



Faculty of Education, Language and Communication

**International Students' WeChat Use, Prior Cross-Cultural Exposure,
Social Self-Efficacy and Cross-Cultural Adaptation in China**

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International Students' WeChat Use, Prior Cross-Cultural Exposure, Social
Self-Efficacy and Cross-Cultural Adaptation in China

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DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ABSTRACT

Previous research indicates that the cross-cultural adaptation of international students in China is influenced by WeChat and social self-efficacy. Cross-cultural exposure has also been found to influence cross-cultural adaptation in other contexts. However, the mechanisms for these causal relationships are unclear. This study examined the indirect relationship between WeChat use and cross-cultural adaptation among Chinese international students by testing a moderated mediation model. Questionnaire data were collected from 404 international students in four universities in western China. The results show that international students in China have a high level of WeChat use, social self-efficacy, and cross-cultural adaptation, and a moderate level of prior cross-cultural exposure. The Pearson correlation tests showed a significant high correlation among the international students' WeChat use, social self-efficacy, and cross-cultural adaptation. There was a low but significant correlation between prior cross-cultural exposure and WeChat use, social self-efficacy, and cross-cultural adaptation. Regression analyses showed that there were indirect influences between WeChat use and cross-cultural adaptation among international students in China. Social self-efficacy has a partial mediating effect. Cross-cultural exposure moderates the base level of their cross-cultural adaptation. If WeChat use is set aside, the international students also experience better cross-cultural adaptation when they have high social self-efficacy. The study indicates that there is a mediating influence pathway of social self-efficacy in the association between WeChat use and cross-cultural adaptation, and that this mediating process is further moderated by prior cross-cultural exposure. The study shows that it is important to have prior-departure programmes to give prospective international students cross-cultural

exposure and build their social confidence and competence in handling social interactions in a new environment.

Keywords: International students, China, WeChat use, prior cross-cultural exposure, social self-efficacy, cross-cultural adaptation

Penggunaan WeChat, pendedahan silang budaya terdahulu, efikasi sosial sendiri dan adaptasi silang budaya dalam kalangan pelajar antarabangsa di China

ABSTRAK

Kajian lepas menunjukkan bahawa adaptasi silang budaya dalam kalangan pelajar antarabangsa di China dipengaruhi oleh WeChat dan efikasi sosial sendiri. Pendedahan silang budaya juga didapati mempengaruhi adaptasi silang budaya dalam konteks lain. Walau bagaimanapun, mekanisme untuk menunjukkan hubungan sebab-akibat ini didapati tidak jelas. Sehubungan itu, kajian ini meneliti hubungan tidak langsung antara penggunaan WeChat dengan adaptasi silang budaya dalam kalangan pelajar antarabangsa China menerusi penerapan ujian model pengantaraan sederhana. Data soal selidik dikumpul daripada 404 orang pelajar antarabangsa dari empat buah universiti di barat China. Keputusan menunjukkan bahawa pelajar antarabangsa di China mempunyai tahap yang tinggi untuk penggunaan WeChat, efikasi sendiri sosial dan adaptasi silang budaya, manakala tahap yang sederhana ditemukan untuk pendedahan silang budaya terdahulu. Ujian korelasi Pearson menunjukkan korelasi tinggi yang signifikan oleh pelajar antarabangsa tersebut dalam penggunaan WeChat, efikasi sosial sendiri dan adaptasi silang budaya. Terdapat korelasi yang rendah tetapi signifikan antara pendedahan silang budaya terdahulu dan penggunaan WeChat, efikasi sosial sendiri dan adaptasi silang budaya. Analisis regresi pula menunjukkan bahawa terdapat pengaruh tidak langsung antara penggunaan WeChat dan adaptasi silang budaya dalam kalangan pelajar antarabangsa di China. Efikasi sosial sendiri mempunyai kesan pengantara separa. Pendedahan silang budaya didapati menyederhanakan tahap asas adaptasi silang budaya mereka. Sekiranya pengaruh penggunaan WeChat diketepikan, pelajar antarabangsa juga mengalami adaptasi silang budaya yang lebih baik apabila mereka mempunyai efikasi

sosial sendiri yang tinggi. Kajian juga menunjukkan bahawa terdapat laluan pengaruh pengantara bagi efikasi sosial sendiri dalam hubungan antara penggunaan WeChat dan adaptasi silang budaya, dan proses pengantaraan ini disederhanakan lagi oleh pendedahan silang budaya yang terdahulu. Dapatan kajian menunjukkan bahawa program prapelepasan penting dijalankan bagi bakal pelajar antarabangsa untuk memberi pendedahan silang budaya dan membina keyakinan sosial serta kecekapan mereka mengendalikan interaksi sosial dalam persekitaran baharu.

Kata kunci: *Pelajar antarabangsa, China, penggunaan WeChat, pendedahan silang budaya terdahulu, efikasi sosial sendiri, adaptasi silang budaya*

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LIST OF ABBREVIATIONS

CINNIC	China Internet Network Information Center
CCA	Cross-Cultural Adaptation
CHYD	China Youth Daily
HEI	Higher Education Institutions
KOM	Kaiser-Meyer-Olkin
PCCE	Prior Cross-Cultural Exposure
PSSE	The Perceived Social Self-Efficacy Scale
SEE	Social Self-Efficacy
WU	WeChat Use

CHAPTER 1

INTRODUCTION

This chapter describes the research problem, purpose of the study, operational definition of terms, and the significance of the research.

1.1 Background of Study

With the continued growth of globalization and international mobility in recent years, the phenomenon of venturing out of one's home country to another to pursue higher education has become increasingly common (Hofhuis et al., 2019; Pang & Wang, 2020; Yang, 2018). Currently, there are more than five million international students worldwide (ICEF Monitor, 2017). In China, the latest official statistics from 2019 indicate that there are 492,185 international students from 196 countries and regions enrolled at 1,004 higher education institutions and these figures are expected to continue to rise (MOE, 2019).

For international students, studying abroad presents an invaluable opportunity to enhance their cross-cultural competence, personal development, and career prospects (Nguyen & Hartz, 2020). Nevertheless, international students who move across cultural boundaries inevitably encounter daunting challenges and uncertainties in a new foreign environment (Pang, 2020). These include social, cultural, academic, and daily life adaptation (Polat & Arslan, 2022). A proactive approach is needed to deal with the expected difficulties such as language barriers, cultural differences, feelings of loneliness and homesickness, social pressures, and academic issues (English & Zhang, 2020; Gong et al., 2021; Li et al., 2023; Pang & Wang, 2020).

When international students arrive in a new environment for their studies, they need to learn how to connect with people in their new socio-cultural environment, find out how various matters like student registration and accommodation are handled, and learn to fit into the environment. The key to coping with cross-cultural adaptation in the digital age is effective communication (Aririguzoh, 2022; Wilczewski & Alon, 2023). In the contemporary era, communication through social media facilitates access to and dissemination of information, which is why social media has emerged as a pivotal conduit for cross-cultural adaptation (Hu, 2020; Pang, 2020). The importance of social media for the cross-cultural adaptation process of international students lies not only in the technological and functional nature of the media, but also in the social experiences that come with social media use (Chang & Gomes, 2017; Hughes, 2020; Zhao, 2016).

For international students, social media use eases cross-cultural adaptation in several ways. Social media use facilitates indirect experiences with unfamiliar socio-cultural environments and increases understanding of the new environments (Nanda & Kumar, 2021). The indirect experiences constitute the cross-cultural exposure individuals have prior to their arrival in the host country, and the cross-cultural exposure forms the basis of their cross-cultural adaptation competence (Fang et al., 2020; Gu et al., 2010). In addition, social media has the capacity to enhance perceived social competence and confidence, thereby contributing to the strengthening of personal self-efficacy in the social domain (Cao et al., 2024; Liao et al., 2010). This, in turn, serves as a crucial coping resource for the cross-cultural adaptation of individuals following their arrival in the host country.

1.2 Research Problem

The rest of the problem statement section is written as four sub-sections to show how the five hypotheses are derived from the existing literature on social media use, social self-efficacy, prior cross-cultural exposure, and cross-cultural adaptation.

1.2.1 Social Media Use in China

Technologies can help individuals adapt cross-culturally to a new environment (Kramer, 2019). Social media technologies help individuals stay connected, gain social capital, and adapt to differences in educational systems and approaches during cross-cultural adaptation (Alamri, 2018). For international students in China, the social media platform that is applicable is WeChat because several internationally popular social media platforms (e.g., Facebook, Google, Twitter and WhatsApp) have been banned since 2009, due to concerns surrounding political and censorship issues (Athukorala, 2021). Thus, international students have to rebuild new networks through local social media after arriving in China. They are inclined to choose local digital networks that are highly popular in order to adapt to the new socio-cultural environment (Çömlekçi, 2020). In China, WeChat is the most popular social media, with over one billion monthly active users (Cao et al., 2024; Negro et al., 2020).

For a significant portion of international students, social media is an important communication platform that shapes the process of intercultural adaptation (Wong et al., 2024). Among international students in China, WeChat is also the most popular social media and a majority of them have positive attitudes towards its use (Wang et al., 2019). WeChat helps international students understand social relations in the host country and the latest developments in the process of cross-cultural adaptation (Athukorala, 2021). The use

of social media can also reduce culture shock for international students (Goh et al., 2019; Hassan et al., 2021), promote academic development, and facilitate socialization and integration (Çömlekçi, 2020). Social media can lessen cross-cultural adaptation difficulties (Xiong, 2017; Yu & Guo, 2021). Insights into how individuals use social media to navigate cultural differences, build support networks, and develop intercultural competence provide a contemporary dimension to established theories such as communication accommodation theory (Kim, 2001), which were proposed before the digital era. Therefore, a related question is what is the relationship between WeChat use among international students in China and their cross-cultural adaptation. This gives rise to following hypothesis, H1:

H1: There is a significant correlation between WeChat use and cross-cultural adaptation of international students in China.

1.2.2 Prior Cross-cultural Exposure

Prior cross-cultural exposure can take the form of visiting other countries or knowing people from those countries. The visits give individuals direct contact with the people from those countries. Prior cross-cultural exposure can also occur through indirect means such as watching videos on social media or reading books about life in the foreign country. Even exposure to information about the host country through social media can ease an individual's cross-cultural adaptation (Fang et al., 2020; Gu, 2010). The value of having prior cross-cultural exposure before arriving in the host country is vital. Lack of knowledge about the culture of the host country heightens acculturative stress and reduces well-being (Berry et al., 1987; Htet & Mohanan, 2022; Poyrazli et al., 2004).

Thus far, studies on prior cross-cultural exposure and impact on cross-cultural adaptation has been on working people who apply to work in foreign countries or are

transferred there by their company. Lee and Sukoco (2010) found that the impact of the expatriates' ability to adjust to cultural differences can be moderated by prior international experiences and information. Jurásek and Wawrosz (2024) assert that prior cross-cultural or international experience can mitigate the culture shock that individuals experience in unfamiliar environments, while also moderating their level of cross-cultural adaptation and competence.

It is important to note that prior cross-cultural exposure plays a role in easing the process of cross-cultural adaptation. This association is often overlooked although there are past findings that suggest a positive link. Takeuchi and Chen (2013) are of the view that international experience contributes to the moderation and prediction of social-cultural adaptation. This also means that individuals have varying levels of prior cross-cultural exposure, which can also lead to differences in the intensity of social media usage. Individuals can utilize social media platforms to obtain information and to engage with members of the host country (Mukherjee, 2023). This can take place before they arrive in the host country. Having information about the host country prior to arrival can assist in cultural adaptation (Kempf & Holtbrügge, 2020).

The review of literature shows that research on the impact of prior cross-cultural exposure on cultural adaptation has been on expatriates (Jurásek & Wawrosz, 2024; Lee & Sukoco, 2010) rather than international students. International students are different from expatriates because students go to a foreign country for academic purposes and live among the student community, often near the university. Expatriates have to get used to a different work culture and need to understand taxation and immigration systems to comply with visa and work permit requirements, residency regulations, and employment laws specific to

expatriates. However, whether they are international students or expatriates, they experience similar situations such as culture shock and coping with cultural differences and adjusting to a new way of life. Therefore, the findings on cultural adaptation of expatriates can be extrapolated to international students to a certain extent. In the case of the relationship between their social media use and cross-cultural adaptation based on the degree of their prior exposure to the new environment, past studies (Mukherjee, 2023; Kempf & Holtbrügge, 2020) indicate there is a relationship. In other words, when formulated in statistical terms, prior cross-cultural exposure has the potential to alter the strength and direction of the relationship between international students' social media use and cross-cultural adaptation. In short, prior cross-cultural exposure may be a moderating variable explaining the heterogeneity of the relationship (Hair et al., 2021). Therefore, this gives rise to the question of is prior cross-cultural exposure a significant indirect factor impacting the relationship between WeChat use and cross-cultural adaptation among international students in China. Based on this, the following two hypotheses (H2, H3) were formulated:

H2: There is a correlation between WeChat use and prior cross-cultural exposure of international students in China.

H3: There is a correlation between prior cross-cultural exposure and cross-cultural adaptation of international students in China.

1.2.3 Social Self-efficacy

Self-efficacy is an individual's perceived competence and confidence in social activities (Bandura, 1986). The use of social media contributes to the formation of a positive psychological state that enhances an individual's perception of social competence

and confidence, and researchers have found that the self-beliefs can be enhanced by online interactions in the social domain (Hu et al., 2018; Rogala et al., 2020; Safdar et al., 2003). Social media use can increase individuals' self-efficacy in various domains, including general self-efficacy (Hu et al., 2018), communication self-efficacy (Pekkala & van Zoonen, 2022), academic self-efficacy (Boahene et al., 2019) and coping self-efficacy (Cao & Jia, 2024). Cao and Jia (2024) investigated the potential mediating role of coping self-efficacy between social media use and socio-cultural adaptation by recruiting international students through several large online communities created specifically for international students in China. The social connection and social capital that comes with social use of social media has the potential to boost international students' confidence in coping with challenges, which is an important component of coping self-efficacy (Chesney et al., 2006; Khan, 2023). International students who possess high levels of self-efficacy tend to exhibit high levels of confidence and resilience in coping with the stress associated with cross-cultural adaptation (Cao & Meng, 2023). Together, social media use and social self-efficacy represent key coping resources for international students to overcome the challenges of cross-cultural adaptation (Cao & Jia, 2024; Carmeli et al., 2021; Çömlekçi, 2020).

It has been suggested by established research that a relationship may exist between social media use, self-efficacy, and cross-cultural adaptation. The social support and social capital that international students receive from actively utilising social media in the host country (Xie & Chao, 2022) will lead to an increase in their perceived social competence and confidence in the social sphere (Forbush & Foucaut-Welles, 2016; Salikhova et al., 2023), while active cross-cultural engagement and positive coping strategies may lead to better sociocultural adaptation for international students with high coping self-efficacy

(Cao & Jia, 2024; Cao & Meng, 2023). This suggests that further investigation into self-efficacy in the social domain may be helpful in understanding the relationship between social media use and cross-cultural adaptation. Concomitantly, this engenders the question of is social self-efficacy a significant indirect factor impacting the relationship between WeChat use and cross-cultural adaptation among international students in China. On this basis, the following two hypotheses (H4, H5) were proposed to predict the relationship path of the indirect factor of social self-efficacy:

H4: There is a significant correlation between WeChat use and social self-efficacy among international students in China.

H5: There is a significant correlation between social self-efficacy and cross-cultural adaptation of international students in China.

1.2.4 Cross-cultural Adaptation

Cross-cultural adaptation is a complex process that involves different factors of cross-cultural adaptation and also produces different types of influences. Thus far, research has found the direct impact of various factors on cross-cultural adaptation of international students. For instance, communication apprehension and social contact predict adaptation (Swagler & Ellis, 2003). In addition, an increase in WeChat usage intensity is associated with an increase in behavioral engagement in academic learning, and also with better academic adjustment over a six-month period (Cao et al., 2024).

Research has also identified the social self-efficacy of international students in interactive environments as a significant predictor of cultural adaptation stress (Lin & Betz, 2009). Individuals with higher self-efficacy in the social domain are more likely to build

relationships, demonstrate confidence to cope with conflicts and difficulties, and have better social, academic, and psychological adaptations (Cao et al., 2024; Carmelel et al., 2021; Lin & Betz, 2009). In the social domain, international students' self-efficacy correlates significantly with their level of adaptation to the new cultural environment (Hechanova-Alampay et al., 2002). Accordingly, as indicated by prior studies, international students with high social self-efficacy are better able to cope with the cultural, social, and academic barriers and challenges associated with the inherent process of cross-cultural adaptation (Cao et al., 2023; Constantine et al., 2004).

In addition, international students' experiences prior to studying abroad, whether or not they receive cross-cultural training, and whether or not they undergo cross-cultural preparation also have an impact on their cross-cultural adaptation (Luo & Zhang, 2021; Sit et al., 2017). As Mu et al. (2022) argued, prior international experiences and information may lead to differences in the cultural adaptation skills of international students (Song & Xia, 2021), that these differences also contribute to their cross-cultural adaptation in context. It is important to note that studies have shown that prior cross-cultural exposure does not guarantee effective cross-cultural exchange and communication (Fang et al., 2020; Khedr, 2024). This must be confirmed in actual social activities after arrival in the host country. In this sense, prior cross-cultural exposure can be considered as having a greater impact in the external context of cross-cultural adaptation, with the aim of compensating for any deviations (Pino, 2024).

It can thus be concluded that, whilst both social self-efficacy and prior cross-cultural exposure may be relevant influences of cross-cultural adaptation, the influence of social self-efficacy acts in an internal process, whereas prior cross-cultural exposure

compensates for the external context. Therefore, it also raises the question of do social self-efficacy and prior cross-cultural exposure have different types of impact on cross-cultural adaptation among international students in China. This also allows the following hypothesis to be made, H6:

H6: Social self-efficacy and prior cross-cultural exposure have different types of impact on cross-cultural adaptation.

1.2.5 WeChat Use, Social Self-efficacy, Prior Cross-cultural Exposure and Cross-cultural Adaptation

The positive use of social media has been shown to directly contribute to an individual's cross-cultural adaptation at both the psychological and behavioral levels (Pang, 2020). The results of a highly positive correlation between WeChat use and cross-cultural adaptation also suggest that there is a direct pathway for the impact of WeChat social media on cross-cultural adaptation, which is consistent with the results of other studies (Wenwe & Osman, 2022).

The direct link between social self-efficacy and cross-cultural adaptation has been found (Pang, 2020; Wenwe & Osman, 2022) but researchers in the field have suggested that the relationship is not as simple as a direct association. The indirect influence mechanisms by which social media facilitates cross-cultural adaptation are not yet understood (Li & Peng, 2019). The vicarious experiences that come with social media use help international students to develop their own social confidence and social interactions, that is, self-efficacy in the social domain (Cao et al., 2024; Liao et al., 2010). Pang and Wang (2020) reported that social media use may be a distal predictor of the cultural adaptation process of international students, and that there may be other proximal

predictors related to it. It is reasonable to posit that both social media use and social self-efficacy may serve as potential predictors of international students' cross-cultural adaptation (Cao & Jia, 2024). Social media can serve as a distal coping resource to facilitate cross-cultural adaptation through the promotion of social self-efficacy, while few studies have systematically investigated the complex mediating variables that link social media use with cross-cultural adaptation (Chen et al., 2018). Social competence and confidence are important components in helping international students adapt cross-culturally, but social self-efficacy has rarely been studied as an indirect influence on cross-cultural adaptation (Wang, 2013).

There is a chain mechanism of causality between the three variables of social media use, social self-efficacy and cross-cultural adaptation, which suggests potential direct or indirect impact, and this needs to be investigated further because past studies have not examined the association of these three factors together in a single study. Therefore, the primary objective of this study is to ascertain does social self-efficacy mediate the relationship between WeChat use and cross-cultural adaptation among international students in China. We predicted social self-efficacy as the mediating variable and made the following hypothesis, H7:

H7: Social self-efficacy significantly mediates the relationship between WeChat use and cross-cultural adaptation.

Individuals with little knowledge of new socio-cultural environments experience acculturative stress (Chapdelaine & Alexitch, 2004; Wilczewski & Alon, 2023; Yang & Xia, 2023; Zhang & Goodson, 2011). To understand the factors that facilitate the cross-cultural adaptation of international students, it is worthwhile to also explore the impact of

prior cross-cultural exposure. Past studies on expatriates indicate that prior exposure with the host country can reduce their culture shock and ease their adjustment to the new culture (Fang et al., 2020; Gu, 2010; Jurásek & Wawrosz, 2024; Lee & Sukoco, 2010). For international students, lack of cultural knowledge and exposure with the host country increases acculturative stress (Htet & Mohanan, 2022), and reduced psychological, physiological, and social well-being (Berry et al., 1987; Poyrazli et al., 2004).

Indirect experiences and knowledge gained from the use of social media can be an important experience for international students prior to their arrival in the host country (Hussain & Shen, 2019; Mukherjee, 2023; Shadiev et al., 2021). For international students, the extent of this prior cross-cultural exposure gained through social media varies and is influenced by an individual's readiness for cross-cultural adaptation, which may result in changes in the strength and direction of their cross-cultural adaptation relationships (Fang et al., 2020). In statistical terms, prior cross-cultural exposure seems to be a moderating variable that can moderate the degree of cross-cultural adaptation among international students in China.

However, the exact mechanisms of the relationship of prior cross-cultural exposure and cross-cultural adaptation is still not clear. Existing studies have also not clearly explored the role of moderation in the indirect effects of social media use on cross-cultural adaptation (Chen et al., 2018, Forbush & Foucault-Wells, 2016; Gebregergis et al., 2020). Therefore, there is a need for in-depth investigations of prior cross-cultural exposure to understand how it influences the relationship between WeChat use and cross-cultural adaptation. Therefore, this prompts further inquiry into does prior cross-cultural exposure moderate the relationship between WeChat use and cross-cultural adaptation among

international students in China. Prior cross-cultural exposure may function as a mediator variable and formulate the following hypothesis, H8:

H8: Prior cross-cultural exposure significantly moderates the relationship between WeChat use and cross-cultural adaptation among international students in China.

1.3 Aim and Objectives of the Study

This study investigates the indirect impact of social self-efficacy and prior cross-cultural exposure on the relationship between WeChat use and cross-cultural adaptation among international students in China. The specific objectives of the study are:

- i. To investigate the level of WeChat use, social self-efficacy, prior cross-cultural exposure, and cross-cultural adaptation among international students in China,
- ii. To analyze the relationship between WeChat use, social self-efficacy, prior cross-cultural exposure, and cross-cultural adaptation among international students in China,
- iii. To analyze the mediating role of social self-efficacy in the relationship between WeChat use and cross-cultural adaptation among international students in China, and
- iv. To analyze the moderation of prior cross-cultural exposure on the relationship between WeChat use and cross-cultural adaptation among international students in China.

The research questions for the study are:

RQ 1: What is the relationship between WeChat use among international students in China and their cross-cultural adaptation?

RQ 2: Is prior cross-cultural exposure a significant indirect factor impacting the relationship between WeChat use and cross-cultural adaptation among international students in China?

RQ 3: Is social self-efficacy a significant indirect factor impacting the relationship between WeChat use and cross-cultural adaptation among international students in China?

RQ 4: Do social self-efficacy and prior cross-cultural exposure have different types of impact on cross-cultural adaptation among international students in China?

RQ 5: Does social self-efficacy mediate the relationship between WeChat use and cross-cultural adaptation among international students in China?

RQ 6: Does prior cross-cultural exposure moderate the relationship between WeChat use and cross-cultural adaptation among international students in China?

The hypotheses that are tested in the study include:

H1: There is a significant correlation between WeChat use and cross-cultural adaptation of international students in China.

H2: There is a correlation between WeChat use and prior cross-cultural exposure of international students in China.

H3: There is a correlation between prior cross-cultural exposure and cross-cultural adaptation of international students in China.

H4: There is a significant correlation between WeChat use and social self-efficacy among international students in China.

H5: There is a significant correlation between social self-efficacy and cross-cultural adaptation of international students in China.

H6: Social self-efficacy and prior cross-cultural exposure had different types of impact on cross-cultural adaptation.

H7: Social self-efficacy significantly mediates the relationship between WeChat use and cross-cultural adaptation.

H8: Prior cross-cultural exposure significantly moderates the relationship between WeChat use and cross-cultural adaptation among international students in China.

1.4 Operational Definition of Terms

This section explains the operational definitions of the relevant terms used in this study.

1.4.1 International Students in China

The term “international student” has been employed extensively in contemporary research, yet a universally accepted definition remains elusive. In general, international students are defined as individuals pursuing higher education in a country or region other than their country of nationality. They are distinguished from local students by their temporary status, which is typically evidenced by a passport or temporary resident identity

card. However, the specifics may vary considerably depending on the context and the country or region in question, with different interpretations and terminology in different countries and educational settings (Bista, 2016). For example, students who are engaged in distance education are technically classified as international students. However, they may perceive themselves as belonging to the local community and may require assistance in identifying their own status (Steyn & Gunter, 2023).

Some international students may arrive in the host country pre-trained in the host language and ready to adapt to the host culture. They strive to adapt to the host culture, at least to the extent that they can succeed academically (Church, 1982). The temporary nature of their stay and the lack of permanent local social support may create some additional problems in the transition of international students to the new culture (Cemalcilar et al., 2005).

International students in China are defined as foreign nationals who have arrived in China with the intention of pursuing higher education. Their backgrounds are shaped by a range of socioeconomic and educational factors, and they are mainly concentrated in and around economic centers or knowledge gateways.

In this study, international students in China refer to students from different countries and continents who enrol in universities in Chengdu, the center of western China, for academic exchanges and degree programs (e.g., Sichuan University, and University of Electronic Science and Technology).

1.4.2 WeChat

WeChat is a communication and social platform developed by Tencent that integrates real-time voice, video, pictures, text, social information, and life services with the largest number of users in China (Purnomo et al., 2023; Sandel et al., 2019). For international students in China, the WeChat Life platform makes it easier for them to adapt to the new social environment (Hassan et al., 2021).

In this study, the use of WeChat refers to international students in China using the online social networking tool in their daily lives for interpersonal communication, information acquisition, study, and leisure activities after entering China. The questionnaire items to study the use of WeChat is mainly adapted from Kuang and Wu's (2019) "Cross-cultural Adaptation Model and Quantitative Measurement of WeChat Use for International Students in China". The five aspects are WeChat use intensity, WeChat acceptance, socio-cultural adaptability, and psychological adaptability (see Chapter 3, Table 3.7). WeChat use is the independent variable in this study.

1.4.3 Prior Cross-cultural Exposure

Prior cross-cultural exposure refers to the knowledge, experience and exposure to a new environment prior to cross-cultural exposure that makes an individual ready for life in the host country (Birdie, 2020; Francois, 2015). An individual's previous experiences and interactions with different cultures may help an individual to adapt better in an unfamiliar cultural environment. Cross-cultural exposure can be obtained through a number of pathways, including prior international experience, spending time in the host country for study or training, and the active pursuit of relevant information about the host country (Birdie, 2020; Francois, 2015). Such prior exposure to the host country has an impact on

all aspects of an individual's behaviour, cognition and interpersonal interactions. The initiation of exposure, whether through prior experience or culturally-specific training, can help to mitigate cultural differences (Abdel-Rahim et al., 2022).

In this study, prior cross-cultural exposure refers to the various preparatory activities that international students in China undertake prior to their arrival in China in order to have a better cross-cultural adaptation. The measure of prior cross-cultural exposure in the study takes into account the number of family members and friends from China as well as the number of times they had visited China before their arrival in the country for studies. The questionnaire also includes items on the indirect exposure to the Chinese culture such as the frequency of watching movies and television programs and videos about China to gain knowledge about the culture and people. The items on prior cross-cultural exposure were based on Francois's (2015) scale for measuring the cross-cultural readiness of Chinese students in a study-abroad programme. For further details, see Chapter 3, Section 3.6 Instrument. Prior cross-cultural exposure is an independent variable as well as a moderating variable in the present study.

1.4.4 Social Self-efficacy

Self-efficacy is an individual's subjective experience of his/her own ability (Bandura, 1977). Social self-efficacy is a kind of self-efficacy related to social activities, which is an individual's inference of his/her ability to influence the social environment through his/her behaviors (Ferris et al., 2007). It is also a subjective perception of an individual's ability to develop and maintain interpersonal relationships through participation in social activities, reflecting people's judgments and beliefs about their own social competence, which has important implications for people's social behaviors,

interpersonal relationships and quality of life (Gu et al., 2014). In accordance with Bandura (1977), social self-efficacy may be defined as a self-assessment of a student's ability to successfully accomplish academic or everyday goals that involve social interaction.

In this study, the definitions of social self-efficacy proposed by Bandura (1977) and Smith and Betz (2000) were adopted. Hence, social self-efficacy is defined as the perceived ability of international students in China to socialize effectively in a cross-cultural context with students from the host country and other countries. The questionnaire items examining social self-efficacy were adapted from “the Perceived Social Self-Efficacy Scale” (PSSE) developed by Smith and Betz (2000), a measure of an individual's perceived social self-efficacy. The items under consideration addressed six domains of social interaction, which are making friends (i.e., asking a potential friend out to coffee), pursuing a romantic relationship (i.e., expressing feelings to others), being socially assertive (i.e., attending a lunch or dinner table where people are already sitting and chatting), social presence (i.e., expressing opinions to a group of people discussing a topic of interest to you), and groups or gatherings (i.e., join a table at lunch or dinner when there are already people sitting and talking). Additionally, the items considered included giving or receiving help (i.e., asking for help from others when needed) (Çankaya et al., 2017). For further details, see Chapter 3, Section 3.9 Instrument. Social self-efficacy is an independent variable as well as a mediating variable in the present study.

1.4.5 Cross-cultural Adaptation

The study of cross-cultural adaptation involves many disciplines such as anthropology, psychology, sociology, etc., and the cross-referencing of concepts is inevitable. Kim (1995) attributes the current phenomenon of conceptual mixing and

inconsistency in the academic world to the overlapping of meanings between these concepts, and therefore, she proposes to use the term “cross-cultural adaptation” as a superordinate term to cover the existing concepts of “adaptation”, “acculturation”, and “adjustment”. One of the most widely accepted concepts of cross-cultural adaptation is that of psychological and sociocultural adaptation, as proposed by Ward and Kennedy (1999). Furthermore, Kim (2001) elucidated cross-cultural adaptation from the vantage point of communication. She posited that cross-cultural adaptation was the process by which an individual who relocated to an unfamiliar cultural milieu established and maintained a relatively stable, reciprocal, and efficacious relationship with the new environment. This is essentially a process of continuous communication between the individual and the environment. Cross-cultural adaptation in this definition is essentially an interactive, diffusion process between the person and the environment, encompassing both the individual’s behavioral adaptation to the socio-cultural environment and the individual’s psychological reactions and debugging processes (Kim, 2017). This interactive, transmission-based concept goes beyond the linearity assumptions of most existing models by conceptualizing cross-cultural adaptation not as a separate dependent variable.

Accordingly, in the present study, the definitions of cross-cultural adaptation proposed by Ward and Kennedy (1999) and Kim (2017) were adopted. The concept of cross-cultural adaptation is defined as the process by which an individual adjusts to a new cultural environment. The items included in the questionnaire to measure examining cross-cultural adaptation were largely adapted from “the General Adjustment Scale” developed by Polat and Arslan (2022) for international students. This instrument is a multidimensional tool used to assess the general adjustment of international students to their host country. The scale comprises four factors: academic adaptation, socio-cultural

adaptation, psychological adaptation, and adaptation to daily life (Polat & Arslan, 2022). For further details, see Chapter 3, Section 3.11 Instrument. Cross-cultural adaptation is an independent variable in the present study.

1.5 Significance of the Study

This research is significant in terms of its theoretical contribution to existing research on the impact of WeChat use, social self-efficacy, and prior cross-cultural exposure on international students' cross-cultural adaptation in China, and practical contribution to the international education industry in China.

Firstly, the theoretical significance of this study is that the findings will increase understanding of the mechanisms of indirect influence between WeChat use and cross-cultural adaptation among international students in China, rather than focusing on a simple causal relationship in which WeChat use directly influences cross-cultural adaptation. There are many studies that have shown that social media use is a crucial tool in helping individuals adapt to a new cultural environment (Athukorala , 2021; Chen et al., 2022; Hassan et al., 2021; Hong & Wei, 2018; Kuang & Wu, 2019). However, most of the studies investigated the direct relationship or direct influence of social media use on cross-cultural adaptation.

The present study will contribute to the field of cross-cultural adaptation by exploring the role of prior cross-cultural exposure. The use of social media by international students provides them with indirect experiences of their socio-cultural environment prior to arrival in the host country. This can be considered a form of prior preparation for cross-cultural adaptation, involving prior cross-cultural exposure (Gaitán-Aguilar et al., 2022; Sleeman et al., 2016). Additionally, research indicates that international students' use of

social media enhances their perceived capability and confidence to interact socially in unfamiliar socio-cultural environments. This is a form of social self-efficacy and a crucial element influencing their cross-cultural adaptation (Herman & Betz, 2004; Lin, 2006; Raman & Harwood, 2016). However, based on the review of past studies, prior cross-cultural exposure does not seem to have a direct effect on social media use, social self-efficacy, and cross-cultural adaptation. Currently, there is lack of understanding on the mechanisms of how prior cross-cultural exposure influences other factors affecting international students' cross-cultural adaptation. Thus, the findings from the present study will fill in the gap of knowledge on direct and indirect factors influencing cross-cultural adaptation.

As for practical significance of the study, the study will produce findings that benefit international students as well as agencies and universities or colleges involved in preparing them for studies abroad. In the case of international students in China, the use of WeChat to obtain information and solve problems in study and life, communicate, and facilitate interpersonal interactions contributes to their cross-cultural adaptation (Yu & Guo, 2021). As the present study also explores the role of prior cross-cultural exposure, the findings will indicate whether prior cultural exposure, WeChat use or social self-efficacy needs to be emphasized in pre-departure programs and orientation programs for new international students to ease their cultural adjustment. When these programs are formulated based on empirical data, this will enable international students to cope better with the challenges of living in a new place, and hence adapt better to the study and living conditions in China. The findings of this study will contribute towards facilitating international students' integration into Chinese society.

In addition, the findings on the indirect path of influence between WeChat use and cross-cultural adaptation among international students in China can provide useful insights for international education administrators in Chinese universities, particularly on the effective use of social media such as WeChat. The use of WeChat is a key factor in helping students with cross-cultural exposure and subsequent social, academic adaptation (Cao & Jia, 2024; Xue & Churchill, 2019). By giving appropriate recommendations on the use of WeChat services, international education administrators at Chinese universities can prepare international students for their arrival in China, allowing them to establish a seamless platform for information exchange and prompt feedback. This is important because other social media platforms such as Facebook, Instagram, Twitter, Whats App, etc. can only be accessed through the illegal use of VPN or other censorship-avoiding technologies. By providing good support to international students, international education administrators at Chinese universities can contribute to the development of a positive educational brand and attract more competitive international students (Yousaf et al., 2020). Thus, the findings of the present study is very relevant to the international education industry in China.

1.6 Scope of the Study

The study on cross-cultural adaptation and the relationships with contributing factors is a cross-sectional study with questionnaire data collected at one point in time. A cross-sectional study is an observational study in which exposures and outcomes are determined at the same point in time for each study participant, and is usually relatively inexpensive and easy to conduct (Wang & Cheng, 2020). In the present study, data on WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation among international students in China are collected at one point in time, rather than repeatedly over a period of time. Cross-sectional studies have the capacity to be both

descriptive and analytical, thereby facilitating a more comprehensive evaluation of the factors influencing the variables and the potential associations of these factor exposures (Walker et al., 2021). This, in turn, provides useful information for subsequent studies. In light of this, it is appropriate to use a cross-sectional design to examine the use of WeChat, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation in a group of international students in China, and to analyze the relationship between these factors to further explore whether there are indirect influences and pathways. It is not a longitudinal study involving data collection over a period of time to investigate changes in relationships between variables in different phases of the international students' stay in China.

CHAPTER 2

LITERATURE REVIEW

This chapter presents the literature on WeChat use, prior cross-cultural exposure, social self-efficacy, cross-cultural adaptation, and the relationships between these variables. The chapter ends with a synthesis of past findings to show the current state of knowledge on the topic.

2.1 WeChat Use

A report from China Internet Network Information Centre (CINNIC, 2024) shows that as of December 2023, China had 1,092 million Internet users, 1,091 million mobile Internet users, and an Internet penetration rate of 77.5%, which demonstrate that China is experiencing a rapid growth in Internet adoption and mobile penetration (CINNIC, 2024). Against this backdrop, WeChat has grown to become one of the most popular, widely used and influential social media platforms in China (Cao et al., 2024; Zhang & Clough, 2020). It was launched by Tencent in 2011 and subsequently became the world's largest standalone mobile app in 2018, with a global reach of over 200 countries and regions, and has been designated a "super app" due to its wide range of functions, which represent a way of life in the information age (Fenton et al., 2019; Purnomo et al., 2023; Wang et al., 2023a). By the end of 2023, the number of global monthly active users of WeChat had reached 1.343 billion, representing a period of sustained growth, thereby further substantiating the strong vitality and value of the WeChat ecosystem (Tencent, 2024).

The WeChat ecosystem is based on the ongoing integration of the wide range of functions, including instant messaging, Public Account, WeChat Pay, WeChat Moments,

WeChat Channels, WeChat Search, Mini Programs, Mini Games, WeChat Library, e-shopping, WeChat Translator, People Nearby, WeChat Recognition, and QR Code Scanning, among other technical services (Liu 2021; Purnomo et al., 2023; Sandel et al., 2019). WeChat is expanding its reach into both the public and private areas, which makes WeChat an important social and informational tool that has been seamlessly integrated into the daily rhythms of its users' lives (Waliczko, 2020; Zhang & Quan-Haase, 2022).

2.1.1 Usefulness of WeChat

The accelerated evolution of WeChat has made it a significant topic of academic inquiry. Current research on WeChat is wide-ranging and mostly focused on China because other countries can make use of other social media platforms such as Facebook, Instagram and X (Twitter). These platforms are not generally accessible to people in China because of a government ban in 2009, except by using VPN and other censorship-avoiding technologies (Zhang et al., 2024). WeChat is a social media application developed in China and designed for mobile phones, a technology that offers novel and creative ways to communicate and interact (Sandel et al, 2019).

With regard to media technology, WeChat places particular emphasis on the interactive mobility and media convergence of communication technologies (Negro et al., 2020). Earlier studies tended to consider WeChat as a new media that uses digital technology to provide users with information and services in the form of communication, mainly through mobile phone terminals (Kuang, 2014; Qi, 2013; Yan, 2015). However, the WeChat's R&D team has been positioning WeChat as an Internet social tool that simulates real social interaction mode in mobile Internet terminals (Li & Gao, 2013). Of late, there are studies that consider WeChat as a social media or social tool and examine how user

relationships influence interactions, and the production and exchange of content in WeChat (Hou et al., 2021; She et al., 2022; Wang & Gu, 2016).

Research shows that WeChat is a digital technology tool that facilitates the flow of information. Hong et al. (2021) found that WeChat provides innovative communication tools for sharing diverse information, and the WeChat group service functions as a virtual interactive community where users can access and share different kinds of information in different groups. In contrast, Xu (2022) reported that WeChat is a useful technological platform for news dissemination in China.

WeChat can be regarded as a platform for accessing a diverse range of information in daily life. WeChat, in order to make the flow of information more meaningful, integrates a variety of media forms and effectively combines emoticons, images, micro-video, film, audio and other intelligent terminal channels with traditional media forms (e.g., text messages, voice and video calls), making it a diversified channel for the transmission of information (Wang et al., 2019). As Negro et al. (2020) observe, Tencent has evolved into a dominant technology company through the development of WeChat. This involved integrating wireless communication with computers and mobile phones, while also combining the trends of social networking, personal information processing, Internet wireless, and localized applications into a unified platform. The functions of WeChat public accounts and WeChat search facilitate the purposeful access of different types of information by users, thereby positioning WeChat as a primary means of information delivery and interaction (Chen et al., 2018).

In fact, WeChat services have evolved beyond instant messaging to encompass a range of social functions (Yan & Feng, 2023). WeChat's earliest communication functions

were developed to address the specific needs of the “smartphone lifestyle” with a particular focus on the lifestyle aspects associated with the use of such devices (Giudice, 2020). In April 2012, Tencent introduced a new function, “Moments”, that allows users to share their daily lives, thus focusing WeChat’s functionality on social attributes centred on information and sharing (Montag et al., 2018). Xiao and Tao’s (2024) study also demonstrated that WeChat users’ interactive behaviors such as sharing, commenting, and liking within the “Moments” function increased social relationship building. With the introduction of the “Moments” function, WeChat has expanded beyond its original communication function to behavior engagement and relationship building in the social sphere (Xiao & Tao, 2024). WeChat focuses on connecting and expanding China’s social media ecosystem (Giudice, 2020).

WeChat is a multifunctional application and platform on Chinese smartphones that integrates various services, including messaging, socialization, red packets and mobile payment services (Chen et al., 2018; Giudice, 2020; Montag et al., 2018; Tu, 2016). The introduction of the WeChat Pay function in late 2013 has further consolidated WeChat’s position as a multi-purpose platform. By 2020, it had become the largest mobile payment service in China (PCAC, 2020). The WeChat payment functionality extends beyond the transfer of money. There is also the red packet services to encompass a credit card-like capability for expenditure and shopping transactions (Giudice, 2020).

