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Abstract

In recent decades, the development of digital technology has reshaped the way of social interaction as well as social relationships for international students. With the advent of the internet in recent decades, social network sites (SNSs) have become important platforms for international students to establish networks and seek information. Through interaction and searching behaviors on SNSs, international students are likely to acquire academic and social skills and even obtain a sense of belongingness to the new environment. Since the adoption of multiple SNSs can be linked to cultural differences, the behaviors among international students may vary from those local students.

Based on the data from both quantitative and qualitative studies, the present study intends to explore Chinese international students' SNSs use habit and its relations with the formation of social capital and cross-cultural adaptation during their stay in Catalan universities. In order to accomplish the objective, 146 Chinese international students in Barcelona answered an online questionnaire surveying their use intensity of six chosen SNSs (in specific, WeChat, Facebook, WhatsApp, Weibo, Twitter and Instagram) in question and self-evaluation of the perceived social capitals. In the next step, 17 in-depth interviews were followed to identify specific motivations and behaviors for using multiple SNSs in relation to interviewees' adaptation experiences.

The results highlight that chosen SNSs in the present study facilitate Chinese international students' different types of social capital formation. More specifically, the study confirms that intensively using the host-based SNSs (namely, Instagram, WhatsApp, Facebook) play an important role in establishing heterogeneous networks and obtaining novel information, while ethnic SNS (namely, WeChat) has an impact on establishing strong ties and providing emotional and material support.

Moreover, principal factors that affect participants' SNSs behaviors and social capital formation were identified in the present study. Among them, active behaviors, the consciousness of platform affordances, and demanded attitudes are considered key attributes for a major and heterogeneous social capital formation.

Lastly, the thesis also demonstrates diverse examples of participants' adaptative strategies related to their online behaviors on different chosen SNSs.

From the perspective of cross-cultural communication and social capital, this dissertation summarizes a model for participants to enhance their cross-cultural competence and achieve better intercultural communication through social media use. The findings provide recommendations for individuals' cross-cultural adaptation and media operation decisions by educational and policy-making institutions.

Keywords: social network sites, social media, intercultural adaptation, social capital, international students, China

Resumen

En las últimas décadas, el desarrollo de la tecnología digital ha reconfigurado la forma de interacción social para los estudiantes internacionales. Con la llegada de Internet, las redes sociales se han convertido en importantes plataformas para que los estudiantes internacionales establezcan redes y busquen información. A través de los comportamientos de búsqueda en las redes sociales, los estudiantes internacionales podrían adquirir habilidades académicas y sociales e incluso obtener un sentido de pertenencia al nuevo entorno. Dado que la adopción de múltiples redes sociales puede estar relacionada con las diferencias culturales, los comportamientos de los estudiantes internacionales pueden variar con respecto a los de los estudiantes locales.

Basándose en los datos de estudios mixtos, el presente estudio pretende explorar el hábito de uso de las redes sociales de los estudiantes internacionales chinos y sus relaciones con la formación de capital social y la adaptación transcultural durante su estancia en las universidades catalanas. Para lograr el objetivo, 146 estudiantes internacionales chinos en Barcelona respondieron a un cuestionario online en el que se preguntaba por el uso de seis SNS elegidos (en concreto, WeChat, Facebook, WhatsApp, Weibo, Twitter e Instagram) y la evaluación de los capitales sociales percibidos. A continuación, se siguieron 17 entrevistas en profundidad para identificar las motivaciones y los comportamientos específicos del uso de múltiples redes sociales en relación con las experiencias de adaptación de los entrevistados.

Los resultados destacan que las redes sociales elegidos en el presente estudio facilitan a los estudiantes internacionales chinos diferentes tipos de capital social. Concretamente, el estudio confirma que el uso de las redes sociales locales (a saber, Instagram, WhatsApp, Facebook) desempeña un papel importante en el establecimiento de redes heterogéneas y la obtención de información novedosa, mientras que las étnicas (a saber, WeChat) tienen un impacto en el establecimiento de lazos sólidos y el apoyo emocional y material.

Además, se identificaron los principales factores que afectan a los comportamientos de los participantes en las redes sociales y a la formación de capital social. Entre ellos, los comportamientos activos, la conciencia de las affordances de la plataforma y las actitudes se consideran atributos claves en la formación de capital social.

Por último, la tesis también muestra diversos ejemplos de estrategias de adaptación de los participantes en relación con sus comportamientos en línea en las diferentes redes sociales elegidas.

Desde la perspectiva de la comunicación intercultural y el capital social, esta tesis resume un modelo para que los participantes mejoren su competencia intercultural y consigan una mejor comunicación intercultural mediante el uso de las redes sociales. Los resultados proporcionan recomendaciones para la adaptación transcultural de los individuos y las decisiones de funcionamiento de los medios de comunicación por parte de las instituciones educativas y políticas.

Palabras claves: redes sociales, adaptación intercultural, capital social, estudiantes internacionales, China

Preface

The process of identifying specific PhD research has not been a smooth one. In fact, during the first year of my doctoral research, I was lost in the cultural studies literature for a long time, and I was not able to determine my research. However, based on my experience of living in Latin America and sojourning in Europe since 19 years old, I have always been interested in exploring the topic of identity and acculturation on a personal level.

