	.815	.752	.595	.278	.250	.147	.623	.868	.373	.859	.744	.199
Influence of popular cultural elements	Pearson Correlation	.137	-.040	.209	.137	.204	.075	.140	.089	.329**	.142	.215	.128	-.184	-.008	-.261	-.013	.228

	Sig. (2-tailed)	.255	.739	.080	.260	.088	.533	.243	.459	.005	.237	.074	.290	.171	.961	.229	.913	.056
Effect of Chinese language use on behaviour	Pearson Correlation	.142	.103	.362**	.123	.144	.185	.217	.273*	.364**	.374**	.306**	.389**	-.097	.162	.260	.061	.333**
	Sig. (2-tailed)	.239	.391	.002	.315	.230	.122	.069	.021	.002	.001	.010	<.001	.471	.332	.231	.613	.005
Initial experience of "Culture Shock" when encountering aspects of Chinese culture	Pearson Correlation	-.150	-.098	-.120	-.276*	-.181	-.080	-.115	-.156	-.070	.056	.058	.093	-.054	.003	.226	.109	-.138
	Sig. (2-tailed)	.214	.419	.321	.023	.134	.511	.341	.196	.569	.647	.634	.449	.694	.986	.311	.371	.254
Engagement in Chinese cultural festivals or events	Pearson Correlation	.351**	.226	.491**	.437**	.261*	.290*	.387**	.449**	.381**	.515**	.358**	.420**	-.062	-.048	.177	.177	.546**
	Sig. (2-tailed)	.003	.058	<.001	<.001	.028	.014	<.001	<.001	.001	<.001	.002	<.001	.649	.773	.420	.140	<.001
Linguistic Non-Equivalence of Chinese Terms	Pearson Correlation	.180	.237*	.230	.145	.038	.348**	.228	.280*	.209	.340**	.265*	.475**	-.114	-.128	.337	-.034	.277*
	Sig. (2-tailed)	.133	.047	.054	.234	.751	.003	.056	.018	.082	.004	.027	<.001	.397	.444	.116	.776	.020
Duration of participant Chinese language learning	Pearson Correlation	.096	.227	.244*	.394**	.175	.531**	.459**	.484**	.430**	.689**	.246*	.739**	-.360**	-.269	.211	-.164	.438**
	Sig. (2-tailed)	.427	.057	.040	<.001	.145	<.001	<.001	<.001	<.001	<.001	.040	<.001	.006	.102	.334	.171	<.001
Weekly time dedication to studying Chinese	Pearson Correlation	-.169	-.152	.046	-.049	-.114	.005	.089	-.135	.063	-.091	-.015	-.109	.236	.068	.047	.213	-.058
	Sig. (2-tailed)	.159	.206	.701	.688	.343	.965	.460	.263	.606	.451	.905	.370	.077	.685	.833	.075	.634
Reported Chinese proficiency level (CEFR and HSK)	Pearson Correlation	.106	.406**	.271*	.163	.073	.532**	.448**	.380**	.333**	.543**	.179	.706**	-.199	-.372*	-.040	-.280*	.389**
	Sig. (2-tailed)	.377	<.001	.022	.181	.546	<.001	<.001	.001	.005	<.001	.139	<.001	.137	.022	.856	.018	<.001
Method of studying Chinese	Pearson Correlation	-.077	-.274*	-.054	.090	.016	-.109	-.017	-.102	.022	-.136	-.031	-.210	.135	-.095	.025	.024	-.029
	Sig. (2-tailed)	.522	.021	.656	.464	.896	.366	.890	.397	.854	.257	.802	.081	.317	.571	.912	.841	.812
Extent of Chinese cultural incorporation in participants' Chinese language classes	Pearson Correlation	-.154	-.133	.113	-.016	.028	-.052	-.034	.016	.172	.084	.182	.052	-.007	.008	-.043	-.116	.019
	Sig. (2-tailed)	.199	.268	.347	.899	.817	.665	.779	.895	.155	.485	.132	.668	.960	.961	.844	.336	.876
	Pearson Correlation	-.087	-.255*	.127	.123	.143	.058	.192	.039	.078	.142	.070	.214	-.081	.090	.311	.117	.083