WeChat is continuously expanding its capabilities through the incorporation of new services, such as city services, thereby establishing itself as an integrated platform and a mode of living that facilitates connectivity across various domains (Montag et al., 2018). WeChat has become an interconnected ecosystem based on its ever-expanding range of

features and services that have transformed the social interactions and daily lives of Chinese people (Giudice, 2020). De Seta (2020) positioned WeChat as a foundational service that plays a pivotal role in socialization, communication and transnational activities within the everyday social life. The use of digital platforms has become central to the daily lives of people within cities, and these platforms act as intermediaries to connect interactions in social life, such as booking various services, shopping and having them delivered to the home, scanning QR codes to make payments and accessing certain places (Autio & Thomas, 2021; Barns, 2019).

2.1.2 Usefulness of WeChat to International Students

Research shows that WeChat has gradually become an integral part of daily life in Chinese universities (Hou et al., 2021; Pang, 2021). Waliczko (2020) found that WeChat has become a cybercultural phenomenon in China, but is not confined to China's borders and is further developing and expanding globally. The globalization of WeChat is confirmed by the study of Wang et al. (2019). China has become a popular educational hub in Asia, attracting international students. The use of WeChat has had a significant impact on the social interactions, communication, and personal relationships of international students in China (Hassan et al., 2021). The latest research indicates that the majority of Chinese students tend to use WeChat as a means of re-establishing their social connections upon entering China, and they utilize WeChat to maintain social relationships, collaborate on academic tasks and cope with psychological challenges such as loneliness and depression (Cao & Jia, 2024; Cao et al., 2024; Li & Ye, 2019; Wang et al., 2023b). Evidently, WeChat provides support in their daily lives and studies.

Another potential factor contributing to the rapid acceptance of WeChat by international students in China is the Chinese government's imposition of restrictions on access to digital information. Although digital communication technologies have revolutionized the way information flows across borders and national boundaries, information does not flow freely everywhere, and government censorship, Internet shutdowns, blockades, and firewalls pose significant barriers to transnational flows of information (Earl et al., 2022; Lu et al., 2024). Since 2009, social media such as Facebook, Instagram, Twitter, Whats App, etc. have been inaccessible in China, and users have to use VPNs or other censorship-avoiding technologies to access the content, but unauthorized use of wall surfing technology is a criminal activity (Zhang et al., 2024). This has provided space for WeChat to grow into a popular social media outlet worldwide. In turn, Çömlekçi (2020) found that international students, upon arriving in their host country, tend to rebuild their social networks through local social media platforms. They are inclined to choose highly popular local digital networks like WeChat to facilitate their adaptation to the new socio-cultural environment.

The intensity of their use of WeChat among international students is highly correlated with their adaptation to the socio-cultural environment of the host country (Cao et al., 2024). In addition, Wang et al. (2019) stated that WeChat is easily accepted by international students in China because it is free and easy to use, and they also get features like payment services, in-built text translation, and multi-modal chatting. Kuang and Wu (2019) reported that WeChat use helped international students in China in their cross-cultural adaptation, measured in terms of media demand, media acceptance, socio-cultural adaptation and psychological adaptation. Figure 2.1 demonstrates Kuang and Wu's (2019)

analytical model of WeChat usage behaviour of international students in China from a cross-cultural perspective.

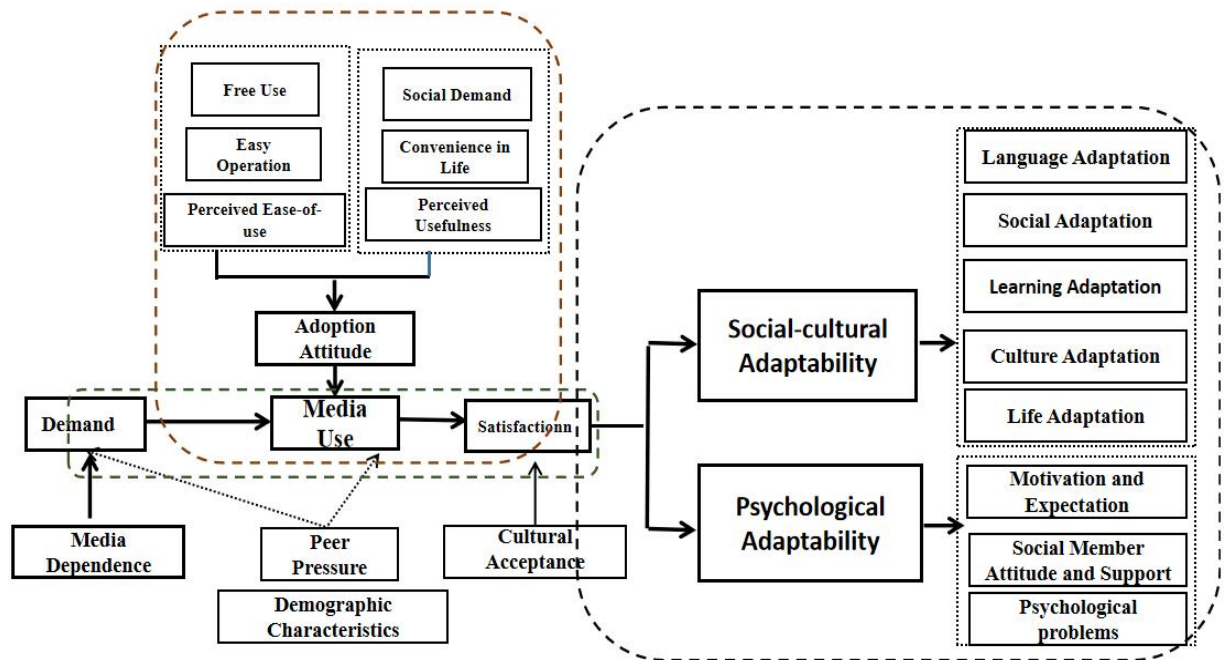


Figure 2.1: Kuang and Wu's (2019) Cross-Cultural Adaptation Model of WeChat Use Behaviour of International Students in China

In summary, WeChat can satisfy a number of social and interpersonal needs of international students in China, including the social interaction, maintenance of interpersonal relationships, social support, entertainment and leisure, and access to information for social and academic purposes. For international students in China, the WeChat is a means for effective integration into the social life of Chinese universities. An investigation into the intensity of WeChat use, its acceptance, the socio-cultural adaptability and the psychological adaptability can provide insights into how their WeChat use facilitates cross-cultural adaptation.

2.2 Prior Cross-cultural Exposure

Prior cross-cultural exposure is the knowledge, experience and exposure to a new environment prior to cross-cultural exposure that makes an individual ready for life in the host country (Birdie, 2020; Francois, 2015). Individuals are more prepared for life in a foreign country when they have international exposure through their experiences, learning, training, and access to information (Fang et al., 2020; Gebregergis et al., 2020; Kempf & Holtbrügge, 2020).

With the current development of international education in general, cross-cultural preparation prior to arrival in the host country is becoming increasingly important. Prior cross-cultural exposure has a positive impact on the development of individual's cultural awareness, especially in terms of better understanding the cultural environment, daily experiences and behaviors of an unfamiliar society, and is important for effective interaction and adaptation to people from different cultural backgrounds (Martin & Nakayama, 2007; Namada et al., 2021). Jurasek and Wawrosz (2024) asserted that prior cross-cultural or international experiences will help to mitigate the culture shock experienced by individuals in unfamiliar environments while moderating their level of cross-cultural adaptation and competence. Several studies have shown that students who had international experience prior to arriving in the host community possessed better cross-cultural competence, and that they were able to have better cross-cultural interactions and adaptations as they were psychologically prepared for adaptation difficulties (Gebregergis et al., 2020; Mustaffa & Ilias, 2013; Searle & Ward, 1990).

The accessibility of social media has eliminated traditional geographic boundaries and provided opportunities for cross-cultural interaction prior to actual travel to a foreign

country (Tomblinson & Wolf, 2017). Information about the host society can be obtained through internet channels such as social media to form a need-to-know understanding of their daily social life which forms an individual's foundational competence prior to cross-cultural adaptation (Fang et al., 2020; Gu et al., 2010). Social media enables immigrants to communicate and connect with local people, engage in cross-cultural experiences and cultivate cultural proficiency (Hu et al., 2017). In this way, social media helps to facilitate communication with individuals from different cultural backgrounds, increase awareness and understanding of different cultural values, and facilitate cross-cultural exchange (Sandel, 2014; Tang & Chan, 2020). Mukherjee (2023) also found that international students obtain information about the base environment of the host society via social media platforms in order to engage with members of the host country.

According to Lustig and Koester (2006), individuals have competencies that produce different effects in different social situations. Since the status or level of cross-cultural readiness does not necessarily guarantee effective cross-cultural interaction or communication, a proper assessment of this prior cross-cultural exposure can help individuals to take action to compensate for deviations in the actual process of cross-cultural adaptation (Fang et al., 2020; Francois, 2015).

2.3 Social Self-efficacy

Social self-efficacy can be defined as an individual's capacity and confidence to engage in the social interaction tasks required to initiate and sustain interpersonal relationships within their social environment (Anderson & Betz, 2001; Carmeli et al., 2021). The widespread acceptance of social self-efficacy began with Bandura's (1977) research. Self-efficacy was firstly developed in 1977 by Albert Bandura. Self-efficacy

refers to the individual's judgment of his or her abilities to accomplish a goal, and self-efficacy should not be mistaken for personal ability (Bandura, 1977). Social self-efficacy is based on the application of Bandura's (1977) theory of self-efficacy to social situations.

According to Bandura (1977), self-efficacy influences positive change through sources such as mastery experiences, alternative experiences, social persuasion, and physiological arousal. In the area of social self-efficacy in a cross-cultural context, sojourners may seek to increase their self-efficacy through mastery experiences of cross-cultural social interactions, observing successful social performance experiences, obtaining positive feedback on their performance, and focusing on action to avoid emotional arousal (Mak & Tran, 2001). Subsequently, Bandura's (1986) Social Cognitive Theory posits that self-efficacy is a personal construct that may influence an individual's behavior and social interaction in social activities. In the interpersonal domain, social self-efficacy involves exploring the influence of personal factors related to social activities.

Bandura (2001) also pays attention to the different dimensions of self-efficacy that exist in different domains. Self-efficacy is domain-specific efficacy because different domains require different tasks and abilities (Bhati & Sethy, 2022; Paunonen & Hong, 2010). Rogala et al. (2020) found that the use of domain-specific self-efficacy measures can be more successful in predicting the outcome of social activities. For instance, general self-efficacy pertains to the ability to engage in and navigate social activities and daily tasks, which is an instinctive perception of oneself in basic life domains (Hu et al., 2018). Communication self-efficacy, on the other hand, has been studied in the context of professional settings whereby it refers to attitudes and behaviors exhibited by employees (Pekkala & van Zoonen, 2022). For example, the confidence to assert opinions in meetings.

Academic self-efficacy, meanwhile, has been shown to mediate the academic performance of higher education students, as indicated by students' perceptions of their own learning competence and adaptation in their chosen field of study (Boahene et al., 2019). Social media self-efficacy is defined as the self-efficacy associated with the use of digital technology, and is the perceived competence and confidence in its technical and functional use as demonstrated by individuals in the social media domain (Xu et al., 2019). Individuals need to develop confidence in different areas of their life as the different domains of self-efficacy require different competencies.

As shown above, researchers have proposed various definitions for self-efficacy in the social domain, but they revolve around competence and confidence in social interactions. Bandura (1999) stated that social self-efficacy is an individual's confidence in his or her ability to utilize social behavioral knowledge during interpersonal interactions, demonstrate social competence, and obtain positive responses in interpersonal interactions. Smith and Betz (2000) explicitly defined social self-efficacy as an individual's belief that he or she is able to engage in social activities and that he or she believes he or she can construct and maintain social relationships during interpersonal interactions. Ferris et al. (2007) consider social self-efficacy to be an individual's judgment of his or her own ability to make an impact on the social situations in which he or she finds himself or herself Gan et al. (2007), on the other hand, defined it as an individual's self-confidence and belief in constructing and developing social relationships in social situations, and it is a subjective perception of one's own social competence and performance.

2.3.1 Measure of Social Self-efficacy

Although social self-efficacy is a specific type of self-efficacy, different social self-efficacy measurement scales have been employed in studies. In the initial studies, it was common practice to use the social sub-scale of one of the self-efficacy or confidence scales. For example, the social self-efficacy sub scale of the General Self-Efficacy consists of six items in a five-point Likert scale format (Sherer et al., 1982). However, this scale was unable to accurately measure the level of social self-efficacy in the college student population. Since then, social self-efficacy has also been measured using the Self-Efficacy Scale for College Students developed by Solberg et al. (1993) and the social sub-scale of the Skills Confidence Scale developed by Betz and Klein (1996). To measure social self-efficacy in a multicultural student population, Fan and Mak (1998) constructed and validated a social self-efficacy scale in a range of social interaction situations incorporating four factors including absence of social difficulties, social confidence, interest in sharing, and friendship initiatives.

Subsequently Smith and Betz (2000) developed the Perceived Social Self-Efficacy Scale for general social situations, which has been widely utilized by the academic community. The scale consists of 25 items and is rated on a five-point Likert scale. This scale has good reliability and validity as Smith and Betz (2000) reported that the Cronbach's alpha value for the scale was .95, and that the internal consistency reliability coefficient was .94 based on the results obtained from a large sample (N=354). Test-retest reliability was obtained by administering a smaller sample (N=109) over an interval of three weeks, yielding a value of $r=.82$. The study by Carmeli et al (2021) also confirmed the validity and reliability of Smith and Betz's (2000) Perceived Social Self-Efficacy Scale

for assessing the social competence and self-confidence of international students. Figure 2.2 displays Smith and Betz's (2000) model for the measurement of social self-efficacy.

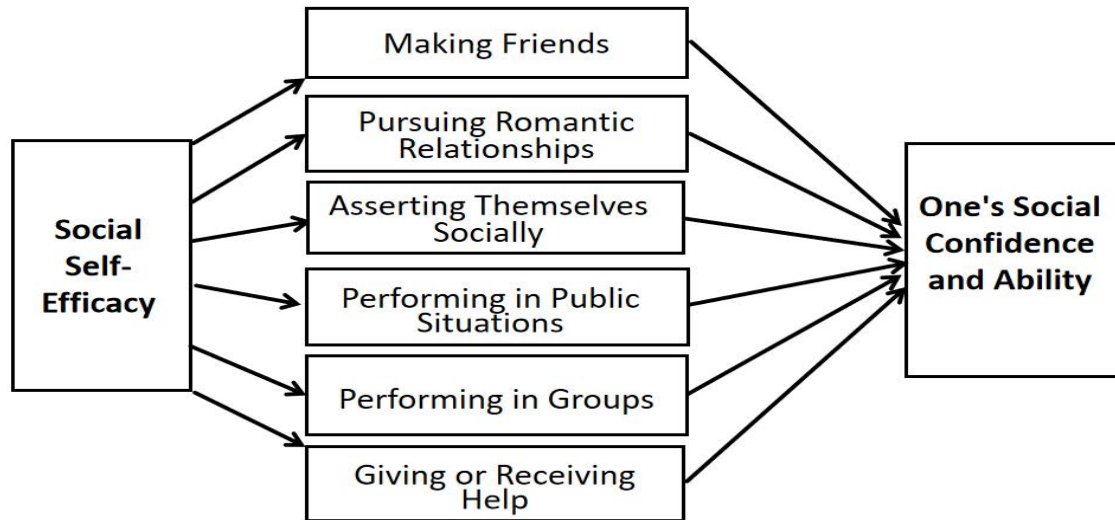


Figure 2.2: Smith and Betz's (2000) Model for Measuring Social Self-efficacy

2.3.2 Social Self-efficacy of International Students

The social self-efficacy of international students is an important area of concern for educational researchers, mainly when it comes to the investigation of their social skills and adaptation. Research findings concur on one point, that is, a good mastery of the host country's language aids social self-efficacy and cultural adjustment. Carmeli et al. (2021) showed that creating a more socially supportive environment helps students to develop social self-efficacy, which contributes to their vitality and higher academic achievement in the university environment. As expected, Lin (2006) found that international students have significantly higher social self-efficacy in their home interaction environment than that in the host country environment. The unexpected finding from Lin's (2006) study is that social self-efficacy in the host country language is the main source of influencing the adjustment outcomes of international students. Previously Mak and Tran (2001) tested a

comprehensive model of cross-cultural social self-efficacy on Vietnamese students studying abroad, and concluded that there was a significant overall effect of same-ethnicity social self-efficacy, weak Vietnamese ethnic identity, English fluency, extroversion in personality, and openness on cross-cultural social self-efficacy.

The practical significance of improving immigrants' English proficiency, social efficacy and skill acquisition during cross-cultural adaptation became evident from Htet and Mohanan's (2022) study on Burmese international students studying at a Thai university. Their findings revealed that the Burmese students' perceived social self-efficacy is negatively correlated with acculturation stress and positive correlated with sociocultural adaptation. Research by Rogala et al. (2020) further suggests that social self-efficacy may contribute to immigrants' psychological adaptation, and that self-efficacy beliefs can be effectively enhanced using Internet-based interventions.

Research on the social self-efficacy of international students in China, on the other hand, tends to focus more on their adaptation. Gebregergis et al. (2019) after surveying international university students studying at three Chinese universities in Wuhan, Hubei Province, reached the conclusion that self-efficacy of international students is positively correlated with life satisfaction. They also reported that their self-esteem and life satisfaction have a perfectly parallel mediating role in the relationship between self-efficacy and depression. If international students' self-efficacy is cultivated, they are likely to have less psychological adaptation difficulties. Another study on international students in China (Cao et al., 2024) showed that host university support was directly related to social self-efficacy, and social self-efficacy was directly related to adoption of host culture

and psycho-social adaptation. Cao et al. (2024) also found that social self-efficacy plays a unique role in predicting different domains of international student adjustment in China.

2.3.3 WeChat Use and Social Self-efficacy

For international students, the use of social media is an important tool and platform to enhance their social self-efficacy (Alshahrani & Pennington, 2020; Kim et al., 2020). The potential benefits of using social media on the mental health of international students are considerable, with evidence suggesting that social media has the ability to enhance their emotional, behavioral, and cognitive abilities during social activities (Pang, 2020). Furthermore, Hu et al. (2018) conducted a longitudinal investigation and found that social media use is an effective means of personal development in cross-cultural environments. Forbush and Foucault-Welles (2016) showed that it is beneficial for students to interact with experts and professionals on social media. This is because students learn from them, and this provides additional support for increased self-efficacy. Hou and Ge's (2019) study revealed that as the frequency of social interactions on social media increases, so too does the likelihood of an individual's social self-efficacy. For international students, use of social networking services is directly related to their internal social skills and their social self-efficacy (Cao et al., 2024; Carmeli et al., 2021; Kim et al., 2020; Ngoc Hoi, 2023). Prior research has also long shown how social media provides expatriates with alternative experiences to studying and living in the host country, which helps to improve their social efficacy beliefs and competencies (Hendricks, 2016; Sandel, 2014).

As a social media commonly used by international students in China, the multi-channel functionality of WeChat enables effective interpersonal social communication (Cao & Jia, 2024). Frequent social use of WeChat facilitates the maintenance of social

relationships, acquisition of social knowledge and information about the host country, and learning about the host country's society and culture (Pang & Wang, 2020), and further increase self-efficacy and confidence during socialization in the host country (Cao et al., 2024).

2.4 Cross-cultural Adaptation

Cross-cultural adaptation generally refers to the process of mutual influence, change and integration with other cultures. The first clear academic definition of “cross-cultural adaptation” was given by the American anthropologists Redfield et al. (1936), who defines cross-cultural adaptation as the phenomenon of cultural change in the source culture of one or both of the parties that occurs as a result of direct and sustained contact between two groups holding different cultures. Other researchers do not focus on cross-cultural adaptation as a group phenomenon but instead focus on it as an individual experience. Searle and Ward (1990) believe that cross-cultural adaptation refers to the psychological and behavioral adjustment that occurs when an individual is exposed to the stimuli of a new cultural environment, and they differentiate between psychological adjustment and sociocultural adjustment (Bethel et al., 2020; Sam et al., 2022; Ward et al., 2020). Psychological adjustment refers to psychological well-being, such as satisfaction and happiness, and sociocultural adjustment refers to the acquisition of behavioral competence to integrate into and cope successfully with the new culture (Searle & Ward, 1990; Ward & Kennedy, 1999; Sheng, et al., 2022). Sheng et al. (2022) conducted a study on the cross-cultural adaptation of international students from 22 countries and regions in Africa and Asia who were enrolled in English-medium courses at a Chinese university. The study adopted the dual-domain cross-cultural adaptation perspective, as defined by Ward and Kennedy (1999), which encompasses psychological (emotional/behavioral) and

socio-cultural (behavioral) adaptation. Sheng et al. (2022) found a correlation between psychological adaptation and socio-cultural adaptation when it comes to cross-cultural adaptation and friendships established by international students in the host country, and that there is a potential impact of academic adaptation on psychological adaptation and socio-cultural adaptation. Luo and Zhang's (2021) study also included psychological adaptation and socio-cultural adaptation in international students' cross-cultural adaptation and found that cross-cultural adaptation is based on different models with different influencing factors, such as the stress coping model, which is based on factors such as personality and social support network.

2.4.1 Cross-cultural Adaptation and Communication

Communication plays an integral role in cross-cultural adaptation (Chaffee et al., 1990; Church, 1982; Kim, 1977, 1988, 2001; Pang, 2020). Lvey and Hurst (1971) showed that human communicative behavior is an attempt to adapt to the environment, with the communicating parties each bringing with them their own cultural and genetic backgrounds to reach some mutual adjustments. Miscommunication and misunderstanding among people from different cultural backgrounds may cause cultural misunderstanding and exacerbate the stress of cross-cultural adaptation, leading to breakdowns in cross-cultural communication (Aririguzoh, 2022).

Communication is a key component of cross-cultural adaptation since it serves as a mechanism for social connection and cohesion, and communication plays an important role in helping immigrants to adapt to the host society (Kim, 1997). Kim (2001) proposed that cross-cultural adaptation occurs when individuals move from their home cultures to some new, unfamiliar cultural environments. As an individual enters a new environment, they

attempt to establish and maintain relatively stable, reciprocal, and functional relationships with these environments by means of communication; in a sense, cross-cultural adaptation is produced when it is at the intersection of people and the environment (Kim, 2002).

Cross-cultural adaptation is a process. It is “the dynamic process of establishing (or rebuilding) and maintaining a relatively stable, reciprocal and functional relationship with the environment after moving to an unfamiliar cultural environment” (Kim, 2002, p. 260). Cross-cultural adaptation involves changes in individuals’ emotion, behavior, and cognition at the stages of contact, adjustment, and adaptation. Kim’s (2001) view of cross-cultural adaptation is appropriate for studies on the experiences of international students when they study abroad. This is because the international students have to engage in communication with people from another culture to establish and maintain relatively stable and balanced relationships in a new socio-cultural environment.

In the contemporary digital age, the significance of communication in facilitating cross-cultural adaptation has been emphasized by the works of Pang (2020) and Hu (2020). These scholars have explored the utilization of communication tools, with a particular focus on social media, to enhance the cross-cultural experiences of immigrant students. With the rapid spread of communication technology, social media has become an important tool for participants in the communication process to communicate effectively and an important predictor of adaptation for international students in China (Cao & Meng, 2022).

2.4.2 Domains of Cross-cultural Adaptation and Coping Strategies

Cross-cultural adaptation strategies affect the outcome of cross-cultural adaptation at the group level and the individual level, especially in the areas of psychological

adaptation and sociocultural adaptation (Berry, 2005; O'Reilly et al., 2010; Razgulin et al., 2023; Szabó et al., 2020). Psychological adaptation involves emotional responses and can be understood in terms of stress and coping frameworks, while socio-cultural adaptation is based on behavioral responses related to how effectively an individual adapts to a new society. This includes a person's competence in managing the tasks required for daily intercultural living (Ward et al., 2020).

Many previous studies have examined how acculturation strategies predict sociocultural and psychological adaptation (Choy et al., 2021; Jackson et al., 2019; Yang et al., 2023). For example, Jackson et al. (2019) argued that international students need to cope with stressful issues of cultural adaptation in a new environment, and experience psychological symptoms such as depression, loneliness, and homesickness. Yang et al. (2023) also further pointed out that international students face challenges in terms of socio-cultural adaptation such as language barriers, culture shock, and social pressure. Choy et al. (2021) focused on the different types and stages of psychological adaptation of immigrants based on Berry's (1977) model of acculturation (integration, assimilation, separation and marginalization) such as depression and anxiety.

Prior research has focused on measures of international students' socio-cultural adaptation and psychological adjustment. Searle and Ward (1990) first used the Sociocultural Adjustment Scale to examine the cross-cultural transition and adaptation of Malaysian and Singaporean students in New Zealand. Ward (1996) argued that psychological adjustment is best understood in terms of stress and coping frameworks, whereas sociocultural adjustment is best interpreted in the context of a social-skills or cultural learning paradigm. The Zung Self-Assessment Depression Inventory (Zung, 1965)

was recognized as an important tool for cross-cultural adjustment because of its widely documented cross-cultural reliability and validity and is most often used to measure psychological adjustment. Black and Mendenhall (1989) further categorized cross-cultural adjustment into three dimensions, that is, general adjustment, work-based adjustment, and interactive adjustment, which are more scientific and provide a clearer picture of the dimensions of adjustment for cross-cultural individuals. Socio-cultural adaptation and psychological adaptation of international students are aspects that remedial classes often neglect (Arslan & Polat, 2023; Lai et al., 2023).

In addition to psychological and socio-cultural adaptation, academic adaptation is another important element of the international student experience. Academic success is important to international students who aim for academic success and need to adapt to the academic environment of the university (Hussain & Shen, 2019; Sheng et al., 2022; Young et al., 2013). The academic adjustment of international students in host country environments can be compromised by cultural differences and communication and transition difficulties (Mesidor & Sly, 2016; Ma et al., 2020). Sheng et al. (2022) also suggests that barriers to international students' academic adaptation may include educational methods, language of education, and educational assessment. A mismatch between their academic expectations and the reality of university life in the host country poses barriers to academic adaptation. Measures of international students' academic adaptation have been used primarily to assess participants' academic profiles. Anderson et al. (2016) developed the Academic Adaptation Scale for student travelers pursuing higher education in a foreign country. Anderson et al.'s (2016) scale has been widely used in Asian settings to study academic lifestyles, academic attainment, and academic motivation (Jain et al., 2017; Salsabiela et al., 2019).

Adaptation to daily life for international students is now also an aspect to be considered during the cross-cultural adjustment for international students. In the process of adaptation, students need to acquire new skills and competencies to cope with different challenges of daily life in a new cultural environment (Razgulin et al., 2023; Ward & Kennedy, 1999). Koo et al. (2021) posit that one of the challenges that international students must navigate is the pressure to utilize the language in all aspects of their daily lives. Matters such as accommodation, community support, resources (e.g., books and recreation), clothing, food, and transport need to be settled for international students to have a smooth adaptation to daily life (Gilmartin et al., 2023; Singh et al., 2022). To Polat and Arslan (2022), issues related to daily life aspects such as laws of the host country, travelling, basic necessities, and dealing with daily problems cannot be downplayed, which is why these are included in their adaptation measure for international students.

Cross-cultural adaptation involves the use of coping strategies. The earliest reference to coping strategies is by Chataway and Berry (1989) who studied the relationship between coping strategies, academic satisfaction, and psychological adjustment among international students. Sojourners changing themselves to fit into the environment is referred to as secondary coping strategy. Ward (1988) states that the primary coping strategy involves changing the environment to suit oneself while the secondary coping strategy involves changing oneself to adapt to the environment. So, when immigrant groups learn new cultural systems in new cultural environments in order to integrate into the host societies of the countries of relocation (Penninx, 2005), they are practicing secondary coping strategies. Ward and Kennedy (2001) further distinguished coping strategies as approach, avoidance, acceptance, and social support. Polat and Arslan's (2022) study adds further distinction and response to the domain of adaptation to

daily life. These reflect secondary coping strategies which are applicable to any of the three domains of cross-cultural adaptation identified by past studies, that is, psychological adaptation, socio-cultural adaptation, academic adaptation, and daily life adaptation. Figure 2.3 presents Polat and Arslan's (2022) distinction between the domains of cross-cultural adaptation for international students, categorized into four areas. This division also covers a relatively wide range of aspects of cross-cultural adaptation, and takes into account the challenges that international students encounter in the process of cross-cultural adaptation in a more comprehensive manner.

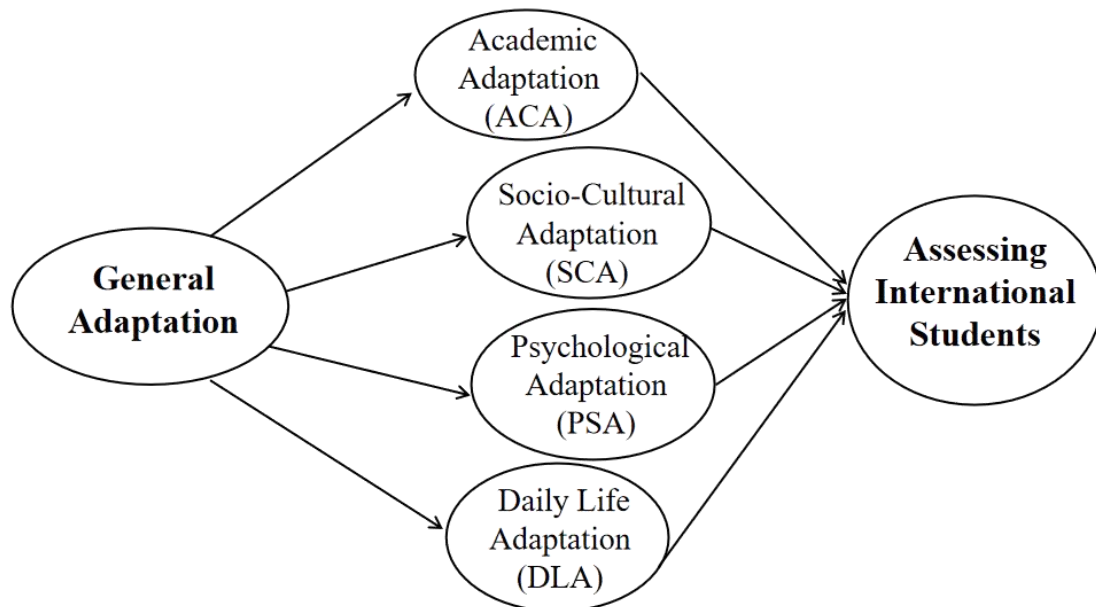


Figure 2.3: Polat and Arslan (2022) on the Distinction Between General Adaptation for International Students

2.4.3 Cross-cultural Adaptation of International Students in China

The challenges, predictors and outcomes of cross-cultural adaptation may vary with cultural context, which is why it is important to provide a literature review of findings from cross-cultural adaptation studies specific to China.

The challenges faced by international students in adapting to their new environment are numerous and varied. Academic adaptation is a particular concern for international students in China, and it has been identified as a significant factor in their cross-cultural adaptation (Blasco, 2015; Meng et al., 2018; Pho & Schartner, 2021). Research has demonstrated that academic adaptation has a positive impact on socio-cultural adaptation (Cao et al, 2021) and on the persistence of students in their studies abroad (Pho & Schartner, 2021). This has key implications for the success of international students in their academic endeavors.

Academic adaptation is now explained. When international students in China enter a new educational and cultural environment, they are confronted with the challenge of navigating academic demands, such as attending lectures, completing assignments, taking exams, and writing essays, and they must also find a balance between their academic and social lives (Mao, 2024). They may encounter language barriers, lack of support, academic challenges, and psychological problems (Bui et al., 2021, Mao et al., 2024). If not handled properly, these challenges and problems may affect the academic success and psychological well-being of international students in China (Kuang & Wu, 2019; Mao, 2024).

International students in China need to go through challenging processes and learn new skills, knowledge, values and habits when experiencing socio-cultural adaptation (Hussain & Shen, 2019; Sheu, 2018). The challenges experienced by international students in adapting to academic life in China have been termed “academic stressors” by Cao et al. (2021), which include academic competence, academic culture shock, academic resources, cross-cultural communication, and stress. The researchers posited that traditional cultural

influences may have a more significant impact on the behavioural characteristics of these students and their responses to academic stress than their academic backgrounds. Gong et al.'s (2021) study on academic adaptation of international students in China identified challenges in the areas of language, lifestyle, academic matters, socio-cultural differences, and psychological challenges. According to Cao and Meng (2022), the linguistic and cultural challenges are caused by limited interactions with Chinese students and locals, whether before or after their arrival in China. These findings are based on Cao and Meng's (2022) systematic evaluation of predictors of international students' cross-cultural adaptation in China. Chinese international students coped with the academic stressors, with the aid of social support resources (Cao et al., 2021). Besides that, to manage academic stressors, Gong et al. (2021) found that new teaching and learning activities can improve international students' communication skills and support their cultural adaptation and language learning.

Next, psychological adaptation of international students is explained based on past findings. Psychological adaptation involves emotional responses, including well-being and self-esteem, as well as physical health, while socio-cultural adaptation, which is a person's ability to manage the tasks required for daily cross-cultural living, are interrelated (Ward et al., 2020). International students in China also experience negative psychological adaptation challenges such as homesickness, loneliness, stress, perceived discrimination, depression, anxiety, lack of confidence and other negative emotions (An & Chiang, 2015; Bai et al., 2023; English & Zhang, 2020; Sheng et al., 2022; Sapranaviciute et al., 2012).

The factors which influence psychological adaptation are varied. According to Wilson et al. (2013) and Zhang et al. (2022), major predictors of sociocultural adjustment

are length of residence abroad, cultural knowledge, previous cross-cultural experience, cultural distance, language proficiency, cross-cultural interaction, and perceived discrimination. International students need social and emotional support to overcome challenges in life beyond academics (Cao & Meng, 2022). Tsegay et al. (2018) stated that international students who have some experience of interacting the Chinese society before they arrive in the country are more likely to know how to get the socio-cultural and emotional support they need.

The predictors of cross-cultural adaptation of international students in China are demographic variables, personal resources, situational resources, personal needs, and situational needs (Cao & Meng, 2022), with a focus on the challenges and stresses encountered in academic, psychological, and sociocultural, as well as daily life. Peng and Wu (2019) attempted to develop a scale that is tailored to the cross-cultural adaptation of international students in China. They revised Kim's (2001) structural model of cross-cultural adaptation, which originally measured three main dimensions: host communication competence, host social competence, and cross-cultural transition. Peng and Wu's (2019) scale only addressed the socio-cultural, psychological, and academic domains of cross-cultural adaptation, but did not include the domain of everyday life. This scale has 28 items and a Cronbach's alpha ranging from .721 to .853, which is reliable and valid for explaining the direction of international students' efforts and responses to overcome intercultural adaptation.

2.5 Factors Affecting Cross-cultural Adaptation

This section presents past findings of the relationship between WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation.

2.5.1 WeChat Use and Cross-cultural Adaptation

In the field of cross-cultural adaptation research, media has been found to assist the process of adapting to a new culture (Kim, 1988; Gudykunst, 2005). Upon arrival in their host country, international students typically establish new networks to enhance their cross-cultural adaptation (Kim, 2001; Kim & McKay-Semmler, 2013). As found in Çömlekçi's (2020) study, after arriving in the host country, international students are more inclined to choose locally popular social media to establish new network relationships in order to adapt to the new socio-cultural environment. New communication technologies provide a broad platform for the interaction and integration between cultures, and improves the possibility of better cooperation between people from different cultural backgrounds (Kalyani, 2024; Litt, 2020; Servaes, 2022). New communication technologies also help promote social diversity and reshape the cross-cultural adaptation model of sojourners, allowing individuals entering unfamiliar environments to adapt to the host culture without losing their cultural roots and racial identity (Tomé, 2023). Because of social media communication, individual social interactions and social relationships are more relevant and interdependent (Nseke, 2018; Pang, 2018;). Social media has been used by ethnic minority members as a channel to ease their cultural adaptation process (Pang & Wang, 2020). Through social media, international students obtain the information and knowledge needed for socialization as well emotional support from local peers to integrate into unfamiliar societies (Cao & Meng, 2022; Pang & Wang, 2020).

Social media has emerged as a significant communication tool which can facilitate the process of cross-cultural adaptation (Li & Peng, 2019). Attention, however, must be paid to the timing of the mechanisms through which this facilitation occurs. As observed in the study conducted by Forbush and Foucault-Welles (2016), international students

encounter significant challenges to their adaptation and experience high levels of isolation upon arrival in a new country. The use of diverse social networks relevant to the host society for cross-cultural preparation during this initial phase is positively associated with their social and academic adaptation levels. Social media plays a significant role in facilitating communication and social integration among immigrants (Bobowik et al., 2022; Drydak, 2021; Xie et al., 2022). The publicly accessible nature of these platforms enables individuals from diverse cultural backgrounds to engage in cross-cultural experiences and develop cultural competence (Hu et al., 2018). Furthermore, international students can gain insights into unfamiliar realities, cultivate a sense of belonging, and mitigate concerns about relocating abroad through the messages, images, and even videos disseminated by social media before they depart for studies abroad (Rekhter & Hosslet, 2019). Thus, meaningful content created by higher education professionals on social media platforms can connect with potential international students.

WeChat is a highly popular social media in China (Cao et al., 2023). For international students coming to China, WeChat is a very important communication tool to enter new academic/social communities and the fastest growing social media application in Chinese campus life (Zhang, 2024). Wang et al. (2023b) indicated that the number of Chinese friends on WeChat and extensiveness of information sharing positively influenced the social adaptation of international students in China. The qualitative approach showed that the social networks established through WeChat use assisted in the improvement of social skills, alleviation of feelings of isolation, and the formation of a new cultural identity in the host country. The intensity of WeChat use is positively correlated with longitudinal changes in social adjustment within the social domain (Cao et al., 2024). Cao and Meng (2023) reported that the intensity of WeChat use is positively correlated with longitudinal

changes in academic performance and academic adjustment but their use of WeChat for social purposes and the facilitating effect on integration into life in the host country is stable throughout the six-month data collection period. Kuang and Wu's (2019) study demonstrated that the use of WeChat in cross-cultural adaptation can facilitate the improvement of language proficiency among international students in China, effectively promote the improvement of international students' communicative adaptability and learning ability, and facilitate their integration into Chinese society.

In light of this, WeChat, a social media platform commonly utilized by international students in China, is a highly pertinent construct in the study of cross-culture adaptation of international students in China (Cao et al., 2023). The utilization of WeChat exerts a significant direct influence on the intercultural adaptation of international students in China (Hassan et al., 2021).

2.5.2 Prior Cross-cultural Exposure and Cross-cultural Adaptation

Studies show that the cross-cultural adaptation outcomes of international students are not only contingent upon the duration of the adaptation process itself, but also upon the preparatory activities prior to their departure (Jackson, 2013; Kim, 2001; Otten, 2003). In many cases, it was established that international experience and information prior to arrival in the host country constituted a significant contextual factor contributing to the moderation and prediction of socio-cultural adaptation (Kempf & Holtbrügge, 2020; Takeuchi & Chen, 2013). Thus far, the research on the influence of prior cross-cultural exposure has focused on expatriates. The expatriates' ability to adapt to cultural differences can be moderated by prior international experiences and information (Lee & Sukoco, 2010). Pre-departure cross-cultural training can help expatriates learn appropriate

behaviors to adapt well to the situation abroad through indirect observation and experience (Kempf & Holtbrügge, 2020; Kural, 2020). For international students, there are indications that pre-departure cross-cultural learning may enhance students' cross-cultural competence and prepare them for the future adaptation process (Bringle et al., 2023; Fang et al., 2020; Jackson, 2018). Gebregergis et al. (2020) argued that cross-cultural adaptation can be developed through experience and training but acknowledged that previous international experiences can facilitate the process of social learning for individuals to understand different cultural environments. However, as many international students may not have the opportunity to live or travel overseas before they go abroad for studies, they can gain relevant knowledge and skills in the pre-departure training to ease their adaptation to life in a new environment.

The foregoing literature suggests that prior cross-cultural exposure can facilitate adaptation to new socio-cultural environments, and social media can be a channel to indirectly acquire exposure to the host country. Students who use social media or social networks more frequently during their preparation for study abroad have greater and more diverse information about adaptation abroad, leading to a higher level of social and academic adaptation that can be achieved in the host socio-cultural environment (Hendrickson & Rosen, 2017; Hamid et al., 2016). The social networks they have established prior to entering a new culture provide the requisite support for the formation of new relationships and the adaptation to a new society. With the latest developments in information and communication technologies, this support for the socio-cultural adaptation of individuals continues to expand, regardless of temporal and spatial barriers (Cemalcilar et al., 2005; Lewthwaite, 1996; Nadeem & Zabrodskaia, 2023). Therefore, prior cross-

cultural exposure brought about by social media use is a factor related to the cross-cultural adaptation of international students.