During the first year of my PhD, I had the opportunity to work for a media company. My main responsibility at the media company was to provide local information to the Chinese community in Catalonia on the Chinese-based social media platform. In 2018, the same type of news-sharing channels was still scarce on Chinese social media platforms. I have witnessed that the social media accounts that I worked on have been gaining attention and have been very effective in facilitating the Chinese community in Catalonia, for both expatriate and long-time residents. This has made me strongly aware that social media, as an everyday consumer product, was also influencing the way ethnic communities accessing information.

On the other hand, as a researcher who has always been concerned about popular culture, I noticed the communication potential of Tik Tok (known as 'Douyin' in China) in the information-fragmented era back in 2017. Inspired by this, I started to observe the profile of consumers on many different social media platforms and tried to understand how digital consumption styles, contents were constantly building part of their identity. In the process of exploring social media and cultural adaptation, Nancy K. Baym's book "Personal connections in the digital age" provided me with the most fundamental inspiration, and taught me that digital divide can also lead to different social consequences due to cultural and regional differences.

Based on my personal background, I also realized that Chinese international students are actually a very typical group moving through different social media systems. In particular, because the population of Chinese students is generally young, their involvement in the Internet and social media is also quite high, and most of them are mainly immersed in the Chinese social media system before they left China. This better explained why the media company that I worked for achieved more success in Chinese social media. In order to better explain the social consequences of digital divide based on cultural factors, and to provide enlightening insights to more Chinese international students, as well as to provide the host community with a better understanding of the relatively fragmented forms of social media consumption faced by the Chinese community, in addition to providing rich data and case studies, this study also proposed some constructive models to try to explain this phenomenon of intercultural communication.

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Chapter I

Introduction

Generally, this thesis deals with the problem of how Chinese international students use social network sites during their study abroad, and how the online experience potentially affects their social networks and intercultural adaptation process. This introduction serves to provide an overview of this chosen topic and explains its relevance and background about the topic. Meanwhile, the main objectives and structures of this study will be proposed as well.

1.1 Overview of the research topic

Widespread social and cultural differentiation, leading to the segmentation of the users/viewers/readers/listeners. Not only are the messages segmented by markets following senders' strategies, but they are also increasingly diversified by users of the media, according to their interests, taking advantage of interactive capacities.

---- Manuel Castells, 2010, p.401-402

In the past decade, we have witnessed the rapid growth of international students around the world. More than 5 million students worldwide pursue tertiary education in another country (UNESCO 2018). Among them, almost one-fifth of the students have originated from China. Research has shown that when international students leave their home country and begin to live in a brand-new environment, they are likely to encounter a variety of psychological and behavioral challenges (Meng et al., 2018; Williams & Johnson, 2011). While facing different kinds of changes in life, the social adjustment becomes crucial for international students. Furthermore, some research indicates that many Chinese international students are likely to face problems in self-adjustment (Cao et al., 2016; Wang et al., 2012), a process of fulfilling primary socialization and establishing a relatively stable social support in the host milieu for a sense of belonging

(Shu et al., 2020). Kim (2001) used the term *cross-cultural adaptation* to describe the process of self-adjustment. It refers to the dynamic process of individuals, who have completed their primary socialization in one culture, relocating themselves to new, unfamiliar, or changing cultural environments, establishing (or reestablishing) and maintaining relatively stable, reciprocal, and functional relationships with those environments (Kim, 2001, p.31). Through the process of cross-cultural adaptation, one could gradually increase the functional fitness and develop psychological health by dealing with daily activities, which are two major social outcomes defined by Kim.

In recent decades, lots of studies have found that internet use has positive effects on cross-cultural adaptation to strangers (Bargh & McKenna, 2004b; Turner, Grube, & Meyers, 2001; J. Ye, 2006). Bargh and McKenna (2004) claimed that using the internet could help develop social support. Turner and her colleagues (2001) suggested that online communities could provide weak-tie support. Ye (2006) also indicated that perceived support from interpersonal networks in the host country and online ethnic social groups could help alleviate social difficulties.

More recently, as the new forms of information and communication technologies (ICTs) have developed dynamically, increasing studies have demonstrated that the use of social network sites (SNSs) could facilitate international students' social integration into the new environment and help students to attain social capital (Ellison, Steinfield, & Lampe, 2007; Ellison, Vitak, Gray, & Lampe, 2014; Mao & Qian, 2015; Sandel, 2014; Sawyer & Chen, 2012). And social capital here refers to the agglomeration of resources inherent in one's social relationships, which is constructed and obtained through the norms of reciprocity and trustworthiness (Bourdieu, 1986; Coleman, 1988). It is also considered a core factor in building up social interaction and influencing social participation (Lee et al., 2018; Zhong, 2014). (R. D. Putnam, 2000a) further divided social capital into bridging and bonding types based on the tie strength.