Impact of Chinese language learning on participants' cultural perception	Sig. (2-tailed)	.469	.032	.292	.313	.234	.632	.108	.747	.520	.239	.564	.075	.548	.590	.149	.332	.492
Participants' Country of Origin	Pearson Correlation	.185	.084	.129	-.019	-.024	-.104	-.065	-.050	-.056	-.045	.090	-.051	.274*	-.017	.197	.468**	.048
	Sig. (2-tailed)	.123	.486	.283	.878	.840	.390	.591	.677	.647	.712	.460	.672	.040	.919	.368	<.001	.690
Knowledge of Ying and Yang	Pearson Correlation	.504**	.398**	.361**	.541**	.592**	.391**	.500**	.380**	.406**	.424**	.275*	.172	-.086	-.322*	-.250	-.073	.608**
	Sig. (2-tailed)	<.001	<.001	.002	<.001	<.001	<.001	<.001	.001	<.001	<.001	.021	.155	.525	.049	.250	.547	<.001
Knowledge of The Art of War	Pearson Correlation	.399**	.332**	.395**	.368**	.484**	.350**	.368**	.289*	.346**	.436**	.438**	.134	-.077	-.285	-.351	-.047	.557**
	Sig. (2-tailed)	<.001	.005	<.001	.002	<.001	.003	.002	.015	.003	<.001	<.001	.269	.571	.083	.100	.698	<.001
Knowledge of Xi Jin Ping Thought	Pearson Correlation	.357**	.354**	.306**	.323**	.319**	.344**	.230	.287*	.293*	.457**	.279*	.279*	-.126	-.358*	-.112	-.233	.498**
	Sig. (2-tailed)	.002	.002	.009	.007	.007	.003	.053	.015	.014	<.001	.019	.019	.351	.028	.611	.050	<.001
Knowledge of Mao Zedong Thought	Pearson Correlation	.378**	.326**	.393**	.512**	.420**	.403**	.347**	.417**	.423**	.558**	.391**	.364**	-.268*	-.368*	-.184	-.236*	.661**
	Sig. (2-tailed)	.001	.006	<.001	<.001	<.001	<.001	.003	<.001	<.001	<.001	<.001	.002	.044	.023	.400	.048	<.001
Knowledge of Peking Opera (Beijing Opera)	Pearson Correlation	.362**	.186	.520**	.512**	.382**	.336**	.482**	.500**	.390**	.458**	.412**	.267*	-.162	-.019	.011	-.041	.630**
	Sig. (2-tailed)	.002	.120	<.001	<.001	.001	.004	<.001	<.001	<.001	<.001	<.001	.026	.230	.910	.961	.735	<.001
Knowledge of Tai Chi (Chinese martial arts)	Pearson Correlation	.442**	.137	.447**	.626**	.503**	.260*	.429**	.436**	.304*	.345**	.234	.219	.061	-.208	.115	.146	.555**
	Sig. (2-tailed)	<.001	.253	<.001	<.001	<.001	.028	<.001	<.001	.011	.003	.051	.068	.650	.210	.603	.224	<.001
Knowledge of Rujia Sixiang (Confucius philosophy)	Pearson Correlation	.299*	.334**	.477**	.446**	.373**	.404**	.412**	.362**	.458**	.467**	.325**	.402**	-.240	-.201	.158	-.086	.624**
	Sig. (2-tailed)	.011	.004	<.001	<.001	.001	<.001	<.001	.002	<.001	<.001	.006	<.001	.073	.227	.471	.474	<.001
Knowledge of Daojia Sixiang (Taoist philosophy)	Pearson Correlation	.310**	.325**	.646**	.416**	.350**	.443**	.445**	.411**	.656**	.425**	.233	.482**	-.131	-.205	.081	-.113	.656**
	Sig. (2-tailed)	.009	.006	<.001	<.001	.003	<.001	<.001	<.001	<.001	<.001	.052	<.001	.332	.217	.713	.347	<.001
	Pearson Correlation	.388**	.294*	.665**	.302*	.444**	.437**	.476**	.489**	.565**	.432**	.267*	.390**	-.039	-.117	-.133	-.008	.633**

Knowledge of Putting up couplets (including "Spring" couplets and "Fu" characters)	Sig. (2-tailed)	<.001	.014	<.001	.013	<.001	<.001	<.001	<.001	<.001	<.001	.028	<.001	.775	.491	.546	.948	<.001