2.5.3 Social Self-efficacy and Cross-cultural Adaptation

In an international context, the perceived ability and confidence of international students to successfully navigate social situations and positive social interactions when encountering new peoples and environments, regardless of language proficiency, has been found to predict greater personal growth initiatives and better cross-cultural adaptation (Çankaya, 2020). The self-efficacy of international students has also been identified as a positive predictor of their socio-cultural adaptation in the host country (Gebregergis et al., 2020), as well as a significant predictor of their academic integration and adaptation to the academic environment (San & Guo, 2022). This also affects their psychological well-being, such as feelings of loneliness (Tsai et al., 2017).

As proposed by Smith and Betz (2000), social self-efficacy represents a potential avenue for psychological intervention with regard to individual outcome behaviors. Bandura (1977) posited that a change in perceived self-efficacy levels leads to changes in perceptions of efficacy information and adaptation to new experiences. Those with a high level of social efficacy are more likely to be proactive in building relationships with others in interpersonal interactions. Furthermore, they tend to respond positively to conflict and interactional dilemmas, which contributes to the psychosocial and academic adaptation of international students (Cao & Jia, 2024; Carmeli et al., 2020; Gong & Fan, 2006). This is associated with a superior cross-cultural adaptation (Hua et al., 2019).

2.6 The Mediating Role of Social Self-efficacy

In the study of causality, it is important to understand the mechanisms behind it, and mediation is one that cannot be ignored. Mediation effect analysis explains how the impact of the independent variable X on the dependent variable Y is realized through the mediator variable M. Mediation effect analysis is an important statistical method in multivariate research (Wen & Ye, 2014). Mediation analysis can be used to understand, explain, or test processes or mechanisms of indirect influence between variables, with the mediator variable M located in the transmission pipeline between X and Y. In mediation modeling, the independent variable influences the dependent variable through an influence pathway that sums direct and indirect effects (Hayes, 2022).

Social self-efficacy is often viewed as a mediating variable in many causal studies but not yet in studies on the cross-cultural adaptation of international students. In a study by Sharma and Kumra (2022), which examined the link between an individual's positive thoughts, self-efficacy, anxiety, depression, and stress, self-efficacy partially mediated the association between positive thoughts, stress, depression, and anxiety. Pekkala and van Zoonen (2022) assessed the model of self-efficacy as a mediator, emphasizing the importance of self-efficacy in understanding employees' work-related communication on social media, even though their prior experience with social media, perceived organizational commitment, and employer-organized social media training are also directly related to work-related social media communication. The student population has also been the focus of more studies. Udayar et al.'s (2020) study on a group of university students alone found that the contribution of some of their psychological perceptions to objective performance was fully explained by self-efficacy beliefs about being able to deal with the emotional and stressful components of the situation but these are not international students.

Kim et al.'s (2020) study moreover investigated the social self-efficacy of international students from the perspective of interpersonal communication, and found that the respondents' perceived social self-efficacy mediated the relationship between the heterogeneity of social network communication and the satisfaction of campus life, which is a manifestation of an indirect influence. For a considerable proportion of students, social media use and social self-efficacy are significant predictors of their ability to adapt to the university environment, but their focus is on one or two aspects of student life but not on all the components of cross-cultural adaptation.

In this context, from the perception of causality and with the understanding that social media helps to shape international students' self-efficacy in the social domain (Hu et al., 2018) and that social self-efficacy facilitates their several aspects of cross-cultural adaptation (Htel & Mohanan, 2022; Lin, 2006). Social self-efficacy can be analyzed as a link between WeChat use and cross-cultural adaptation among international students in China.

2.7 The Moderating Role of Prior Cross-cultural Exposure

A moderating role means that an independent variable influences the dependent variable but it is not a direct causal relationship. A simple causal relationship entails that the variable X affects the variable Y in a direct manner. In understanding causality, it is also important to note whether the relationship is moderated by other variables, which implies a change in the overall picture, a decrease, an enhancement, or even a change in direction (Igartua & Hayes, 2021). Moderation (or interaction) effects occur when the strength or direction of the effect of one predictor variable on the outcome variable varies with the value of another variable (Marsh et al., 2013). The research of Hayes (2022) has

shown that moderating variables indicate those situations or degrees that affect the size of the overall effect, which can present different situations and variations. Already some studies have considered that moderation is in the statistical interaction. This is very important in research because the introduction of moderating variables in theoretical explanations can deepen our understanding of the relationship between one variable and another (Holbert & Park, 2020).

The process of globalization has resulted in significant alterations to the manner in which individuals, nations and cultures interact with one another. Consequently, the necessity for cross-cultural readiness has grown considerably when undertaking studies in an overseas context (Kim, 2017; Leidner, 2010). In the absence of direct experience, individuals may rely on indirect experiences as a source of information for attitude formation, a phenomenon that is particularly prevalent in the context of the current social media environment (Cao & Meng, 2023; Kaiser et al., 2021; Onofrei et al., 2022). In the contemporary media landscape, technology has assumed a pivotal role in facilitating cross-cultural exposure. The use of technology for communication purposes, such as social media and video chat and voice communication tools, has become a crucial means of enabling individuals from diverse cultural backgrounds to engage in seamless communication (Çiftçi, 2016). In turn, social media has become a significant conduit for cross-cultural exposure, facilitating the acquisition of information, the sustenance of interpersonal relationships, and the enhancement of understanding (Hu et al., 2020).

International students' cross-cultural learning prior to studying abroad is important for their successful cross-cultural adaptation, and may also prepare them for future adaptation processes (Tian & Lu, 2018). Existing research has confirmed that the outcome

of international students' cross-cultural adjustment is not only related to the period of their adaptation process, but also to the period prior to their study abroad, and that international students can enhance their intercultural adjustment experience through preparation prior to departure (Fang et al., 2020; Kim, 2001). It can be reasonably assumed that well-prepared international students will be more likely to engage in successful cross-cultural interactions and to act as effective mediators between cultures (Jackson, 2013). It is valuable to investigate the extent to which previously acquired experiences can serve as a moderating factor in their cross-cultural adaptation and assist international students in enhancing their cross-cultural adaptation experience (Fang et al., 2020). In other words, prior cross-cultural exposure can be considered a moderator in predicting the cross-cultural adaptation of international students in China.

2.8 Summary

The chapter begins by reviewing the concepts of WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation and builds on previous research to provide information about the relationship between these variables. The past findings also suggest the mediating role of social self-efficacy and the moderating role of prior cross-cultural exposure in the relationship between WeChat use and cross-cultural adaptation in this study for international students in China.

Based on a review of the relevant literature, WeChat meets the cross-cultural adaptation needs of international students. Previous research on WeChat can be viewed from the two-fold perspectives of technology and service function. Technologically, WeChat, which combines multiple media technologies, breaks down the boundaries of socio-cultural environments in terms of time and space (Negro et al., 2020; Yang & Wang,

2021), allowing international students to interact with each other and build social connections with the host country's people, and its frequent use, especially after arrival, improves their social competence and confidence in unfamiliar environments (Pang & Wang, 2020). In terms of service functions, WeChat focuses on the expansion of social life systems (Giudice, 2020), and for international students, it facilitates access to sufficiently effective adaptation information, which helps to remove the uncertainty of culture shock and forms an external context for adaptation before departure (Cao & Meng, 2022; Sheng et al., 2022). And all these contribute to the cross-cultural adaptation of international students in China (Hassan et al., 2021; Wang et al., 2019). From these studies, it is clear that WeChat use is an effective method for international students in China to gather cultural information before departure and an important option for integrating into a new socio-cultural environment after arrival. Hence, the intensity of their WeChat use, acceptance, socio-cultural adaptability, and psychological adaptability when using WeChat contribute to the understanding of their cross-cultural adaptation.

It has been considered that the use of social media facilitates the cross-cultural adaptation of international students through two pathways: information access and interpersonal communication (Sleeman, et al., 2016). On the one hand, social media use breaks down geographical boundaries, shortens the distance between different cultural spaces, and provides international students with instrumental support in terms of life, economics, and psychology, helping them to acquire sufficiently effective information and experiences before arriving in the host country (Hamid et al., 2016; Hardcastle et al., 2019; Yu & Guo, 2021). On the other hand, interpersonal interactions and exchanges constructed by social media increase the chances of engaging with the people of the host country and help them to connect with the host culture, which promotes their social competence and

confidence (Ma & Liu, 2018; Shu et al., 2020). These fulfil international students' needs for integration adaptation in terms of interpersonal interactions, emotional support, cultural adaptation and academic pursuits (Sinanan & Gomes, 2020).

Existing research has indicated that international students' prior cross-cultural exposure is the pre-departure preparation period, when international experiences gained, information gathered, and cross-cultural training and learning are all effective interventions (Birdie, 2020; Fang et al., 2020; Francois, 2015; Gebregergis et al., 2020; Kempf & Holtbrügge, 2020). Social media is the main source of information for international students to become familiar with the socio-cultural environment of the host country prior to departure (Hussain & Shen, 2019; Lin et al., 2012; Mukherjee, 2023). More so, Jurasek and Wawrosz's (2024) study suggested that prior cross-cultural experiences will help to moderate their level of cross-cultural adaptation and competence. As Gebregerg et al. (2020) found, adequate pre-departure cross-cultural preparation of international students can help them have better cross-cultural interactions and adaptations. These findings lead to the inference that international students' prior cross-cultural experiences shape the overall context of their cross-cultural adjustment, and that different encounters present different contexts of adaptation and are important factors in moderating their cross-cultural adaptation.

Regarding social self-efficacy, past research has found that international students' level of social self-efficacy is mainly reflected in their perceived social competence and confidence in host country social activities (Carmeli et al., 2021; Smith & Betz, 2000). Hou and Ge's (2019) study found that social media use is significantly associated with social self-efficacy, which confirms Pang and Wang's (2020) finding that frequent use of

WeChat contributes to the maintenance of social relationships and the promotion of social competence. In addition, international students' social competence and confidence have been identified as positive predictors of their socio-cultural adaptation in the host country (Cao & Jia, 2024; Carmeli et al., 2020; Gebrergergisetal et al., 2020). Based on the above findings, it appears that international students' social self-efficacy is an internal predictor of their cross-cultural adaptation process.

The findings of these studies indicate that social media use (i.e., WeChat use), prior cross-cultural exposure, and social self-efficacy are key factors influencing international students' cross-cultural adaptation. Previous studies have established a direct influence of international students' social media use on their cross-cultural adaptation (Cao & Meng, 2022; Hussain et al., 2021; Kuang & Wu, 2019; Pang & Wang, 2020). Social media use is also a direct influence on international students' prior intercultural exposure and social self-efficacy. The causal relationship between them has not been exactly investigated in past studies, particularly with regard to the indirect effects of the relationship between social media use and cross-cultural adaptation. Further, past studies suggested that prior cross-cultural exposure moderated international students' cross-cultural foundation prior to departure, and that social self-efficacy mediated the relationship between social media use and cross-cultural adaptation from within upon arrival. However, the indirect mechanisms were inferred based on the circumstantial evidence presented in the past studies but those studies had not investigated these relationships in an empirical study. This remains a gap of knowledge which when addressed will lead to a better understanding of the predictors of a smooth cross-cultural adaptation process.

CHAPTER 3

METHODOLOGY

This chapter describes the research design of the study, the conceptual framework of the study, the participants, the instrument for data collection, the data collection procedures, the data analysis procedures, and the limitations of the study.

3.1 Research Design

This study adopted a correlational research design to explore the correlation between WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation among international students in China. It explains how the two variables, prior cross-cultural exposure and social self-efficacy, indirectly affect the relationship between WeChat use of international students in China and their cross-cultural adaptation. In the study, regression analyses were used to examine the indirect influence pathway between WeChat use of international students in China and their cross-cultural adaptation.

Correlation studies are non-experimental studies that help to predict and explain relationships between variables. Researchers can use correlation studies to investigate the degree of correlation of variables, and make predictions based on the relationships found within three types of research designs: descriptive or explanatory, predictive, and modelling (Peker, 2022; Roberts, 2021; Seeram, 2019).

For the purpose of the present study, a correlational research design is appropriate because it not only describes and explains WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation among international students in China, but is also capable of predicting the existence of causal associations among these variables

through their correlations, providing evidence for further testing of relational modelling among the variables.

Past studies have also employed the correlational research design for the measurement and analysis of the direct relationship between WeChat use and its cross-cultural adaptation among international students in China (Cao & Jia, 2024; Xu et al., 2021). Other researchers have also used the correlational research design to investigate whether there is an association between social media use and social self-efficacy (Hou & Ge, 2019). These studies have examined the direct relationships among these variables, but the present study also examined the indirect influences of social self-efficacy and prior cross-cultural exposure on their cross-cultural adaptation. Thus, using a correlational research design, relationships between two or more variables can be established within the same population (Leedy & Ormrod, 2010.) A correlational design allows for the statistical prediction of causality through the use of relevant correlational data (Russo, 2011).

Next, a justification is made for the use of regression analyzes in the research design of the study. In practice, correlational research analyzes can be used to measure whether a relationship exists between variables as well as the direction and strength of the relationship, but they are unable to explore the degree of influence between variables. However, regression analysis can estimate the significant factors affecting the dependent variable, which measures the association between two variables and can predict the dependent variable based on one or more variables (Kumari & Yadav, 2021). Regression analysis is probably the simplest and most commonly used method for measuring the relationship between continuous predictor and response variables. This simplicity often makes regression analysis the best choice for small sample analyzes and makes these

models relatively easy to interpret and understand (Arkes, 2023). Therefore, the research design of correlational analyzes is fundamental in this study, and the addition of regression analyzes produces a better understanding of factors that directly and indirectly influence the cross-cultural adaptation among international students in China.

The study involved the collection and analysis of only quantitative data. This is a study on the relationship among variables (WeChat use, social self-efficacy, prior cross-cultural exposure, and cross-cultural adaptation) as well as the indirect relationship path between WeChat use and cross-cultural adaptation among international students in China. Considering that many past studies have examined direct relationships among variables (see Chapter 2), the present study needs to test the mediating and moderating relationships among the variables in order to advance the fields of intercultural communication, and media and communication studies. The answered questions in the field are more suitable to be answered using quantitative data and statistics. Furthermore, results based on quantitative data are relatively objective, can be repeated and validated, and can provide general conclusions for future research (Kandel, 2020).

The present study sought to attain an impartial perspective on the cross-cultural adjustment of international students in China which makes qualitative research inappropriate for the purpose of the study. Qualitative research is reliant on the context to explain the phenomenon, and the results may be unrepresentative and have questionable validity (Busetto et al., 2020). In addition, qualitative research is predicated on subjective experience, which is highly influenced by the subjectivity of the researcher in collecting, analyzing and interpreting the data. Consequently, the research process and results may be biased, making it difficult to ensure objectivity and consistency (Bakhtiyarovna, 2024).

Additionally, qualitative research is often limited in its ability to represent the broader international student population in China. The findings may be constrained to a particular sample or data, which hinders the generalization of results to the population (Dehalwar & Sharma, 2024). The goal of the present study was to explore the general patterns of the indirect impacts and relationships of WeChat use on cross-cultural adaptation among international students in China. Large-scale statistical analyses that are more effective and systematic, and have more coverage (Kang & Evans, 2020; Mehrad & Zangeneh, 2019). Therefore, a quantitative study fits perfectly with the purpose of this research.

Figure 3.1 shows the conceptual framework of the study. The study is supported by three theories, which are Kuang and Wu’s (2019) theory of WeChat use among international students in China from a cross-cultural perspective, Smith and Betz’s (2000) theory of social self-efficacy, and Polat and Arslan’s (2022) theory of general adaptation among international students.

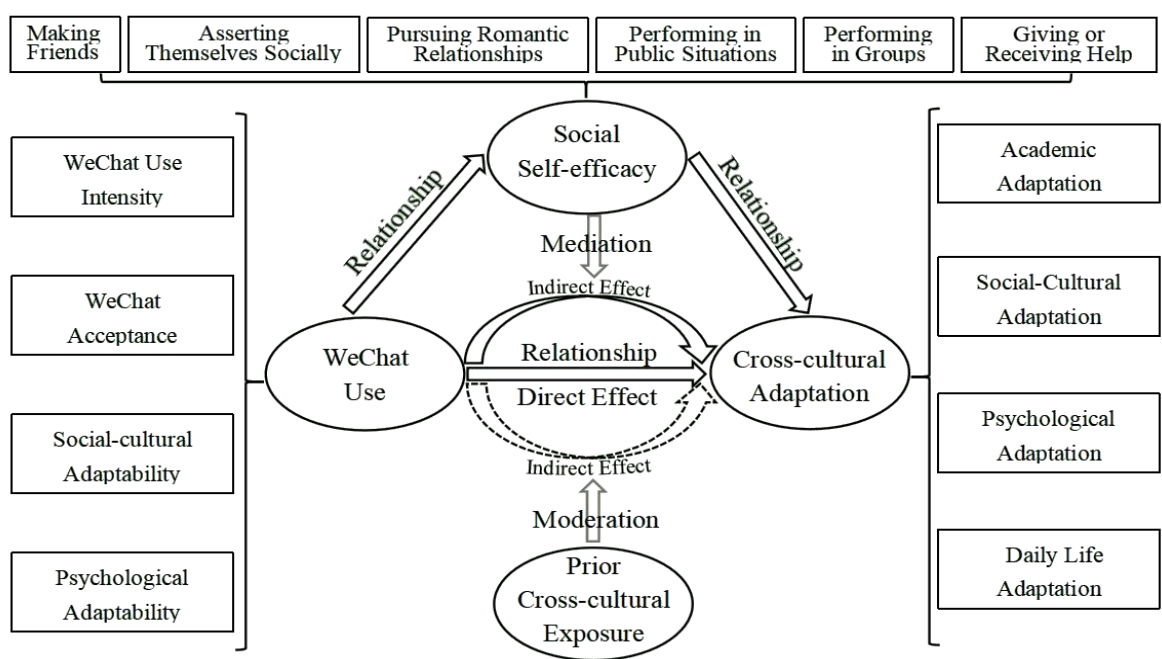


Figure 3.1: The Conceptual Framework of the Study

As shown in Figure 3.1, the indirect influences of social self-efficacy and prior cross-cultural exposure were introduced into the study of the relationship between WeChat use and cross-cultural adaptation among Chinese international students. The mediating role of social self-efficacy and the moderating role of prior cross-cultural exposure were subjected to analysis with a view to determining the indirect paths and effects between WeChat use and cross-cultural adaptation among Chinese international students.

The conceptual framework allows for a clear analysis of the relationship between WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation of international students in China. Once a correlation between these variables is established, the mediating role of social self-efficacy and the moderating role of prior cross-cultural exposure can be further examined to establish the indirect pathways of linkage. It is only then that the indirect effects between WeChat use and cross-cultural adaptation among international students in China can be substantiated. Based on this, researchers can determine whether these indirect influences can in fact be aspects of cross-cultural adaptation that international students need to pay attention to.

To summarize, the following are the variables in the present study:

- i. WeChat use – independent variable
- ii. Prior cross-cultural exposure – independent variable as well as moderator variable
- iii. Social self-efficacy – independent variable as well as mediator variable
- iv. Cross-cultural adaptation – dependent variable .

3.2 Participants

This study invited 404 international students from universities in western China to participate in a survey examining their WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation. A justification for the selection of western China as the focus of the study is now provided. Currently, international students in China are mainly concentrated in Beijing, Shanghai, and the east coast of China, and past research on cross-cultural adaptation of international students has been concentrated in this region (Biney & Cheng, 2021; Mok & Marginson, 2021; Wu et al., 2021). However, the number of international students in higher education institutions in western China has been increasing in recent years (MOE, 2019). In particular, many joint research centers have been established between western China and countries along the “One Belt, One Road”, attracting a large number of international students and scholarships. In spite of the growing number of international students in western China, there is a lack of studies about their intercultural communication and adjustment to life in China (Wen et al., 2022a; Yue et al., 2024). Therefore, analyzing the reasons why international students choose to study in western China can provide useful insights into international student migration to regional center in China (Lu et al., 2019).

The city of Chengdu, the capital of the Chinese province of Sichuan, was selected as the location for our study. With a well-developed educational infrastructure, Chengdu, Sichuan is an important regional economic and educational centre in western China, and a significant number of its higher education institutions (HEI) enrol international students (Lu et al., 2019). Furthermore, Sichuan province is among the leading provinces in terms of the number of colleges and universities, ranking after Beijing, Jiangsu, and Shanghai, in the context of significant strategic decisions regarding the establishment of world-class

universities and disciplines in Chinese higher education sector (MOE, 2017). The four universities where the data collection was conducted were all in Chengdu City, Sichuan.

The universities selected for data collection were Sichuan University, University of Electronic Science and Technology of China, Southwest Jiaotong University, and Chengdu University. These four universities were selected to include two top research universities (Sichuan University and the University of Electronic Science and Technology of China), one of China's higher level specialized universities (Southwest Jiaotong University), and one prestigious regional university (Chengdu University). This selection will ensure that data are collected from international students studying in reputable universities in western China. Table 3.1 shows the number of international students as of 2023 based on the official website information of universities in Sichuan.

Table 3.1: Number of International Students in Four Selected Universities in Chengdu, Sichuan, China

The Name of Universities	Number of International Students*	Source of Information (Official website)
Sichuan University (SCU)	3200	http://www.scu.edu.cn/
University of Electronic Science and Technology of China (UESTC)	840	https://www.uestc.edu.cn/
Southwest Jiaotong University (SWJTU)	536	https://www.swjtu.edu.cn/
Chengdu University (CDU)	400	https://www.cdu.edu.cn/
Note: “*” Estimates of student number as of 2023.		

In this research, purposive sampling was conducted and targeted international students who fulfilled the selection criteria. Stratified sampling was not carried out to obtain a certain percentage of participants from each of the four universities in Chengdu. The information in Table 3.1 is provided to show the institutions where the participants were at. The selection criteria were as follows:

- i. Participants are foreign students with foreign passports who are enrolled in higher education institutions in China for academic or non-academic education, and
- ii. They include matriculants studying language courses, exchange students participating in short-term studies, undergraduate, and master ' s and doctoral students studying for postgraduate degrees.

Use of WeChat as social application in China is not an exclusion criterion. This means that participants were not excluded based on how much they fully use the features of WeChat such as voice and video messaging, and entertainment functions. However, international students who did not use WeChat were excluded from the study. There were no other inclusion and exclusion criteria such as demographic characteristics and type of university experiences because it is not the purpose of the study to compare cross-cultural adaptation of international students with particular demographic characteristics or type of university experiences.

The targeted number of participants was 400 but the total number of participants obtained for the study was 404 international students. The sample size exceeds the minimum sample size of 377. We obtained the sample size using the sample calculator

from Raosoft (<http://www.raosoft.com/samplesize.html>). The minimum sample size at 95% confidence level and 5% margin of error is 377 (Figure 3.2). However, more participants were targeted in case of incomplete responses.

**Raosoft**[®]

Sample size calculator

What margin of error can you accept? 5% is a common choice	5 %	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer <i>yes</i> , while 10% answer <i>no</i> , you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need? Typical choices are 90%, 95%, or 99%	95 %	The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer <i>yes</i> would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.
What is the population size? If you don't know, use 20000	20000	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution? Leave this as 50%	50 %	For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under More information if this is confusing.
Your recommended sample size is	377	This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

Online surveys with **Vovici** have completion rates of 66%!

Alternate scenarios

With a sample size of	100	200	300	With a confidence level of	90	95	99
Your margin of error would be	9.78%	6.89%	5.62%	Your sample size would need to be	267	377	643

Figure 3.2: Sample Size Calculator

The participants were 404 international students from universities in the western region of China. They were recruited through purposive sampling and fulfilled the selection criteria of being a student from a foreign country and enrolled in a diploma, degree or postgraduate degree programme in China. Primary and high school students were excluded from the study. Purposive sampling about the sample is done on the basis of a sample range that has already been selected through stratified sampling, which allows the selection of a sample that is defined for purposes related to our study, and the study of only the population that is of particular interest (Andrade, 2021), that is, the international students in China. Subsequently, the samples are subjected to continuous amplification and aggregation through a process known as snowballing. A total of 411 respondents from four universities in western China were invited to participate in this study. However, seven

respondents did not participate in the survey. So the final result was 404 valid responses, with a response rate of 98.30% for the questionnaire.

Table 3.2: The Demographic Information of Participants ($N=404$)

Factors	Categories	Frequency	Percentage
Gender	Female	287	71
	Male	114	29
Age	18 years old	12	3
	18-25 years old	354	87.6
	Over 25 years old	38	9.4
Regional	Asian countries	327	80.9
	European and American countries	26	6.4
	African countries	34	8.4
	Other countries	17	4.3
Education	Undergraduate	231	57.2
	Postgraduate	166	41.1
	Others	7	1.7
Major	Medical and Health Sciences	20	5
	Chinese Language and Literature	218	54
	Civil Engineering Speciality	24	5.9
	Business Administration	50	12.4
	Computer Sciences	21	5.2
	Other	71	17.5

Table 3.2 continued

HSK (Chinese language level)	HSK Level 1	0	0
	HSK Level 2	17	4.2
	HSK Level 3	8	2
	HSK Level 4	202	50
	HSK Level 5	112	27.7
	HSK Level 6	65	16.1
Time spent in China	Less than 3 months	21	5.2
	3 - 6 months	62	15.3
	7 - 12 months	87	21.5
	1 - 2 years	153	37.9
	More than 2 years	81	20.1
Time of day to use Chinese	Less than 30 minutes per day	40	9.9
	30 - 60 minutes per day	80	19.8
	1 - 2 hours per day	116	28.7
	3 - 4 hours per day	91	22.5
	5 hours or more	77	19.1

Table 3.2 shows the demographic information of the participants, based on 404 responses. The sample comprises more female participants (71%) than male participants (29%). In terms of educational level, 57.2% of respondents were undergraduate students, 41.1% were postgraduate students, and 1.70% were in other forms of education. The participants were predominantly aged 18-25 (87.6%), with the majority hailing from Asian countries (80.9%). The mean duration of their sojourn in China was 3.52 months.

Most of the participants in this study were from Asian countries, probably because Chengdu, Sichuan Province has developed extensive cultural tourism, educational exchanges and other co-operation with countries that are building the “One Belt, One Road” (“Silk Road Economic Belt” and “21st Century Maritime Silk Road”) (Mierzejewski, 2018), such as India, Pakistan, Vietnam, Thailand, Malaysia, etc., which have improved mutual understanding and identity, and therefore attracted more international students from Asian countries to choose Chengdu’s universities for their studies (Li & Liu, 2021).

3.3 Instrument

In this study, the instrument used is an online questionnaire about the level of WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation of international students in China. Online questionnaire methods are now widely used in studies of international students’ cross-cultural adaptation (Li & Peng, 2019; Wilczewski et al., 2024). Using an online questionnaire enabled the current study to reach a larger, more diverse, and motivated group of potential participants, which helped to strengthen the ecological validity of the results database (Dewaele, 2018). Using printed questionnaires would make it difficult for the researcher to reach a large group of students in Chengdu City as the students were enrolled in different degrees and subjects. Furthermore, a large part of data collection period (June – October 2024) is actually the semester holiday for the students (July – September 2024) but they were not on campus. Therefore, it was necessary to use online questionnaire to reach most of the students.

The questionnaire was constructed for international students in China, and since English is the second language for most of them, the questionnaire was bilingual (i.e. Chinese and English). The questionnaire in this study was constructed in accordance with

the methodology proposed by Regmi et al. (2016), which begins with the information needed to address the objectives of the study, which determines the types of questions that will be asked in the questionnaire to measure the variables (Taherdoost, 2022). Table 3.3 shows the sources of the measurement scales for the four variables in the study (WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation). In the preliminary measurements, direct correlations between variables necessitated analysis. The independent variables in this analysis were WeChat use, prior cross-cultural exposure and social self-efficacy. Conversely, cross-cultural adaptation was designated as the dependent variable. However, subsequent advanced regression analyzes were conducted to test for indirect impacts. In these analyzes, WeChat use became the sole independent variable, with social self-efficacy predicted to serve as the mediator variable, prior cross-cultural exposure predicted to act as the moderator variable, and cross-cultural adaptation remaining the dependent variable.

Table 3.3: Sources of the Measurement Scales for the Four Variables in the Study

Measurement-scale	Source	Changes Made	Table Showing Adaptations
WeChat Use	Kuang and Wu (2019), Hassan et al. (2021)	Amendments were made to specific text-edited expressions in the original scale, which was determined to be a measure of WeChat (Harkness et al., 2010; Zhu & Krever, 2017). Measurements that covered different meanings in the measurement questions in the original scale were also modified by making distinctions and extracting different	Table 3.8

Table 3.3 continued

WeChat Use		meanings to form new measurement questions (Hendrickson & Rosen, 2017).	Table 3.8
Prior Cross-cultural Exposure	Francoi (2015), Johnston & Hanamitsu (2015)	Developing some original items. The indirect exposure section of on social media use was retained, and direct exposure measures on family members and friends were added (Lee & Sukoco, 2010).	Table 3.6
Social Self-efficacy	Smith and Betz (2000)	The primary focus of the present study was on social self-efficacy in relation to academic aspects of social interaction, psychological adjustment, and intercultural adaptation (Carmeli et al., 2021). Consequently, 9 of the less pertinent questions from the Smith and Betz (2000) scale were excluded.	Table 3.9
Cross-cultural Adaptation	Polat and Arslan (2022), Ward and Kennedy (1999), Zung (1965)	The linguistic presentation of the original measurement questions was modified to emphasise the nature of the degree of investigation (Epstein et al., 2015), and items integrating repeated measures were eliminated (Buschle et al., 2022). Additionally, the reverse-measurement questions in the original scale were converted to forward-measurement to facilitate the subsequent statistics and analyzes of the data (Hedrih, 2019; Sam et al., 2022).	Table 3.11

To sum up, to ensure the validity and reliability of the questionnaire, the content was mainly adapted from the existing mature scales. The technical words in the original items were changed to make the measurement clearer, and the questions related to the measurement variables were reduced. The measurement items of the scale were refined after the pilot test (see details in the rest of this section) to formulate the questionnaire for the actual study (see Sections 3.3.3 to 3.3.5).

3.3.1 Changes to Instrument After Pilot Study

Prior to the actual investigation, a pilot study was conducted with the questionnaire on 24 international students in Xihua University in Chengdu in western China, and the students met the same selection criteria as the actual study (see Section 3.2 for selection criteria). Data for this pilot study were collected in June 2024 using a purposive sampling method, an efficient, convenient and simple method that helps researchers to reach interested respondents directly (Andrade, 2021).

The original questionnaire focused on four key areas: the prior cross-cultural exposure (4 items), WeChat use (20 items), social self-efficacy (16 items), and cross-cultural adaptation (31 items). The items were measured on a five-point Likert scale (1 for strongly disagree, 5 for strongly agree). Table 3.4 shows that Cronbach's alpha ($\alpha > .7$) for the three components of WeChat use, social self-efficacy, and cross-cultural adaptation indicate good internal consistency, but the consistency of prior cross-cultural exposure was low (George & Mallery, 2019). The results of the pilot study are reported in Zhang and Ting (2024). For cross-cultural adaptation, the KMO measure coefficient and the Bartlett's Test of Sphericity could not be conducted because of the small sample size and the large number of items.

Table 3.4: Reliability and Validity Statistics for Pilot Study (N=24)

Section	Cronbach's Alpha	KMO Measure (Coefficient)	Bartlett's Test of Sphericity (Sig.)	N of Items
A: Prior Cross-cultural Exposure	.425	.374	.120	4 (A11-A14)
B: WeChat Use	.961	.616	.000***	20 (B1-B20)
C: Social Self-efficacy	.969	.717	.000***	16 (C1-C16)
D: Cross- cultural Adaptation	.970	Not Displayed	Not Displayed	31 (D1-D31)
Note: "****" indicates significantly correlated at the .001 level.				

For Prior cross-cultural exposure, a low Cronbach's alpha of .425 was obtained. Tavakol and Dennick, (2011) stated that a low Cronbach's Alpha and insignificant Bartlett's Test may be due to a low number of questions, in which case the length of the test should be increased. At this point we first changed the wording in the questionnaire to make it clearer based on some of the feedback from the pilot of the questionnaire. These items in the pilot study questionnaire were made more specific in the actual study questionnaire by changing "other countries" to "China" since the international students were studying in China. For example, "How many family members from other countries do you have?" was replaced with "How many of your family members are Chinese (e.g.,

your parents, your grandparents, uncle, aunt)?”. While, before arriving in China, international students were most likely already exposed to the host country’s social media for information (Alzougool et al., 2013; Chang et al., 2012). Questions A9 “How often do you use WeChat?” and A10 “When did you start using WeChat?” were therefore added. Finally, six items were used to measure prior cross-cultural exposure in the actual study.

Hajjar (2018) showed that when the value of Cronbach’s alpha is already greater than .7, it is appropriate to remove similar questions for the sake of test rationality. Therefore, some items were deleted as they were similar to other items and this also reduced the number of unnecessary items, making the questionnaire shorter for respondents to fill in. In WeChat use section, a decision was made to delete B8 “I use WeChat to make new friends.” after discussion among the researchers involved, as B9 “I use WeChat to keep in touch with friends.” already contained this meaning. This ultimately yielded 19 measurement items for the WeChat use scale for the actual study. In the social self-efficacy section, we retained the original 16 questions due to its good internal consistency. In the section on cross-cultural adaptation, the original D7 “I can cope with my studies and feel satisfied” was removed as this item is similar to D2 “I am satisfied with my academic progress”, Thus, the cross-cultural adaptation scale for the actual study had 30 measurement items.

In this pilot test, in order to verify the structural validity of the questionnaire, this study was conducted in SPSS when the factor analysis was performed. Table 3.4 shows that the Kaiser-Meyer-Olkin (KMO) value for prior cross-cultural exposure is below 0.5 and cross-cultural adaptation is not displayed, indicating a small sample size and insufficient structure of measurement items (Shrestha, 2021). The results of KMO

sampling adequacy test and Bartlett's test of sphericity for cross-cultural adaptation are not displayed because the sample size is smaller than the number of variables (Schreiber, 2021). According to general guidelines for multivariate data analysis suggest that when conducting factor analysis, the recommended sample size should be 100 or larger, with 100 indicating poor, 200 more fair, 300 good, and 500 very good (Hogarty et al., 2005; Williams et al., 2010). However, this was only for the pilot study and the sample for the actual study was big enough to obtain higher structural validity.

The structural validity was good for the other two scales. The KMO values for WeChat use and sense of social self-efficacy were greater than .6 and significant for Bartlett's test of sphericity. This is due to the fact that KMO values greater than .6 are acceptable when their correlation is high when the sample size is less than 100 (Henson & Robert, 2006; Shrestha, 2021). Therefore, the structural validity of WeChat use and social self-efficacy was good in the pretest and even better structural validity in the actual survey.

3.3.2 Validity and Reliability of the Questionnaire for the Actual Study

Table 3.5 shows the validity and reliability of the questionnaire for the actual study. In the actual study, the reliability of the questionnaire was tested using Cronbach's alpha, a measure of internal consistency, which is also considered as a measure of scale reliability (Shrestha, 2021). Cronbach's alpha ranges from 0 to 1. In general, Cronbach's alpha values greater than .7 are considered acceptable, and high levels of alpha indicate that the items in the test are highly correlated (Lavrakas, 2008).

The validity of the questionnaire was examined using the KMO Measure of Sampling Adequacy and Bartlett's Test of Sphericity. KMO tests the adequacy of the sample size, with KMO values ranging from 0 to 1. Values between KMO .5 and .7 are

considered reasonable (Nunes et al., 2020). Bartlett’s test of Sphericity was used to assess the factorability of the data. The value of Bartlett’s test of sphericity at a significance level of $p < .05$ indicated that the factors were decomposable (Alacapinar, 2022).

Table 3.5: Validity and Reliability of the Questionnaire in the Actual Study ($N=404$)

Section	Cronbach’s Alpha	KMO Measure (Coefficient)	Bartlett’s Test of Sphericity (Sig.)	N of Items
A: Prior Cross-cultural Exposure	.719	.742	.000***	6
B: WeChat Use	.969	.967	.000***	19
C: Social Self-efficacy	.975	.976	.000***	16
D: Cross-cultural Adaptation	.985	.984	.000***	30
Note: “***” indicates significantly correlated at the .001 level.				

3.3.3 Measurement of Prior Cross-cultural Exposure

The questionnaire for this study consisted of four sections. Section A had 14 items, eight of which elicited the participants’ demographic characteristics, such as gender, age, regional, education, major, the lever of Chinese proficiency test, the time spent in China, and the usage of the Chinese language arrival in China. The next six questions of Section A measured the participants’ prior cross-cultural exposure, including indirect contacts such as the frequency of using WeChat, when they started using WeChat, the number of family members who are Chinese, the number of times they have seen Chinese films, television

programs, and videos, and direct contacts such as the number of Chinese friends they had before they came to China to study, the number of times they have been to China. A review of the extant literature reveals a paucity of research addressing the question of prior cross-cultural exposure in any depth. Furthermore, the measurement of international exposure is inconsistent across studies, with the present study combining the global exposure measures developed by the “Cross-cultural Readiness Exposure Scale” Francois (2015), Johnston and Hanamitsu’s (2015) research on cultural exposure to develop original items with the aim of gathering information on multiple aspects of prior cross-cultural exposure (Crowne, 2013), see Table 3.6.

Table 3.6: Prior Cross-culture Exposure of Measurement Scale

Indicator	Reference	Original Item
Prior Cross-culture Exposure	Francois (2015), Johnston & Hanamitsu (2015), Crowne, (2013)	A9. How often do you use WeChat? A10. When did you start using WeChat? A11. How many of your family members are Chinese (e.g., your parents, your grandparents, uncle, aunt)? A12. Before you studied in China, how many Chinese friends did you have? (Chinese friends can be from China, Taiwan, Hong Kong, Malaysia etc) A13. Before you studied in China, how many times have you visited China? A14. Before you studied in China, how many times have you watch movies/ TV programs / videos about China?
Note: A9-A10, A14 are indirect exposure and A11-A13 are direct exposure.		

Items measuring prior cross-cultural exposure from the perspective of social media use had a Cronbach's alpha of .719 (see Table 3.5), showing high internal consistency. The items on prior cross-cultural exposure addressed the amount of time respondents used social media to reach out to people in the host country, and whether they gained indirect experiences or exposure related to the host country. The construct validity of these measurement questions was tested by KMO and Bartlett's Test and it was found that the KMO coefficient was .742 > .5 and the significance probability of Bartlett's test chi-square statistic value was .000***<.05, which indicated a reasonable construct validity.

For statistical purposes, the measurements for the above items are presented as single choices, with closed ranges given in the response items. Measurement options for items on prior cross-cultural exposure used ranges for selecting specific values to account for varying degrees. This section provides information on the basic characteristics of the sample and the level of preparedness prior to cross-cultural adaptation.

3.3.4 Measurement of WeChat Use

Section B focuses on an independent variable, WeChat use (19 items). The WeChat Use scale is mainly used to measure the positive adaptive behaviors of WeChat use among international students in China. In measuring social media use, previous studies have measured social media use based on intensity of use, motivation to use, satisfaction with use, and content preference (Barton, et al., 2021; Ellison et al. 2007; Jarman, 2021; Papacharisi & Rubin, 2000; Wang et al. 2019).

This section is mainly used to study the reasons why international students in China choose to use WeChat, and therefore the measurement of WeChat use focuses on the aspects of WeChat that can overcome the challenges of cross-cultural adaptation. The most

basic measure of WeChat use is the intensity of WeChat use, which is the most important indicator of social media use, and is designed to measure the frequency of use of social media (Ellison et al., 2007), which is used to measure the dependence and attention to the use of WeChat (Gao et al., 2021). Another important indicator for the measurement of social media use is willingness to use, also known as media use acceptance. This focuses on the convenience and usefulness of social media use in terms of technology (Al-Qaysi et al., 2020). This is the most important reason for the acceptance of WeChat by international students in China, who perceive the convenience of this tool as an important way for them to integrate into Chinese social life (Wijesundara & Xixiang, 2018; Wang et al., 2019). Thus the use of WeChat by international students in China is to some extent a use with a purpose, a choice that arises for better cross-cultural adaptation. Therefore, the indicators of particular interest in measuring their WeChat use relate to their socio-cultural and psychological adaptations, which are the most basic and universal adaptation aspects of cross-cultural adaptation (Serale & Ward, 1990). Socio-cultural adaptability is the use of WeChat by international students in China to overcome changes brought about by changes in their daily life environments (Smolla & Akçay, 2023), whereas the psychological adaptability indicator is the emotional support brought about by social interactions using WeChat (Forbush & Foucault-Welles, 2016). Therefore, with regard to the indicators of WeChat use, this study deliberately incorporated the indicators of socio-cultural adaptability and psychological adaptability. These are the motivations for international students in China to choose to use WeChat after arriving in China, while retaining the basic WeChat use intensity and WeChat use acceptance.

Table 3.7: Definition of WeChat Use Indicators

Indicator	Define	Quote
WeChat use intensity	WeChat use intensity refers to the day-to-day use of social media by an individual, such as the number of social media friends, frequency of access to social media, and other metrics.	Gao et al. (2021), Wang et al. (2019)
WeChat Acceptance	WeChat acceptance refers to users' use and acceptance of social media, such as perceived usability, usefulness and other metrics.	Wijesundara & Xixiang, (2018)
Socio-cultural Adaptability	Socio-cultural adaptability may be defined as the process of adjusting to changes in the environment, which frequently involves the alteration of everyday life practices.	Head, (2010), Smolla and Akçay, (2023)
Psychological Adaptability	Psychological adaptability may be defined as the emotional comfort and satisfaction gained through interactive behaviours during the use of social media, which enables individuals to overcome feelings of loneliness and improve their quality of life.	Forbush and Foucault-Welles, (2016)

The items on WeChat use was mainly adapted from Kuang and Wu's (2019) "Cross-cultural Adaptation Model and Quantitative Measurement of WeChat Use for International Students in China", drawing on the four indicators of WeChat use intensity, WeChat acceptance, socio-cultural adaptability and psychological adaptability (Table 3.7). On this basis, the "WeChat Use Measurement Scale" (Table 3.8) was developed.