Apart from the general use of SNSs by international students, a small part of the studies also focused on the social influences by comparing the cultural differences when using social media platforms (Cho & Park, 2013; Kim et al., 2011; Li & Chen, 2014; Yuan & Fussell, 2017). Li and Chen (2014) used Renren (a popular Chinese SNS) and Facebook as two comparative objects to examine the level of perceived social capital. The result illustrated that Facebook and Renren both had a positive relationship with

bridging social capital; however, neither of the two SNSs predicted bonding social capital. In addition, Facebook demonstrated a stronger relationship with bridging social capital than Renren did. In other words, it seemed that Facebook was more effective in building up connections in the host country. Yuan and Fussell (2017) also found that Facebook use was more related to building connections with other groups. Additionally, WeChat use among Chinese international students in Germany also proved that the usage of WeChat in the host society is positively associated with their bridging, bonding and maintained social capital (Pang, 2018b).

Besides the use of multiple cultural-based SNSs, some scholars argued that the different functions of SNSs use could also affect the outcomes of social capital and further the cultural adaptation of the sojourners (Guo, Li, & Ito, 2014; Pang, 2018a). In their study, Guo et al. (2014) claimed that both the social-informational use and entertaining-recreational use of SNSs could predict bridging social capital but failed to predict bonding social capital. Furthermore, the social-informational function of SNSs use was found to provide more informational support to satisfy sojourners' needs, which contributed to their psychological well-being in the host society. Partly inconsistent with Guo's study, Pang (2018a) found that the recreational function of SNSs could also predict bridging social capital. These studies showed that the multiple motivation for using SNSs could lead to different outcomes concerning the enhancement of social capital, which may indirectly influence one's cross-cultural adaptation. It became relevant to investigate the intricate relationships between distinct types of SNS behaviors and intercultural adaptation mediated by social capital.

In this connection, Uses and gratifications theory (U&GT) is one of the appropriate existing theoretical frameworks to investigate individual's motives and use patterns on social media, which assumes that audiences are active and goal-oriented users seeking for the fulfillment of needs and gratifications (Katz, Haas, & Gurevitch, 1973). In the 21st century, many scholars began to apply U&GT to Internet communication and new media (Ruggiero, 2000). A series of studies were conducted applying U&GT to specific SNSs as well (Namsu Park, Kee, & Valenzuela, 2009). From a study of surveys and interviews among undergraduates (Quan-Haase & Young, 2010), it was found that Facebook was more likely to be considered a public tool for entertainment and information seeking, while instant messaging was more associated with friendship development and maintenance. Some cultural-based SNSs were also examined by

researchers. Entertainment and cognitive needs are central motivations for college students in China to use WeChat frequently (Y. Chen, 2017).

U&GT has also been applied in the area of cross-cultural adaptation. As mentioned previously, the social-informational function of SNSs use was associated with psychological well-being in the host society mediated by social capital (Guo et al., 2014; Pang, 2018a). Evidence has found that Chinese students with a strong acculturation desire in the United States may use Weibo (a Chinese version of Twitter) to obtain necessary information on acculturation, which boosts their use frequency and intensity on such SNS (Chen Yang, 2018a). Information need is one of the most important competencies mentioned in studies related to U&GT and international students. Firstly, international students could use SNSs for social interactions in order to fulfill information acquisition. Secondly, many SNSs are great information resources, and international students can easily gain information through passive surveillance. Thirdly, through interaction and surveillance behaviors, they can share common academic problems and experiences in the virtual place (Hamid, Bukhari, Ravana, Norman, & Ijab, 2016).

A review of literature shows that international students may use specific SNSs to fulfill their multiple needs. By achieving the goals, they may obtain gratification and satisfaction from the use of SNSs and further enhance their satisfaction in the host society. In other words, SNSs-usage patterns could contribute to distinct social outcomes for Chinese international students in the host society. However, a review of the literature shows that few studies combined all these concepts in the same research with the purpose of exploring the internal mechanism of intercultural communication by using multiple SNSs. The present studies in these areas show the tendency of being scattered and inconsistent. Moreover, most of the previous studies have been conducted in Anglophone countries. Besides, when it came to the comparison of cultural-based SNSs, previous researchers mainly focused on comparing dual SNSs. In the present study, the relationships between multiple SNSs uses among Chinese international students, taking students in Barcelona as the population and the social influences with regard to social capital will be examined.

1.2 Background of the study

This study intends to complement previous work in a European country, Spain, more specifically, in the multicultural city, Barcelona.

Since the beginning of the 21st century, the number of Chinese students going to Spain to study has increased over time due to the significant increase in demand for Spanish language studies in China (Antolín, 2013). In addition, as the connections between Spain and China in the field of education become increasingly closer, the number of Chinese students going to Spain to study for various personal purposes has also increased gradually in recent years. According to the data, there were more than 8600 Chinese students at Spanish universities by the end of 2017 (Zhong, 2018). The number is still increasing rapidly in the recent few years. In this research, we argue that while Chinese international students enter a new milieu, not only do they have to face the issue of social and psychological adaptation, but they also face a latent process of digital adaptation.