Knowledge of Hong Bao (Red envelope with money in it)	Pearson Correlation	.512**	.464**	.452**	.722**	.493**	.651**	.625**	.718**	.535**	.673**	.430**	.452**	-.187	-.311	-.216	-.001	.757**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.163	.057	.322	.992	<.001
Knowledge of Gao Kao (Annual national undergraduate admission exam of China)	Pearson Correlation	.359**	.305**	.442**	.521**	.410**	.505**	.561**	.525**	.401**	.657**	.369**	.499**	-.123	-.424**	.140	-.004	.636**
	Sig. (2-tailed)	.002	.010	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.002	<.001	.364	.008	.523	.974	<.001
Knowledge of Jun Xun (Mandatory Military Training)	Pearson Correlation	.325**	.278*	.661**	.260*	.401**	.346**	.470**	.299*	.449**	.323**	.219	.289*	-.166	-.192	-.107	.002	.595**
	Sig. (2-tailed)	.006	.019	<.001	.031	<.001	.003	<.001	.011	<.001	.006	.068	.015	.217	.248	.627	.989	<.001
Knowledge of Buddhism	Pearson Correlation	.427**	.394**	.398**	.434**	.481**	.333**	.342**	.323**	.345**	.304**	.409**	.041	.108	.056	-.290	-.138	.569**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	.005	.004	.006	.003	.010	<.001	.739	.422	.739	.180	.251	<.001
Knowledge of Taoism	Pearson Correlation	.363**	.163	.665**	.540**	.433**	.375**	.527**	.391**	.648**	.321**	.373**	.326**	-.006	.029	-.137	-.047	.652**
	Sig. (2-tailed)	.002	.174	<.001	<.001	<.001	.001	<.001	<.001	<.001	.006	.001	.006	.964	.862	.532	.696	<.001
Knowledge of Mo Yan	Pearson Correlation	.368**	.374**	.742**	.282*	.290*	.337**	.370**	.320**	.504**	.427**	.307**	.404**	-.120	-.075	-.070	-.155	.593**
	Sig. (2-tailed)	.002	.001	<.001	.019	.014	.004	.001	.007	<.001	<.001	.010	<.001	.375	.654	.750	.196	<.001
Knowledge of Romance of The Three Kingdoms	Pearson Correlation	.362**	.630**	.568**	.231	.348**	.328**	.318**	.403**	.307**	.409**	.271*	.275*	-.152	.101	-.138	-.287*	.543**
	Sig. (2-tailed)	.002	<.001	<.001	.056	.003	.005	.007	<.001	.010	<.001	.023	.021	.258	.545	.529	.015	<.001
Knowledge of Shui Mo Hua (Ink and wash painting)	Pearson Correlation	.522**	.454**	.515**	.539**	.518**	.519**	.497**	.509**	.435**	.522**	.271*	.318**	-.185	-.268	-.263	-.209	.697**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.023	.007	.168	.104	.226	.081	<.001
Knowledge of Gong Bi Hua (Meticulous painting)	Pearson Correlation	.438**	.428**	.723**	.469**	.429**	.455**	.507**	.522**	.597**	.501**	.285*	.396**	-.171	-.255	-.178	-.148	.744**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.017	<.001	.205	.122	.418	.217	<.001
Knowledge of Etiquette of Alcohol Culture	Pearson Correlation	.430**	.347**	.517**	.361**	.441**	.386**	.421**	.392**	.522**	.454**	.346**	.365**	-.254	-.186	.077	-.066	.659**

	Sig. (2-tailed)	<.001	.003	<.001	.002	<.001	<.001	<.001	<.001	<.001	<.001	.003	.002	.057	.262	.728	.586	<.001
Knowledge of Gong Shou Li	Pearson Correlation	.549**	.465**	.548**	.500**	.686**	.479**	.527**	.583**	.556**	.457**	.414**	.245*	-.285*	-.025	.057	-.268*	.742**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.041	.032	.883	.797	.024	<.001