Table 3.8: WeChat Use Measurement Scale

Indicator	Reference	Original Item	Adapted Item
WeChat Use Intensity	Kuang and Wu (2019), Hassan et al. (2021)	1. Everyone around us is using it. 2. I am proud to tell people that I use Facebook. 3. I feel out of touch when I haven't on Facebook for a while.	B1. I have a lot of WeChat friends. B2. I feel out of touch when I haven't logged onto WeChat for some time. B3. I am proud to tell people that I'm on WeChat.
WeChat Acceptance	Kuang and Wu (2019)	1. Free and easy to operate. 2. Get information, life convenience, kill time, share life, social needs.	B4. WeChat is easy to use. B5. WeChat is free to use. B6. WeChat is useful to make life easier in China.
Socio-cultural Adaptability	Kuang and Wu (2019)	1. Improve Chinese language skills; get news information. 2. Make new friends; keep in touch with friends. 3. Discuss problems with teachers; discuss problems with classmates.	B7. I use WeChat to improve my Chinese language skills. B8. I use WeChat to keep in touch with friends. B9. I use WeChat to get study resources. B10. I use WeChat to talk about study problems. B11. I use WeChat to talk about life problems.

Table 3.8 continued

		4. Solve life problems; Entertainment and relaxation. 5. Familiarise with Chinese culture and customs; participate in social activities.	B12. I use WeChat to get to know Chinese culture. B13. I use WeChat to participate in Chinese social activities.
Psychological Adaptability	Kuang and Wu (2019)	1. Integrate into the life in China. 2. Closer to friends. 3. Strengthen social-emotional support. 4. Overcome homesickness; eliminate a certain sense of loneliness.	B14. I find that using WeChat can strengthen social support. B15. I find that using WeChat can help me integrate into life in China faster. B16. I find that using WeChat can bring me closer to my friends in other countries. B17. I find that using WeChat can strengthen social ties. B18. I find that using WeChat can strengthen emotional support. B19. I find that using WeChat can overcome homesickness or loneliness.

The WeChat use intensity sub-scale has three items of B1 to B3 (e.g., “I have a lot of WeChat friends”), adapted from Wang et al. (2019) and Hassan et al. (2021), which is a basic measure of the intensity of social media use, with only a textually explicit measure of WeChat use (Harkness et al., 2010; Zhu & Krever, 2017). The wording changes were made to reflect the context of the study, splitting or merging relevant items. The term “Facebook” in Ellison et al. (2007) media use intensity was replaced with “WeChat” to reflect the media context of WeChat use in this study. For example, “I am proud to tell people that I use Facebook” was reworded as “I am proud to tell people that I’m on WeChat”. The WeChat acceptance sub-scales, including B4-B6 (e.g., “WeChat is free to use”), were adapted from Kuang and Wu (2019) and Athukorala (2021), and the questions in the original scale, which covered several areas, were changed in order to provide subjects with a clearer understanding of what was being measured (Hendrickson & Rosen, 2017). The socio-cultural adaptability sub-scale has seven items (e.g., “I use WeChat to keep in touch with friends”) and the Psychological Adaptability sub-scale has six items (e.g., “I use WeChat can overcome homesickness or loneliness”), both of which were adapted from Kuang and Wu (2019). These two sub-scale adaptations focus on the separate extraction of multiple measurement meanings from the original scale, as simple and single expressions are more accurate in conveying the researcher’s measurement intent and easier to understand for subjects (Behling & Law, 2000). That is, some items with compound meanings are extended, such as “Strengthen social-emotional support” was expanded into “I find that using WeChat can strengthen social support” and “I find that using WeChat can strengthen social ties”. The WeChat Use Scale is a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

All measures of the scale show good psychometric properties and reliability, as indicated by Cronbach's alpha coefficients of .969. This section of the measurement scale is in line with the perspective of cross-cultural adaptation of international students in China in terms of content, while the KMO coefficient is .967>.5, Bartlett's test of sphericity value of significance level $p=.000^{***}<.05$ (Table 3.5), shows a good structural validity.

The principal rationale for selecting this scale is that it not only assesses the extent to which media use is perceived as necessary, but also the characteristics of media use from a cross-cultural standpoint. This scale was also used by Li (2020) to measure the WeChat interaction behavior of international students in China. Kuang and Wu's (2019) scale has a Cronbach's coefficient value of .876 showing high reliability when it was used to explore the interaction between cross-cultural communication and social media among international students in China in Yu and Guo's (2021) study. Therefore, ultimately a decision was made to use the measurement questions from Kuang and Wu's (2019) assessment model, suitably adapted, to measure the level of WeChat use among international students in China during the adaptation process.

3.3.5 Measurement of Social Self-efficacy

Section C is a measure of social self-efficacy for international students in China and contains 16 items. The Social Self-efficacy Measurement scale (Table 3.9) was adapted from Smith and Betz (2000) who developed a 25-item scale for measuring social self-efficacy. This original scale was selected on the basis of its high reliability, as indicated by a Cronbach coefficient of .90. It has been employed extensively to assess cross-cultural adaptation in college students and adults, and it is applicable to international students (Çankaya et al., 2017).

The social self-efficacy measure assesses the respondent's capacity to engage in assertive behavior in six social contexts: the formation of friendships, the pursuit of romantic relationships, the assertion of a social position, the performance in public, the performance in a group or at a social gathering, and the provision and receipt of assistance. The items are on a five-point Likert scale, with responses ranging from 1 (strongly disagree) to 5 (strongly agree).

The objective of our study was to assess the social self-efficacy of international students in China in the context of the use of WeChat. We focused on the social self-efficacy aspects associated with social interaction, psychological adaptation, and academic aspects of cross-cultural adaptation (Carmeli et al., 2021). Consequently, some of the less relevant or repetitively expressed questions from the Smith and Betz (2000) scale were excluded. For example, "Find someone to spend a weekend afternoon with", "Ask someone out on a date", "Keep your side of the conversation", "Ask a potential friend out for coffee", "Get a date to a dance". A proportion of these projects are attempting to establish more profound bonds and relationships, while others are designed to elicit responses in social situations. The test questions that have been retained include a greater number of interactions that are deemed to be of relevance to international students in the context of social events. The focus of these questions is on assessing the adaptability of the international student community. This resulted in a 16-item scale with Cronbach's alpha coefficient of .975, indicating that the scale was reliable. Also, the KMO coefficient was .976>.5, Bartlett's test also showed a significance level of $p=.000^{***}<.05$ (Table 3.5), which demonstrated the adequacy of the sample and very high factorial correlation, with good structural validity (Shrestha, 2021).

Table 3.9: Self-efficacy Measurement Scale

Indicator	Reference	Original Item	Adapted Item
Social Self-efficacy	Smith and Betz (2000), Lin (2006), Çankaya et al. (2017)	1. Start a conversation with someone you don't know very well. 2. Express your opinion to a group of people discussing a subject that is of interest to you. 3. Work on a school, work, community or other project with people you don't know very well. 4. Help to make someone you've recently met feel comfortable with your group of friends. 5. Share with a group of people an interesting experience you once had.	C1. I am confident to make friends in a group where everyone knows each other. C2. I am confident to make friends with people my own age. C3. I am confident to ask someone to go out for a meal or to spend time together. C4. I am confident to express my feelings to others. C5. I am confident to make acquaintances (people who do not know one another well) feel comfortable in my circle of friends. C6. I am confident to start a conversation with someone I don't know well.

Table 3.9 continued

Social Self-efficacy	Smith and Betz (2000), Lin (2006), Çankaya et al. (2017)	6. Put yourself in a new and different social situation. 7. Volunteer to help organize an event. 8. Ask a group of people who are planning to engage in a social activity. 9. Get invited to a party that is being given by a prominent or popular individual. 10. Volunteer to help lead a organization. 11. Keep your side of the conversation. 12. Be involved in group activities. 13. Find someone to spend a weekend afternoon with. 14. Express your feelings to another person. 15. Find someone to go to lunch with.	C7. I am confident to express my opinion in a group of people discussing a topic that interests me. C8. I am confident to work with unfamiliar people on school, work, community or other projects. C9. I am confident to put myself in a new and different social situation. C10. I am confident to share interesting experiences I have had with a group of people. C11. I am confident in responding to an invitation to a party hosted by a well-known or popular person. C12. I am confident in volunteering to lead a group or organization.
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Table 3.9 continued

Social Self-efficacy	Smith and Betz (2000), Lin (2006), Çankaya et al. (2017)	16. Ask someone out on a date. 17. Go to a party where you probably won't know anyone. 18. Ask someone for help when you need it. 19. Make friends of your peer group. 20. Join a meal table where people are already sitting. 21. Make friends in a group where everyone else knows each other. 22. Ask someone out after s/he was busy the first time you asked. 23. Get a date to a dance. 24. Call someone you've met know better. 25. Ask a potential friend out for coffee.	C13. I am confident to attend parties or social events where there are people I know. C14. I am confident to join a table at lunch or dinner when there are already people sitting and talking. C15. I am confident in volunteering to help organize an event. C16. I am confident to ask for help when I need it.
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3.3.6 Measurement of Cross-cultural Adaptation Measure Scale

Section D, a measure of Cross-cultural Adaptation Measurement scale, was largely adapted from the five-point Likert scale developed by Polat and Arslan (2022) to assess international students' overall adjustment to the host country using four sub-scales: (1) academic adaptation, (2) socio-cultural adaptation, (3) psychological adaptation, and (4) daily life adaptation. In Polan and Arslan's (2022) study, the scale has a Cronbach's alpha of .839, showing high reliability in determining the general level of adaptation of international higher education students. In a later study, Arslan and Polat's (2023) scale had a Cronbach's coefficient of .728, which shows high reliability. Therefore, we adopted this scale as the main as well as to measure cross-cultural adaptation of international students in China in this study. Before the measurement, Table 3.10 explains and describes the indicators that relate to cross-cultural adaptation.

Table 3.10: Definition of Cross-cultural Adaptation Indicators

Indicator	Define	Quote
Academic Adaptation	Academic adaptation refers to an individual's ability to adapt to the educational environment.	(Shamionov et al., 2022)
Socio-cultural Adaptation	Socio-cultural adaptation is the gradual application of a foreign language, culture, society, etc. by individuals or groups from different cultural backgrounds.	(Rathakrishnan et al., 2021)
Psychological Adaptation	Psychological adaptation is the long-term heart outcome of the acculturation process, including positive personal identity, life satisfaction and good mental health.	(Castro, 2003)

Table 3.10 continued

Daily Life Adaptation	Daily life adaptation refers to international students moving to a new environment and also adapting to daily life situations such as finding their way around independently, learning new institutional norms and accessing simple services.	(Bittencourt et al., 2021)
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The Cross-cultural adaptation measurement (Table 3.11) in the present study was constructed by combining the scales of Ward and Kennedy (1999) and Polat and Arslan (2022) to obtain the six items for academic adaptation (e.g., “I am satisfied with the support at my university”). The adaptation for the Academic Adaptation sub-scale became a measure of satisfaction in terms of linguistic expression, a change based on the extent measure in this study (Epstein et al., 2015), and the removal of items that were repeated measures. Seven items in the socio-cultural adaptation sub-scale (e.g. “I enjoy the local food and music of China”) were adapted from Polat and Arslan’s (2022) scale, on which Ward and Kennedy’s (1999) scale was incorporated. This reorganisation consolidated the original questions expressing similar properties into more expressive questions, which is a categorisation for the same type of questions and contributes to the validity of the measure (Buschle et al., 2022). The 10 items of the psychological adaptation sub-scale (e.g. “I know how to cope with anxiety”) were combined with Zung’s (1965) “Self-Evaluation Depression Scale”, which is most commonly used for its widely documented cross-cultural reliability and validity. For the adapted Psychological Adaptation sub-scale, the questions in the original scale that were measured in the reverse direction were linguistically changed to the positive direction to facilitate the subsequent statistics and analysis of the data, and

questions with repetitive meanings were integrated (Hedrih, 2019; Sam et al., 2022). The seven items of the daily life adaptation sub-scale (e.g., “I know what to do in an emergency in China”) were all derived from Polat and Arslan (2022), which retain the original measurement items, with only minor adjustments to the presentation of the original measurement questions to make the ideograms clearer and more measurable. This study has finally produced a 30-item scale for measuring the degree of cross-cultural adaptation of international students in China. The scale shows good internal consistency and high reliability, as indicated by a Cronbach’s alpha value of .985. The KMO coefficient of this scale is .984, exceeding the .5 threshold, while the Bartlett’s test yielded a p-value of .000***, less than .05 (Table 3.5), indicating an acceptable sample size and factor structure, with satisfactory construct validity (Hernández et al., 2020).

Table 3.11: Cross-cultural Adaptation Measurement Scale

Indicator	Reference	Original Item	Adapted Item
Academic Adaptation	Polat and Arslan (2022), Ward and Kennedy (1999)	1. I feel supported by my university.	D1. I am satisfied with the support at my university.
		2. I am satisfied with my academic progress.	D2. I am satisfied with my academic progress.
		3. My teachers provide the necessary support when I need.	D3. I am satisfied that my teachers provide the necessary support when I need it.
		4. When I need help, my classmates are there for me.	D4. My classmates are there for me when I need help.
		5. I am comfortable with the teaching styles of my new teachers.	

Table 3.11 continued

		6. I collaborate with my classmates on school projects. 7. Coping with academic work.	D5. I am satisfied with my new teacher's teaching style. D6. I am satisfied with working with my classmates on school projects.
Socio-cultural Adaptation	Polat and Arslan (2022), Ward and Kennedy (1999)	1. I am aware of national days and religious festivals of the host country. 2. I enjoy the local food of the host country. 3. I love the local music of the host country. 4. I understand and tolerate jokes and humor. 5. I respect the values and cultural norms of the host country. 6. I am aware of culturally accepted manners in the host country. 7. I believe that I have integrated myself into the host culture.	D7. I understand the holidays and rituals of China. D8. I enjoy the local food and music of China. D9. I respect the values and cultural norms of China. D10. I believe I have integrated into the culture in China. D11. I can deal with unpleasant/excessive/aggressive people. D12. I can make others understand me. D13. I can deal with unsatisfactory service.

Table 3.11 continued

		8. Dealing with unsatisfactory service. 9. Dealing with someone who is unpleasant/cross/aggressive.	
Psychological Adaptation	Polat and Arslan (2022), Zung (1965)	1. I feel like I don't fit in this country. 2. I feel lonely in a social environment. 3. I feel powerless in this country. 4. Talking with locals makes me anxious. 5. When I wake up, I don't feel motivated for a new day. 6. I don't know how to cope with my anxieties. 7. I want to give up everything because I feel lost here. 8. I feel burned out here. 9. I find it easy to do the things I used to . 10. My life is pretty full .	D14. I feel that I fit in China. D15. I feel close to China's social environment. D16. I feel capable in China. D17. I felt at ease about talking to locals. D18. I know how to cope with anxiety. D19. I can insist on anything. D20. I feel powerful in China. D21. I had a full life in China. D22. I find it easy to make decisions in China.

Table 3.11 continued

		11. I find it easy to make decisions . 12. I still enjoy the things I used to.	D23. I still enjoy the things I used to enjoy in China.
Daily Life Adaptation	Polat and Arslan (2022)	1. I know the basic legal regulations of this country. 2. I know how to travel here. 3. I know where to buy basic supplies. 4. I know what to do in a state of emergency. 5. I'm getting used to my new lifestyle in this country. 6. I know how to survive on my budget in this country. 7. I can deal with everyday problems that I face.	D24. I know the basic legal regulations in China. D25. I know how to travel in China. D26. I know where to buy basic necessities in China. D27. I know what to do in an emergency in China. D28. I am adapting to the way of life in China. D29. I know how to survive on my own budget in China. D30. I can handle the daily problems I face in China.

3.4 Data Collection Procedures

Figure 3.3 shows the main steps in the data collection procedure for this study. To collect data, an online questionnaire was constructed in Sojump (www.sojump.com), a well-known online survey website in China. Sojump has been utilized to collate data for a

substantial number of studies (Lien et al., 2017). The questionnaire for the online survey was constructed in accordance with the methodology proposed by Regmi et al. (2016). A convenience sampling method was employed to select universities with a high number of international students in western China to disseminate the questionnaire link. The questionnaire was shared via WeChat groups of international students and further disseminated through acquaintances to achieve a snowball effect.

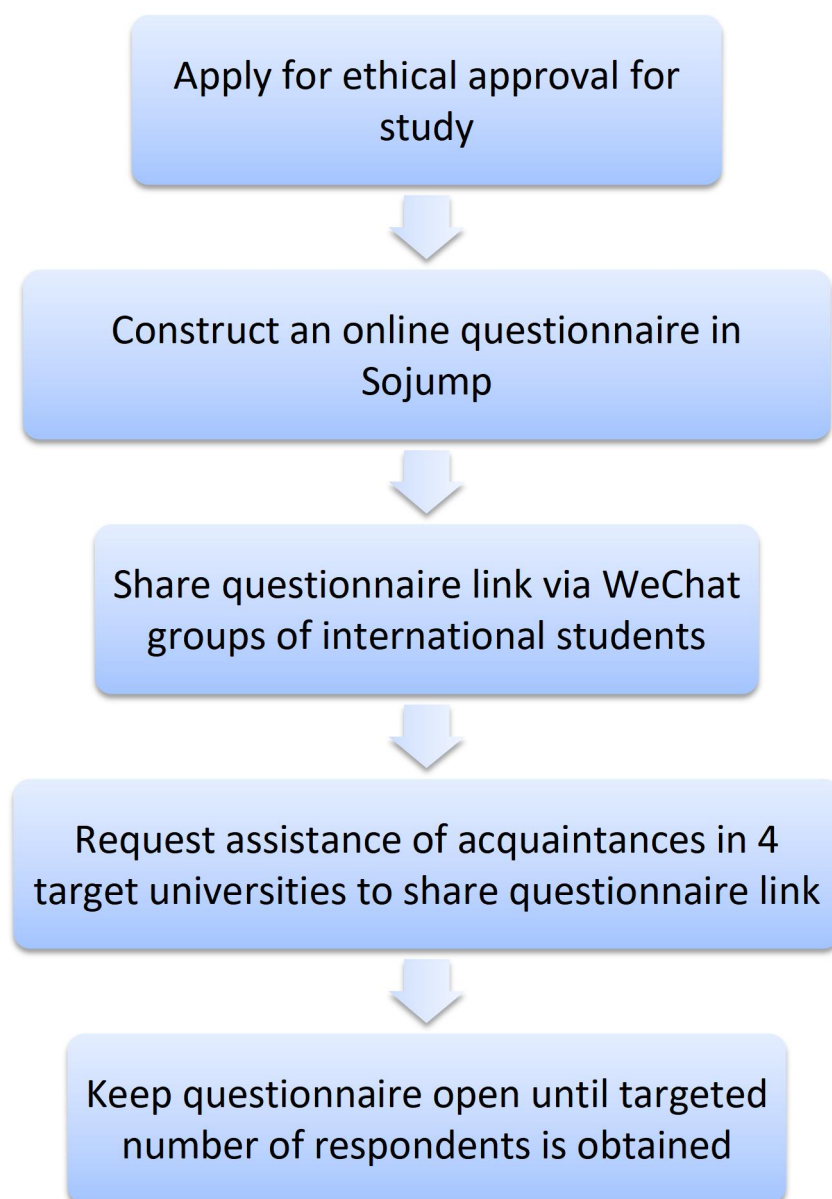


Figure 3.3: Major Steps in the Data Collection for the Study

In early June 2024, the researcher shared the link to the online questionnaire via social media with the relevant personnel at four universities in Chengdu, western China, who were responsible for teaching and managing international students. The researcher either met these personnel after they had been introduced by an acquaintance or requested the assistance of an acquaintance to facilitate the initial contact. Prior to sharing the questionnaire, the researcher provided a comprehensive explanation of the purpose of the study, requirements, and the general content of the questionnaire. Subsequently, the link to the questionnaire was posted on social media groups where international students congregated. Those who accessed the link were instructed to further share it with their acquaintances, thereby facilitating a gradual and cumulative dissemination.

By September 2024, approximately three months later, the number of completed questionnaires collected online by the researcher reached 404, indicating that the requisite sample size for this study had been attained (minimum sample size of 377, see Section 3.2). The online questionnaire was kept open until the targeted number of respondents were obtained.

The responses were informed of the purpose and voluntary nature of the study and were assured that all responses were anonymous. All responses were treated in strict confidence. Responses were informed that they could withdraw from the survey at any point, and only those who completed the full questionnaire were included in the subsequent data analysis. In order to encourage students to participate in the survey, each student was given a random WeChat red packet upon completion of the survey. Participants may get some monetary incentive for their participation but not everyone can get it because it is like a lucky draw. WeChat red packet is a digital adaptation of the traditional Red

Envelope gift, a new feature in WeChat's social media that helps to encourage forwarding reciprocity (Ji, 2023).

3.5 Data Analysis Procedures

Figure 3.4 summarizes the major steps in the data analysis procedures. To analyze the data from the online questionnaire, the data from the questionnaire collected at Sojump was first downloaded to an excel sheet, marked A1-D30 against the question number. Later, the data were copied to SPSS 26.0 for descriptive analysis for the scales (mean, standard deviation), and a score of four or more on the five-point Likert scale indicated a very high level. Descriptive analyzes are used to characterize measured data and the frequency or probability density distributions of the occurrence of variables to address Objective 1. The descriptive statistics of the respondents were analyzed in terms of frequency counts, percentages, means and standard deviation with the expectation of understanding the overall level of international students in China regarding demographic characteristics, WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation. Subsequently, inferential statistical tests were performed by testing relationships derived from descriptive statistics (Zheng, 2021).

In this study, descriptive analytical statistics are of fundamental importance in the field of research. A comprehensive understanding of the demographic background is essential for controlling changes in the environment and ensuring the uniformity of the study. This is followed by an analysis of the overall picture of the four variables in this study to form a fundamental judgement of the study variables. These are explained in detail next.

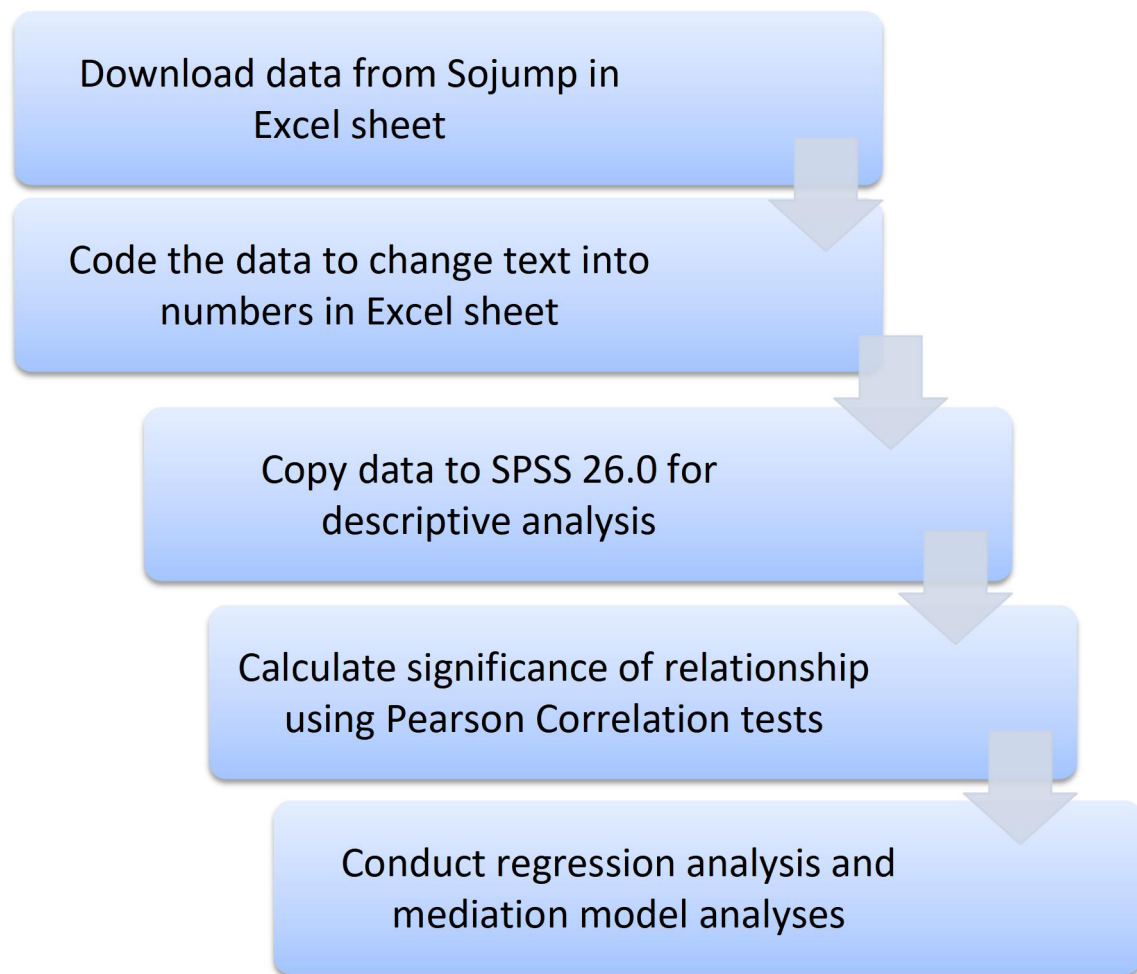


Figure 3.4: Major Steps in the Data Analysis Procedures

To address Objective 2, the correlation coefficients between WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation were calculated through the utilization of the Pearson correlation analysis test. This was conducted in order to ascertain the strength and direction of the relationship between these variables. The objective of the test was to ascertain the existence of a relationship between these variables, thus enabling the subsequent step of investigating indirect influences to be undertaken. This data analysis procedure was based on the methodology employed by Cao and Jia

(2024), who examined the existence of a high correlation between WeChat use and cross-cultural adjustment among international students in China.

Following this to address Objective 3, a preliminary regression analysis was conducted on the basis of the correlation analysis, utilizing the Model 4 mediation analysis model within the SPSS process v4.2. (Hayes, 2022). The specific objective of this regression analysis was to examine the extent to which social self-efficacy can mediate the relationship between WeChat use and cross-cultural adaptation among international students in China. This would serve to confirm the existence of an indirect influencing factor between their relationships.

Ultimately to address Objective 4, the variable of prior cross-cultural exposure was introduced based on the mediating role of social self-efficacy. Hayes' (2022) model 5 moderate mediation model was adopted for this purpose, and the model was tested using the process macro test in SPSS. The test was conducted to analyze the moderating role of prior cross-cultural exposure on the process of cross-cultural adaptation, with the mediating effect of social self-efficacy taken into account. This analysis enabled the researchers to explore whether the varying degrees of cross-cultural exposure to WeChat among international students in China prior to their arrival in the host country influenced the contexts and foundations of different cross-cultural adaptations. This may be an indirect influence related to the process of their cross-cultural adaptation.

3.6 Limitations of the Study

There are several limitations to consider when interpreting these findings. Firstly, the study sample is based on an international student population in western China. These

students may differ in characteristics from the population of international students in other parts of China, and thus the findings cannot be generalized to them.

Secondly, the causal inference of this study is limited by the cross-sectional data, which makes it challenging to elucidate the changes of international students in western China during their period of study. The average length of stay of international students in China in this study was 3.55 months. Given that international students in China typically complete their studies within a three-to-four-year time-frame, a longitudinal design can be employed in future studies to obtain empirical evidence of the indirect factors affecting cross-cultural adaption at different stages. This is because international students' utilization of social media may undergo a transformation in terms of both platform and purpose upon entering the host country, and the demands of the cross-cultural adaptation may also change as they get immersed in the host culture.

Thirdly, the impact of social media is twofold (Rao & Kalyani, 2022). However, this study only considered the positive effects of WeChat use, which may have also overlooked the lack of face-to-face interpersonal interactions caused by international students' long-term reliance on WeChat for online communication, as well as the psychological anxiety and depression sometimes caused by psychological defences constructed to escape from the pressures of life in the host country (Yu & Guo, 2021). It would be beneficial for future research to conduct a comprehensive analysis of the different nature of WeChat use and adopt a dialectical approach to consider the role of WeChat use on cross-cultural adaptation.

Lastly, the study was a quantitative study involving questionnaire data as the purpose was to investigate the indirect influences and pathways between WeChat use and

cross-cultural adaptation among international students in China. Admittedly, a focus on the patterns of the whole group of international students means that there is no attention to students who are different from the norm. Qualitative data in the form of interviews can add extra insights such as the individual circumstances of WeChat use, prior cross-cultural exposure, social self-efficacy and their cross-cultural adaptation. Qualitative analyzes can take into account contextual information and provide a better understanding of the profiles of individual international students. The personal perspectives will shed light on the intrinsic mediating links and extrinsic strength of the relationship between WeChat use and cross-cultural adaptation.

CHAPTER 4

RESULTS AND DISCUSSION

The study examined the indirect impact of social self-efficacy and prior cross-cultural exposure on the relationship between WeChat use and cross-cultural adaptation among international students in China. The specific objectives of the study were to: (1) investigate the level of WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation among international students in China; (2) analyze the relationship between WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation among international students in China; (3) analyze the mediating role of social self-efficacy in the relationship between WeChat use and cross-cultural adaptation among international students in China; and (4) analyze the moderation of prior cross-cultural exposure on the relationship between WeChat use and cross-cultural adaptation among international students in China.

4.1 Level of WeChat Use, Prior Cross-cultural Exposure, Social Self-efficacy and Cross-cultural Adaptation

This section presents the results for Objective 1 on the level of prior cross-cultural exposure, WeChat use, social self-efficacy, and cross-cultural adaptation for international students from western China based on the means and standard deviation. The measurement scales and the meanings of the low to high scores are explained in the respective sections.

4.1.1 The Level of International Students' WeChat Use

Table 4.1 shows a high level of WeChat usage among international students in western China. A five-point Likert scale was used to measure this, with a minimum value of “1” meaning “strongly disagree”, which represents a negative response. The maximum

value of “5” means “strongly agree”, which represents a positive response. The mid-point is “3”, indicating a neutral response. Therefore, if the score is more than “3”, it can be interpreted as a positive response, and if the score is less than “3” it can be interpreted as a negative response.

The respondents’ high level of WeChat use ($M=3.85$) shows that they have positive attitudes and preferences towards the use of WeChat. For the respondents, the use of WeChat facilitated their adaptation to the new cultural environment. The most important reasons for their use of WeChat are because it makes their life in China easier ($M=4.21$) and the least important reason is to keep in touch through WeChat ($M=3.33$). The detailed results are organized according to the four measures of WeChat use. Table 4.2 further summarizes the means for the four indicators of WeChat use. The highest level is acceptance (4.06), followed by socio-cultural adaptability (3.89), psychological adaptability (3.87) and usage intensity (3.50). The level degree of these 4 indicators shows that WeChat is a tool that can be easily and quickly used for adaptation, and WeChat’s prominence in cross-cultural adaptation became the key to their choice.

Table 4.1: Level of WeChat Use Among International Students in China ($N=404$)

Item	Mean	SD
Usage intensity		
1. I have a lot of WeChat friends.	3.60	1.11
2. I feel out of touch when I haven’t logged onto WeChat for some time.	3.33	1.31
3. I am proud to tell people that I’m on WeChat.	3.58	1.06

Table 4.1 continued

Acceptance		
4. WeChat is easy to use.	3.89	1.05
5. WeChat is free to use.	4.08	1.04
6. WeChat is useful to make life easier in China.	4.21	0.99
Sociocultural adaptability		
7. I use WeChat to improve my Chinese language skills.	3.92	1.03
8. I use WeChat to keep in touch with friends.	4.01	1.03
9. I use WeChat to get study resources.	3.73	1.03
10. I use WeChat to talk about study problems.	3.86	1.02
11. I use WeChat to talk about life problems.	3.96	1.05
12. I use WeChat to get to know Chinese culture.	3.81	1.02
13. I use WeChat to improve my Chinese language skills.	3.92	1.03
Psychological adaptability		
14. I find that using WeChat can strengthen social support.	3.93	1.03
15. I find that using WeChat can help me integrate into life in China faster.	4.01	1.03
16. I find that using WeChat can bring me closer to my friends in other countries.	3.83	1.05
17. I find that using WeChat can strengthen social ties.	3.98	1.01
18. I find that using WeChat can strengthen emotional support.	3.88	1.04
19. I find that using WeChat can overcome homesickness or loneliness.	3.58	1.13
Overall	3.85	1.05
Note: Mean is a statistical indicator can describe the central tendency or average level.		

Table 4.2: Summary of Means for the Four Indicators of WeChat Use ($N=404$)

Indicator	Mean	Number of Items
Usage intensity	3.50	3
Acceptance	4.06	3
Sociocultural adaptability	3.89	7
Psychological adaptability	3.87	6

The intensity of WeChat use is an overall perception of the number of WeChat friends, WeChat dependence, and WeChat use disclosure of international students in China, focusing on the measurement of the intensity of WeChat use on the initial contact, which is mainly used to determine whether or not the group of international students in China has a positive attitude towards WeChat use. The respondents exhibited a moderate level of engagement with WeChat, as indicated by a mean intensity score for usage intensity ($M=3.50$), which falls above the midpoint on the scale. However, this engagement was accompanied by a notable willingness to continue using the platform and a positive attitude towards it. Furthermore, respondents demonstrated a sense of pride in their WeChat usage, actively and proudly showcasing their engagement with the platform to others ($M=3.58$). This was accompanied by a more appropriate intensity of contact relative to local students.

The most important reason for their use of WeChat is because they have a lot of WeChat friends ($M=3.60$). Within the Chinese university environment, the most straightforward and fundamental method of establishing contact is to add WeChat friends. This facilitates more expeditious connections between international students in China and faculty members and classmates, thereby fostering a favorable attitude towards WeChat. The respondents only slightly agreed that they feel out of touch when they have not logged

onto WeChat for a while ($M=3.33$). Even though international students in China have a positive attitude towards WeChat use, they are still able to connect and communicate with the outside world through other social media. For local Chinese students, WeChat is the main social media platform used compared to Microblog, Xiaohongshu and QQ. A survey administered by China Youth Daily (2022) involving students from over 200 universities in China showed that a staggering 95% of China's university student population utilized WeChat as their predominant social media platform in their daily lives. As for international students in China, the present study involving 404 students from four universities in western China shows that they all used WeChat, and reported positive attitudes towards WeChat use. However, the ways in which local students and international students use WeChat differ slightly. Local students use WeChat for daily life transactions such as payments, accessing services, and social networking, and it has become an ingrained part of their lives (Hou et al., 2021; Pang, 2021; Zhu & Chhachhar, 2016). The present study shows that the international students use WeChat mainly to cope with temporary cross-cultural challenges such as language barriers and unfamiliar services, which may be a transient behaviour. Furthermore, the international students are from other countries, and may prefer using other messaging apps like WhatsApp and Telegram to connect with people in their home country. Because of this, they are still connected to their social contacts.

The respondents' acceptance of WeChat is high. They felt that WeChat is useful to make life easier in China ($M=4.21$). To them, it is a free and useful tool ($M=4.08$). They generally consider WeChat easy to use ($M=3.89$). They accept WeChat as part of student life in China. The adoption of WeChat by international students in China is primarily driven by its perceived simplicity, convenience, and cost-free nature. The satisfaction

derived from its utilization further fosters its widespread acceptance, contributing to an enhancement in its overall uptake.

As for sociocultural adaptability, the results showed a moderately high level. For the respondents, WeChat usage enabled them to develop high sociocultural adaptability in social, cultural, and academic aspects of their daily life. The respondents frequently used WeChat for social purposes such as to participate in Chinese social activities ($M=4.02$), keep in touch with friends ($M=4.01$), and get to know Chinese culture ($M=3.81$). The WeChat office account has many articles and information about Chinese culture. As international students, they would at least be in two groups, one of which is created for them by the university, and another by the course coordinator. If they face problems, they can send a message in the groups and there would be people who would respond with advice and help. As for academic uses, the respondents frequently used WeChat for improving their Chinese language skills ($M=3.92$), talk about study problems ($M=3.86$), and get study resources ($M=3.73$). The respondents may also be several study groups to discuss assignments and projects for different subjects. It is likely that by being in these WeChat groups, they can attain optimal academic adaptation and social cultural adaptation in the cross-cultural adaptation process. Regarding the use of WeChat in daily life, respondents found that using WeChat could help them integrate into daily life in China faster because they often talk about their experiences and methods in WeChat when they encounter problems in their daily life ($M=3.96$), such as how to go shopping, pay bills, and take a taxi.

Finally, the results of the study showed that there is also a good level of psychological adaptability. The respondents reported that the use of the social media

platform can strengthen social ties ($M=3.98$) and social support ($M=3.93$). This is because when they encounter problems and talk about it in WeChat, there would be someone or other who would come to their aid. Since the respondents are in at least two WeChat groups set up by the international office of the university and the course coordinator, there are university officers in the group who can offer reliable advice in addition to other students who can share their experiences. Based on the respondents' responses, WeChat use definitely can strengthen emotional support ($M=3.88$). WeChat use also brings them closer to their friends in other countries ($M=3.83$). WeChat can help respondents to overcome their homesickness or loneliness to some extent ($M=3.58$). International students in China feel closer to friends abroad through WeChat because it provides easy, real-time communication and keeps them connected despite physical distance. In this way, the international students would not feel as homesick because the social media helps them to maintain social bonds and fosters a sense of closeness and support.

Overall, the international students' use of WeChat for psychological adaptability is only marginally positive, and not as high as the use of WeChat for sociocultural adaptability but their usage acceptance towards WeChat is the highest, while their usage intensity is relatively low. The intensity of WeChat use among international students in China is more for current adaptation where they have a realistic need to connect with their new environment. This is in contrast to local university students, where WeChat use is so intense that researchers have described their use as a dependency addiction (Mao et al., 2023; Kim & McKay-Semler, 2013). The free and straightforward technical features of WeChat is convenient to use, which facilitates their adaptation to the new cultural environment. WeChat use is more applicable in helping them to learn more about the culture of China than for overcoming psychological problems such as feeling depressed

because they are disconnected from their social circle. International students use WeChat for psychological adjustment or emotional satisfaction (Forbush & Foucault-Wells, 2016).

4.1.2 The Level of International Students' Prior Cross-cultural Exposure

In terms of prior cross-cultural exposure, there is a need to understand the initial exposure to WeChat use and the extent of that exposure. This is because before arriving in China, international students can sign up and use WeChat if they wish to do so. Therefore, knowing when they started using WeChat and for how long each day lasts can provide a more complete picture of their cross-cultural exposure to China, made possible through WeChat use.

Table 4.3 shows the frequency and duration of WeChat use among international students in China. Only 25.3% of the 404 respondents used WeChat less than 1 hour per day, that is, 5.7% less than 30 minutes per day and 19.6% used WeChat 30-60 minutes per day. About equal percentages of respondents used WeChat 1-2 hours per day (24%), 3-4 hours per day (26.7%) and more than five hours per day (24%). The results show frequent and intense use of WeChat among the respondents.

Next, the results showed over half of the respondents used WeChat for one year or more since the time they arrived in China as international students. The results showed that 17.3% of students used WeChat less than 3 months ago, 14.4% of students used it 3 - 6 months ago, and 16.1% of students used it 7 - 12 months ago. Over half of the students used WeChat for more than one year (24.8% for 1-2 years, 27.5% for more than 2 years). The background information about the respondents (Table 3.2) shows that 21.5% of the respondents spent 7-12 months in China and 37.9% of the respondents had spent 1-2 years

in China. The respondents may have started to use WeChat a short time before their arrival in China such as to liaise with the university before they arrive in China.

Table 4.3: Prior exposure to WeChat among international students in China (N=404)

WeChat use	Duration				
1. How often do you use WeChat?	Less than 30 min per day	30-60 min per day	1-2 hours per day	3-4 hours per day	5 hours or more
Frequency	23	79	97	108	97
Percentage	5.7	19.6	24	26.7	24
2. When did you start using WeChat?	Less than 3 months ago	3-6 months ago	7-12 months ago	1-2 years ago	More than 2 years ago
Frequency	70	58	65	100	111
Percentage	17.3	14.4	16.1	24.8	27.5

Table 4.4 show that the level of prior cross-cultural exposure of the respondents is relatively low. The relatively low level of prior cross-cultural exposure is based primarily on the amount of exposure to the host culture and knowledge that international students in China are able to have prior they travel abroad. Before they studied in China, 3.5% of the respondents had never watched any movies, television programs or videos about China while 27.2% watched these only 1-2 times. Another 35.4% and 12.4% of the respondents reported watching movies, television programs or videos about China 3-6 times and 7-10 times respectively. Only 21.5% of the respondents reported a frequency of more than 10 times.