SNSs are widely consumed among young people both in Spain and China. Young people in both countries tend to integrate several SNSs for their daily use. According to a survey conducted among Spanish undergraduates in Barcelona, WhatsApp, Instagram and Twitter are the most used SNSs on their smartphones (Giraldo-Luque & Fernández-Rovira, 2020). Young people in Spain also apply different strategies to SNSs. For example, WhatsApp for communicating and organizing offline activities; Instagram for following friends and celebrities; Facebook for connecting with distant friends; and Twitter to search for useful information (Scolari, Ardèvol, Pérez-Latorre, Masanet, & Lugo Rodríguez, 2020; Tur, Marín-Juarros, & Carpenter, 2017). Through online activities on multiple platforms, young Spanish people gradually gain different types of social capital (Vidales-Bolaños & Sádaba-Chalezquer, 2017).

On the other hand, the Chinese social media platforms ecosystem is quite distinct from the Spanish ecosystem. Since most of the SNSs used in Western countries are blocked in China, domestic SNSs like WeChat and Weibo dominate people's daily use of smartphones (Montag, Becker, & Gan, 2018). As one of the most popular applications in China, WeChat offers various functions such as messaging, networking, online payment, etc. Although previous studies have used WeChat as the counterpart of

Facebook for comparison, it possesses many own affordances based on Chinese users' habits (He & Pedraza-jiménez, 2015). Even during their stay abroad, Chinese students still maintain their habitual behaviors of using WeChat to develop social capital (Pang, 2018b).

However, the latent digital adaptation under a polymedia environment among Chinese international students and the consequent effects during their stay abroad remains unknown. Some relevant studies conducted in Spain were more focused on the community of Chinese immigrants. Taking the Chinese immigrants in Madrid as the sample, Wang (2018) found that the first generation of immigrants tended to consume more ethnic content through different media, while their descendants, the young groups, were inclined to consume more host cultural content due to the influence of their peers. A study conducted by Liu (2020) in Barcelona among the Chinese community in Catalonia reported similar results. Moreover, she emphasized that the lack of language competence was the significant factor that impedes the traditional generation of Chinese immigrants from consuming information through host media.

To the authors' knowledge, no research has yet focused on the impact of specific social media use on the academic performance and overall adjustment of the Chinese student population in Barcelona. As a part of the community, the author himself worked as a news editor on Chinese social media platforms to disseminate practical local news for the Chinese community in Catalonia and the Barcelona metropolitan area. During the period 2018-2019, the author observed a rapid increase in the number of followers of the news account from zero to several thousand. In this process, a large part of the followers were Chinese students who studied in the host society. The account that the author works on has undoubtedly provided a lot of Chinese students who lived in Catalonia with timely news and information related to lifestyles and activities. From the personal level, the author also considered it relevant to have a better understanding of this group of students' digital consumption behaviors and the extension to their offline social styles.

1.3 Objectives of the thesis

Based on the references mentioned above about international student mobility and related research, combining the author's own experience and field observations in Spain as well, the main objective of this study was determined:

To understand the mechanism of Chinese international students' intercultural adaptation mediated by their social capital based on the behaviors and motivations on multiple social network sites (SNSs).

More specific research objectives were determined based on the broad context of intercultural adaptation and in conjunction with social capital theory in the field of sociology, as well as the Uses and gratifications theory.

The second objective was proposed as:

To explore and identify the panorama of Chinese international students' SNSs habits and motivations in Barcelona.

The third objective was proposed as:

To understand how the use of multiple SNSs influences Chinese international students' social capital construction.

And the fourth objective was proposed as follows:

To explore the extent of intercultural adaptation of chosen students during their overseas study in Barcelona based on the patterns and motivations of using multiple SNSs.

Further research design, research questions, and hypothesis will be presented in the Methodology Chapter. In the next step, the general structure of the thesis will be presented.

1.4 Structure of the thesis

In order to fulfill the purpose of the study as well as to present the results as rationally as possible, this doctoral thesis has been divided into seven chapters, in addition to a bibliography and appendices.

In the current Chapter I, Introduction, the main background of the topics is introduced, as well as the direction of some relevant research in recent years and the existing research gaps. In this way, the main research objectives of this doctoral dissertation can be introduced, which will pave the way for the following chapters.

In Chapter II, the overall theoretical frameworks will be introduced in order to provide the readers with a better understanding of the three terms that are frequently discussed in the thesis: Cross-cultural adaptation, Social capital, and Uses and gratifications. Some other concepts related to the three terms, such as affordances, social network sites (SNSs), are also introduced to complement this chapter. In addition, in order to give the readers a general understanding of all the SNSs involved in the study, this chapter also provides a brief introduction to the target SNSs. We believe that only with a systematic comprehension of the theoretical concepts can the main findings of the study be better understood along with the research objectives and research design.

Chapter III is dedicated to the description of the proposal of research questions, methodological approaches, and research designs. The main scales used in the quantitative questionnaire and the main framework for qualitative interviews are described in this section.

From Chapter IV to Chapter VI, the empirical results will be presented as responses to the three specific research objectives. Chapter IV is devoted to describing the sample's general SNSs habits and motivations in Catalonia. In Chapter V, the results related to students' SNSs and social capital will be identified using both quantitative and qualitative data. And Chapter VI aims to delineate the patterns between students' SNSs behaviors as coping strategies with their cross-cultural adaptation outcomes based on the qualitative data. At the end of each chapter of findings, a general discussion is given in the attempt to conclude the corresponding chapter.