Knowledge of Chang Cheng (The Great Wall)	Pearson Correlation	.556**	.422**	.447**	.626**	.719**	.410**	.532**	.590**	.521**	.592**	.485**	.239*	-.241	-.181	-.130	-.166	.760**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.047	.073	.278	.563	.170	<.001
Knowledge of Bing Ma Yong (The Terracotta Army)	Pearson Correlation	.297*	.268*	.202	.506**	.514**	.379**	.466**	.432**	.285*	.419**	.268*	.277*	-.263*	-.149	-.337	-.037	.549**
	Sig. (2-tailed)	.012	.024	.091	<.001	<.001	.001	<.001	<.001	.017	<.001	.025	.020	.048	.371	.116	.759	<.001
Knowledge of Huo Guo (Hot Pot)	Pearson Correlation	.489**	.413**	.363**	.397**	.356**	.543**	.552**	.456**	.277*	.455**	.265*	.350**	-.261	-.127	.060	-.128	.578**
	Sig. (2-tailed)	<.001	<.001	.002	<.001	.002	<.001	<.001	<.001	.020	<.001	.027	.003	.050	.448	.787	.289	<.001
Knowledge of Jiao Zi (Dumpling)	Pearson Correlation	.547**	.454**	.300*	.489**	.420**	.561**	.600**	.536**	.373**	.462**	.298*	.265*	-.166	-.076	-.064	-.136	.603**
	Sig. (2-tailed)	<.001	<.001	.012	<.001	<.001	<.001	<.001	<.001	.002	<.001	.013	.028	.221	.655	.776	.263	<.001
Level of Knowledge of Long Jing tea	Pearson Correlation	.679**	.465**	.553**	.432**	.469**	.420**	.457**	.407**	.490**	.467**	.466**	.333**	-.046	-.269	-.204	-.099	.698**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.005	.735	.102	.351	.411	<.001
Knowledge of Oolong tea	Pearson Correlation	1	.604**	.495**	.522**	.664**	.487**	.518**	.571**	.432**	.496**	.365**	.269*	-.100	-.322*	-.106	-.172	.715**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.002	.024	.457	.049	.631	.152	<.001
Knowledge of Sun Wu Kong (The Monkey King)	Pearson Correlation	.604**	1	.440**	.367**	.453**	.584**	.480**	.528**	.325**	.487**	.269*	.290*	-.079	-.279	-.388	-.438**	.626**
	Sig. (2-tailed)	<.001		<.001	.002	<.001	<.001	<.001	<.001	.006	<.001	.024	.015	.560	.090	.067	<.001	<.001
Knowledge of Ne Zha (Marshal of the Central Altar)	Pearson Correlation	.495**	.440**	1	.478**	.505**	.418**	.481**	.527**	.690**	.405**	.343**	.375**	-.129	-.088	-.027	-.165	.747**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001	<.001	<.001	<.001	.004	.001	.338	.598	.904	.168	<.001
Knowledge of Deng Long (Red Lantern)	Pearson Correlation	.522**	.367**	.478**	1	.691**	.641**	.652**	.654**	.557**	.618**	.461**	.409**	-.131	-.070	-.071	-.110	.755**

	Sig. (2-tailed)	<.001	.002	<.001		<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.341	.679	.754	.370	<.001
Knowledge of Bao Zhu (Firecrackers)	Pearson Correlation	.664**	.453**	.505**	.691**	1	.538**	.592**	.612**	.559**	.526**	.472**	.282*	-.217	-.069	.008	-.154	.755**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001	<.001	<.001	.018	.105	.679	.971	.201	<.001
Knowledge of Chun Jie (The Spring Festival)	Pearson Correlation	.487**	.584**	.418**	.641**	.538**	1	.815**	.629**	.479**	.683**	.413**	.596**	-.223	-.224	-.176	-.266*	.732**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001	<.001	<.001	.096	.177	.421	.025	<.001