Table 4.4: Level of Prior Cross-cultural Exposure Among International Students in China (*N*=404)

Item	None	1-2	3-6	7-10	More Than 10
1. Before you studied in China, how many times have you watch movies/ TV programs/ videos about China?	14 (3.5%)	110 (27.2%)	143 (35.4%)	50 (12.4%)	87 (21.5%)
2. Before you studied in China, how many Chinese friends did you have? (Chinese friends can be from China, Malaysia etc.)	71 (17.6%)	177 (43.8%)	86 (21.3%)	35 (8.7%)	35 (8.7%)
3. Before you studied in China, how many times have you visited China?	104 (25.7%)	177 (43.8%)	71 (17.6%)	23 (5.7%)	29 (7.2%)
4. How many of your family members are Chinese (e.g., your parents, your grandparents, uncle, aunt)?	134 (33.2%)	153 (37.9%)	64 (15.8%)	22 (5.4%)	31 (7.7%)

Next, the results showed little contact with people from China in the form of friendships. Before they studied in China, 17.6% of the respondents did not have friends either from China or countries with a large percentage of Chinese people. A majority of the respondents had a handful of Chinese friends (43.8% with 1-2 friends, and 21.3% with 3-6 friends). A small percentage had 7-10 Chinese friends (8.7%) before they arrived in China. Only 8.7% had more than 10 Chinese friends. The results showed that for the respondents, prior cross-cultural exposure did not generally come from friends.

The pattern for number of visits made to China before the respondents went there for studies is similar to the pattern for the number of Chinese friends. About one quarter of the respondents (25.7%) had never been to China before they studied in China. Another 43.8% had visited China 1-2 times while 17.6% had visited China 3-6 times. An even smaller percentage of respondents had visited China 7-10 times (5.7%) before they arrived in China for studies. Only 7.2% had visited China more than 10 times before they decided to pursue their studies in China. The results showed that for the respondents, prior travel to China is generally not a source of prior cross-cultural exposure with China and its people and culture. The results suggest that the students chose to study in China not because they have been there and are familiar with the country.

Finally, the results showed family members is not a source of prior cross-cultural exposure with Chinese for most of the respondents. One-third (33.2%) of the respondents did not have family members who are Chinese, 37.9% had 1-2 Chinese family members and 15.8% had 3-6 Chinese family members. A small percentage (5.4%) had 7-10 Chinese family members. Only 7.7% of the 404 respondents had more than 10 family members who are Chinese. The results indicate that mixed marriage is quite uncommon in China, and family members are not a source of prior cross-cultural exposure before they go abroad to study in China.

The international students tend to neglect cross-cultural preparation prior to arriving in the host country. On the prior cross-cultural exposure measure, the most likely source of information about China is from watching movies, television programs or videos about life in China. In contrast, the number of Chinese members in the family play the least role in prior cross-cultural exposure. Chinese friends and the number of travels in China do

not give much prior cross-cultural exposure to most of the respondents. The results show that the prior cross-cultural exposure among international students is indirect through online information or videos rather than direct contact with Chinese people, whether in the form of friends, family members or locals they meet in China during visits.

Taken as a whole, this suggests that international students' understanding of the host country's socio-cultural norms and their own experiences of daily life are inadequate before they commence their studies in China. The lack of prior exposure with China may adversely affect their ability to adapt to life in China. This is because effective cross-cultural learning or experience may contribute to future adaptation readiness and lead to successful cross-cultural adaptation (Reid & Garson, 2017).

4.1.3 The Level of International Students' Social Self-efficacy

Table 4.5 presents the item means of social self-efficacy levels as perceived by international students in China and provides insight into the students' perceived level of social competence and social confidence. The level of social self-efficacy reflects how confident the students feel about their ability to cope with the social aspects of their life like making friends and attending social functions. In this study, respondents' social self-efficacy was scored on a five-point Likert confidence scale, ranging from 1 (indicating strong disagreement) to 5 (indicating strong agreement), with higher scores indicating higher perceived social self-efficacy and vice versa. Only the mid-point is used to decide whether the mean is high (above 3) or low (below 3).

The findings indicate that Chinese international students exhibit a high level of social self-efficacy ($M=3.82$), suggesting that they perceive themselves to possess a substantial degree of confidence and capability to engage in social interactions in their host

country. This also may be attributed to the dissemination of information resources and social experiences within the social media environment, which increases confidence and competence in handling actual social interactions (Hocevar et al., 2014). This phenomenon is exemplified by the social activities of the host country, which manifest as adaptability. The utilisation of WeChat has been shown to positively influence the training and honing of confidence and skills in social activities. However, it is also plausible that individuals possess a high sense of social efficacy intrinsically.

Table 4.5: Level of Social Self-efficacy Among International Students in China

Item	Aspects	Mean	SD
1. I am confident to make friends in a group where everyone knows each other.	Friends*	3.94	0.96
2. I am confident to make friends with people my own age.	Friends*	3.92	0.99
3. I am confident to ask someone to go out for a meal or to spend time together.	Relationship*	3.87	0.99
4. I am confident to express my feelings to others.	Relationship*	3.85	1.00
5. I am confident to make acquaintances (people who do not know one another well) feel comfortable in my circle of friends.	Social*	3.77	1.01
6. I am confident to start a conversation with someone I don't know well.	Social*	3.70	1.06
7. I am confident to express my opinion in a group of people discussing a topic that interests me.	Group*	3.77	1.02
8. I am confident to work with unfamiliar people on school, work, community or other projects.	Group*	3.81	0.96

Table 4.5 continued

9. I am confident to ask for help when I need it.	Help*	3.93	0.99
10. I am confident to share interesting experiences I have had with a group of people.	Group*	3.82	1.00
11. I am confident in responding to an invitation to a party hosted by a well- known or popular person.	Social*	3.81	1.00
12. I am confident in volunteering to lead a group or organization.	Public*	3.72	1.02
13. I am confident to attend parties or social events where there are people I know.	Social*	3.90	0.99
14. I am confident to join a table at lunch or dinner when there are already people sitting and talking.	Social*	3.72	1.05
15. I am confident in volunteering to help organize an event.	Public*	3.72	1.01
16. I am confident to ask for help when I need it.	Help*	3.93	0.99
Overall		3.82	1.00
Note: “*” Aspects of social self-efficacy are based on Smith and Betz (2000). Friends for “making friends”, Relationship for “pursuing romantic relationships”, Social for “asserting themselves socially”, Public for “performing in public situations”, Group for “performing in groups”, and Help for “giving or receiving help”.			

To be more specific, the international students in China exhibited a high degree of social self-efficacy with regard to forming friendships within groups of people they already know ($M=3.94$). They may know them through WeChat before meeting them in person. In addition, they also reported strong confidence in asking for help ($M=3.93$) and building

friendships with peers ($M=3.92$). Nevertheless, they appear to exhibit less confidence in the domains of engaging in conversation with unfamiliar individuals, joining others at meals, leading or organizing events, coordinating relationships and expressing opinions (range of 3.70 to 3.77), reflected in the lower-than-average level of social self-efficacy.

Next, results are reported for the six aspects of social self-efficacy based on Smith and Betz's (2000) social self-efficacy scale. The aspects of social self-efficacy are indicated in the second column of Table 4.5. Based on this, Table 4.6 shows the average means for the six aspects of social self-efficacy. The respondents had the greatest self-confidence in making friends ($M=3.93$). They were also the most confident in giving or receiving when they need it ($M=3.93$). These are areas in which international students must develop courage and confidence, as these are foundational interactive forces that are vital in new environments. If they do not develop these skills, their problems in the social domain will not be resolved.

Table 4.6: Average Means for Six Aspects of Social Self-efficacy ($N=404$)

Indicator	Mean	Number of Items
Making Friends	3.93	2
Pursuing Romantic Relationships	3.86	2
Asserting Themselves Socially	3.78	5
Performing in Public Situations	3.72	2
Performing in Groups	3.80	3
Giving or Receiving Help	3.93	2

As for the social aspect, interestingly, the respondents reported strong self-efficacy in asserting themselves socially (Item 4, $M=3.90$), and responding to an invitation to a party hosted by a well-known or popular person ($M=3.81$). They are also confident to make acquaintances feel comfortable in their circle of friends ($M=3.77$) and to put themselves in a new and different social situation ($M=3.75$). They are also to project a sociable personality and feel confident about joining a table at lunch or dinner when there are already people sitting and talking ($M=3.72$). Their self-confidence extends to starting a conversation with someone they do not know well ($M=3.70$). The respondents seem to be strong in the social aspect of social self-efficacy but are more confident in interacting with people they know than people they do not know. Their confidence in the social aspect extends to pursuit of romantic relationships. They feel confident to ask someone to go out for a meal or to spend time together ($M=3.87$) and to express my feelings to others ($M=3.85$).

Compared to the four aspects of social self-efficacy described so far, the respondents are less confident to perform in public situations. In Table 4.3, the first item in the group aspect is Item 7 and the other item is Item 9. The rank in means is far below the friends, help, social and relationship aspects although the means are still very high (close to 4 on a scale of 5). The respondents reported that they are confident to share interesting experiences they have had with a group of people (Item 7, $M=3.82$), to work with unfamiliar people on school, work, community or other projects (Item 9, $M=3.81$), and to express their opinions in a group discussing a topic of interest (Item 10, $M=3.77$). To perform in groups involving strangers requires more social skills and interpersonal skills, and Item 9 is not about a social interaction but a task-oriented interaction.

The aspect of social self-efficacy that the respondents have the least confidence in is performing in public situations. The two items on the public aspect of social self-efficacy are Items 13 and 14, which ranks very low as the full scale has 16 items. The respondents felt that they are confident in volunteering to help organize an event ($M=3.72$) and to lead a group or organization ($M=3.72$). The confidence level is still high (close to 4 on a scale of 5) but relative to the other aspects, the international students in the study displayed lower self-confidence. Leading a group or organization requires not just social skills but also leadership skills. As the respondents in the study were aged 18-25, they have not worked for many years and acquired enough experience to lead groups in a public position.

Overall, the respondents have high social self-efficacy in the six aspects. Their high levels of social self-efficacy may contribute to their adaptation in a new environment. The study has produced additional insights beyond that of finding out whether international students have high or low levels of social self-efficacy. Through an analysis by aspect, the study has shown that the international students in the study feel very capable about handling the friendship, help-seeking/giving, and relationship aspects of their life.

4.1.4 The Level of International Students' Cross-cultural Adaptation

Table 4.7 shows the results of the level of cross-cultural adaptation of international students in China, with scores ranging from 1 (strongly disagree) to 5 (strongly agree) based on their perceptions of the results of their own cross-cultural adaptation levels. Overall, the mean cross-cultural adaptation level of international students coming to China is approximately 4, which indicates a relatively high level of cross-cultural adaptation as it is above the mid-point of 3.

Table 4.7: Level of Cross-cultural Adaptation Among International Students in China
(*N*=404)

Item	Mean	SD
Academic adaptation		
1. I am satisfied that my teachers provide the necessary support when I need it.	4.02	0.97
2. My classmates are there for me when I need help.	4.01	0.96
3. I am satisfied with my new teacher's teaching style.	3.95	0.94
4. I am satisfied with the support at my university.	3.93	0.97
5. I am satisfied with working with my classmates on school projects.	3.89	0.97
6. I am satisfied with my academic progress.	3.88	0.97
Socio-cultural adaptation		
7. I respect the values and cultural norms of China.	4.09	0.96
8. I know where to buy basic necessities in China.	4.05	0.97
9. I am adapting to the way of life in China.	4.02	0.95
10. I enjoy the local food and music of China.	4.01	0.96
11. I understand the holidays and rituals of China.	3.91	0.96
12. I believe I have integrated into the culture in China.	3.85	0.96
13. I can make others understand me.	3.82	0.96
14. I can deal with unsatisfactory service.	3.79	1.00
15. I can deal with unpleasant/excessive/aggressive people.	3.74	1.04
Psychological adaptation		
16. I had a full life in China.	4.01	0.99
17. I still enjoy the things I used to enjoy in China.	3.98	0.97

Table 4.7 continued

18. I feel close to China's social environment.	3.96	0.97
19. I feel powerful in China.	3.87	1.01
20. I feel that I fit in China.	3.87	0.98
21. I find it easy to make decisions in China.	3.85	1.01
22. I felt at ease about talking to locals.	3.84	0.99
23. I feel capable in China.	3.82	0.99
24. I can insist on anything.	3.80	1.04
Daily life adaptation		
25. I can handle the daily problems I face in China.	4.00	0.96
26. I know how to travel in China.	4.00	0.97
27. I know how to survive on my own budget in China.	3.98	0.96
28. I know what to do in an emergency in China.	3.98	1.02
29. I know the basic legal regulations in China.	3.90	1.01
30. I know how to cope with anxiety.	3.73	1.04
Overall	3.92	0.98

First, the results are described based on the means for each of the 30 items. The means above four for nine items show very high cross-cultural adaptation. The respondents are satisfied with the support provided by teachers and classmates, respect the values and cultural norms and can adapt to the way of life in China, and know where to buy basic necessities. They reported that they have a full life in China, can handle daily problems encountered, and know how to travel in China. Based on this, the respondents are fully adjusted to their new environment.

Another 19 items have means of 3.75-4 showing that they are also well-adjusted to life in China. The respondents are satisfied with the teaching style, university support, working with classmates, and their academic progress. Besides adapting well to the study environment, the respondents also reported good adaptation to the social environment. They understand the holidays and rituals of China, and the culture enough to be integrated into the local life. When interacting with people, the international students felt that they can make others understand them and also deal with unsatisfactory service. Making complaints require language skills and knowledge of the culture in order to ensure that action is resolve the complaint. The respondents reported that they feel powerful, capable, and can insist on things. They also find it easy to make decisions and talk to locals, and generally feel immersed in the social environment. They do not run into problems with money and have the knowledge of emergency contacts and laws in China.

Nonetheless, there are two items with means in the range of 3.73-3.74 on a five-point scale, showing relatively lower levels of cross-cultural adaptation. The respondents have some reservations about dealing with unpleasant/excessive/aggressive people, and coping with anxiety. This also shows that they still have a lot of room for improvement in integrating into the Chinese social-cultural environment.

The respondents are satisfied with their academic adaptation. They have help when they need it. They are satisfied that their teachers provide the necessary support ($M=4.02$), and their classmates are there for me when they need help ($M=4.01$). Despite general concerns that the students would encounter different academic systems and practices, the respondents reported that they are satisfied with their new teacher's teaching style ($M=3.95$) and also the support at the university ($M=3.93$). Generally, they adapt well to working with

other international and local students. They are satisfied with working with their classmates on school projects ($M=3.89$) and generally happy with their academic progress ($M=3.88$).

Next, for socio-cultural adaptation, the respondents seemed to be accustomed to the culture of China, and can even handle the difficult people in the society. The results showed that they respect the values and cultural norms of China ($M=4.09$). They know where to buy basic necessities ($M=4.05$). They are adapting to the way of life in China ($M=4.02$), including enjoying the local food and music ($M=4.01$). Besides the cuisine and music, they understand the holidays and rituals of China ($M=3.91$). An example is the four-day holidays where the government encourage their citizens to travel but some workplaces require the employees to replace their working hours on the subsequent weekends. The respondents also reported that they have integrated into the culture in China ($M=3.85$). They felt they can make others understand them ($M=3.82$), deal with unsatisfactory service ($M=3.79$), and even unpleasant/excessive/aggressive people ($M=3.74$).

As for psychological adaptation, the results also showed that the respondents are well-adapted. Interestingly, the respondents were in strong agreement that they have a full life in China ($M=4.01$) and feel close to the social environment in China ($M=3.96$). When studying in China, they still get to enjoy the things they used to enjoy back in their home country ($M=3.98$). The respondents seemed in control of their lives when they are in China. They reported that they feel powerful in China ($M=3.87$) and can fit into life in China ($M=3.87$). Making decisions does not seem to be a problem ($M=3.85$). Contrary to beliefs that they might encounter communication breakdowns, the respondents reported that they felt at ease talking to locals ($M=3.84$), capable ($M=3.82$) and can insist on anything

($M=3.80$). The last item in the socio-cultural adaptation says a lot because it indicates that the international students are not helpless, and have found a way to be in control of their social environment.

The final aspect of cross-cultural adaptation is daily life adaptation. The respondents can handle the daily problems I face in China ($M=4.00$). This is a general statement but the other items provide details on the daily challenges they could handle. They know how to travel in China ($M=4.00$), and survive on their own budget ($M=3.98$). When they encounter emergencies, they know what to do ($M=3.98$). The WeChat group is probably one of the resources they use to get help, as is clear from the results in the earlier WeChat usage section. The international students also know the basic legal regulations in China ($M=3.90$), an example of which is the ban on the use of social media other than WeChat. They also know that the use of VPN is illegal and is punishable by law, if they are caught. The item with the lowest mean is coping with anxiety ($M=3.73$). This is an aspect of daily life adaptation that pose stress, and can adversely affect their adjustment to academic and social life in China. However, previous studies like Htet and Mohanan (2022) and Rogala et al. (2020) indicate the anxiety may be alleviated if they have high social self-efficacy. Daily life adaptation may seem less important compared to academic adaptation because the students are there to study. However, researchers have stated that in order to have a smooth adjustment to a new environment, matters such as accommodation, clothing, food, and transport need to be settled for international students (Gilmartin et al., 2023; Polat & Arslan, 2022; Singh et al., 2022).

These detailed results above are organized according to the four measures of cross-cultural adaptation based on Polat and Arslan (2022). Table 4.8 summarizes the average

means for the four measures of cross-cultural adaptation. An average of the means for the items in these four measures show that the level is the highest for academic adaptation (3.95), followed by daily life adaptation (3.93), socio-cultural adaptability (3.92), and psychological adaptation (3.89). Respondents had the highest indicator of academic adaptation, representing the fact that international students' cross-cultural adaptation in China is most concerned with adaptation in the academic field, which is an important reflection of their pursuit of studies abroad. Concurrently, these four indicators represent the challenges that international students must overcome upon their arrival in China. They must cope with the academic pressures of different teaching methods, assessment methods and languages of instruction. They need to gain support and make connections in new social environments. They need to solve the problems of survival such as food, clothing, housing and transport. They also need to adjust to the psychological emotions of homesickness and loneliness brought about by the unfamiliar environment.

Table 4.8: Summary of the Average Means for the Four Measures of Cross-cultural Adaptation ($N=404$)

Indicator	Mean	Number of Items
Academic adaptation	3.95	6
Socio-cultural adaptation	3.92	9
Psychological adaptation	3.89	9
Daily life adaptation	3.93	6

4.1.5 The Summary of the overall level of international students in China

Table 4.9 shows the overall average level of all the items on the four variables of WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural

adaptation for the respondents respectively. Finally, the summary is provided for the levels of WeChat use (average of 3.85), prior cross-cultural exposure (average of 2.81), social self-efficacy (average of 3.82) and cross-cultural adaptation (average of 3.92).

Table 4.9: Summary of the levels of all variables for international students in China ($N=404$)

Variable	Overall Mean	Number of Items
WeChat Use	3.85	19
Prior Cross-cultural Exposure	2.81	6
Social Self-efficacy	3.82	16
Cross-cultural Adaptation	3.92	30

It can be seen that the levels are high for WeChat use, social self-efficacy and cross-cultural adaptation but relatively lower for prior cross-cultural exposure. This may seem as an anomaly but it needs to be noted that the cross-cultural exposure that is investigated is for the time before they arrive in China. This means that most of the international students who participated in the study had hardly travelled to China before they enrolled as students in China. At the point of the study, most of them had been in China for an average of 3.52 months (range of 1 to 48 months). Their WeChat use is understandably high because this is the main social media platform used in China, and it also has many useful features, including payment and banking which are necessary as transactions in China are mostly cashless at this point in time. Their social self-efficacy and cross-cultural adaptation levels are also high. The ease with which respondents can utilize WeChat to establish social relationships and procure social support from local Chinese students, teachers and administrators following their arrival in China is a primary

factor in this phenomenon. As their communication and interaction within the class WeChat group and the international students' own WeChat group increases, this will improve their perceived competence and confidence in their social interactions, which in turn will enhance their motivation to actively engage in and carry out cross-cultural adaptations. This includes aspects such as successfully discussing academic issues with teachers and students in WeChat, accessing academic resources, or successfully solving problems with accommodation, shopping and transport issues.

Therefore, it is not an anomaly for international students who had hardly travelled to China to adjust well to life in China in a period of one semester. This result is a new finding because previous studies have not investigated prior cross-cultural exposure together with the factors commonly investigated with cross-cultural adaptation (that is, social media use, social self-efficacy). Because of this, there are no existing theories that can be used to explain the relationships of prior cross-cultural exposure in relation to the other three variables (social media use, social self-efficacy, cross-cultural adaptation). The contribution of the present study is that prior cross-cultural exposure plays a moderating role, moderating the relationship between social media use and cross-cultural adaptation, which has been mediated by social self-efficacy. This will be further explained and discussed in Section 4.4 of Chapter 4.

4.2 Correlations between WeChat Use, Prior Cross-cultural Exposure, Social Self-efficacy and Cross-cultural Adaptation

This section describes the results for Objective 2 of the study. As indicated in Table 4.10, the Pearson correlation test shows statistically significant correlations between prior cross-cultural exposure, WeChat use, social self-efficacy, and cross-cultural adaptation among international students in western China at 95% confidence level.

Table 4.10: Correlations of the Variables ($N=404$)

		WeChat Use	Prior Cross-cultural Exposure	Social Self-efficacy	Cross-cultural Adaptation
WeChat Use	Correlation	1	.261**	.737**	.772**
	Sig.		.000	.000	.000
Prior Cross-cultural Exposure	Correlation		1	.181**	.160**
	Sig.			.000	.001
Social Self-efficacy	Correlation			1	.839**
	Sig.				.000
Cross-cultural Adaptation	Correlation				1
	Sig.				
Note: “***” represents significantly correlated at the .01 level, Correlation “r” represents the correlation coefficient. Sig., the full name is significance level, which is used in statistics to indicate statistical significance, i.e., whether a result is statistically significant or not. Sig. value is the p-value, which ranges from 0 to 1, and it is usually considered that the result is statistically significant when the value is less than .05.					

Prior cross-cultural exposure is found to have a low correlation with WeChat use ($r=.261^{**}$, $p=.00$), social self-efficacy ($r=.181^{**}$, $p=.00$), and cross-cultural adaptation ($r=.160^{**}$, $p=.001$). The low correlation may be due to their limited cross-cultural readiness prior to their arrival in China. The use of WeChat is strongly and positively correlated with social self-efficacy ($r=.737^{**}$, $p=.000$) and cross-cultural adaptation ($r=.772^{**}$, $p=.000$). Furthermore, social self-efficacy is also strongly and positively correlated with cross-cultural adaptation ($r=.839^{**}$, $p=.000$).

It can be inferred that the low correlation between prior cross-cultural exposure, WeChat use, social self-efficacy, and cross-cultural adaptation among international students at universities in western China indicates that prior cross-cultural exposure plays a role in cross-cultural adaptation, but that this role is limited. To put it simply, when prior cross-cultural exposure is different, it will contribute to different levels of cross-cultural adaptation. This also suggests that prior cross-cultural exposure is not a direct influence, but may function as a moderating factor for cross-cultural adaptation.

The higher correlations between WeChat use, social self-efficacy, and cross-cultural adaptation indicate that international students in China are more likely to perceive greater social competence and confidence. Thus, they have more successful cross-cultural adaptation outcomes, if they frequently use WeChat for social activities and socio-cultural adaptation after arriving in China. The findings suggest that social self-efficacy may act as a mediator between WeChat use and cross-cultural adaptation. Furthermore, there may be a unidirectional causal chain between these three variables, which could help to elucidate the indirect path of influence between them.

4.3 The Mediating Role of Social Self-efficacy in the Relationship between WeChat Use and Cross-cultural Adaptation

Section 4.3 presents the results to address Objective 3 of the study. Figure 4.1 provides a schematic representation of Hayes' (2022) model 4 of mediated relationships between test variables. In Figure 1, coefficient c represents the total effect of X on Y , coefficient a_i denotes the direct effect of X on M_i , coefficient b_i signifies the direct effect of M_i on Y , and coefficient c' is the direct effect of X on Y . The coefficients $a_i * b_i$ represent indirect effects that are mediated through the mediator variable M_i . There is a relationship $c = c' + a_i * b_i$ (Hayes, 2022; Wen & Ye, 2014). In contrast to the present study, the

independent variable, X , is WeChat use, the dependent variable, Y , is cross-cultural adaptation, and the mediating variable, M_i , is social self-efficacy.

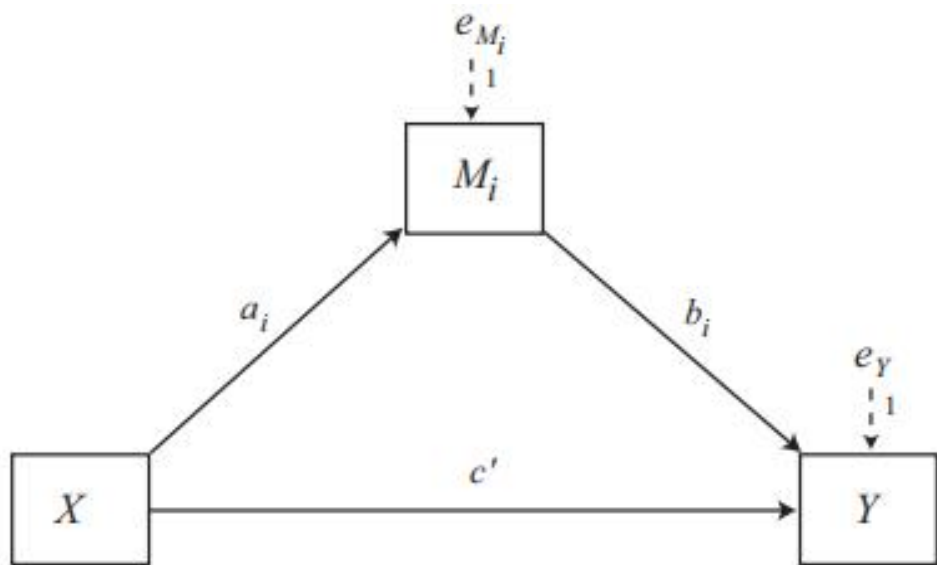


Figure 4.1: Schematic Statistical diagram Hayes' (2022) Mediation Model 4

In accordance with Haye' (2022) process macro testing procedure, model 4 of the process macro was employed in regression analyzes conducted in SPSS to investigate the indirect effects of WeChat use on cross-cultural adaptation and the mediating role of predicted social self-efficacy. In order to reduce multicollinearity, the predictors are standardised (Derrim & Hamilton, 2006). A test statistic (t-value) was calculated for 1,000 samples using the bootstrap method to ascertain the significance of the path coefficients and to conduct a test.

Table 4.11 shows the mediation model test of social self-efficacy. Standardized regression coefficients (β) are often used as indices of effect sizes and can explain the impact of a change in a variable or predictor variable (Nieminen, 2022). And the premise of these tests is that the regression coefficients of each step need to be significant. The initial stage of the mediation procedure involved the verification of a positive correlation

between the use and perception of WeChat and social self-efficacy ($\beta=.756$, $t=21.844$, $p<.001$, 95% CI=[.688, .825], $R^2=.543$). The second step confirmed that social self-efficacy was positively correlated with cross-cultural adaptation ($\beta=.567$, $t=16.188$, $p<.001$, 95% CI=[.498, .635], $R^2=.756$). The third and final step of the regression analysis demonstrated a positive correlation between WeChat use and cross-cultural adaptation ($\beta=.761$, $t=24.372$, $p<.001$, 95% CI=[.699, .822], $R^2=.596$). What we can determine through this three-step test is that the coefficient value of the relationship between WeChat use and social self-efficacy is high and significant, and the coefficient value of the relationship between social self-efficacy and cross-cultural adaptation is also relatively high and significant. There is also a high correlation between WeChat use and cross-cultural adaptation. It can be further inferred that WeChat use may also play a role through social self-efficacy in addition to its independent direct effect on cross-cultural adaptation. Therefore, the next regression test is to put WeChat use and social self-efficacy together.

However, when social self-efficacy and academic underlying beliefs and feelings were combined in regression analyzes, the magnitude of the relationship between WeChat use and cross-cultural adaptation ($\beta=.332$, $t=9.240$, $p<.001$, 95% CI=[.261, .403], $R^2=.756$) decreased, while the relationship between WeChat use and social self-efficacy remained significant. In accordance with the causal step method procedure proposed by Baron and Kenny (1986) in the mediation test, if the regression coefficients c , a and b are found to be significant, this indicates the presence of a mediation effect. At this juncture, if the coefficient c' is also statistically significant and there is a relationship of $c'<c$, the mediation effect is deemed to be a partial mediation effect (Wen et al., 2022b). Partial mediating effects can also be measured by the contribution of the mediating effect to the

total effect, and the percentage impact of the mediating variable on the total effect can be calculated through the formula $M=a*b/c$ (Wen et al., 2004).

Table 4.11: Mediation Model Test of Social Self-efficacy ($N=404$)

Values	Outcome Variables			
	CCA (Direct) WU—>CCA	SSE (Direct) WU—>SSE	CCA (Indirect) (WU—>CCA, SSE—>CCA)	
	WU (c)	WU (a)	WU (c')	SSE (b)
co eff (β)	.761	.756	.332	.567
se	.031	.035	.036	.035
t	24.372	21.844	9.240	16.188
p	.000**	.000**	.000**	.000**
LLCI	.699	.688	.261	.498
ULCI	.822	.825	.403	.635
R	.772	.756	.869	
R ²	.596	.543	.756	
F	594.010	477.169	620.883	
Note: “***” means p<0.001, all variables in the regression equation are standardized and then brought into analysis, c represents the total effect, a represents the direct effect of X on M, b represents the direct effect of M on Y, and c' represents the direct effect of X on Y. co eff (β): standardised regression coefficients. LLCI and ULCI: upper and lower confidence intervals. WU (X): independent variable, WeChat use. SSE: mediating variable, social self-efficacy. CCA: dependent variable, cross-cultural adaptation.				

It can thus be seen that the explanatory power of WeChat use for cross-cultural adaptation by regression coefficients β decreased from .761 to .332 when the variable of social self-efficacy was added. This indicates a decrease in the change in the outcome variable for each additional standard deviation when controlling for the predictor variable. This result is consistent with the argument put forth by Baron and Kenny (1986) that this indicates an incomplete mediation effect. It can thus be argued that social self-efficacy partially explains the relationship between WeChat use and cross-cultural adaptation (Indirect effect=.429, SE=.57, 95% CI=[.316, .537]), as illustrated in Table 4.12 and Figure 4.2, the mediating impact has to work at least partially through the mediating variable on the dependent variable (Wen et al., 2022b). This means that when social self-efficacy partially mediates the relationship between WeChat use and cross-cultural adaptation, there are two paths of influence, a direct influence of WeChat use on cross-cultural adaptation and an indirect influence of WeChat use on cross-cultural adaptation through social self-efficacy.

Table 4.12: Breakdown Table of Mediating, Direct and Total Effect ($N=404$)

	ES	Boot SE	Boot CI LL	Boot CI UL
Mediation	.429	.057	.316	.537
Direct	.332	.036	.261	.403
Total	.761	.031	.699	.822
Note: The bias-corrected percentile method is used to estimate Bootstrap's standard error and 95% confidence interval. ES: effect size.				

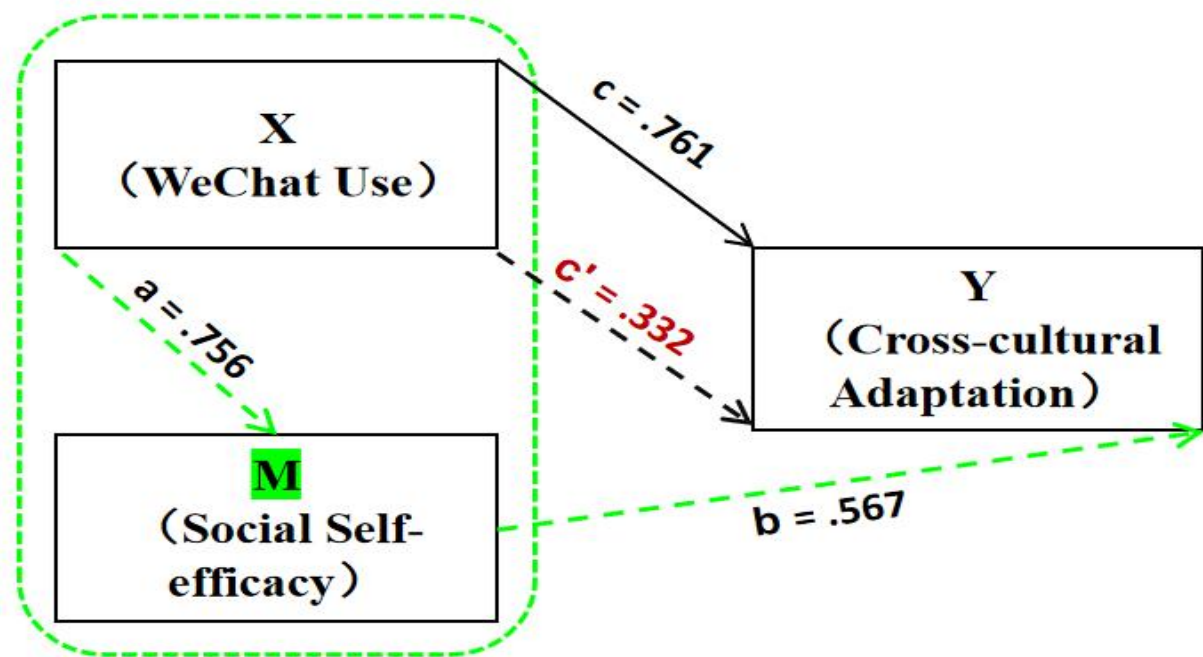


Figure 4.2: Indirect Impact-mediation Effect of Social Self-efficacy on the Relationship between WeChat Use and Cross-cultural Adaptation

4.4 The Moderating Role of Prior Cross-cultural Exposure in the Relationship between WeChat Use and Cross-cultural Adaptation

Figure 4.3 presents a schematic representation of Hayes' (2022) relational model, which incorporates moderator variables that exert a moderating influence on the path from the independent variable to the dependent variable. This model diagram also explains the road strength of the statistical analysis. In Figure 4.6, X, Y, M and W represents the following:

- i. X represents the independent variable, which in this study is the use of WeChat;
- ii. Y represents the dependent variable, which in this study is cross-cultural adaptation;

- iii. M represents the mediating variable, which in this study is social self-efficacy; and
- iv. W represents the moderating variable, which in this study is prior cross-cultural exposure.

The purpose of this study was to investigate whether the moderator variable prior cross-cultural exposure (W) changed the extent of the effect of WeChat use (X) on cross-cultural adjustment (Y), as assessed by the interaction term XW ($X*W$), that is, the extent to which the effect of WeChat use (X) on cross-cultural adaptation (Y) varied between high and low values of prior cross-cultural exposure (W).

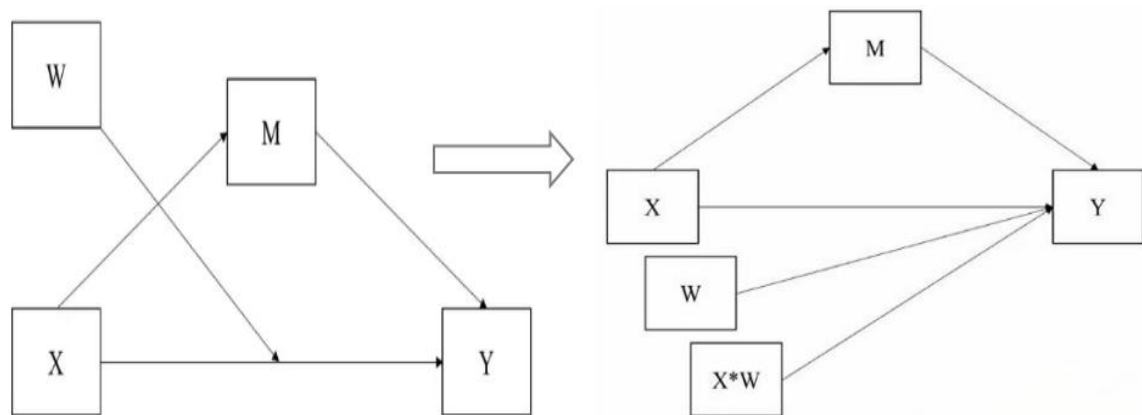


Figure 4.3: Schematic Statistical Diagram of Hayes' (2022) Moderate Mediation Model

Based on the validation of research on the mediating role of social self-efficacy, there are direct and mediating effects of WeChat use (X) on cross-cultural adaptation (Y). Therefore, in Table 4.13, with significant regression coefficients for both WeChat use (X) and prior cross-cultural exposure (W), we only need to test the moderating effect of the moderator variable prior cross-cultural exposure (W) again, that is to test the significance of the coefficient of the interaction term $X*W$, and how the moderator variable W varies

the effect of X on Y in different dimensions. Thus, in cases where the regression coefficients of X*W are tested to be significant, when different values of W produce different outcomes for intercultural adaptation, it implies that prior cross-cultural exposure (W) moderates the overall contextual environment of intercultural adaptation.

We used Model 5 in the SPSS Process macro compiled by Hayes (2022) for the test. The product (interaction term) of prior cross-cultural exposure and WeChat use is a significant predictor of cross-cultural adaptation ($\beta=.067$, $t=.030$, $p=.027^*<.05$). In other words, prior cross-cultural exposure (W) exerts a positive moderating influence on the relationship between WeChat use (X) and cross-cultural adaptation (Y). Consequently, a simple slope analysis can be employed to assess the predictive effect of X on Y when W assumes varying values.

Table 4.13: Moderation Model Test of Prior Cross-cultural Exposure ($N=404$)

Values	Outcome Variables				
	SSE (WU—>SSE)	CCA (WU—>CCA, SSE—>CCA, PCCE—>CCA, WU*PCCE—>CCA)			
	WU (X)	WU (X)	SSE (M)	PCCE (W)	WU*PCCE (X*W)
co eff (β)	.756	.357	.553	-.056	.067
se	.035	.037	.035	.028	.030
t	21.844	9.653	15.699	-2.009	2.214
p	.000***	.000***	.000***	.045*	.027*
LLCI	.688	.284	.484	-.110	.008
ULCI	.825	.429	.622	-.001	.127
R	.737	.872			

Table 4.13 continued

R ²	.543	.760
F	333.291	316.174

Note: “****” means $p < 0.001$, “***” means $p < 0.01$, “**” means $p < 0.05$, variables in the regression equation are standardized and then brought into analysis. β : standardised regression coefficients. LLCI and ULCI: upper and lower confidence intervals. PCCE (W): moderator variable, prior cross-cultural exposure. WU (X): independent variable, WeChat use. SSE (M): mediating variable, social self-efficacy. CCA (Y): dependent variable, cross-cultural adaptation. R^2 represents the explanation ability of the model, an indicator of the extent to which the independent variable can explain the variation in the dependent variable, with a value close to 1 indicating greater explanation ability. se represents the standard error, the larger the value, the less reliable the estimate of the regression coefficient. t represents the t-test and the sign should be the same as the sign of the coefficient, if it is the same, it means that the variable has a significant effect on the dependent variable.

Next Table 4.14 shows the results of a simple slope analysis, using the point selection method. The effect size of the predictive effect of WeChat use on cross-cultural adaptation changed positively when prior cross-cultural exposure (W) took the values of $M - SD$, M , $M + SD$. We therefore made assumptions about the prior values of cross-cultural exposure (W) without considering the practical implications. When the value of the moderator variable W was $-.782$, the effect of X on Y was $.304$ ($p = .000 < .001$), and the effect was significant. When the value of the moderator variable W was 0 , the effect of X on Y was $.357$ ($p = .000 < .001$), and the effect was significant. When the value of the

moderator variable W was .782, the effect of X on Y was .409 ($p=.000<.001$), and the effect was significant. Specifically, the positive effect of WeChat use (X) on cross-cultural adaptation (Y) increased as the value of prior cross-cultural exposure (W) increased. Prior cross-cultural exposure was the moderating variable between WeChat use and cross-cultural adaptation, acting as an indirect influence.

Table 4.14: Simple Slope Analysis ($N=404$)

Prior Cross-cultural Exposure (W)	Effect	se	t	p	Lower Confidence Intervals	Upper Confidence Intervals
-.782	.304	.040	7.543	.000***	.225	.383
0	.357	.037	9.653	.000***	.284	.429
.782	.409	.047	8.651	.000***	.316	.503
Note: “***” means $p<.001$.						

Combining Tables 4.11 and 4.13, we can map the mediating and moderating role paths of WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation for international students in China, as presented in Figure 4.4. It has been established in previous studies (Wen et al., 2022b) that the overall impact of WeChat usage on cross-cultural adaptation can be represented by the equation $c=c'+a*b$.