Finally, in Chapter VII, a general discussion and conclusion of the study are given, aiming to answer the general research question and provide a model to explain the phenomenon in general. Main contributions, limitations and suggestions for further research are also provided in this chapter.

Chapter 2

Theoretical framework

In this chapter, the principal theories and background information will be introduced to support the doctoral investigation. Three major concepts, namely, cross-cultural adaptation, social capital and uses and gratifications, will be presented with details, which also respond to the specific objectives of the thesis.

The first part will start from introducing the concepts of culture and intercultural communication. Further, different factors that influence intercultural communication will be provided. And as an important component of intercultural communication, different models and dimensions of cross-cultural adaptation will be presented. The second part will focus on the introduction of social capital. Related concepts like social support and social network will work as a comparison and complement in this part as well. Furthermore, the rise of social network sites (SNSs) and their influence on social capital will also be discussed. The third part will emphasize the uses and motivations of using different types of media, from television to the recent social media. Some terminologies related to the use of multiple SNSs will be presented to better understand this current phenomenon. And in the last part, in case readers are not familiar with the mentioned SNSs of this study, brief introductions of those target SNSs will be brought up as well.

2.1 From culture to intercultural communication

2.1.1 Culture and its functions

The definition of 'Culture' has been discussed over centuries without reaching an agreement. The concept of culture is abstract, complex, and mysterious especially faced with the era of globalization. Generally speaking, the definition of culture can be

classified into two categories. On the one hand, culture can be explained from the micro-level as a series of shared elements that influence the interpersonal interaction in a community (Geertz, 1973). These elements can be tradition, beliefs, rituals, values, norms, symbols, and meanings (Hofstede, 2001; Jandt, 2018; Ting-Toomey, 1999). On the other hand, culture is also a concept in the sense of social structure. Because it also serves as the guidelines for living and functioning in a collective community (Samovar, Porter, McDaniel & Roy, 2014). These two definitions of culture are interdependent.

The function of culture is everywhere in our daily life. Firstly, culture works as a foundation that provides meanings and values for people, events, and objects (Samovar et al., 2014). It gives the reference for people to recognize themselves as who they are (Ting-Toomey, 1999). Social events and activities become meaningful because of the norms and values which are presented by culture.

Secondly, culture can shape people's sense of affiliation and belongingness in a certain group (Ting-Toomey, 1999). It creates in-group involvement and in-group/out-group differences. In an in-group circumstance, the symbols shared between the members are similar; on the contrary, people tend to feel more nervous when faced with out-group members and may make mistakes when transmitting themselves. This feeling of attachment to a cultural group can be tagged as one's cultural identity, which also influences one's attitudes and behaviors towards other groups that share different symbols (Samovar et al., 2014).

Thirdly, culture affects our ability of adaptation (Ting-Toomey, 1999). As culture is learned through interaction in a certain system, it can be dynamic with the intervention or introduction of new symbols in the system (Samovar et al., 2014). People tend to use adaptive strategies facing life changes. For example, when people move to a new milieu, they would adapt their needs and behaviors in response to the changes.

Last but not least, culture shapes our communication ability (Ting-Toomey, 1999). As Hall (1959, p.169) once claimed in *The Silent Language*, culture is communication, and communication is culture. It is through communication, culture can be transmitted and sustained from one generation to another generation (Jandt, 2018). It is also through communication, people learn to shape their identity. Furthermore, they use their social experiences gained from communication to interact with others.

2.1.2 Defining Intercultural Communication

As it was explained previously, culture is highly related with communication. Alfred G. Smith (1966) described specifically the relationship between culture and communication. In his words, culture is constructed by codes that we learn and share by means of communication. Moreover, communication requires codes and symbols that should be learned and shared. In this sense, cultural communication can be considered a social situation in which interlocutors from the same community interact via their shared codes, such as language, norms, and rituals.

When it comes to the term "Intercultural Communication", we can consider it as the communication process between people from different cultural communities (Ting-Toomey, 1999). Specifically, people from different cultural communities refer to those who own different cultural references that consequently influence to their self-perception as a member of different cultures (Rodrigo-Alsina, 2012). From these definitions, the significance of "intercultural" has been emphasized.

Regarding the mechanism of intercultural communication, it is highlighted as an interactive process in which members from different cultures negotiate shared meanings by exchanging symbols (Ting-Toomey, 1999). As symbols can be culture-specific, intercultural communication is also manifested as an encoding and decoding process for people who share different symbolic systems (Gudykunst, 2004; Jandt, 2018). According to this definition, messages are transmitted by encoding a set of symbols. Once it is transmitted, other interlocutors would decode the messages and perceive them according to their cultural backgrounds.

In interpersonal interaction, the encoding and decoding processes happen interdependently and simultaneously. Samovar and Porter (2014, p.12-14) propose several important components that influence the construction and reception of codes in an integrative way: verbal and non-verbal activities, perception, and cognitive patterns.