Knowledge of Zhong Qiu Jie (Mid-Autumn Festival)	Pearson Correlation	.518**	.480**	.481**	.652**	.592**	.815**	1	.675**	.539**	.688**	.403**	.548**	-.174	-.215	-.075	-.094	.779**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001	<.001	.194	.195	.732	.437	<.001
Knowledge of Qi Pao/Cheongsam (traditional dress)	Pearson Correlation	.571**	.528**	.527**	.654**	.612**	.629**	.675**	1	.631**	.724**	.449**	.470**	-.254	-.286	-.012	-.193	.768**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001	.057	.082	.957	.107	<.001
Knowledge of Tang Zhuang (Tang suits)	Pearson Correlation	.432**	.325**	.690**	.557**	.559**	.479**	.539**	.631**	1	.552**	.422**	.481**	-.255	-.152	-.062	-.178	.729**
	Sig. (2-tailed)	<.001	.006	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001	.058	.370	.780	.141	<.001
Knowledge of HanZu (Han, majority ethnic group)	Pearson Correlation	.496**	.487**	.405**	.618**	.526**	.683**	.688**	.724**	.552**	1	.598**	.681**	-.283*	-.384*	-.062	-.168	.778**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001	.033	.017	.780	.160	<.001
Knowledge of Zang Zu (Tibetan, minority ethnic group)	Pearson Correlation	.365**	.269*	.343**	.461**	.472**	.413**	.403**	.449**	.422**	.598**	1	.214	-.133	.132	-.161	.024	.582**
	Sig. (2-tailed)	.002	.024	.004	<.001	<.001	<.001	<.001	<.001	<.001	<.001		.078	.330	.429	.463	.846	<.001
Participants' ability to distinguish between Simplified and Traditional Chinese	Pearson Correlation	.269*	.290*	.375**	.409**	.282*	.596**	.548**	.470**	.481**	.681**	.214	1	-.323*	-.339*	.234	-.074	.533**
	Sig. (2-tailed)	.024	.015	.001	<.001	.018	<.001	<.001	<.001	<.001	<.001	.078		.015	.040	.283	.540	<.001
Participant Second Language (L2)	Pearson Correlation	-.100	-.079	-.129	-.131	-.217	-.223	-.174	-.254	-.255	-.283*	-.133	-.323*	1	.110	-.150	.224	-.232
	Sig. (2-tailed)	.457	.560	.338	.341	.105	.096	.194	.057	.058	.033	.330	.015		.512	.495	.093	.082
Participant Third Language (L3)	Pearson Correlation	-.322*	-.279	-.088	-.070	-.069	-.224	-.215	-.286	-.152	-.384*	.132	-.339*	.110	1	.016	.292	-.275

	Sig. (2-tailed)	.049	.090	.598	.679	.679	.177	.195	.082	.370	.017	.429	.040	.512		.945	.075	.095
Participant Fourth Language (L4)	Pearson Correlation	-.106	-.388	-.027	-.071	.008	-.176	-.075	-.012	-.062	-.062	-.161	.234	-.150	.016	1	.217	-.162
	Sig. (2-tailed)	.631	.067	.904	.754	.971	.421	.732	.957	.780	.780	.463	.283	.495	.945		.319	.461
Participant Continent of Origin	Pearson Correlation	-.172	-.438**	-.165	-.110	-.154	-.266*	-.094	-.193	-.178	-.168	.024	-.074	.224	.292	.217	1	-.196
	Sig. (2-tailed)	.152	<.001	.168	.370	.201	.025	.437	.107	.141	.160	.846	.540	.093	.075	.319		.102
Cultural Knowledge Mean Score	Pearson Correlation	.715**	.626**	.747**	.755**	.755**	.732**	.779**	.768**	.729**	.778**	.582**	.533**	-.232	-.275	-.162	-.196	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.082	.095	.461	.102	

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

* . Correlation is significant at the 0.05 level (2-tailed).