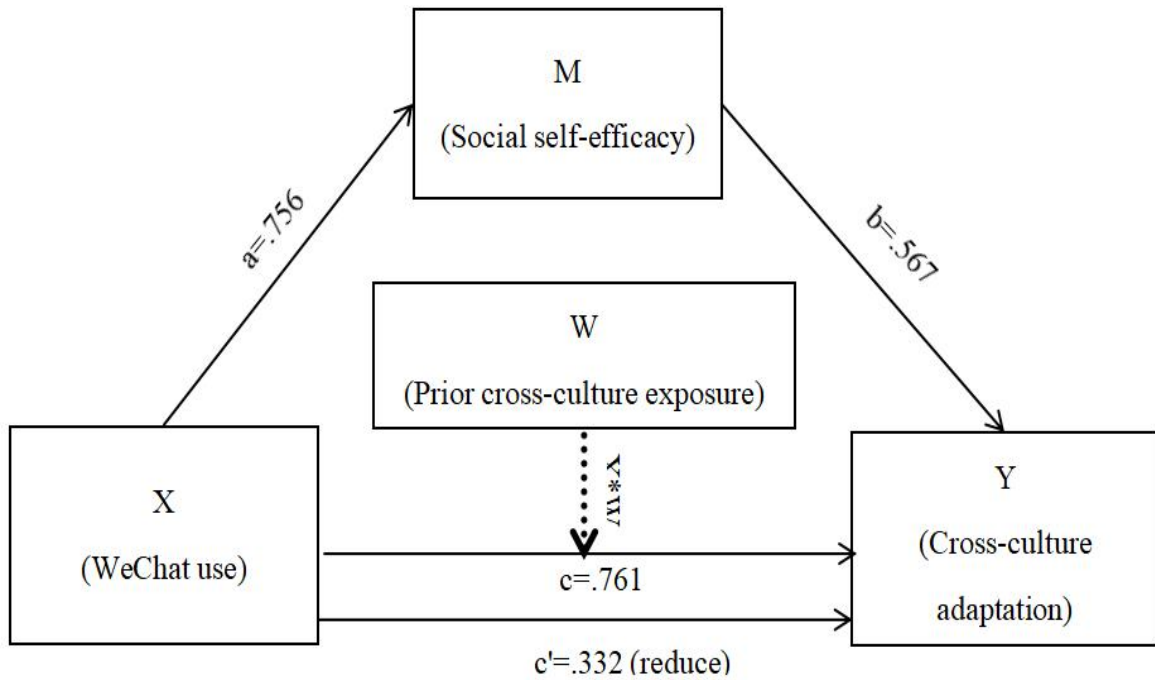


Figure 4.4: Mediating Path of Social Self-efficacy and Moderating Role of Prior Cross-cultural Exposure on Cross-cultural Adaptation of International Students in China

Consequently, it can be surmised that when the moderating variable representing prior cross-cultural exposure is augmented, the influence of WeChat usage on cross-cultural adaptation, represented by c , will correspondingly increase. This is because frequent use of WeChat contributes to increased prior cross-cultural experience and knowledge, so this equates to increased impact of WeChat use. So, the value of the indirect effect, $a*b$, will also increase with no change in c' . In other words, as the amount of prior cross-cultural exposure increases, the influence of WeChat use on the cross-cultural adaptation of international students in China increases, and the indirect influence of social self-efficacy, which has a mediating effect on this relationship, will also show a trend of increasing change.

The significance of the results is that social self-efficacy and prior cross-cultural exposure are indirectly influential factors in the relationship between WeChat use and

cross-cultural adaptation, which implies that increased levels of social self-efficacy and prior cross-cultural exposure may contribute to the cross-cultural adaptation of international students. Therefore, for international students, the adaptation experience gained through cross-cultural exposure or learning during the period preceding arrival in the host country, and cross-cultural practice during the period following arrival in the host country, all can contribute to successful cross-cultural adaptation.

These findings lead to the inference that prior cross-cultural exposure and social self-efficacy are indirect factors that influence the relationship between WeChat use and cross-cultural adaptation among international students in China. International students' pre-departure cross-cultural exposure moderated the cognitive basis and context of overall extrinsic cross-cultural adaptation, while social self-efficacy after arriving in the host country mediated the intrinsic path of influence.

4.5 Discussion

This study shows high levels of WeChat use, social self-efficacy and cross-cultural adaptation among international students in western China, based on a rank level of 3 or higher. And relatively low level of prior cross-cultural exposure is due to the low number and frequency of per-arrival contacts with the host country. The study also shows that the relationship between WeChat use and cross-cultural adaptation is partially mediated by social self-efficacy, which is an indirect effect on the internal processes between their WeChat use and cross-cultural adaptation. At the same time, this mediated relationship is also moderated by prior cross-cultural exposure, which can affect the degree of grounding and the external context of cross-cultural adaptation. The results will be discussed next. Figure 4.5 shows the key results of the study.

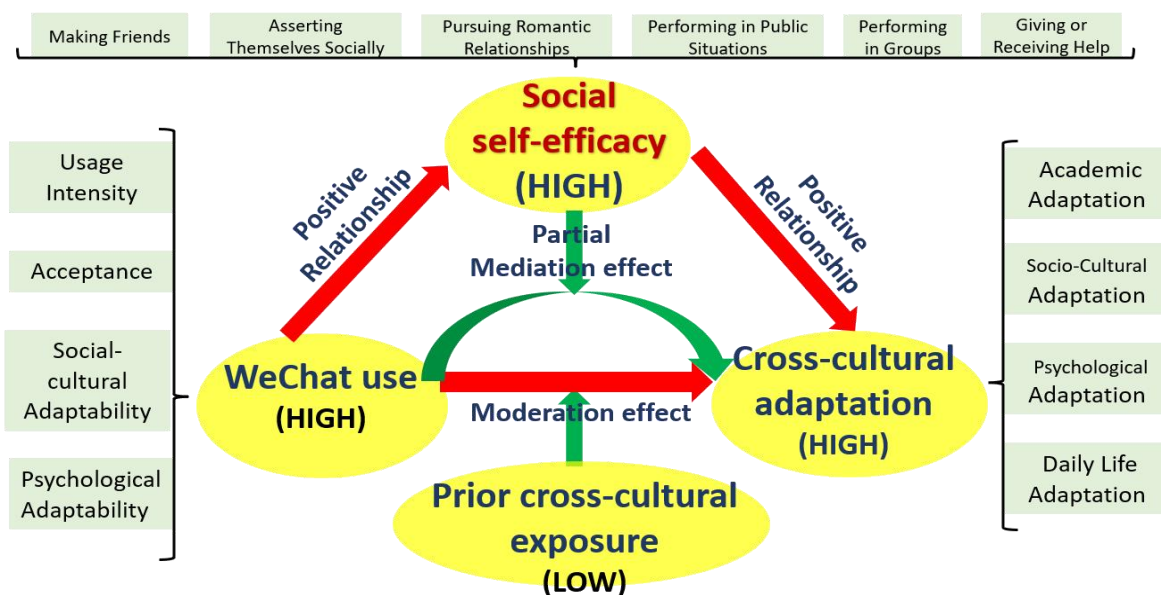


Figure 4.5: Key Results of the Study

Firstly, the study shows a significant positive correlation between WeChat use and cross-cultural adaptation among international students from western China. This could lead to a total immediacy impact that microsoft use would have. Social media use constitutes a direct way of adapting to a new socio-cultural environment. The present study confirms that WeChat has a functional role as an instrumental resource in the academic and social engagement behaviour of international students, thus facilitating their cross-cultural adaptation. Previous studies by Wang et al. (2019) and Athukorala (2021) have elucidated the use of WeChat by international students in China but their findings were restricted to the attractive features of WeChat. They found that international students liked the WeChat payment service, multi-modal chat calls, WeChat payment for purchases, inbuilt text translation, and academic resources in WeChat. They also found a direct relationship between the frequency of WeChat use and the international students' ability to adapt to the new socio-cultural environment in China. However, these two studies did not investigate other potential indirect factors apart from an analysis of WeChat's specific functions,

thereby failing to shed light on the indirect pathways and effects of the relationship between WeChat use and cross-cultural adaptation.

Nevertheless, evidence from other studies indicate that international students' social media use exerts indirect influences on cross-cultural adaptation. The present study focuses on identifying the correlation factors between WeChat use and cross-cultural adaptation, thereby establishing an indirect relationship. These include situational coping resources, such as social support and social capital, which mediate the role of social media in socio-cultural adaptation (Forbush & Foucault-Welles, 2016; Pang, 2020). These findings were confirmed using cross-sectional data in the present study. WeChat, a leading social media platform among both local and international students in China, is an important option and tool for international students in China to rebuild their social network to cope with the various stresses of their stay, helping them to communicate and interact in a cross-cultural environment for a variety of purposes, including maintaining friendships and building new social capital (Cao et al., 2024; Wang et al., 2023). What distinguishes the use of WeChat from that of local Chinese students is that the use of WeChat by local Chinese students is a part of their lives because they depend on it to interact with others. Through WeChat use, they establish a close connection with users in all aspects of their lives, such as socializing, working, studying, and recreation, with a focus on services and experiences (Hou et al., 2021; Pang, 2021; Zhu & Chhachhar, 2016). However, for international students, due to their temporary immigration status, they use WeChat more as a social support system for adaptation purposes through the use of technologies such as video, voice, images, and text (Li & Peng, 2019). Therefore, compared to local Chinese students, international students' WeChat use is mainly about acquiring resources to cope

with cross-cultural adaptation (Pang & Wang, 2020), that is, pre-arrival knowledge and post-arrival perceived social confidence and competence (Cao et al., 2021).

Secondly, the partial mediation of the relationship between WeChat use and cross-cultural adaptation by social self-efficacy is discussed. Partial mediation means that the effect of the independent variable on the dependent variable is realized at least in part through a mediating variable (Wen & Ye, 2014). The discovery of mediating relationships suggests the existence of indirect paths, which helps to add a new understanding of the path strength of relationships between variables. For the international students, social self-efficacy is significantly associated with WeChat use and cross-cultural adaptation. Put simply, the international students' perceived competence and confidence in social activities improves with the intensity of WeChat, which in turn helps them in adapting to the challenges of being in another culture. Pang and Wang (2020) had reported that social media use can influence the cultural adaptation process of international students through mediated coping resources, but they did not pinpoint social media use as one of the coping resources. Our findings show that utilization of WeChat is the key to adaptation for international students new to China. This finding is not new as Kuang and Wu (2019) had found that WeChat is an indispensable tool for international students in China to integrate into Chinese society. However, Kuang and Wu (2019) investigated the direct impact of WeChat use on cross-cultural adaptation, and the direct impact of social self-efficacy on cross-cultural adaptation. They did not investigate how the possibility of the indirect impact of a variable on another. Similarly, Hassan et al. (2021) and Zhao (2019) studied the direct effects of WeChat use and social self-efficacy on cross-cultural adaptation. Social media is a dynamic and rapidly expanding information resource that may not

directly cause, but contributes, to an increase in an individual's perceived competence and beliefs in the context of cross-cultural adaptation (Hocevar et al., 2014).

Our study found that the level of WeChat use, social self-efficacy and cross-cultural adaptation of international students in China were all high, and there was a one-way relationship between them. This is consistent with the study by Cao et al. (2024), which found that WeChat social use and coping self-efficacy were one-way predictors of a positive association with sociocultural adaptation. This indicates that the high level of WeChat use promotes the formation of a knowledge base, meets cognitive needs, enhances self-awareness and perception (Hassan et al., 2021), and promotes the formation of a high level of social self-efficacy, so as to achieve a smoother cross-cultural adaptation. Therefore, social self-efficacy is an indirect factor that plays a facilitating role in the unidirectional relationship between individual WeChat use and cross-cultural adaptation.

Our study has also shown that the mediating role of social self-efficacy has a potentially protective effect on international students in China for cross-cultural adaptation in the event of low-frequency WeChat use. If there are international students who are inactive in WeChat use, they can still adjust well to the new environment, provided they have self-confidence in social interactions. This means that social self-efficacy represents a pivotal coping resource that exerts a significant influence on international students' cross-cultural adaptation. The findings concur with past studies that investigated the direct relationship between social self-efficacy and cross-cultural adaptation (Carmeli et al., 2021; Cao et al., 2024; Zhao, 2019). The use of social media has been demonstrated to contribute to an individual's psychological level of adaptation and their self-efficacy in the social domain (Safdar et al., 2003).

Our study advanced the investigation of factors that contribute to cross-cultural adaptation by adopting Wen and Ye's approach (2014), that is, to elucidate the path of the relationship between the three variables by calculating the value of the mediation effect to reveal an indirect path of influence. We found that the relationship between WeChat use and cross-cultural adaptation was partially mediated by social self-efficacy. This finding indicates that the relationship between social media use and adaptation is more complex than what is assumed in past studies. For example, Cao and Jia (2024) investigated unidirectional links between variables across time. They used coping self-efficacy as a longitudinal mediator to estimate cross-lagged panel models, which is a method of longitudinal data analysis that describes the interrelationships between variables. Earlier, Cao and Meng's (2023) cross-sectional study found that personal coping resources alone may not be sufficient to mitigate cultural adaptation stress, especially for students with low self-efficacy. Our findings suggest that social media use could be an additional personal coping resource and can enhance the social self-efficacy of international students.

On this basis, a moderating function of prior cross-cultural exposure was identified in order to assess the relationship between WeChat use and cross-cultural adaptation in general. This finding aligns with the conclusions of Fang et al. (2020) study, which demonstrated that prior experiences and learning do not necessarily guarantee effective cross-cultural communication. The study emphasized the necessity for further practice in the realities of cross-cultural adaptation. In the case of international students, prior cross-cultural exposure has been shown to facilitate understanding of the cultural environment of a unfamiliar society (Nanda et al., 2021) and to develop the fundamental competencies required for personal cross-cultural adaptation prior to arrival in the host country (Fang et al., 2020).

CHAPTER 5

CONCLUSION

Chapter 5 presents a summary of the findings, the theoretical and practical implications of the findings, and directions for future research.

5.1 Summary

The aim of this study was to investigate the indirect effects of prior cross-cultural exposure and social self-efficacy on the relationship between WeChat use and cross-cultural adaptation among international students from western China. Specifically, the objectives of this study were to: (1) investigate the levels of WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation of international students in western China, (2) analyze the correlations between WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation, (3) analyze the mediation of social self-efficacy on the relationship between WeChat use and cross-cultural adaptation and (4) analyze the moderating effect of prior cross-cultural exposure on the relationship between WeChat use and cross-cultural adaptation. The eight hypotheses tested in the study are as follows:

H1: There is a significant correlation between WeChat use and cross-cultural adaptation of international students in China.

H2: There is a correlation between WeChat use and prior cross-cultural exposure of international students in China.

H3: There is a correlation between prior cross-cultural exposure and cross-cultural adaptation of international students in China.

H4: There is a significant correlation between WeChat use and social self-efficacy among international students in China.

H5: There is a significant correlation between social self-efficacy and cross-cultural adaptation of international students in China.

H6: Social self-efficacy and prior cross-cultural exposure had different types of impact on cross-cultural adaptation.

H7: Social self-efficacy significantly mediates the relationship between WeChat use and cross-cultural adaptation.

H8: Prior cross-cultural exposure significantly moderates the relationship between WeChat use and cross-cultural adaptation among international students in China.

This study is a correlational research design on investigating indirect factors affecting the relationship between WeChat use and cross-cultural adaptation among international students in China. The data were collected via an online questionnaire. The study involved 404 participants, international students from western China, who took part in the survey from June to October 2024. Participants were 29% males and 71% females, including 231 undergraduates, 166 postgraduates, and other seven non-degree students. Among the international students, 50% of the participants achieved level 4 on the Chinese Language Proficiency Test. The average length of stay in China was 3.52 months. A majority (80.9%) of the participants were from Asian countries and 87.6% were between the ages of 18-25.

The selection criteria for participants were: (1) participants are foreign students with foreign passports who are enrolled in higher education institutions in China for academic or non-academic education, and (2) they include matriculants studying language courses, exchange students participating in short-term studies, undergraduate, and master's and doctoral students studying for postgraduate degrees. Use of WeChat as social application in China is not an exclusion criterion. This means that participants were not excluded based on how much they fully use the features of WeChat such as voice and video messaging, and entertainment functions. However, international students who did not use WeChat were excluded from the study. There were no other inclusion and exclusion criteria such as demographic characteristics and type of university experiences because it is not the purpose of the study to compare cross-cultural adaptation of international students with particular demographic characteristics or prior cross-cultural contact experiences.

The online questionnaire was divided into four sections. Section A was designed to gather data pertaining to the demographic characteristics of the participants, as well as their prior cross-cultural exposure. Section B was about the participants' WeChat use, adapted from Kuang and Wu (2019). A total of 19 items measured two aspects of media needs (WeChat use intensity, WeChat acceptance), and WeChat use for two domains of cross-cultural adaptation (socio-cultural adaptability and psychological adaptability). Section C of the questionnaire comprising 16 items, adapted from Smith and Betz (2000), was employed to ascertain the extent to which participants perceived their personal social self-efficacy after using WeChat. Section D comprising 30 items, adapted from Polat and Arslan (2022) focuses on the outcomes of participants' perceptions of their current cross-cultural adaptation. Specifically, participants were asked to rate their perceptions of their

academic adaptation, cross-cultural adaptation, psychological adaptation, and daily life adaptation, with higher scores indicating better cross-cultural adaptation.

To collect the survey data from the online questionnaire, purposive sampling was used to reach respondents who met the selection criteria. The link to the questionnaire constructed in sojump (<https://www.wjx.cn/>) was shared through the WeChat group of acquaintances, after which it was a snowballing process of data collection. Links to the online questionnaire were shared and spread through the colleagues and friends of faculty members at the four universities: Sichuan University (SCU), University of Electronic Science and Technology of China (UESTC), Southwest Jiaotong University (SWJTU), and Chengdu University (CDU). These contacts were requested to further spread to their acquaintances and conduct the survey for the international students they know in China, which is a gradual accumulation and spreading process in the four universities in western China.

SPSS 26.0 was used for data entry and simple descriptive statistics. Pearson correlation analyzes were conducted to determine if there were significant relationships among the variables (prior cross-cultural exposure, WeChat use, social self-efficacy, cross-cultural adaptation). On this basis, regression analyzes were carried out using SPSS process v 4.2, based on Hayes' (2022) research model.

Next, the key results on the level of WeChat use, prior cross-cultural exposure, social self-efficacy, and cross-cultural adaptation of international students from western China in China are described. The results show that they have a relatively limited level of cross-cultural exposure prior to their arrival in the host country. This suggests that international students' knowledge of the social-cultural norms of the host country and their

own daily life experiences is inadequate before they begin their studies abroad. The international experiences and prior cross-cultural learning and readiness of international students can contribute to future adaptation preparation and lead to successful cross-cultural adaptation (Reid & Garson, 2017). Analysis of the direct and indirect prior cross-cultural exposure measure revealed that the most likely channels of information about China is movies, television programs or videos. The least likely source of information about China is from family members who are Chinese, probably because of the near-absence of inter-marriages with Chinese people in their family. Before they went to China for studies, the international students in the study also had not travelled to China much and most of them also do not have many Chinese friends to have direct contact with Chinese people. The results show that the prior cross-cultural exposure among international students, if any, is indirect through online resources rather than direct contact with Chinese people. Even the indirect prior exposure with China is low, suggesting that they may not be prepared for life in China.

Next, the relatively high level of WeChat use among international students in China represents a positive response, meaning that respondents use WeChat frequently, and have positive attitudes and preferences towards it. WeChat is free and the features are not complicated, making it easy for the international students to learn how to use it when they arrive in China for their studies. The international students reported intense use of WeChat for social interactions and study purposes, including improving their mastery of the Chinese language and getting study resources and solutions to study problems. The international students used WeChat to get acquainted with the culture in China more than for overcoming the feelings of being displaced in a new environment. The results on the WeChat use measure showed that intensity of WeChat use, acceptance of WeChat and use

of WeChat for sociocultural adaptability are high but the international students' use of WeChat for psychological adaptability is only marginally positive.

In addition, respondents also show high social self-efficacy, suggesting that they perceive themselves to have a considerable degree of confidence and ability to interact and receive responses in the host society. Meanwhile, Chinese international students also show high cross-cultural adaptation, suggesting that they are currently adapting well across cultures and actively integrating into the socio-cultural of China. Analysis of the social self-efficacy measure based on the six aspects showed that the international students have strong confidence in making friends, pursuing romantic relationships, asserting themselves socially, performing in public situations, performing in groups, and giving or receiving help. Their high social self-efficacy facilitates their adaptation to life in a new environment. The results show that the international students feel more capable about handling the friendship, help-seeking/giving, and the social and relationship aspects of their life than performing in public situations and performing in groups. The latter does not only require interpersonal skills but also requires the ability to overcome language barriers and cultural differences, which can impact their confidence.

As for cross-cultural adaptation, the international students feel that they can interact well with the environment in China. Analysis based on the cross-cultural adaptation measure showed high levels of academic, socio-cultural, psychological and daily life adaptations. However, the level of daily life adaptation is relatively lower, although still positive. Daily life adaptation includes handling issues like access to food, clothing, housing, and transport in a new environment but the students do not problems with these. Some of them feel that they do not know the basic legal regulations in China well enough,

and do not know how to cope with anxiety. The results suggest that these are areas to highlight in pre-departure programs for new students or in orientation programs when they arrive in the country.

Pearson's correlation tests showed statistically significant relationships between WeChat use, prior cross-cultural exposure, social self-efficacy and cross-cultural adaptation among international students in western China at 95% confidence level. Prior cross-cultural exposure is found to have lower correlations with WeChat use, social self-efficacy, and cross-cultural adaptation, which may be related to their relatively low levels of cross-cultural readiness and minimal international experiences prior to arrival for their studies in China. WeChat use is positively and highly correlated with social self-efficacy and cross-cultural adaptation. In addition, their social self-efficacy is also highly correlated with cross-cultural adaptation.

The low correlations between prior cross-cultural exposure and WeChat use, social self-efficacy and cross-cultural adaptation suggest that prior cross-cultural exposure is related to international students' cross-cultural adaptation, but to a limited extent. The results also suggest that prior cross-cultural exposure is unlikely to be a direct influence, but could be explored as a moderator.

The high correlation between WeChat use, social self-efficacy, and cross-cultural adaptation, on the other hand, indicates that the more frequently an international student in China uses WeChat, the higher his perceived level of social self-efficacy, and the more likely he is to have a successful cross-cultural adaptation outcome. This result indicate that social self-efficacy may mediate a unidirectional causal chain between WeChat use and cross-cultural adaptation.

The results also suggest that the social self-efficacy of international students in China partially mediates the relationship between their WeChat use and cross-cultural adaptation. In other words, participants are able to get a better experience of cross-cultural adaptation in using WeChat through a higher level of perceived competence and confidence, namely, their social self-efficacy in social activities. This is a predictable outcome. In past research, there are indications that social self-efficacy may have a potential protective mechanism for the relationship between variables while playing a mediating role (Akin & Akin, 2016). Specifically, international students who possess high social self-efficacy, even if they have lower levels of WeChat use or do not use WeChat, are still likely to adapt well to a cross-cultural environment. Nevertheless, relying on personal coping skills, such as coping self-efficacy, may not alleviate cross-cultural adaptation stress. Students with low coping self-efficacy may be unwilling to adopt positive coping strategies, which can result in the continued presence of cross-cultural adaptation stress and psychological symptoms (Cao et al., 2023; Watson & Watson, 2016). It is therefore evident that the role of social self-efficacy mediation in the context of cross-cultural adaptation should be considered in combination with the effective utilization of social media to adjust in the psychological, socio-cultural, academic, and daily life domains.

In addition to the mediating role, the moderating role of prior cross-cultural exposure was analyzed. According to the results of the cross-item study, prior cross-cultural exposure of international students in China predicts the relationship between WeChat use and cross-cultural adaptation. Prior cross-cultural exposure is useful as international students are more likely to achieve successful cross-cultural adaptation when they have more international experiences and information prior to arriving in the host

country (Jackson, 2018; Kim, 2001). From the results of the low correlation between prior cross-cultural exposure, WeChat use and cross-cultural adaptation, it appears that prior cross-cultural exposure can act as a potential predictor to moderate international students' cross-cultural adaptation, but not to a great extent. The effectiveness of prior cross-cultural exposure relies on the actual cross-cultural practices; otherwise prior cross-cultural exposure does not explain much of the variances in cross-cultural adaptation (Fang et al., 2020).

The overall results show that in understanding the relationship between Chinese international students' WeChat use and cross-cultural adaptation, in addition to the direct effect, we need to consider the impact of WeChat use on their social self-efficacy, which in turn affects their cross-cultural adaptation. WeChat use may also have an effect on cross-cultural adaptation through this mediating variable of social self-efficacy, which reveals the mediating role of social self-efficacy at the same time, meaning that there is an indirect role of the mediating mechanism. Therefore, social self-efficacy plays a mediating role between Chinese international students' WeChat use and cross-cultural adaptation, revealing the indirect path of influence produced by the mediating mechanism. There is also a predictive influence of moderating factors, with the outcome that international students' cross-cultural adaptation is related not only to the period after they arrive in China and experience the adaptation process, but also to the pre-departure period. This is when the effect of WeChat use on cross-cultural adaptation varies with different conditions of prior cross-cultural exposure.

5.2 Implications of Findings

The theoretical significance of this study is that it produces new findings on the mediator role of social self-efficacy in the relationship between WeChat use and cross-cultural adaptation among international students in China. Previous studies such as Athukorala (2021), Hassan et al. (2021), Kuang and Wu (2019), and Wang et al. (2019) investigated direct relationships between WeChat use and cross-cultural adaptation among international students in China. The present study is the first to identify social self-efficacy as a mediating link in the causal mechanism between WeChat use and cross-cultural adaptation. Social self-efficacy represents an indirect path of influence in the process of cross-cultural adaptation that greatly influences the outcome of cross-cultural adaptation for international students in China. Social self-efficacy is located in the middle of the pathway of the influence of WeChat use on cross-cultural adaptation for students staying in China, helping us to understand the mediating effect of WeChat use on cross-cultural adaptation through social self-efficacy (Igartua & Hayes, 2021). The discovery of the mediating process of “WeChat use-social self-efficacy-cross-cultural adaptation” among international students in China reveals the internal influence mechanism and provides insights into the indirect influence of WeChat use on cross-cultural adaptation, which is crucial for international students to successfully achieve cross-cultural adaptation in the host country.

The present study also obtained a new finding on the role of prior cross-cultural exposure on cross-cultural adaptation, that is, prior cross-cultural exposure is a moderating condition between WeChat use and cross-cultural adaptation. Prior cross-cultural exposure predicted the extent of cross-cultural adaptation change in different dimensions, explaining the different directions of indirect conditional influences in cross-cultural adaptation

outcomes. Thus far, research has only shown that prior cross-cultural exposure helps international students to understand the socio-cultural environment of the host country (Fang et al., 2020), to improve cross-cultural competence (Hong et al., 2021), and to broaden academic understanding (Hussain & Shen, 2019). Therefore, the results of the present study more clearly elucidate the indirect causal mechanisms of WeChat use on cross-cultural adaptation and make the need for early intervention more explicit.

The novelty of this study is that the findings reveal that prior cross-cultural exposure and social self-efficacy act as indirect factors influencing the cross-cultural adaptation of international students in China. Thus far, other researchers have identified several factors that have a direct impact on cross-cultural adaptation such as cultural intelligence, social support, cultural distance, personality, knowledge and skills resources for coping (Cao et al., 2024; Cao & Meng, 2022; English et al., 2021; Jurásek & Wawrosz, 2024; Luo & Zhang, 2021). However, these researchers did not investigate indirect pathways of influence, which is why the present findings fills in the gap of knowledge on moderating and mediating factors influencing cross-cultural adaptation of international students. The present study has successfully identified WeChat use, prior cross-cultural exposure and social self-efficacy as factors that directly predict cross-cultural adaptation – and the results confirm past findings. The greater contribution of the study is the findings on the indirect realization pathways of the influence of media technology on cross-cultural adaptation in the digital media era, which other researchers have not established. The findings on these complex relationships, encompassing both direct and indirect paths, contribute to a more robust and comprehensive body of knowledge in this area. Furthermore, they provide substantial support and validation for the integrated theory of

communication and cross-cultural adaptation proposed by Kim (2001) at a time when social media communication had not become as prevalent as today.

Social media are resourceful online platforms that can provide knowledge and competence about new cultural environments, leading to more positive cross-cultural activities, which is key for international students to gain the skills and insights to effectively navigate the host country, as conceptualized in Kim's (2001) integrative theory of cross-cultural adaptation. It is also the key to international students' general adaptation to the academic, socio-cultural, psychological and daily life adaptations to be faced as mentioned by Polat and Arslan (2022). In the context of China, the public service function of the WeChat platform has been noted for its ability to assist international students in acquiring information and knowledge regarding the value systems, norms, and traditions of the host country (Wang et al., 2019). Media technology plays a pivotal role in facilitating advanced preparation and experience in coping with adversity, thereby serving as a moderating resource for individuals in the context of cross-cultural adaptation. Pang and Wang (2020) argue that the social support that international students develop through media communication is a coping resource that is crucial for international students to achieve optimal cross-cultural adaptation. Thus, the perceived social competence and confidence of being immersed in a resourceful media environment emerged as a positive predictor of WeChat use and cross-cultural adaptation of international students in China.

This study has two practical implications. Firstly, it facilitates the cross-cultural adaptation of international students in China. This study serves to further enhance their understanding and integration into the Chinese socio-cultural environment, thereby reducing the challenges associated with cross-cultural adaptation. The findings are of value

when targeting international students in China, a population that requires further academic attention as the growth of higher education in China continues (Cao & Meng, 2022). Universities and colleges in China can organize cross-cultural adaptation programs during the students' orientation week to introduce them to aspects of life that may pose problems. The present study identifies knowledge about Chinese laws and Chinese holiday rituals as areas that the participants had some difficulties adjusting to.

The orientation program can introduce the extensive range of WeChat functions to new international students rather than assuming that they know or leaving them to find out for themselves through trial and error. The use of WeChat plays a significant role in facilitating the adaptation process of international students in China. International students who plan to study in China can gain cross-cultural exposure prior to their arrival in the country by registering for WeChat. They can access information about the social and cultural environment of China via WeChat and establish contact with individuals in the host country, thereby gaining indirect social experience. This forms the foundation for their cross-cultural adaptation during their period of study in the host country and shortens the adjustment period. In other words, prior cross-cultural exposure and preparation of international students is a beneficial early intervention, and the use of social media is an important tool for intervention, based on Jackson's (2018) study. Certainly, the use of WeChat by international students in China at the post-entry stage contributes to their perceived social competence and social confidence. WeChat also provides a platform for international students to discuss, collaborate and share their knowledge. A smooth social and academic integration is also of great significance as found by Cao and Jia (2024), Kim et al. (2020) and Xue and Churchill (2019).

Secondly, this study also provides valuable insights and strategies for international education administrators in Chinese universities in promoting the healthy and sustainable development of international higher education in China in the context of the actual cross-cultural adaptation process. In particular, the findings from the present study on prior cross-cultural exposure and social self-efficacy is useful to higher education administrators in Chinese universities. The WeChat public accounts of universities can be used to disseminate socio-cultural knowledge on China, establish more positive word-of-mouth messages, and enhance their reputation to attract a greater number of international students. Therefore, targeted prior training program on disclosure of cross-cultural adaptation information and social interaction skills on WeChat platforms can help Chinese higher education administrators play an important role in serving international students, mitigating cultural misunderstandings and improving the quality of education (Deuchar, 2022; Mok et al., 2020; Shafaai & Razak, 2016).

International students not only broaden local perspectives, but also contribute to mutually beneficial economic, diplomatic and cultural ties, as their presence transforms the classroom into a rich tapestry of identities, ideas, skills and abilities (Palmer, 2016). International students are the most direct “media” for the dissemination of China’s image to the outside world, and their good experiences of studying and living in China can disseminate the “China story” to the outside world in a more direct, extensive and warm way, thereby enhancing the cultural attraction and political influence of China. At the same time, the better adaptation and life of international students in China can also promote the internationalization of Chinese higher education, and higher education contributes to economic and social growth (Chankseliani et al., 2021), thus promoting China’s globalization in culture, education, economy and other aspects.

5.3 Directions for Future Research

The findings of this study, despite some new contributions, are not without limitations, which indicate areas that require further investigation in future studies. Future researchers should focus on the cross-cultural adaptation of international student groups in China who may have different characteristics in different regions. As the sample of this study was limited to international students in western China, the sample size and scope were relatively limited and most of them were from Asian countries. However, the degree of similarity between the student and host cultures may influence the ease of cross-cultural adaptation. As previously stated by Gbollie and Gong (2020), international students from Asian countries are regarded as belonging to Eastern cultures with a collectivist nature. Consequently, they are expected to exhibit certain common characteristics and preferences to students in China. Moreover, the geographical proximity and similarity of the educational system are conducive to those who undertake studies in the region (Lee, 2017). For example, Malaysia, Singapore, Taiwan and Hong Kong which have a large Chinese population who attend Chinese-medium schools may be familiar with the Chinese culture although there would be cultural differences. Some existing studies also indicate that cultural empathy, geographic convenience, and similarity between educational systems may influence students' decision-making and adaptation processes (Ahmad & Buchanan, 2016; Jamaludin et al., 2018). This may explain why universities in China are more likely to attract Asian students.

The data collection for the present study was restricted to western China, and further research should expand the geographical scope to study a more diverse sample of international students. The focus on western China is due to the fact that the western region, as a regional center and a growing international center for higher education (Baruah, 2022),

is currently establishing friendly cooperation with Asian countries along the Belt and Road (Zeng & Zeng, 2021). Because of this, universities in western China are attracting a large number of international students to China, and there is a need to develop a more comprehensive understanding of this group through research.

It is also important to note that different regions of China may have disparate social, economic, and cultural backgrounds, which could potentially lead to different situations for international students in China in the process of cross-cultural adaptation. To illustrate, Chengdu, situated in the western region of China, serves as a pivotal economic and educational hub within the western part of the country. As a second-tier urban center, Chengdu demonstrates a persistent focus on fostering economic and educational advancement, while also prioritizing inclusivity and tourism as key elements in attracting international students (Lu et al., 2019). In contrast, the coastal regions of China are more economically developed and exhibit a higher level of internationalization of education. Consequently, international students' expectations of a prosperous future in China and the quality of education in China have become key pull factors (Wu et al., 2021). Besides, there is a spatial effect of international students in China, where their choice of study region is influenced by the number of international students who have studied there in the past, the quality of higher education, the availability of public infrastructure, the attractiveness of tourism, and policy incentives (Lu et al., 2023). The use of a larger and more diverse sample of international students in China in other contexts would be beneficial for a more detailed study in the future.

Additionally, future research should investigate other potential indirect influences between WeChat use and cross-cultural adaptation among international students in China.

The present study limited its investigation to two indirect factors, namely, prior cross-cultural exposure and social self-efficacy. However, it should be noted that differences in such as individual personality types, language learning ability, cultural intelligence and willingness to engage in specific cross-cultural adaptation practices may also give rise to differences in the effects of social media use and the outcomes of cross-cultural adaptation. In addition, as cross-cultural adaptations usually involve interactions with other people, whether face-to-face or through social media, the extent of these interactions as well as the types of people (e.g., university staff, shop personnel, students) need to be further studied. Furthermore, researchers can directly ask international students whether it is face-to-face communication or social media interactions which is more crucial in increasing their cross-cultural exposure, social self-efficacy, and cross-cultural adaptation. These are potent focal areas for further investigation to understand the indirect factors influencing cross-cultural adaptation of international students.

Thirdly, it would be beneficial for researchers to investigate the impact of other popular Chinese social media platforms on cross-cultural adaptation. These include microblog, Tiktok, Little Red Book and QQ. Little Red Book (pronounced as Xiaohongshu in Chinese) is officially known in English as rednote, and it is a Chinese social networking and e-commerce platform. While WeChat is undoubtedly the most significant social media platform for international students in China, it is not the only one. A large and diverse social network is an optimal environment for enhancing the ability of international students to adapt to a new culture. The diverse range of social media usage habits and behaviors among international students will inevitably lead to varying perceptions of the host country's socio-cultural life, which will subsequently affect their cross-cultural adaptation process in different ways.

Finally, researchers can conduct longitudinal studies to provide insights into how international students in China adapt cross-culturally during the different stages of their study stay in China. The findings of the present study are constrained by the cross-sectional survey of international students in western China. Given that international students in China typically take three to four years to complete their studies, it can be inferred that their use of social media may be undergoing a process of change with regard to both platform choice and purpose after entering the host country. For example, in the early stages, international students may use the social media platform to do language translations, particularly when they are taking the compulsory three-month Chinese class. Although they must pass the Chinese Language test (HSK, Chinese Proficiency Assessment Test) with a minimum of Level 4 (maximum level is 6), they still need to use their mobile phone to Chinese translations of words they wish to say or write. However, later when they can understand Chinese better, their use of the social media may change to searching for places of interest to visit or for information for their assignments. Consequently, the cross-cultural adaptation may also be undergoing a process of change. To understand phases of cross-cultural adaptation of international students, researchers can consider a follow-up measure that involves time periods at the beginning, middle, and end of schooling in a longitudinal design. In this way, researchers may be able to obtain information about the specific needs of international students in China at different stages of their studies and thus better facilitate their cross-cultural adaptation.

5.4 Conclusion

This study examined the indirect influence of relationship between WeChat use and cross-cultural adaptation among international students in western China from the perspective of the mediating role of social self-efficacy and the moderating role of prior

cross-cultural exposure. Through the analyzes, the researchers can determine that there is an indirect pathway mediated by social self-efficacy and moderated by prior cross-cultural exposure in the influence of WeChat use on cross-cultural adaptation among international students in China. The partially mediating role of social self-efficacy reveals a potential protective mechanism for the relationship between WeChat use and cross-cultural adaptation among international students in China, where successful cross-cultural adaptation may still be possible when international students themselves possess high social self-efficacy after controlling for the condition of WeChat use (Helt & Mohanan, 2022). The moderating effect of prior cross-cultural exposure, on the other hand, predicts the degree of change in cross-cultural adaptation among international students in China (Fang et al., 2020). This finding underscores the importance of preparatory programs for students before they leave the home country for the foreign destination.

Accordingly, this study examined the cross-cultural adaptation of international students in China by investigating their WeChat use behavior from a novel perspective, namely, that of indirect influences such as social self-efficacy and prior cross-cultural exposure. The findings of this study may assist in the promotion of more seamless cross-cultural adaptation. Furthermore, the present study suggests that WeChat use among international students in China provides information about the socio-cultural environment of the host country and an indirect contact experience prior to their arrival in the host country. These prior cross-cultural exposures form an important context for their cross-cultural adaptation. Immediately following their arrival in the host country, the newly established social network facilitated by WeChat social media enhances the perceived ability and confidence to engage in social interactions in the host country, that is to say, their social self-efficacy, which is essential to minimize culture shock. These indirect

influences above are important directions for international students in China to use WeChat in their cross-cultural adaptation, providing new perspectives on their social media use and new paths for their cross-cultural adaptation.

REFERENCES

- Anderson, S. L., & Betz, N. E. (2001). Sources of social self-efficacy expectations: Their measurement and relation to career development. *Journal of Vocational Behavior*, 58(1), 98-117.
- Alzougool, B., Chang, S., Gomes, C., & Berry, M. (2013). Finding their way around: International students' use of information sources. *Journal of Advanced Management Science*, 1(1), 43-49.
- An, R., & Chiang, S. Y. (2015). International students' culture learning and cultural adaptation in China. *Journal of Multilingual and Multicultural Development*, 36(7), 661-676.
- Anderson, J. R., Guan, Y., & Koc, Y. (2016). The academic adjustment scale: Measuring the adjustment of permanent resident or sojourner students. *International Journal of Intercultural Relations*, 54, 68-76.
- Akin, A., & Akin, U. (2016). Academic potential beliefs and feelings and life satisfaction: the mediator role of social self-efficacy. *International Journal of Social Psychology*, 31(3), 500-520.
- Ahmad, S.Z. & Buchanan, F.R. (2016). Choices of destination for transnational higher education: "pull" factors in an Asia Pacific market. *Educational Studies*, 42(2), 163-180.
- Alamri, B. (2018). The Role of Social Media in Intercultural Adaptation: A review of the literature. *English Language Teaching*, 11(12), 77-85.

- Alshahrani, H., & Rasmussen Pennington, D. (2020). "How to use it more?" Self-efficacy and its sources in the use of social media for knowledge sharing. *Journal of Documentation*, 76(1), 231-257.
- Al-Qaysi, N., Mohamad-Nordin, N., & Al-Emran, M. (2020). Employing the technology acceptance model in social media: A systematic review. *Education and Information Technologies*, 25, 4961-5002.
- Autio, E., & Thomas, L. D. (2021). Researching ecosystems in innovation contexts. *Innovation & Management Review*, 19(1), 12-25.
- Athukorala, A. W. V. (2021). Usage of WeChat by international students and its usefulness: Study based in Wuhan University China. *International Journal of Scientific Research in Science and Technology*, 8(6), 66-75.
- Aririguzoh, S. (2022). Communication competencies, culture and SDGs: Effective processes to cross-cultural communication. *Humanities and Social Sciences Communications*, 9(1), 1-11.
- Abdel-Rahim, H. Y., Lorenz, M. P., & Zaher, A. A. (2022). How do cultural difference, cultural exposure, and CQ affect interpretations of trust from contract choices? Evidence from dyadic cross-country experiments. *Accounting, Organizations and Society*, 96, 1-21.
- Alacapınar, F. G. (2022). Reliability and validity study of the self-confidence scale. *International Journal of Quality in Education*, 6(2), 66-84.
- Arslan, K., & Polat, M. (2023). How well do international students adapt to the turkish higher education system?. *Kastamonu Education Journal*, 31(3), 513-528.
- Arkes, J. (2023). *Regression analysis: a practical introduction*. London: Routledge.

- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. (1986). *Social foundations of thought and action*. New Jersey: Englewood Cliffs.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, 21(3), 491-511.
- Black, J. S., & Mendenhall, M. (1989). A practical but theory-based framework for selecting cross-cultural training methods. *Human Resource Management*, 28(4), 511-539.
- Betz, N. E., & Klein, K. L. (1996). Relationships among measures of career self-efficacy, generalized self-efficacy, and global self-esteem. *Journal of Career Assessment*, 4(3), 285-298.
- Bandura, A., & Wessels, S. (1997). *Self-efficacy* (pp. 4-6). Cambridge: Cambridge University Press.
- Bandura, A. (1999). Social cognitive theory: An agentic perspective. *Asian Journal of Social Psychology*, 2(1), 21-41.
- Behling, O., & Law, K. S. (2000). *Translating questionnaires and other research instruments: Problems and solutions*. London: Sage Publication.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26.
- Berry, J. W. (2005). *Acculturation*. San Francisco: Psychology Press.

- Bista, K. (2016). Examining the research on international students: Where are we today?. *Journal of International Students*, 6(2), 1-10.
- Barns, S. (2019). *Platform urbanism: Negotiating platform ecosystems in connected cities*. Berlin: Springer Nature.
- Biserova, G. K., & Shagivaleeva, G. R. (2019). Socio-psychological adaptation of international students to learning and professional activities. *Space and culture, India*, 6(5), 99-114.
- Boahene, K. O., Fang, J., & Sampong, F. (2019). Social media usage and tertiary students' academic performance: Examining the influences of academic self-efficacy and innovation characteristics. *Sustainability*, 11(8), 1-17.
- Birdie, A. K. (2020). *Cross-cultural exposure and connections: Intercultural learning for global citizenship*. Florida: CRC Press.
- Bethel, A., Ward, C., & Fetvadjev, V. H. (2020). Cross-cultural transition and psychological adaptation of international students: The mediating role of host national connectedness. *In Frontiers in Education*, 5, 1-13.
- Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and practice*, 2(1), 1-10.
- Bui, H. T., Selvarajah, C., Vinen, D. G., & Meyer, D. (2021). Acculturation: Role of student – university alignment for international student psychological adjustment. *Journal of Studies in International Education*, 25(5), 546-564.
- Barton, B. A., Adams, K. S., Browne, B. L., & Arrastia-Chisholm, M. C. (2021). The effects of social media usage on attention, motivation, and academic performance. *Active Learning in Higher Education*, 22(1), 11-22.

- Bittencourt, T., Johnstone, C., Adjei, M., & Seithers, L. (2021). "We see the world Different Now": Remapping assumptions about international student adaptation. *Journal of Studies in International Education*, 25(1), 35-50.
- Biney, P. A., & Cheng, M. Y. (2021). International students' decision to study in China: A study of some selected international students from universities in China. *Open Journal of Social Sciences*, 9(8), 305-325.
- Bobowik, M., Benet - Martínez, V., & Repke, L. (2022). Ethnocultural diversity of immigrants' personal social networks, bicultural identity integration and global identification. *International Journal of Psychology*, 57(4), 491-500.
- Buschle, C., Reiter, H., & Bethmann, A. (2022). The qualitative pretest interview for questionnaire development: Outline of programme and practice. *Quality & Quantity*, 56(2), 823-842.
- Bhati, K., & Sethy, T. (2022). Self-efficacy: Theory to educational practice. *The International Journal of Indian Psychology*, 10(1), 1123-1128.
- Baruah, D. M. (2022). *India's answer to the belt and road: A road map for south Asia*. Carnegie Endowment for International Peace.
- Bai, B., Ge, Y., & Li, Z. (2023). Psychological study of international doctoral students studying in China: Cross-cultural adaptation. *Current Psychology*, 42(36), 32270-32283.
- Bringle, R. G., Hatcher, J. A., & Jones, S. G. (2023). *International service learning: Conceptual frameworks and research*. Oxfordshire: Taylor & Francis.
- Bakhtiyarovna, A. G. (2024). Comparing quantitative and qualitative research and approaches: Advantages and disadvantages. *American Journal of Interdisciplinary Research and Development*, 28, 323-326.

- Church, A. T. (1982). Sojourner Adjustment. *Psychological Bulletin*, 91(3), 540-572.
- Chataway, C. J., & Berry, J. W. (1989). Acculturation experiences, appraisal, coping, and adaptation: A comparison of Hong Kong Chinese, French, and English students in Canada. *Canadian Journal of Behavioural Science*, 21(3), 295-309.
- Chaffee, S. H., Nass, C. I., & Yang, S. M. (1990). The bridging role of television in immigrant political socialization. *Human Communication Research*, 17(2), 266-288.
- Castro, V. S. (2003). *Acculturation and psychological adaptation*. New York: Bloomsbury Publishing USA.
- Chapdelaine, R. F., & Alexitch, L. R. (2004). Social skills difficulty: Model of culture shock for international graduate students. *Journal of College Student Development*, 45(2), 167-184.
- Constantine, M. G., Okazaki, S., & Utsey, S. O. (2004). Self-concealment, social self-efficacy, acculturative stress, and depression in African, Asian, and Latin American international college students. *American Journal of Orthopsychiatry*, 74(3), 1-9.
- Cemalcilar, Z., Falbo, T., & Stapleton, L. M. (2005). Cyber communication: A new opportunity for international students' adaptation?. *International Journal of Intercultural Relations*, 29(1), 91-110.
- Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. *British Journal of Health Psychology*, 11(3), 421-437.
- Chang, S., Alzougool, B., Berry, M., Gomes, C., Smith, S., & Reeders, D. (2012). International students in the digital age: Do you know where your students go to for information. In *Proceedings of the Australian International Education Conference*, (pp. 1-11).

- Crowne, K. A. (2013). Cultural exposure, emotional intelligence, and cultural intelligence: An exploratory study. *International Journal of Cross Cultural Management*, 13(1), 5-22.
- Çiftçi, E. Y. (2016). A review of research on intercultural learning through computer-based digital technologies. *Journal of Educational Technology & Society*, 19(2), 313-327.
- Chang, S., & Gomes, C. (2017). Digital journeys: A perspective on understanding the digital experiences of international students. *Journal of International Students*, 7(2), 347-466.
- Çankaya, E. M., Dong, X., & Liew, J. (2017). An examination of the relationship between social self-efficacy and personal growth initiative in international context. *International Journal of Intercultural Relations*, 61, 88-96.
- Chen, H., Butler, E., & Liang, X. (2018). Facilitating or impeding acculturation: A qualitative study on mobile social messaging in first-generation Chinese immigrants' everyday lives. *Journal of Intercultural Communication Research*, 47(6), 510-529.
- Çömlekçi, M. F. (2020). Social media use among international students: Cultural adaptation and socialization. *TRT Akademi*, 5(10), 668-685.
- Choy, B., Arunachalam, K., Gupta, S., Taylor, M., & Lee, A. (2021). Systematic review: Acculturation strategies and their impact on the mental health of migrant populations. *Public Health in Practice*, 2, 1-5.
- Carmeli, A., Peng, A. C., Schaubroeck, J. M., & Amir, I. (2021). Social support as a source of vitality among college students: The moderating role of social self-efficacy. *Psychology in The Schools*, 58(2), 351-363.

- Cao, C., Zhu, C., & Meng, Q. (2021). Chinese international students' coping strategies, social support resources in response to academic stressors: Does heritage culture or host context matter?. *Current Psychology*, 40(1), 242-252.
- Chankseliani, M., Qoraboyev, I., & Gimranova, D. (2021). Higher education contributing to local, national, and global development: new empirical and conceptual insights. *Higher Education*, 81(1), 109-127.
- CHYD. (2022). *Understanding social media use among young university students*. [online] Available at: https://news.cyoul.com/gb/articles/2022-12/08/content_6zqNXWSjOq.html [Assessed on 25 December 2024]
- Cao, C., & Meng, Q. (2022). A systematic review of predictors of international students' cross-cultural adjustment in China: current knowledge and agenda for future research. *Asia Pacific Education Review*, 23(1), 45-67.
- Chen, K., Brown, C., & MacCallum, K. (2022). *The role of WeChat in building relationships amongst international students* (pp. 1-10). ASCILITE Publications.
- Cao, C., & Meng, Q. (2023). The dual processes of health impairment and motivation in international student adjustment in China: Insights from a demands-resources model. *Current Psychology*, 42(29), 25075-25088.
- Gilmartin, M., Coppari, P. R., & Phelan, D. (2023). *Promising precarity: The lives of Dublin's' international students*. London: Routledge.
- Cao, C., Zhang, J., & Meng, Q. (2023). A social cognitive model predicting international studentscross-cultural adjustment in China. *Current Psychology*, 42(17), 14529-14541.

- Cao, C., Meng, Q., & Zhang, H. (2024). A longitudinal examination of WeChat usage intensity, behavioral engagement, and cross-cultural adjustment among international students in China. *Higher Education*, 87(3), 661-683.
- Cao, C., & Jia, W. (2024). International students' social use of WeChat and sociocultural adjustment: coping self-efficacy as a longitudinal mediator. *Education and Information Technologies*, 29(5), 5189-5209.
- CINNIC. (2024). *China Internet Network Information Center (CINNIC) No. 53 statistical report on China's Internet development*. [online] Available at: https://www.cac.gov.cn/2024-03/25/c_1713038218396702.htm [Assessed on 8 July 2024]
- Dearing, E., & Hamilton, L. C. (2006). Contemporary advances and classic advice for analyzing mediating and moderating variables. *Monographs of the Society for Research in Child Development*, 71(3), 88-104.
- Dewaele, J. M. (2018). Online questionnaires. In A. Phakiti, P. D. Costa, L. Plonsky & S. Starfield (Eds.), *The Palgrave handbook of applied linguistics research methodology* (pp. 269-286). Springer Nature Link.
- De Seta, G. (2020). Sociality, circulation, transaction: WeChat's infrastructural affordances. *Verge: Studies in Global Asias*, 6(2), 65-82.
- Dunbar, R. (2021). *Friends: Understanding the power of our most important relationships*. London: Hachette UK.
- Drydakis, N. (2021). Mobile applications aiming to facilitate immigrants' societal integration and overall level of integration, health and mental health. Does artificial intelligence enhance outcomes?. *Computers in Human Behavior*, 117, 1-56.

- Deuchar, A. (2022). The problem with international students' 'experiences' and the promise of their practices: Reanimating research about international students in higher education. *British Educational Research Journal*, 48(3), 504-518.
- Dehalwar, K., & Sharma, S. N. (2024). Exploring the distinctions between quantitative and qualitative research methods. *Think India Journal*, 27(1), 7-15.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-mediated Communication*, 12(4), 1143-1168.
- Epstein, J., Santo, R. M., & Guillemin, F. (2015). A review of guidelines for cross-cultural adaptation of questionnaires could not bring out a consensus. *Journal of clinical epidemiology*, 68(4), 435-441.
- English, A. S., & Zhang, R. (2020). Coping with perceived discrimination: A longitudinal study of sojourners in China. *Current Psychology*, 39(3), 854-869.
- English, A. S., Zhang, Y. B., & Tong, R. (2021). Social support and cultural distance: Sojourners' experience in China. *International Journal of Intercultural Relations*, 80, 349-358.
- Earl, J., Maher, T. V., & Pan, J. (2022). The digital repression of social movements, protest, and activism: A synthetic review. *Science Advances*, 8(10), 1-15.
- Fan, C., & Mak, A. S. (1998). Measuring social self-efficacy in a culturally diverse student population. *Social Behavior and Personality: An Tnternational Journal*, 26(2), 131-144.
- Ferris, G. R., Treadway, D. C., Perrewé, P. L., Brouer, R. L., Douglas, C., & Lux, S. (2007). Political skill in organizations. *Journal of management*, 33(3), 290-320.

- Francois, E. J. (2015): Development of the Cross-cultural Readiness Exposure Scale (CRES). *International Journal of Advanced Multidisciplinary Research and Review* , 3(5), 10-30.
- Forbush, E., & Foucault-Welles, B. (2016). Social media use and adaptation among Chinese students beginning to study in the United States. *International Journal of Intercultural Relations*, 50, 1-12.
- Fenton, A., Fletcher, G., & Griffiths, M. (2019). *Strategic digital transformation: A results-driven approach*. London: Routledge.
- Fang, F., Zhang, S., & Elyas, T. (2020). Role of prior intercultural learning in Chinese university students' cross-cultural adaptation. *Pertanika Journal of Social Sciences & Humanities*, 28(3), 1599-1619.
- Gudykunst, W. B. (Ed.). (2005). *Theorizing about intercultural communication*. Sage.
- Gong, Y., & Fan, J. (2006). Longitudinal examination of the role of goal orientation in cross-cultural adjustment. *Journal of Applied Psychology*, 91(1), 176.
- Gan, Y., Yang, M., Zhou, Y., & Zhang, Y. (2007). The two-factor structure of future-oriented coping and its mediating role in student engagement. *Personality and Individual Differences*, 43(4), 851-863.
- Gu, Q., Schweisfurth, M., & Day, C. (2010). Learning and growing in a 'foreign' context: Intercultural experiences of international students. *Compare*, 40(1), 7-23.
- Gu, J., Meng, H., & Fan, J. (2014). Social Self-Efficacy: Dimension, Measurement and Its Mechanism. *Advances in Psychological Science*, 22(11), 1791-1800.
- Goh, J. T., Ch'ng, J. W. P., Tan, H. W., Ong, C., & Wong, W. F. (2019). *Cultural adaptation: the role of social media in the acculturation process among international students* [Doctoral dissertation, UTAR].

- Giudice, F. (2020). *WeChat: the impact of the super app on Chinese society* [Master's thesis, Università Ca' Foscari Venezia].
- Gebregergis, W. T., Mehari, D. T., Gebretinsae, D. Y., & Tesfamariam, A. H. (2020). The predicting effects of self-efficacy, self-esteem and prior travel experience on sociocultural adaptation among international students. *Journal of International Students, 10*(2), 339-357.
- Gbolle, C., & Gong, S. (2020). Emerging destination mobility: Exploring African and Asian international students' push-pull factors and motivations to study in China. *International Journal of Educational Management, 34*(1), 18-34.
- Gong, Y., Gao, X., Li, M., & Lai, C. (2021). Cultural adaptation challenges and strategies during study abroad: New Zealand students in China. *Language, Culture and Curriculum, 34*(4), 417-437.
- Gao, Q., Li, Y., Zhu, Z., Fu, E., Bu, X., Peng, S., & Xiang, Y. (2021). What links to psychological needs satisfaction and excessive WeChat use? The mediating role of anxiety, depression and WeChat use intensity. *BMC psychology, 9*, 1-11.
- Gaitán-Aguilar, L., Hofhuis, J., Bierwiazzonek, K., & Carmona, C. (2022). Social media use, social identification and cross-cultural adaptation of international students: A longitudinal examination. *Frontiers in Psychology, 13*, 1-13.
- Hechanova-Alampay, R., Beehr, T. A., Christiansen, N. D., & Van Horn, R. K. (2002). Adjustment and strain among domestic and international student sojourners: A longitudinal study. *School Psychology International, 23*(4), 458-474.
- Hermann, K. S., & Betz, N. E. (2004). Path models of the relationships of instrumentality and expressiveness to social self-efficacy, shyness, and depressive symptoms. *Sex Roles, 51*, 55-66.

- Hogarty, K. Y., Hines, C. V., Kromrey, J. D., Ferron, J. M., & Mumford, K. R. (2005). The quality of factor solutions in exploratory factor analysis: The influence of sample size, communality, and overdetermination. *Educational and Psychological Measurement, 65*(2), 202-226.
- Henson, R. K., & Roberts, J. K. (2006). Use of exploratory factor analysis in published research: Common errors and some comment on improved practice. *Educational and Psychological Measurement, 66*(3), 393-416.
- Harkness, J. A., Villar, A., & Edwards, B. (2010). Translation, adaptation, and design. *Survey Methods in Multinational, Multiregional, and Multicultural Contexts*, 115-140.
- Head, L. (2010). Cultural ecology: adaptation - retrofitting a concept?. *Progress in Human Geography, 34*, 234-242.
- Hocevar, K. P., Flanagin, A. J., & Metzger, M. J. (2014). Social media self-efficacy and information evaluation online. *Computers in Human Behavior, 39*, 254-262.
- Hendricks, K.S. (2016). "The sources of self-efficacy: educational research and implications for music". *Update: Applications of Research in Music Education, 35*(1), 32-38.
- Hamid, S., Bukhari, S., Ravana, S. D., Norman, A. A., & Ijab, M. T. (2016). Role of social media in information-seeking behaviour of international students: A systematic literature review. *Aslib Journal of Information Management, 68*(5), 643-666.
- Hendrickson, B., & Rosen, D. (2017). Insights into new media use by international students: Implications for cross-cultural adaptation theory. *Social Networking, 6*(2), 81-106.

- Hu, S., Gu, J., Liu, H., & Huang, Q. (2017). The moderating role of social media usage in the relationship among multicultural experiences, cultural intelligence, and individual creativity. *Information Technology & People*, 30(2), 265-281.
- Hu, S., Liu, H., & Gu, J. (2018). What role does self-efficacy play in developing cultural intelligence from social media usage?. *Electronic Commerce Research and Applications*, 28, 172-180.
- Hajjar, S. T. (2018). Statistical analysis: Internal-consistency reliability and construct validity. *International Journal of Quantitative and Qualitative Research Methods*, 6(1), 27-38.
- Hong, M. & Wei, L. (2018). Unique advantages of new media in cross-cultural adaptation of foreign students. *People's Forum*, 10, 134-135.
- Hedrih, V. (2019). *Adapting psychological tests and measurement instruments for cross-cultural research: An introduction*. London: Routledge.
- Hou, Y., & Ge, X. (2019). Can Social Media Improve Users' Social Self-Efficacy?. *Beijing Da Xue Xue Bao*, 55(5), 968-976.
- Hardcastle, K., Cook, P., & Sutherland, M. (2019). Improving student transition and retention; a netnographic insight into information exchange and conversation topics for pre-arrival students. *Journal of Perspectives in Applied Academic Practice*, 7(1), 47-56.
- Hua, J., Fan, J., Walker, A., Hou, N., Zheng, L., & Debode, J. (2019). Examinations of the role of individual adaptability in cross-cultural adjustment. *Journal of Career Assessment*, 27(3), 490-509.

- Hussain, M., & Shen, H. (2019). A Study on Academic Adaptation of International Students in China. *Higher Education Studies*, 9(4), 80-91.
- Hofhuis, J., Hanke, K., & Rutten, T. (2019). Social network sites and acculturation of international sojourners in the Netherlands: The mediating role of psychological alienation and online social support. *International Journal of Intercultural Relations*, 69, 120-130.
- Holbert, R. L., & Park, E. (2020). Conceptualizing, organizing, and positing moderation in communication research. *Communication Theory*, 30(3), 227-246.
- Hu, S., Liu, H., Zhang, S., & Wang, G. (2020). Proactive personality and cross-cultural adjustment: Roles of social media usage and cultural intelligence. *International Journal of Intercultural Relations*, 74, 42-57.
- Hernández, A., Hidalgo, M. D., Hambleton, R. K., & Gómez Benito, J. (2020). International test commission guidelines for test adaptation: A criterion checklist. *Psicothema*, 32(3), 390-398.
- Hughes, H. (2020). Connected transitioning communities for international students via social media. In S. Chang & C. Gomes (Eds.), *Digital Experiences of International Students: Challenging Assumptions and Rethinking Engagement* (pp. 151-164). London: Routledge.
- Hassan, Z., Jianxun, C., Qaisar, S., Shah, Z., & Ram, M. (2021). Exploring the effect of WeChat on adjustment of international students in China. *Cogent Psychology*, 8(1), 1-14.
- Hong, Y., Wan, M., & Li, Z. (2021). Understanding the health information sharing behavior of social media users: an empirical study on WeChat. *Journal of Organizational and End User Computing (JOEUC)*, 33(5), 180-203.

- Hou, R., Han, S., Wang, K., & Zhang, C. (2021). To WeChat or to more chat during learning? The relationship between WeChat and learning from the perspective of university students. *Education and Information Technologies*, 26, 1813-1832.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., Ray, S., ... & Ray, S. (2021). *Moderation analysis. Partial least squares structural equation modeling (PLS-SEM) using R: A workbook* (pp. 155-172). Switzerland: Springer Nature.
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Publications.
- Htet, K., & Mohanan, S. (2022). The moderating effect of perceived social self-efficacy, and perceived social support on the relationship between acculturative stress and sociocultural adaptation among Myanmar students in Thailand universities. *Scholar: Human Sciences*, 14(1), 420-420.
- Ivey, A. E., & Hurst, J. C. (1971). Communication as adaptation. *Journal of Communication*, 21(3), 199-207.
- Igartua, J. J., & Hayes, A. F. (2021). Mediation, moderation, and conditional process analysis: Concepts, computations, and some common confusions. *The Spanish Journal of Psychology*, 24, 1-23.
- Jackson, J. (2013). *The routledge handbook of language and intercultural communication* (pp. 456-470). Abingdon: Routledge.
- Johnston, D. D., & Hanamitsu, R. (2015). Global exposure and global perceptions: A cross-cultural comparison of students in China, Japan, Mexico, Saudi Arabia, South Korea, and the USA. *Intercultural Communication Studies*, 24(3), 1-28.

- Jain, D., Tiwari, G. K., & Awasthi, I. D. (2017). Impact of metacognitive awareness on academic adjustment and academic outcome of the students. *International Journal of Indian Psychology*, 5(1), 123-138.
- Jackson, J. (2018). Intervening in the intercultural learning of L2 study abroad students: From research to practice. *Language Teaching*, 51(3), 365-382.
- Jamaludin, N.L., Lackland, D., & Sandal, S.G.M. (2018). Destination motivation, cultural orientation, and adaptation: international students' destination-loyalty intention. *Journal of International Students*, 8(1), 38-65.
- Jackson, M., Ray, S., & Bybell, D. (2019). International students in the US: Social and psychological adjustment. *Journal of International Students*, 3(1), 17-28.
- Jarman, H. (2021). *Investigating the relationships between social media use and body satisfaction and well-being among adolescent boys and girls: cross-sectional and prospective examinatio* [(Doctoral dissertation, La Trobe University)].
- Ji, Y. (2023). The Extension of Chinese Tradition in Digital Age—Taking Red Packets on WeChat as an Example. *Media and Communication Research*, 4(8), 60-65.
- Jurásek, M., & Wawrosz, P. (2024). The relationship between cultural intelligence and cross-cultural adjustment. *Periodica Polytechnica Social and Management Sciences*, 32(2), 192-204.
- Kim, Y. Y. (1977). Communication patterns of foreign immigrants in the process of acculturation. *Human Communication Research*, 4(1), 66-77.
- Kim, Y. Y. (1978). A communication approach to the acculturation process: A study of Korean immigrants in Chicago. *International Journal of Intercultural Relations*, 2(2), 197-224.

- Kim, Y. Y., & Gudykunst, W. B. (1988). *Theories in intercultural communication*. Thousand Oaks: Sage Publications.
- Kim, Y. Y. (1995). Cross-cultural adaptation: An integrative theory. In R. L. Wiseman (Eds.), *Intercultural communication theory* (pp. 170-193). Thousand Oaks: Sage Publications.
- Kim, Y. Y. (2001). *Becoming intercultural: An integrative theory of communication and cross-cultural adaptation*. Thousand Oaks: Sage Publications.
- Kim, M. S. (2002). *Non-Western perspectives on human communication: Implications for theory and practice*. Thousand Oaks: Sage Publications.
- Kim, Y. Y., & McKay-Semmler, K. (2013). Social engagement and cross-cultural adaptation: An examination of direct-and mediated interpersonal communication activities of educated non-natives in the United States. *International Journal of Intercultural Relations*, 37(1), 99-112.
- Kuang, W. B. (2014). 微信：新媒体的新形态 [WeChat: The new form of new media]. *Group Words*, 2, 14-16.
- Kim, Y. (2017). *Cross-Cultural Adaptation*. *Oxford Research Encyclopedia of Communication*. [online] Available at: <https://oxfordre.com/communication/view/10.1093/acrefore/9780190228613.001.001/acrefore-9780190228613-e-21> [Assessed on 8 July 2022]
- Kramer, E. M. (2019). *Cultural fusion theory*. *Oxford Research Encyclopedia of Communication, online resource*. Oxford: Oxford University Press.

- Kuang, W. B., & Wu, X. L.. (2019). 跨文化视角下在华留学生微信使用行为分析——基于文化适应理论的实证研究 [Behavioural analysis of WeChat use among international students in China from a cross-cultural perspective: An empirical study based on cultural adaptation theory]. *Journal of Wuhan University: Philosophy and Social Science Edition*, 72(3), 115-126.
- Kandel, B. (2020). Qualitative versus quantitative research. *Journal of Product Innovation Management*, 32(5), 1-5.
- Kang, D., & Evans, J. (2020). Against method: Exploding the boundary between qualitative and quantitative studies of science. *Quantitative Science Studies*, 1(3), 930-944.
- Kim, Y., Kim, B., Hwang, H. S., & Lee, D. (2020). Social media and life satisfaction among college students: A moderated mediation model of SNS communication network heterogeneity and social self-efficacy on satisfaction with campus life. *The Social science journal*, 57(1), 85-100.
- Kempf, C., & Holtbrügge, D. (2020). Moderators and mediators of cross-cultural training effectiveness: literature review and development of a conceptual model. *European Journal of International Management*, 14(2), 293-326.
- Kural, F. (2020). Long term effects of intercultural competence development training for study-abroad adjustment and global communication. *Journal of Language and Linguistic Studies*, 16(2), 948-958.
- Kaiser, J., Keller, T. R., & Kleinen-von Königslöw, K. (2021). Incidental news exposure on Facebook as a social experience: The influence of recommender and media cues on news selection. *Communication Research*, 48(1), 77-99.

- Kumari, B., Tiwary, R. K., Yadav, M., & Singh, K. M. P. (2021). Nonlinear regression analysis and response surface modeling of Cr (VI) removal from synthetic wastewater by an agro-waste *Cocos Nucifera*: Box-Behnken Design (BBD). *International Journal of Phytoremediation*, 23(8), 791-808.
- Koo, K., Baker, I., & Yoon, J. (2021). The first year of acculturation: A longitudinal study on acculturative stress and adjustment among first-year international college students. *Journal of International Students*, 11(2), 278-298.
- Khan, M. (2023). Academic self-efficacy, coping, and academic performance in college. *International Journal of Undergraduate Research and Creative Activities*, 5(1), 1-14.
- Kalyani, L. K. (2024). The role of technology in education: Enhancing learning outcomes and 21st century skills. *International Journal of Scientific Research in Modern Science and Technology*, 3(4), 5-10.
- Khedr, W. (2024). The interplay between pre-departure and post-departure factors affecting cultural and academic adjustment of international students. *SAM Advanced Management Journal*, 89(2), 102-121.
- Lewthwaite, M. (1996). A study of international students' perspectives on cross-cultural adaptation. *International Journal for the Advancement of Counselling*, 19(2), 167-185.
- Lin, S. P. (2006). *An exploration of Chinese international students' social self-efficacies*. [Doctoral thesis. The Ohio State University].
- Lustig, M. W., & Koester, J. (2006). *Intercultural competence: Interpersonal communication across cultures* (5th ed.). Boston, MA: Allyn & Bacon.

- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. Thousand Oaks: Sage publications.
- Lin, S., & Betz, N. E. (2009). Factors related to the social self-efficacy of Chinese international students. *The Counseling Psychologist*, 37, 451-471.
- Liao, H., Liu, D., & Loi, R. (2010). Looking at both sides of the social exchange coin: A social cognitive perspective on the joint effects of relationship quality and differentiation on creativity. *Academy of Management Journal*, 53(5), 1090-1109.
- Lee, L. Y., & Sukoco, B. M. (2010). The effects of cultural intelligence on expatriate performance: The moderating effects of international experience. *The international Journal of Human Resource Management*, 21(7), 963-981.
- Leidner, D. E. (2010). Globalization, culture, and information: Towards global knowledge transparency. *The Journal of Strategic Information Systems*, 19(2), 69-77.
- Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: Planning and design*, 9th ed., Boston: Pearson.
- Lin, J. H., Peng, W., Kim, M., Kim, S. Y., & LaRose, R. (2012). Social networking and adjustments among international students. *New media & society*, 14(3), 421-440.
- Li, L., & Gao, H. (2013). 微信: 3 亿用户的背后——本刊专访微信团队 [WeChat: Behind the 300 million users - An interview with the WeChat team]. *News & Writing*, 4, 34-36.
- Lien, C. H., Cao, Y., & Zhou, X. (2017). Service quality, satisfaction, stickiness, and usage intentions: An exploratory evaluation in the context of WeChat services. *Computers in Human Behavior*, 68, 403-410.

- Lee, S.W. (2017). Circulating East to East: understanding the push-pull factors of Chinese students studying in Korea. *Journal of Studies in International Education*, 21(2), 170-190.
- Li, L., & Peng, W. (2019). Transitioning through social media: International students' SNS use, perceived social support, and acculturative stress. *Computers in Human Behavior*, 98, 69-79
- Li, Y., Sallam, M. H., & Ye, Y. (2019). The impact of WeChat use intensity and addiction on academic performance. *Social Behavior and Personality: An International Journal*, 47(1), 1-7.
- Lu, Z., Li, W., Li, M., & Chen, Y. (2019). Destination china: international students in chengdu. *International Migration*, 57(3), 354-372.
- Litt, E., Zhao, S., Kraut, R., & Burke, M. (2020). What are meaningful social interactions in today's media landscape? A cross-cultural survey. *Social Media+ Society*, 6(3), 1-17.
- Li L. (2020). *Research on interpersonal communication and intercultural adaptation of African students in China* [Master's thesis, Zhejiang Media College].
- Li, L., & Liu, J. (2021). Connectivity, Cooperation and Collaboration: China-South Asia Partnerships Under the Scientific Belt & Road Initiative. In P. Jaiswal & D. P. Bhatt (Eds.), *Rebalancing Asia: The Belt and Road Initiative and Indo-Pacific Strategy* (pp. 43-55). Springer.
- Liu, H. (2021). WeChat mobile library service in Chinese academic libraries: a case study of Shanghai University. *International Journal of Library and Information Services (IJLIS)*, 10(1), 32-47.

- Luo, M., & Zhang, X. (2021). Research status about influence factors of international students' cross-cultural adaptation with different models. *Open Journal of Social Sciences*, 9(6), 51-63.
- Lai, H., Wang, D., & Ou, X. (2023). Cross-cultural adaptation of Chinese students in the United States: Acculturation strategies, sociocultural, psychological, and academic adaptation. *Frontiers in Psychology*, 13, 1-13
- Lu, Z., Lu, Y., Lo, L., Zhu, H., & Jean, J. (2023). International students in China: regional distribution and macro-influencing factors. *Journal of Ethnic and Migration Studies*, 49(18), 4722-4746.
- Lu, Y., Schaefer, J., Park, K., Joo, J., & Pan, J. (2024). How information flows from the world to China. *The International Journal of Press/Politics*, 29(2), 305-327.
- Mak, A. S., & Tran, C. (2001). Big five personality and cultural relocation factors in Vietnamese Australian students' intercultural social self-efficacy. *International Journal of Intercultural Relations*, 25(2), 181-201.
- Martin, J. N., & Nakayama, T. K. (2007). *Intercultural communication in contexts*, 4th ed., Boston: McGraw Hill.
- MOE. (2017). “双一流”建设高校名单 [List of “double first-class” universities and colleges]. [online] Available at: https://www.gov.cn/xinwen/2017-09/21/content_5226572.htm [Assessed on 8 November 2022]
- Mustaffa, C. S., & Ilias, M. (2013). Relationship between students adjustment factors and cross-cultural adjustment: A survey at the Northern University of Malaysia. *Intercultural Communication Studies*, 1, 279-300.

- Marsh, H. W., Hau, K. T., Wen, Z., Nagengast, B., & Morin, A. J. (2013). *Moderation*. Oxford: Oxford University Press.
- Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. *Journal of International Students*, 6(1), 262-282.
- Monitor, I. C. E. F. (2017). *ICEF Monitor—market intelligence for international student recruitment*. [online] Available at: <http://monitor.icef.com> [Assessed on 8 20 July 2024]
- Mierzejewski, D. (2018). The roles of local governments in the New Silk Road. In C. A. Mendes (Eds.) *China's New Silk Road: An emerging world order* (pp. 135-152). London: Routledge.
- Ma, H., & Liu, W. (2018). Unique advantages of new media in cross-cultural adaptation of foreign students. *People's Forum*, 10, 134-135.
- Meng, Q., Zhu, C., & Cao, C. (2018). Chinese international students' social connectedness, social and academic adaptation: The mediating role of global competence. *Higher Education*, 75(1), 131-147.
- Montag, C., Becker, B., & Gan, C. (2018). The multipurpose application WeChat: a review on recent research. *Frontiers in psychology*, 9, 1-8.
- MOE. (2019). *Statistics on study in China in 2018*. [online] Available at: http://www.moe.gov.cn/jyb_xwfb/gzdt_gzdt/s5987/201904/t20190412_377692.htm 1 [Assessed on 8 20 July 2024]
- Mehrad, A., & Zangeneh, M. H. T. (2019). Comparison between qualitative and quantitative research approaches: Social sciences. *International Journal For Research In Educational Studies, Iran*, 5(7), 1-7.

- Mok, K. H., Wang, Z., & Neubauer, D. (2020). Contesting globalisation and implications for higher education in the Asia–Pacific region: Challenges and prospects. *Higher Education Policy*, 33(3), 397-411.
- Ma, K., Pitner, R., Sakamoto, I., & Park, H. Y. (2020). Challenges in acculturation among international students from Asian Collectivist Cultures. *Higher Education Studies*, 10(3), 34-43.
- Mok, K. H., & Marginson, S. (2021). Massification, diversification and internationalisation of higher education in China: Critical reflections of developments in the last two decades. *International Journal of Educational Development*, 84, 1-8.
- Mu, B., Berka, S., Erickson, L., & Pérez-Ibáñez, I. (2022). Individual experiences that affect students’ development of intercultural competence in study abroad. *International Journal of Intercultural Relations*, 89, 30-41.
- Mukherjee, T. (2023). *A study on: How ‘social media’ a digital marketing strategy, influences Indian international students’ decision to study abroad in Ireland* [Doctoral dissertation, National College of Ireland].
- Mao, H., Zhang, B., Peng, Y., & Xiong, S. (2023). The relationship between negative life events and wechat addiction among chinese college students: the roles of maladaptive cognition toward wechat and rumination. *Current Psychology*, 42(16), 13711-13720.
- Mao, Y. (2024). Academic adaptation of international students in the Chinese higher education environment: A case study with mixed methods. *International Journal of Intercultural Relations*, 103, 1-19.

- Mao, Y., Wang, R., & Ji, H. (2024). Acculturation and academic adjustment of student sojourners in the Chinese higher education context. *Journal of Studies in International Education*, 28(3), 356-375.
- Nseke, P. (2018). How international students adapt in China: The role of Chinese social media in intercultural adaptation. *International Journal of Management Science and Business Administration*, 4(5), 44-50.
- Negro, G., Balbi, G., & Bory, P. (2020). The path to WeChat: How Tencent's culture shaped the most popular Chinese app, 1998–2011. *Global Media and Communication*, 16(2), 208-226.
- Nunes, A. F., Monteiro, P. L., & Nunes, A. S. (2020). Factor structure of the convergence insufficiency symptom survey questionnaire. *Plos One*, 15(2), 1-9.
- Nanda, P., & Kumar, V. (2021). Social media analytics: tools, techniques and present day practices. *International Journal of Services Operations and Informatics*, 11(4), 422-436.
- Namada, J. M., Katuse, P., & Wambalaba, F. W. (2021). International education, diversity exposure, and cross-cultural engagements. In B. Smith (Eds.), *Research Anthology on Business and Technical Education in the Information Era* (pp. 959-974). IGI Global.
- Nieminen, P. (2022). Application of standardized regression coefficient in meta-analysis. *BioMedInformatics*, 2(3), 434-458.
- Nadeem, M. U., & Zabrodskaia, A. (2023). A comprehensive model of intercultural communication for international students living in culturally diverse societies: evidence from China. *Frontiers in Communication*, 8, 1-15.

- Ngoc Hoi, V. (2023). Augmenting student engagement through the use of social media: The role of knowledge sharing behaviour and knowledge sharing self-efficacy. *Interactive Learning Environments*, 31(7), 4021-4033.
- Otten, M. (2003). Intercultural learning and diversity in higher education. *Journal of Studies in International Education*, 7(1), 12-26.
- O'Reilly, A., Ryan, D., & Hickey, T. (2010). The psychological well-being and sociocultural adaptation of short-term international students in Ireland. *Journal of College Student Development*, 51(5), 584-598.
- Onofrei, G., Filieri, R., & Kennedy, L. (2022). Social media interactions, purchase intention, and behavioural engagement: The mediating role of source and content factors. *Journal of Business Research*, 142, 100-112.
- Papacharissi, Z., & Rubin, A. M. (2000). Predictors of Internet use. *Journal of Broadcasting & Electronic Media*, 44(2), 175-196.
- Poyrazli, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling*, 7(1), 73-82.
- Penninx, R. (2005). Integration of migrants: Economic, social, cultural and political dimensions. *The new Demographic Regime: Population Challenges and Policy Responses*, 5, 137-152.
- Paunonen, S. V., & Hong, R. Y. (2010). Self-efficacy and the prediction of domain-specific cognitive abilities. *Journal of Personality*, 78(1), 339-360.
- Palmer, Y. M. (2016). Student to scholar: Learning experiences of international students. *Journal of International Students*, 6(1), 216-240.

- Pang, H. (2018). Understanding domestic social media use among Chinese college students under the framework of uses and gratifications. *Studies in Communication Sciences*, 18(1), 9-22.
- Peng, R. Z., & Wu, W. P. (2019). Measuring communication patterns and intercultural transformation of international students in cross-cultural adaptation. *International Journal of Intercultural Relations*, 70, 78-88.
- Pang, H., & Wang, J. (2020). Promoting or prohibiting: Understanding the influence of social media on international students' acculturation process, coping strategies, and psychological consequences. *Telematics and Informatics*, 54, 1-10.
- Pang, H. (2020). Is active social media involvement associated with cross-culture adaption and academic integration among boundary-crossing students?. *International Journal of Intercultural Relations*, 79, 71-81.
- PCAC. (2020). *Mobile payment user questionnaire report*. [online] Available at: www.mpaypass.com.cn/download/202101/13140639.html [Assessed on 25 July 2024]
- Pho, H., & Schartner, A. (2021). Social contact patterns of international students and their impact on academic adaptation. *Journal of Multilingual and Multicultural Development*, 42(6), 489-502.
- Pang, H. (2021). Unraveling the influence of passive and active WeChat interactions on upward social comparison and negative psychological consequences among university students. *Telematics and Informatics*, 57, 1-11.
- Pylväs, L., & Nokelainen, P. (2021). Academics' perceptions of intercultural competence and professional development after international mobility. *International Journal of Intercultural Relations*, 80, 336-348.

- Polat, M., & Arslan, K. (2022). General adaptation scale for international students: Development and validation. *Psycho-Educational Research Reviews*, 11(2), 121-146.
- Peker, H. (2022). Conducting a non-experimental design quantitative study and the application of partial least squares structural equation modeling. In K. Dikilitas & K. Reynolds (Eds.), *Research Methods in Language Teaching and Learning: A Practical Guide* (pp. 230 – 252). John Wiley & Sons, Inc.
- Pekkala, K., & van Zoonen, W. (2022). Work-related social media use: The mediating role of social media communication self-efficacy. *European Management Journal*, 40(1), 67-76.
- Purnomo, A., Sari, A. K., Susanti, T., Rosyidah, E., and Maulana, F. I. (2023). Lesson from bibliometric overview of WeChat research. *In AIP Conference Proceedings* (Vol. 2431, No. 1). AIP Publishing.
- Pino, M. R. (2024). *Before the Journey: Pre-departure experiences and challenges of first-generation college students who studied abroad* [Doctoral dissertation, Alliant International University].
- Qi, Y. N. (2013). 微信引发的新媒体变革 [WeChat triggers new media changes]. *China Broadcasting*, 5, 88-90.
- Redfield, R., Linton, R., & Herskovits, M. J. (1936). Memorandum for the study of acculturation. *American Anthropologist*, 38(1), 149-152.
- Russo, F. (2011). Correlational data, causal hypotheses, and validity. *Journal for General Philosophy of Science*, 42, 85-107.