Verbal messages and non-verbal behaviors work as encoding elements in the interpersonal communicative process. Verbal language is a direct means to exchange messages in interactions, which is also considered as a distinctive element of one culture(Rodrigo-Alsina, 2012). However, language does not work as a decisive behavior in all intercultural encounters, especially when interlocutors do not share any

familiar verbal languages. In this sense, non-verbal activities are often interknitted with verbal messages. Nonverbal behaviors include gestures, facial expressions, eye contact, silence, dressing, movements, and many other behaviors. As in the case of language, culture also constructs and attaches different meanings to nonverbal behaviors. Mistakes could be made if people do not have a conscious knowledge of the differences.

As Rodrigo-Alsina (2012, p.15) indicates, people tend to interpret the world based on familiar codes from culture; perception is a critical and fundamental aspect that may differ between cultures. Sociocultural elements like beliefs, cultural values, and worldviews greatly influence people's perceptions and communication.

Value is a concept of selection from available modes and actions from which we can distinguish between the desirable and undesirable (Hofstede, 2001; Samovar et al., 2014). Values and beliefs promote us to hold certain attitudes. Generally, values can deal with moral, ethical, and aesthetic choices. Relying on learned values, we can tell what is good or bad, what is dangerous or safe, what is freedom and equality, and so on. Generally, people can simultaneously hold several paradoxical values. A change of perception of a situation may lead to internal value conflict and influence our critical attitude toward the situation reciprocally.

Apart from perceptions, cognitive thinking pattern is another essential element that influences intercultural communication. It is supposed that people from different cultures may have their pattern of understanding the same issue, which results in different problem-solving approaches (Samovar et al., 2014). Taking Nisbett and Masuda's (2003) study as an example, they found that Westerners and East Asians differ in cognitive processes in a general sense. Westerners are expected to pay more attention to salient objects, while East Asians focus more on the field. Westerners are inclined to solve problems by doing a systematic in-depth analysis of each component in a more progressive way. On the other hand, East Asians are inclined to see objects as complex and interrelated units, requiring more attention to contextual information.

A similar dimension of cultural difference proposed by researchers that affect cognitive patterns and behaviors lies in individualism and collectivism (Hofstede, 2001, 2011). Individualistic and collectivistic tendencies are not naturally exclusive in one society. However, one tends to predominate. In an individualistic society, "social ties between individuals are loose: everyone is expected to look after themselves and their immediate

family," while in a collectivistic society, "people from birth are integrated into cohesive in-groups, in which they are protected in exchange for unquestioning loyalty" (Hofstede, 2011, p.11). Self-realization is more emphasized in an individualistic society, while individuals' goals have to concede to fit into the group in a collectivistic society (Gudykunst, 2004).

Following such logic, different communicative model on the basis of cultures is also discussed widely by researchers. Edward T. Hall (1976) introduced low- and high-context communication. In his words, in high-context communication, "most of the information is in the physical context or internalized in the person, while few is in the coded, explicit and transmitted part of the message" (Hall, 1976, p. 79). On the opposite, in low-context communication, "most of the information is vested in the explicit code" (p.70). In a collectivistic society, the communicative process is inclined to be conducted in high-context, while low-context communication is more dominant in an individualistic society.

After a review of cultures' power in the communicative process, we can understand that people from different cultural backgrounds may use different ways and emphasize different strategies to accomplish their goals. Consequently, certain kinds of consciousness and abilities are required to behave appropriately and effectively in the interactive process. In this sense, intercultural communication competence (ICC) has been widely considered one of the most important capacities by scholars in this area (G.-M. Chen & Starosta, 1996; Ting-Toomey, 1999). According to Chen & Starosta (1996, p358-359), "intercultural communication competence can be conceived of as the ability to negotiate cultural meanings and execute appropriately effective communication behaviors that recognize the interactants' multiple identities in a specific environment". Effectiveness emphasizes that one should use available communicative strategies to achieve personal goals. Appropriateness focuses on maintaining the face and line while achieving the goal.

The components of ICC have long been discussed by intercultural researchers. Collier (1989) once identifies four approaches to intercultural communication competence: ethnography of speaking, cross-cultural attitude, behavioral skills, and cultural identity. The ethnography of speaking approach presumes that conduct, meaning, and cultural membership are interdependent. The communicative strategies should be implemented

integrating with the cultural contexts (Hymes, 1972). A cross-cultural attitude argues that maintaining a positive attitude towards other cultures and people from different cultures is a key point in ICC. The behavioral skills approach emphasizes that communication is a goal-oriented behavior. When it comes to an intercultural situation, humans from different cultures should select practical skills in interaction. Cultural identity considers communication competence as an active topic. In daily interaction with others, people can improve their experience and capacity by recognizing the existence of each other's cultural identity.

Although Collier's selection of multiple approaches provides relevant information for understanding better ICC, a comprehensive model of approaches in which people from different cultures could negotiate fluently following certain guidelines was still ambiguous. Therefore, Chen & Starosta (1996) later synthesized a model of intercultural communication competence aimed at describing and promoting various abilities to be interculturally competent. The model can be grouped into three general domains: affective, behavioral, and cognitive. The affective perspective focuses on emotional responses in intercultural interactions. It highlights individual sensitivity to acknowledge and respect cultural differences before, during and after interactions. The cognitive perspective requires individuals to have both self-awareness and cultural awareness. A person with high self-awareness is more likely to be sensitive in intercultural communication and knows to self-present appropriately in interaction. An individual with high cultural awareness is not only familiar with one's own culture but also others' cultures that affect how people think and behave. The behavioral perspective includes skills to interact effectively and appropriately during intercultural communication, such as linguistic skills, ambiguity tolerance, anxiety management, and identity maintenance.

For a long time, the main studies about ICC have been focused on the effectiveness, success, and adaptation (Gardner, 1962; Hoselitz, 1954). Since the three-perspective model proposed by Chen & Starosta has provided a valuable dimension to measure ICC, a lot of intercultural studies have been conducted on the basis of their model (G.-M. Chen, Starosta, & Chen, 2000; Sawyer & Chen, 2012). It is worthwhile to mention that, Deardorff (2006) further used both the questionnaire method and Delphi technique to identify components of ICC. The result of her study indicates that ICC is a very sophisticated and flexible notion to generalize. In addition, several outcomes are

proposed by the researcher for the measurement of students' level of internationalization, which leads the study of ICC to the orientation of measuring individual's adaptability. After a review of relevant literature, we find that ICC also has an intensive correlation with studies about intercultural adjustment, immigrant acculturation, cultural shock, identity negotiation, and Cross-cultural adaptation (Berry, 1980; Y. Y. Kim, 2001; Nishida, 1999; Oberg, 1960; Ting-Toomey, 1999).

2.1.3 Cultural shock and Cross-cultural adaptation

Adaptation is considered as part of the communication competencies in many intercultural studies. Theories about adaptation have also been fragmented into terms like acculturation, adjustment, assimilation, and integration by scholars who study intercultural competence. Although these terms are widely used interchangeably in many situations, different emphases could be found slightly among these terms (Y. Y. Kim, 2001; Nishida, 1999), which will be discussed later in this chapter.

The fundamental concept of 'adaptation' used in this study is based on the cross-cultural adaptation theory proposed by Kim (1988, 2001). In her studies, the term 'cross-cultural adaptation' is applied as a broad and inclusive representation to generalize other similar terms. According to her definition, cross-cultural adaptation is considered as "the dynamic process of individuals, who have completed their primary socialization in one culture, relocating themselves to new, unfamiliar, or changed cultural environments, establish (or reestablish) and maintain relatively stable, reciprocal, and functional relationships with those environments" (Kim, 2001, p.31). The adjectives *cross-cultural* and *intercultural* accompanied by the term 'adaptation' are usually considered interchangeable (Peng & Wu, 2019). However, some scholars insist that there are few differences between cross-cultural and intercultural (Furnham, 1988). In the present study, the two adjectives will be considered as synonyms.

According to Young Yun Kim's adaptation theory, a series of models have been proposed to address different levels of individual adaptation. The adaptation can be divided into two categories: short-term and long-term. The long-term adaptation studies focus on the cases of immigrants and refugees, who are more likely to stay permanently in the host country. The short-term adaptation usually deals with cases of sojourners,

such as international students and expatriates who intend to return to their original countries, at least initially (Kim, 2001). These two categories of adaptation differ in many aspects. On the one hand, immigrants who prepare to reside in a new cultural milieu for a long time are more likely to engage in assimilative activities than sojourners do. On the other hand, international students and expatriates as short-term residents could be more goal-oriented since their stay usually varies from six months to five years (Furnham, 1988).

Although differences between short-term and long-term adaptation are quite significant, they remain lots of experiences in common. When individuals leave their familiar environment and begin to live in a different new environment, they may encounter a lot of changes both psychologically and behaviorally. People may find out that the familiar social symbols and signs for social interaction are lost, which results in internal 'cultural shock' (Furnham & Bochner, 1986; Oberg, 1960). People who suffer from cultural shock usually manifest a series of symptoms. Taft (1977) depicted several reactions to cultural dislocation: a) irritability, insomnia, and other psychosomatic disorders, which are a manifestation of 'cultural fatigue'; b) a sense of loss because of being uprooted from familiar surroundings; c) experience of being rejected by people from the host society; d) feeling frail and incompetent with the new environment. Oberg (1960) further describes four stages of adaptation when strangers enter the new environment. The first stage is called "honeymoon", which could last from a few days or weeks to six months depending on specific situations. In this period, most people are fascinated by the new circumstances with excitement and optimism. Tourists usually return to their home country with such kind of pleasance. In the second stage, as individuals continue their lives in the host environment, they have to deal with real daily conditions, such as academic adjustment, housework, language barriers. And they gradually hold a hostile and stereotyped attitude towards the host society and increase their association with other sojourners from their own country. As some individuals gain more cultural awareness of the host environment, they enter the third stage of "recovery". Although still facing some extent of difficulties, individuals become more familiar with the social norms of the host environment. In the last stage, strangers basically complete their adaptation in the host society. The anxiety fades away to a large extent and the host customs are generally accepted and enjoyed by the strangers. Oberg's theory of stages of adaptation is widely used in the study of sojourners' adaptation.