- Regmi, P. R., Waithaka, E., Paudyal, A., Simkhada, P., & Van Teijlingen, E. (2016). Guide to the design and application of online questionnaire surveys. *Nepal Journal of Epidemiology*, 6(4), 640-644.
- Raman, P., & Harwood, J. (2016). Media usage and acculturation: Asian Indian professionals in Silicon Valley. *Journal of Intercultural Communication Research*, 45(5), 355-373.
- Reid, R., & Garson, K. (2017). Rethinking multicultural group work as intercultural learning. *Journal of Studies in International Education*, 21(3), 195-212.
- Rekhter, N., & Hossler, D. (2019). Place, prestige, price, and promotion: how international students use social networks to learn about universities abroad. *The Journal of Social Media in Society*, 8(1), 124-145.
- Rogala, A., Szczepaniak, M., Michalak, N., & Andersson, G. (2020). Internet-based self-help intervention aimed at increasing social self-efficacy among internal migrants in Poland: Study protocol for a randomized controlled trial. *Internet Interventions*, 21, 1-8.
- Roberts, D. R. (2021). *Quantitative non-experimental correlational study: Determining any existence between the predictors of workplace violence* [Doctoral dissertation, Northcentral University].
- Rathakrishnan, B., Bikar Singh, S. S., Kamaluddin, M. R., Ghazali, M. F., Yahaya, A., Mohamed, N. H., & Krishnan, A. R. (2021). Homesickness and socio-cultural adaptation towards perceived stress among international students of a public university in Sabah: an exploration study for social sustainability. *Sustainability*, 13(9), 1-13.

- Rao, B. N., & Kalyani, V. (2022). A study on positive and negative effects of social media on society. *Journal of Science & Technology (JST)*, 7(10), 46–54.
- Razgulin, J., Argustaitė-Zailskienė, G., & Šmigelskas, K. (2023). The role of social support and sociocultural adjustment for international students' mental health. *Scientific Reports*, 13(1), 1-9.
- Sherer, M., Madoux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: construction and validation. *Psychological Reports*, 51, 663-671.
- Searle, W., & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, 14(4), 449-464.
- Solberg, V. C., O'Brien, K., Villareal, P., Kennel, R., & Davis, B. (1993). Self-efficacy and hispanic college students: Validation of the college self-efficacy Instrument. *Hispanic Journal of Behavioral Sciences*, 15(1), 80-95.
- Smith, H. M., & Betz, N. E. (2000). Development and validation of a scale of perceived social self-efficacy. *Journal of Career Assessment*, 8(3), 283-301.
- Safdar, S., Lay, C., & Struthers, W. (2003). The process of acculturation and basic goals: Testing a multidimensional individual difference acculturation model with Iranian immigrants in Canada. *Applied Psychology*, 52(4), 555-579.
- Swagler, M. A., & Ellis, M. V. (2003). Crossing the distance: Adjustment of taiwanese graduate students in the United States. *Journal of Counseling Psychology*, 50(4), 420-437.
- Sapranaviciute, L., Perminas, A., & Pauziene, N. (2012). Stress coping and psychological adaptation in the international students. *Open Medicine*, 7(3), 335-343.

- Sandel, T. L. (2014). "Oh, I'm here!" : Social media's impact on the cross-cultural adaptation of students studying abroad. *Journal of Intercultural Communication Research*, 43(1), 1-29.
- Sleeman, J., Lang, C., & Lemon, N. (2016). Social media challenges and affordances for international students: Bridges, boundaries, and hybrid spaces. *Journal of Studies in International Education*, 20(5), 391-415.
- Shafaei, A., & Razak, N. A. (2016). Internationalisation of higher education: Conceptualising the antecedents and outcomes of cross-cultural adaptation. *Policy Futures in Education*, 14(6), 701-720.
- Sit, A., Mak, A. S., & Neill, J. T. (2017). Does cross-cultural training in tertiary education enhance cross-cultural adjustment?: A systematic review. *International Journal of Intercultural Relations*, 57, 1-18.
- Sheu, H. C. (2018). Language learning strategies and intercultural competence in the year abroad study in China. *International Students in China: Education, Student Life and Intercultural Encounters*, 195-220.
- Salsabiela, A., Iqbal, S., & Widiasmara, N. (2019). The relationship between emotion regulation and academic adjustment among college students in Indonesia. *In Proceeding 13th International Conference on Language, Education, Humanities and Innovation & 2nd International Conference on Open Learning and Education Technologies* (pp. 121-127).
- Sandel, T. L., Ou, C., Wangchuk, D., Ju, B., & Duque, M. (2019). Unpacking and describing interaction on Chinese WeChat: A methodological approach. *Journal of Pragmatics*, 143, 228-241.

- Seeram, E. (2019). An overview of correlational research. *Radiologic technology*, 91(2), 176-179.
- Shu, F., Ahmed, S. F., Pickett, M. L., Ayman, R., & McAbee, S. T. (2020). Social support perceptions, network characteristics, and international student adjustment. *International Journal of Intercultural Relations*, 74, 136-148.
- Szabó, Á., Papp, Z. Z., & Luu, L. A. N. (2020). Social contact configurations of international students at school and outside of school: Implications for acculturation orientations and psychological adjustment. *International Journal of Intercultural Relations*, 77, 69-82.
- Sinanan, J., & Gomes, C. (2020). 'Everybody needs friends': Emotions, social networks and digital media in the friendships of international students. *International Journal of Cultural Studies*, 23(5), 674-691.
- Song, Y., & Xia, J. (2021). Scale making in intercultural communication: Experiences of international students in Chinese universities. *Language, Culture and Curriculum*, 34(4), 379-397.
- Shadiev, R., Wang, X., Wu, T. T., & Huang, Y. M. (2021). Review of research on technology-supported cross-cultural learning. *Sustainability*, 13(3), 1-23.
- Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), 4-11.
- Schreiber, J. B. (2021). Issues and recommendations for exploratory factor analysis and principal component analysis. *Research in Social and Administrative Pharmacy*, 17(5), 1004-1011.

- Sheng, L., Dai, J., & Lei, J. (2022). The impacts of academic adaptation on psychological and sociocultural adaptation among international students in China: The moderating role of friendship. *International Journal of Intercultural Relations*, 89, 79-89.
- Shamionov, R. M., Grigorieva, M. V., Grinina, E. S., & Sozonnik, A. V. (2022). Evaluating academic adaptation in students: A new technique. *Psychological Science and Education*, 27(2), 53-68.
- Servaes, J. (2022). Communication for development and social change. In G. Gonçalves & E. Oliveira (Eds.), *The Routledge handbook of nonprofit communication* (pp. 23-31). London: Routledge.
- Sharma, P. K., & Kumra, R. (2022). Relationship between mindfulness, depression, anxiety and stress: Mediating role of self-efficacy. *Personality and Individual Differences*, 186, 1-13.
- Singh, P., Williams, K., Jonnalagadda, R., Gogineni, A., & Reddy, R. R. S. (2022). International students: What's missing and what matters. *Open Journal of Social Sciences*, 10(2), 381-397.
- She, J., Zhang, T., Chen, Q., Zhang, J., Fan, W., Wang, H., & Chang, Q. (2022). Which social media posts generate the most buzz? Evidence from WeChat. *Internet Research*, 32(1), 273-291.
- Sam, D. L., Vedder, P., Ward, C., & Horenczyk, G. (2022). Psychological and sociocultural adaptation of immigrant youth. In J. W. Berry, J. S. Phinney, D. L. Sam, P. Vedder (Eds.), *Immigrant Youth in Cultural Transition* (pp. 119-143). London: Routledge.

- Salikhova, N. R., Grigoryeva, O. V., Semenova-Poliakh, G. G., Salikhova, A. B., Smirnikova, O. V., & Sopun, S. M. (2023). Communication tools and social media usage: Assessing self-perceived communication competence. *Online Journal of Communication and Media Technologies*, 13(4), 1-16.
- San, C. K., & Guo, H. (2023). Institutional support, social support, and academic performance: Mediating role of academic adaptation. *European Journal of Psychology of Education*, 38(4), 1659-1675.
- Steyn, C., & Gunter, A. (2023). When an international student stays at home: defining an international student in distance education. *Journal of Geography in Higher Education*, 47(1), 56-70.
- Smolla, M., & Akçay, E. (2023). Pathways to cultural adaptation: the coevolution of cumulative culture and social networks. *Evolutionary Human Sciences*, 5, 1-17.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 23-53.
- Takeuchi, R., & Chen, J. (2013). The impact of international experiences for expatriates' cross-cultural adjustment: A theoretical review and a critique. *Organizational Psychology Review*, 3(3), 248-290.
- Tu, F. (2016). WeChat and civil society in China. *Communication and the Public*, 1(3), 343-350.
- Tombleson, B., & Wolf, K. (2017). Rethinking the circuit of culture: How participatory culture has transformed cross-cultural communication. *Public Relations Review*, 43(1), 14-25.

- Tsai, W., Wang, K. T., & Wei, M. (2017). Reciprocal relations between social self-efficacy and loneliness among Chinese international students. *Asian American Journal of Psychology, 8*(2), 94-102.
- Tian, M., & Lu, G. (2018). Intercultural learning, adaptation, and personal growth: A longitudinal investigation of international student experiences in China. *Frontiers of Education in China, 13*, 56-92.
- Tsegay, S. M., Zegergish, M. Z., & Ashraf, M. A. (2018). Socio-cultural adjustment experiences of international students in Chinese higher education institutions. *Millennial Asia, 9*(2), 183-202.
- Tang, M. J., Chan, E.T. (2020). Social Media: Influences and Impacts on Culture. In K. Arai, S. Kapoor & R. Bhatia (Eds.), *Intelligent Computing* (pp. 491-501). Springer.
- Taherdoost, H. (2022). Designing a questionnaire for a research paper: A comprehensive guide to design and develop an effective questionnaire. *Asian Journal of Managerial Science, 11*(1), 8-16.
- Tomé, J. M. S. (2023). ICTs and new scenarios for diversity. *Brazilian Journal of Development, 9*(05), 15823-15842.
- Tencent. (2024). *Tencent Holdings Limited 2023 fourth quarter and annual results announcement*. [online] Available at: <https://www.tencent.com/en-us/investors/> [Assessed on 8 August 2024]
- Udayar, S., Fiori, M., & Bausseron, E. (2020). Emotional intelligence and performance in a stressful task: The mediating role of self-efficacy. *Personality and Individual Differences, 156*, 1-6.
- Ward, C. (1988). The attitudes toward rape victims scale: Construction, validation, and cross cultural applicability. *Psychology of Women Quarterly, 12*(2), 127-146.

- Ward, C. (1996). *Acculturation*. Thousand Oaks: Sage Publication.
- Ward, C., & Kennedy, A. (1999). The measurement of sociocultural adaptation. *International Journal of Intercultural Relations*, 23(4), 659-677.
- Ward, C. (2001). The A, B, Cs of acculturation. In D. R. Matsumoto (Eds.), *The Handbook of Culture and Psychology* (pp. 411-445). Oxford: Oxford University Press
- Ward, C., & Kennedy, A. (2001). Coping with cross-cultural transition. *Journal of Cross-Cultural Psychology*, 32(5), 636-642.
- Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8, 1-13.
- Wang, Y. (2013). *An exploration of Chinese international students' resilience through their experiences*. [Doctoral thesis, Queen's University].
- Wen, Z.L., Ye, B.J. (2014). 有调节的中介模型检验方法: 竞争还是替补? [Moderated mediation modelling tests. competition or substitution?]. *Psychological Journal*, 46(5), 714-726.
- Wang, X., & Gu, B. (2016). The communication design of WeChat: Ideological as well as technical aspects of social media. *Communication Design Quarterly Review*, 4(1), 23-35.
- Wijesundara, T. R., & Xixiang, S. (2018). Social networking sites acceptance: The role of personal innovativeness in information technology. *International Journal of Business and Management*, 13(8), 75-85.
- Wang, X., Alauddin, M., & Zhang, Q. (2019). An investigation of inbound international students' WeChat usage and educational value in China. *Journal of Information Technology Management*, 30(2), 1-18.

- Waliczko, T. (2020). WeChat - A Chinese cyber-culture phenomenon. *Modern Management Review*, 25(4), 143-155.
- Ward, C., Bochner, S., and Furnham, A. (2020). *Psychology culture shock*. London: Routledge.
- Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. *Chest*, 158(1), 65-71.
- Walker, A. N., Zhang, T., Peng, X. Q., Ge, J. J., Gu, H., & You, H. (2021). Vaccine acceptance and its influencing factors: An online cross-sectional study among international college students studying in China. *Vaccines*, 9(6), 1-12.
- Wu, M. Y., Zhai, J., Wall, G., & Li, Q. C. (2021). Understanding international students' motivations to pursue higher education in mainland China. *Educational Review*, 73(5), 580-596.
- Wang, X., Alauddin, M., Zafar, A. U., Zhang, Q., Ahsan, T., & Barua, Z. (2023). WeChat Moments among international students: Building Guanxi networks in China. *Journal of Global Information Technology Management*, 26(1), 47-76.
- Wenwe, Z., & Bin Osman, M. N. (2022). Cross-cultural perspective: A literature review of social media use and psychological adaptation among Chinese international students. *Turkish Online Journal of Qualitative Inquiry*, 13(1), 55-74.
- Wen, W., Wang, L., & Cui, Y. (2022a). International student education in China: An “island” in internationalization?. *International Journal of Chinese Education*, 11(3), 1-13.
- Wen, Z. L., Fang, J., Xie, J. Y., & Ouyang, J. Z. (2022b). 国内中介效应的方法学研究[A methodological study of domestic mediation effects in China]. *Advances in Psychological Science*, 30(8), 1692-1702.

- Wilczewski, M., & Alon, I. (2023). Language and communication in international students' adaptation: a bibliometric and content analysis review. *Higher Education*, 85(6), 1235-1256.
- Wilczewski, M., Gorbaniuk, O., Mughan, T., Giuri, P., & Li, M. (2024). The development and cross-cultural validation of a Student Online Learning Experience Scale. *Journal of Further and Higher Education*, 48(5), 481-495.
- Wang, J. G., Qin, S., & Wang, A. (2023a). WeChat: A way of life in the Information Age. In *Yes Logo: Uncovering the Recipes of Branding Success in the World's Largest Consumer Market* (pp. 107-125). Singapore: Springer Nature Singapore.
- Wang, X., Alauddin, M., Zafar, A. U., Zhang, Q., Ahsan, T., & Barua, Z. (2023b). WeChat Moments among international students: Building Guanxi networks in China. *Journal of Global Information Technology Management*, 26(1), 47-76.
- Wong, M. L. L., & Liu, S. (2024). The role of online social networking sites in facilitating friendships and adaptation among international students in Malaysia. *International Journal of Intercultural Relations*, 99, 1-13.
- Xiong, R. Z. (2017). Community building in the digital age: Why WeChat IM (instant messaging) social app is particularly important to Chinese international students for integrating into college life in the United States. *CEP Senior Capstone Project, University of Washington*.
- Xue, S., & Churchill, D. (2019). A review of empirical studies of affordances and development of a framework for educational adoption of mobile social media. *Educational Technology Research and Development*, 67, 1231-1257.
- Xu, S., Yang, H. H., MacLeod, J., & Zhu, S. (2019). Social media competence and digital citizenship among college students. *Convergence*, 25(4), 735-752.

- Xu, V. W. (2022). WeChat and the sharing of news in networked China. *Digital Journalism*, 10(9), 1441-1463.
- Xie, M., & Chao, C. C. (2022). The interplay between social media and cultural adjustment: Analysis of the subjective well-being, social support, and social media use of Asian international students in the US. *Journal of Intercultural Communication*, 22(2), 22-32.
- Xie, P., Cao, Q., Li, X., Yang, Y., & Yu, L. (2022). The effects of social participation on social integration. *Frontiers in Psychology*, 13, 1-12.
- Xiao, X., & Tao, H. (2024). Relationship maintenance in WeChat moments: navigating social anxiety and the desire for belongingness. *Current Psychology*, 1-11.
- Young, T. J., Sercombe, P. G., Sachdev, I., Naeb, R., & Schartner, A. (2013). Success factors for international postgraduate students' adjustment: exploring the roles of intercultural competence, language proficiency, social contact and social support. *European Journal of Higher Education*, 3(2), 151-171.
- Yan, J. F. (2015). A review of the researches on WeChat. In *2015 International Conference on Social Science and Technology Education* (pp. 693-695). Paris: Atlantis Press.
- Yang, C. (2018). US-based social media use and American life: A study of Chinese students' acculturation and adaptation in America. *Global Media and China*, 3(2), 75-91.
- Yousaf, S., Fan, X., & Laber, F. (2020). Branding China through the internationalization of higher education sector: an international students' perspective from China. *Journal of Marketing for Higher Education*, 30(2), 161-179.

- Yang, G., & Wang, W. (Eds.). (2021). *Engaging social media in China: Platforms, publics, and production*. East Lansing: MSU Press.
- Yu, L., & Guo, Z. (2021). Exploring the interaction between intercultural communication and social media of international students in China: Take WeChat as an example. In *Proceedings of ICETC the 13th International Conference on Education Technology and Computers*, (pp. 432-436).
- Yan, X., & Feng, Y. (2023). Mandating interoperability of interpersonal communications services in an ecosystems competition context. *Computer Law & Security Review*, 50, 1-18.
- Yang, F., He, Y., & Xia, Z. (2023). The effect of perceived discrimination on cross-cultural adaptation of international students: moderating roles of autonomous orientation and integration strategy. *Current Psychology*, 42(23), 19927-19940.
- Yue, Y., Gong, L., & Ma, Y. (2024). Factors influencing international student inward mobility in China: A comparison between students from BRI and non-BRI countries. *Educational Studies*, 50(5), 597-615.
- Zung, W. W. (1965). A self-rating depression scale. *Archives of General Psychiatry*, 12(1), 63-70.
- Zhang, J., & Goodson, P. (2011). Acculturation and psychosocial adjustment of Chinese international students: Examining mediation and moderation effects. *International Journal of Intercultural Relations*, 35(5), 614-627.
- Zhao, X. (2016). Social media and the international student experience. *International Education Association of Australia*, 1, 1-10.

- Zhu, X. Y., & Chhachhar, A. R. (2016). Descriptive analysis regarding use of WeChat among university students in China. *Asian Social Science*, 12(2), 151-157.
- Zhu, R., & Krever, R. (2017). Media use and cultural adaptation by foreign students in Chinese universities. *Continuum*, 31(2), 307-324.
- Zhao, C. J. (2019). *Exploring the moderation mechanisms of the association between acculturative stress and social self-efficacy among Asian international students* [Doctoral thesis, University of Denver].
- Zhang, C., & Clough, P. D. (2020). Investigating clickbait in Chinese social media: A study of WeChat. *Online Social Networks and Media*, 19, 1-45.
- Zheng, X. (2021). Statistical analysis in quantitative research. In C. M. Hayre & X. Zheng (Eds.), *Research Methods for Student Radiographers* (pp. 93-107). Florida: CRC Press.
- Zeng, L., & Zeng, L. (2021). Conceptual analysis of China's belt and road initiative: A road towards a regional community of common destiny. *Contemporary International law and china's peaceful development*, 305-331.
- Zhang, J., & Quan-Haase, A. (2022). WeChat. In A. Quan-Haase & L. Sloan (Eds.), *The SAGE handbook of social media research methods* (pp. 598-613). London: Sage.
- Zhang, Y., Xie, Y., Li, L., Liang, Y., & Yu, H. (2024). How is public discussion as reflected in WeChat articles different from scholarly research in China? An empirical study of metaverse. *Scientometrics*, 129(1), 473-495.
- Zhang, C. (2024). Digital technology and mental health: Chinese university students' perspectives on the impact of social media. *Health Psychology Research*, 12, 1-10.

Zhang, K., & Ting, S. H. (2024). Social self-efficacy mediates Wechat use and cross-cultural adaptation among international students in Chengdu, China. *International Journal of Business and Technology Management*, 6(3), 393-405.

APPENDICES

Appendix A: Journal Publications

1. **Zhang, K., & Ting, S. H.** (2024). WeChat use and cross-cultural adaptation of international students in China: The mediating role of social self-efficacy. *Journal of Intercultural Communication, 24*(4), 56-67.
2. **Zhang, K., & Ting, S. H.** (2025). Mediating and moderating effects of WeChat use on cross-cultural adaptation among international students in China. *International Journal of Intercultural Relations, 106*, 1-14.
3. **Zhang, K., & Ting, S. H.** (2024). Social self-efficacy mediates Wechat use and cross-cultural adaptation among international students in Chengdu, China. *International Journal of Business and Technology Management, 6*(3), 393-405.

Appendix B: Questionnaire (English version)



International Students' WeChat Use, Prior Cross-Cultural Exposure, Social Self-Efficacy and Cross-Cultural Adaptation in China

We invite you to participate in a study on international Students' WeChat Use, Social Self-efficacy and Cross-cultural Adaptation in China. We would appreciate it very much if you can spend 10 - 15 minutes to fill in the questionnaire.

If you have any question, please contact Zhang Kai from Xihua University and Faculty of Education, Language and communication, Universiti Malaysia Sarawak at 870606978@qq.com.

Participant Consent:

I understand that my participation in this study is voluntary, and that if I no longer wish to participate, I can withdraw at any stage before I complete the questionnaire. I do not have to give any reason for doing so.

I fit the participation criteria - I am aged 18 or older

I understand that all data I provide will be kept confidential and stored securely at Universiti Malaysia Sarawak and Xihua University. Only the researchers will have access to this.

I understand that the results of the study will be disseminated through conference and/ or published articles. I understand that my data will remain anonymous at all time.

☐ I have read and understood the participant consent information for a study on international Students' WeChat Use, Social Self-efficacy and Cross-cultural Adaptation in China and agree to take part in the study.

Section A: Demographic Data

Instructions: Please tick the information that describes you. A1 ~ A8 are general questions, A9 ~ A14 are on your previous exposure to China.

A1. Gender: Female () Male () Other ()

A2. Age: 18 years old () 18 - 25 years old () Over 25 years old ()

A3. Regional: Asian countries () European and American countries ()

African countries () Other countries ()

A4. Education: Undergraduate () Postgraduate () Other ()

A5. Major: Medical and Health Sciences () Chinese Language and Literature ()

Civil Engineering Speciality () Business Administration ()

Computer Sciences () Other ()

A6. HSK (Chinese Proficiency Test): HSK Level 1 () HSK Level 2 ()

HSK Level 3 () HSK Level 4 ()

HSK Level 5 () HSK Level 6 ()

A7. Time spent in China: Less than 3 months () 3 - 6 months ()

7 - 12 months () 1 - 2 years ()

More than 2 years ()

A8. How often do you use the Chinese language after your arrival in China?

Less than 30 minutes per day () 30 - 60 minutes per day ()

1 - 2 hours per day () 3 - 4 hours per day ()

5 hours or more ()

Prior cross-cultural exposure

A9. How often do you use WeChat?

Less than 30 minutes per day ()

30 - 60 minutes per day ()

1 - 2 hours per day ()

3 - 4 hours per day ()

5 hours or more ()

A10. When did you start using WeChat?

Less than 3 months ago ()

3 - 6 months ago ()

7 - 12 months ago ()

1 - 2 years ago ()

More than 2 years ago ()

A11. How many of your family members are Chinese (e.g., your parents, your grandparents, uncle, aunt)?

None () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 ()

A12. Before you studied in China, how many Chinese friends did you have? (Chinese friends can be from China, Taiwan, Hong Kong, Malaysia etc)

None () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 ()

A13. Before you studied in China, how many times have you visited China?

None () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 ()

A14. Before you studied in China, how many times have you watch movies/ TV programs / videos about China?

None () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 ()

Section B: Wechat use

Please rate your Wechat usage based on the scale from Strongly Disagree (1) to Strongly Agree (5).

	Extent				
Scale	1	2	3	4	5
Level	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Indicator	Item	Scale (please tick)
WeChat use intensity	B1. I have a lot of WeChat friends.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B2. I feel out of touch when I haven't logged onto WeChat for some time.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B3. I am proud to tell people that I'm on WeChat.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
WeChat Acceptance	B4. WeChat is easy to use.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B5. WeChat is free to use.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B6. WeChat is useful to make life easier in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Social-cultural Adaptability	B7. I use WeChat to improve my Chinese language skills.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B8. I use WeChat to keep in touch with friends.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B9. I use WeChat to get study resources.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B10. I use WeChat to talk about study problems.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B11. I use WeChat to talk about life problems.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B12. I use WeChat to get to know Chinese culture.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Psychological Adaptability	B13. I use WeChat to participate in Chinese social activities.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B14. I find that using WeChat can strengthen social support.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B15. I find that using WeChat can help	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	me integrate into life in China faster.	
	B16. I find that using WeChat can bring me closer to my friends in other countries.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B17. I find that using WeChat can strengthen social ties.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B18. I find that using WeChat can strengthen emotional support.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B19. I find that using WeChat can overcome homesickness or loneliness.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Section C: Social Self-efficacy

After you have used WeChat, how confident are you of your ability to engage in social interactions in China? Please rate your social self-efficacy based on the scale from Strongly Disagree (1) to Strongly Agree (5).

Item	Scale (please tick)
C1. I am confident to make friends in a group where everyone knows each other.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C2. I am confident to make friends with people my own age.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C3. I am confident to ask someone to go out for a meal or to spend time together.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C4. I am confident to express my feelings to others.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C5. I am confident to make acquaintances (people who do not know one another well) feel comfortable in my circle of friends.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C6. I am confident to start a conversation with someone I	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

don't know well.	
C7. I am confident to express my opinion in a group of people discussing a topic that interests me.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C8. I am confident to work with unfamiliar people on school, work, community or other projects.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C9. I am confident to put myself in a new and different social situation.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C10. I am confident to share interesting experiences I have had with a group of people.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C11. I am confident in responding to an invitation to a party hosted by a well-known or popular person.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C12. I am confident in volunteering to lead a group or organization.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C13. I am confident to attend parties or social events where there are people I know.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C14. I am confident to join a table at lunch or dinner when there are already people sitting and talking.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C15. I am confident in volunteering to help organize an event.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C16. I am confident to ask for help when I need it.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Section D: Cross-cultural Adaptation

After you have used WeChat, what do you think in your level of adaptation in China?

Please rate your cross-cultural adaptation based on the scale from Strongly Disagree (1) to Strongly Agree (5).

Indicator	Item	Scale (please tick)
Academic Adaptation	D1. I am satisfied with the support at my university.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D2. I am satisfied with my academic progress.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D3. I am satisfied that my teachers provide the necessary support when I need it.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D4. My classmates are there for me when I need help.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D5. I am satisfied with my new teacher's teaching style.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D6. I am satisfied with working with my classmates on school projects.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Socio-cultural Adaptation	D1. I am satisfied with the support at my university.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D2. I am satisfied with my academic progress.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D3. I am satisfied that my teachers provide the necessary support when I need it.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D4. My classmates are there for me when I need help.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D5. I am satisfied with my new teacher's	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	teaching style.	
	D6. I am satisfied with working with my classmates on school projects.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D13. I can deal with unsatisfactory service.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Psychological Adaptation	D14. I feel that I fit in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D15. I feel close to China's social environment.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D16. I feel capable in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D17. I felt at ease about talking to locals.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D18. I know how to cope with anxiety.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D19. I can insist on anything.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D20. I feel powerful in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D21. I had a full life in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D22. I find it easy to make decisions in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D23. I still enjoy the things I used to enjoy in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Daily Life Adaptation	D24. I know the basic legal regulations in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D25. I know how to travel in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D26. I know where to buy basic necessities in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D27. I know what to do in an emergency in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D28. I am adapting to the way of life in	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	China.	
	D29. I know how to survive on my own budget in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D30. I can handle the daily problems I face in China.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Appendix C: Questionnaire (English and Chinese versions)



International Students' WeChat Use, Prior Cross-Cultural Exposure, Social Self-Efficacy and Cross-Cultural Adaptation in China

中国国际学生的微信使用、既往跨文化暴露、社会自我效能感和跨文化适应

We invite you to participate in a study on international Students' WeChat Use, Prior cross-cultural Exposure, Social Self-efficacy and Cross-cultural Adaptation in China. We would appreciate it very much if you can spend 10 - 15 minutes to fill in the questionnaire.

我们邀请您参加一项关于中国国际学生微信使用、既往跨文化暴露、社会自我效能感和跨文化适应的研究。如果你能花 10 - 15 分钟来填写调查问卷，我们将非常感激。

If you have any question, please contact Zhang Kai from Xihua University and Faculty of Education, Language and communication, Universiti Malaysia Sarawak at 870606978@qq.com.

如有任何问题，请通过邮箱 870606978@qq.com 与西华大学及马来西亚沙撈越大学教育、语言与传播学院的张凯联系。

Participant Consent: 参与者同意书

I understand that my participation in this study is voluntary, and that if I no longer wish to participate, I can withdraw at any stage before I complete the questionnaire. I do not have to give any reason for doing so.

我知道我参与这项研究是自愿的，如果我不再想参与，我可以在我完成问卷之前的任何阶段退出。我不必给出任何理由。

I fit the participation criteria - I am aged 18 or older

我符合参与的标准-我的年龄在 18 岁或以上

I understand that all data I provide will be kept confidential and stored securely at Universiti Malaysia Sarawak and Xihua University. Only the researchers will have access to this.

我理解，我提供的所有数据都将被保密，并安全存储在马来西亚沙撈越大学和西华大学。只有研究人员才能接触到这个信息。

I understand that the results of the study will be disseminated through conference and/ or published articles. I understand that my data will remain anonymous at all time.

我理解该研究的结果将通过会议或已发表的文章来传播。我知道我的数据将一直保持匿名。

☐ I have read and understood the participant consent information for a study on international Students' WeChat Use, Social Self-efficacy and Cross-cultural Adaptation in China and agree to take part in the study.

本人已阅读并理解了一项关于中国国际学生微信使用、社会自我效能感和跨文化适应的研究的参与者同意信息，并同意参与本研究。

Section A: Demographic Data 第 A 节: 人口统计数据

Instructions: Please tick the information that describes you. A1 ~ A8 are general questions, A9 ~ A14 are on your previous exposure to China. 说明: 请勾出描述你的信息。A1 ~ A8 是一般的问题, A9 ~ A14 是你之前在中国的接触情况。

A1. Gender 性别: Female 女性 () Male 男性 () Other 其他 ()

A2. Age 年龄: 18 years old 18 岁 () 18 - 25 years old 18-25 岁 ()

Over 25 years old () 超过 25 岁

A3. Regional 区域: Asian countries 亚洲国家 ()

European and American countries 欧美国家 ()

African countries 非洲国家 ()

Other countries 其他国家 ()

A4. Education 学历: Undergraduate 大学本科 () Postgraduate 研究生 () Other 其他 ()

A5. Major 专业: Medical and Health Sciences 中医药健康 ()

Chinese Language and Literature 中国语言文学 ()

Civil Engineering Speciality 土木工程 ()

Business Administration 工商管理 ()

Computer Sciences 计算机科学 ()

Other 其他专业 ()

A6. HSK (中文熟练度): HSK Level 1 中文 1 级 () HSK Level 2 中文 2 级 ()

HSK Level 3 中文 3 级 () HSK Level 4 中文 4 级 ()

HSK Level 5 中文 5 级 () HSK Level 6 中文 6 级 ()

A7. Time spent in China 入境中国的时间:

Less than 3 months 少于 3 个月 () 3 - 6 months 3 到 6 个月 ()

7 - 12 months 7 到 12 个月 () 1 - 2 years 1 到 2 年 ()

More than 2 years 超过 2 年 ()

A8. How often do you use the Chinese language after your arrival in China?在您抵达中国之后每天使用中文的大致时长?

Less than 30 minutes per day 每天少于 30 分钟 ()

30 - 60 minutes per day 每天 30 到 60 分钟()

1 - 2 hours per day 每天 1 到 2 个小时 ()

3 - 4 hours per day 每天 3 到 4 个小时 ()

5 hours or more 每天超过 5 小时 ()

Prior cross-cultural exposure 既往的跨文化暴露

A9. How often do you use WeChat?您选择使用微信后每天的时长?

Less than 30 minutes per day 每天少于 30 分钟 ()

30 - 60 minutes per day 每天 30 到 60 分钟()

1 - 2 hours per day 每天 1 到 2 个小时 ()

3 - 4 hours per day 每天 3 到 4 个小时 ()

5 hours or more 每天超过 5 小时 ()

A10. When did you start using WeChat?您从什么时候开始使用微信?

Less than 3 months ago 3 个月之前 ()

3 - 6 months ago 3 到 6 个月之间 ()

7 - 12 months ago 7 到 12 个月之前 ()

1 - 2 years ago 1 到 2 年之前 ()

More than 2 years ago 超过 2 年之前 ()

A11. How many of your family members are Chinese (e.g., your parents, your

grandparents, uncle, aunt)?您的家庭成员中有多少人是中国人(如您的父母、祖父母、叔叔、姑姑)?

None 没有 () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 多于 10 个 ()

A12. Before you studied in China, how many Chinese friends did you have? (Chinese

friends can be from China, Taiwan, Hong Kong, Malaysia etc)在来中国留学之前, 您有多少中国朋友? (中国朋友可以来自中国大陆、台湾、香港、马来西亚等地)

None 没有 () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 多于 10 个 ()

A13. Before you studied in China, how many times have you visited China? 在来中国留学之前, 您去过中国多少次?

None 没有 () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 多于 10 个 ()

A14. Before you studied in China, how many times have you watch movies/ TV programs / videos about China?在来中国留学之前, 您观看过多少次有关中国的电影/电视节目/视频?

None 没有 () 1 - 2 () 3 - 6 () 7 - 10 () More than 10 多于 10 次 ()

Section B: Wechat use B 部分: 微信使用

Please rate your Wechat usage based on the scale from Strongly Disagree (1) to Strongly Agree (5).请根据从强烈不同意(1)到强烈同意(5)的范围对您的微信使用水平进行评分。

	Extent 范围				
Scale 等级	1	2	3	4	5
Level 水平	Strongly Disagree 非常不同意	Disagree 不同意	Neutral 中立	Agree 同意	Strongly Agree 非常同意

Indicator 指标	Item 测量题目	Scale (please tick) 刻度 (请勾选)
WeChat use intensity 微信使用强度	B1. I have a lot of WeChat friends. B1.我有很多多在微信上的朋友。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B2. I feel out of touch when I haven't logged onto WeChat for some time. B2.当我有一段时间没有登录微信时, 我感觉失去了联系。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B3. I am proud to tell people that I'm on WeChat.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	B3.我很自豪地告诉人们，我在使用微信。	
WeChat Acceptance 微信接受度	B4. WeChat is easy to use. B4.微信易于操作。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B5. WeChat is free to use. B5.微信可以免费使用。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B6. WeChat is useful to make life easier in China. B6.微信可以让您在中国的生活更方便。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Social-cultural Adaptability 社会文化适应性	B7. I use WeChat to improve my Chinese language skills. B7.我用微信来提高我的汉语技能。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B8. I use WeChat to keep in touch with friends. B8.我用微信来和朋友们保持联系。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B9. I use WeChat to get study resources. B9.我用微信来获取学习资源。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B10. I use WeChat to talk about study problems. B10.我用微信来讨论学习中的问题。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B11. I use WeChat to talk about life problems. B11.我用微信来谈论生活中的问题。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B12. I use WeChat to get to know Chinese culture. B12.我用微信来了解中国文化。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B13. I use WeChat to participate in Chinese social activities. B13.我用微信来参加中国人的社交活动。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Psychological Adaptability 心理适应性	B14. I find that using WeChat can strengthen social support. B14.我发现使用微信可以加强社会支持。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	B15. I find that using WeChat can help me integrate into life in China faster. B15.我发现使用微信可以帮助我更快地融入中国的生活。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B16. I find that using WeChat can bring me closer to my friends in other countries. B16.我发现使用微信可以让我更接近我在其他国家的朋友。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B17. I find that using WeChat can strengthen social ties. B17.我发现使用微信可以加强社会关系。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B18. I find that using WeChat can strengthen emotional support. B18.我发现使用微信可以加强情感支持。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	B19. I find that using WeChat can overcome homesickness or loneliness. B19.我发现使用微信可以克服思乡之情或孤独感。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Section C: Social Self-efficacy C 部分：社会自我效能感

After you have used WeChat, how confident are you of your ability to engage in social interactions in China? Please rate your social self-efficacy based on the scale from Strongly Disagree (1) to Strongly Agree (5).使用完微信后，你对自己在中国进行社交活动的信心有多大？请根据从强烈不同意(1)到强烈同意(5)的量表对你的社会自我效能感进行评分。

Item 测量题目	Scale (please tick) 刻度（请勾选）
C1. I am confident to make friends in a group where everyone knows each other. C1.我有信心在一个每个人都认识对方的小组里交朋友。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C2. I am confident to make friends with people my own age. C2.我有信心和和我同龄的人交朋友。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C3. I am confident to ask someone to go out for a meal or to spend time together.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

C3.我有信心邀请别人出去吃饭或花时间在一起。	
C4. I am confident to express my feelings to others. C4.我有信心向别人表达我的感情。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C5. I am confident to make acquaintances (people who do not know one another well) feel comfortable in my circle of friends. C5.我有信心让熟人（那些彼此不太了解的人）在我的朋友圈中感到舒服。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C6. I am confident to start a conversation with someone I don't know well. C6.我有信心和一个我不认识的人开始交谈。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C7. I am confident to express my opinion in a group of people discussing a topic that interests me. C7.我有信心在一群人讨论一个我感兴趣的话题上表达我的观点。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C8. I am confident to work with unfamiliar people on school, work, community or other projects. C8.我有信心在学校、工作、社区或其他项目中与不熟悉的人一起工作。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C9. I am confident to put myself in a new and different social situation. C9.我有信心把自己置于一个新的和不同的社会环境之中。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C10. I am confident to share interesting experiences I have had with a group of people. C10.我很有信心与一群人分享我曾经有过的有趣的经历。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C11. I am confident in responding to an invitation to a party hosted by a well-known or popular person. C11.我有信心回应一个由知名人士或受欢迎人士举办的聚会的邀请。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C12. I am confident in volunteering to lead a group or organization. C12.我有信心领导一个团体或组织。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C13. I am confident to attend parties or social events where there are people I know.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

C13.我有信心参加有我认识的人的聚会或社交活动。	
C14. I am confident to join a table at lunch or dinner when there are already people sitting and talking. C14.在午餐或晚餐的时候，我有信心去吃饭。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C15. I am confident in volunteering to help organize an event. C15.我有信心帮助组织一个活动。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
C16. I am confident to ask for help when I need it. C16.我有信心在我需要帮助的时候寻求帮助。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Section D: Cross-cultural Adaptation 第 D 部分：跨文化适应

After you have used WeChat, what do you think in your level of adaptation in China?
Please rate your cross-cultural adaptation based on the scale from Strongly Disagree (1) to Strongly Agree (5).使用完微信后，你认为在中国的适应程度如何？请根据从强烈不同意(1)到强烈同意(5)的范围对您的跨文化适应进行评分。

Indicator	Item	Scale (please tick)
Academic Adaptation 学术适应程度	D1. I am satisfied with the support at my university. D1.我对我所在大学的支持感到很满意。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D2. I am satisfied with my academic progress. D2.我对自己的学业进步感到满意。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D3. I am satisfied that my teachers provide the necessary support when I need it. D3.我很满意我的老师在我需要的时候提供必要的支持。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D4. My classmates are there for me when I need help. D4.当我需要帮助的时候，我的同学们都在我身边。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D5. I am satisfied with my new teacher's teaching style. D5.我对我的新老老师的教学风格感到很满意。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D6. I am satisfied with working with my	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	classmates on school projects. D6.我对和同学一起做学校项目很满意。	
Socio-cultural Adaptation 社会文化适应程度	D1. I am satisfied with the support at my university. D1.我对我所在大学的支持感到很满意。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D2. I am satisfied with my academic progress. D2.我对自己的学业进步感到满意。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D3. I am satisfied that my teachers provide the necessary support when I need it. D3.我很满意我的老师在我需要的时候提供必要的支持。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D4. My classmates are there for me when I need help. D4.当我需要帮助的时候，我的同学们都在我身边。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D5. I am satisfied with my new teacher's teaching style. D5.我对我的新老老师的教学风格感到很满意。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D6. I am satisfied with working with my classmates on school projects. D6.我对和同学一起做学校项目很满意。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D13. I can deal with unsatisfactory service. D13.我可以处理不令人满意的服务。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Psychological Adaptation 心理适应程度	D14. I feel that I fit in China. D14.我觉得我很适合在中国生活。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D15. I feel close to China's social environment. D15.我感觉自己很接近中国的社会环境。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D16. I feel capable in China. D16.我觉得自己在中国很有能力。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D17. I felt at ease about talking to locals. D17.如果能和当地人交谈，我就会感到	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	很自在。	
	D18. I know how to cope with anxiety. D18.我知道如何应对焦虑。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D19. I can insist on anything. D19.我可以坚持任何事情。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D20. I feel powerful in China. D20.我在中国感觉自己很强大。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D21. I had a full life in China. D21.我在中国有了一段充实的生活。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D22. I find it easy to make decisions in China. D22.我发现在中国做出决定很容易。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D23. I still enjoy the things I used to enjoy in China. D23.我仍然喜欢我以前在中国喜欢的东西。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Daily Life Adaptation 日常生活适应程度	D24. I know the basic legal regulations in China. D24.我知道中国的基本法律法规。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D25. I know how to travel in China. D25.我知道怎么在中国旅行。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D26. I know where to buy basic necessities in China. D26.我知道在中国在哪里可以买到基本的生活必需品。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D27. I know what to do in an emergency in China. D27.我知道在中国的紧急情况下该怎么办。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D28. I am adapting to the way of life in China. D28.我正在适应中国的生活方式。	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
	D29. I know how to survive on my own budget in China. D29.我知道如何在中国靠自己的预算生	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

	存下去。	
	D30. I can handle the daily problems I face in China. D30.我可以处理好我每天面临的问题在 中国	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