Similar to Oberg's study, the U-curve hypothesis is also introduced and studied by many scholars to describe sojourners' adjustment as the function of time in the new society (Black & Mendenhall, 1991; Church, 1982; Furnham, 1988). According to the hypothesis, sojourners' attitude toward the host environment alters over time. The curve depicts the early elation of the sojourners, the frustration, and the 'trough' as a subsequence of adjustment and recovery (see Figure 1). As one of the first exploratory descriptions of stranger's adaptation process, the cultural shock concept and U-curve hypothesis can not explain the internal transition of strangers adequately over time. These notions are also criticized as too generalized (Searle & Ward, 1990).
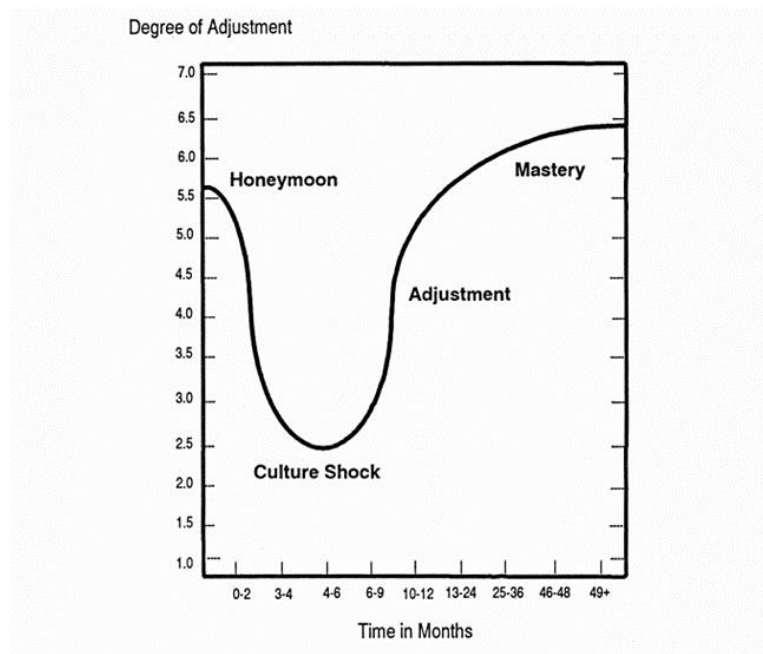
Figure 1. U curve of cross-cultural adaptation

(Source: Black & Mendenhall, 1991)

Facing the potential uncertainty and cultural dislocation in the new environment, many intercultural scholars introduced representative theories about how strangers react in the host society. Gudykunst (1988, 2005) develops anxiety/uncertainty management to accomplish effective interpersonal communication, especially for sojourners. According to Gudykunst & Hammer (1988), when sojourners enter a new cultural milieu, they lack familiar cognitive cues to guide them to behave appropriately in the foreign culture. They have uncertainty about interactive communication, which further leads to a sense of internal anxiety. The reduction and management of such cognitive

uncertainty and affective anxiety are the keys to behavioral appropriateness in intercultural adaptation.

Kim (2001) proposed the "stress-adaptation-growth model" to describe the dynamic intercultural adaptation process. Stress is a direct reaction to the lack of fitness between strangers' subjective experiences and the dominant modes of experience among the natives. The stress of misfit in the new society propels individuals to overcome the troublesome situation by learning the new cultural habits through interaction. Through these kinds of daily practices of communication, a stranger gradually increases its fitness to the external realities. Through the dynamic stress-adaptation disequilibrium, a stranger gains a modest growth. Periods of stress pass as the stranger works out new ways of handling problems, owing to the creative forces of "self-reflexivity" of human mentation (Jantsch, 1980, p.162-172; Kirschner, 1994, p.165). Stress, adaptation, and growth thus highlight the core of strangers' cross-cultural experiences in a new environment. Together, they constitute a three-pronged stress-adaptation-growth dynamic of psychic movement in the forward and upward direction of increased chances of success in meeting the demands of the host environment. The stress-adaptation-growth dynamic is not manifested in a smooth, linear progression but in a cyclic and continual "draw-back-to leap" model (Kim, 2001, p.56).

Although all the cross-cultural adaptation theories mentioned above depict relatively ideal and steady outcomes as consequences of adaptation, actually not all individuals can succeed in the adaptative process in host society. Berry (1997, 2005) synthesizes four variations about how strangers engage in the adaptation process and names them acculturation strategies, which serve as one of the pillars in strangers' acculturation study. Four acculturation strategies are defined as conforming to two main issues based on the orientations between one's own groups and other cultural groups. More specifically, a relative preference for maintaining one's heritage culture and identity and a relative preference for involvement with other ethnocultural groups. Considering the two issues as bipolar orientations, those who have a strong willingness to hold original cultural identity and avoid the interaction with people from other cultures are divided in using the separation strategy. The assimilation strategy is defined by individuals who interact daily with other cultures and do not want to maintain their heritage identity. Those who intend to seek interaction with other groups without losing their original identity are categorized using the integration strategy. Some individuals

feel not belong to either cultural group and avoid interactions with both groups is allocated in using the marginalization strategy. A legible figure of these four strategies is shown below (see figure 2).

Berry's acculturation strategies dimension has provided a fundamental model for many other researchers to study intercultural adaptation (Smith & Khawaja, 2011; Allison & Emmers-Sommer, 2011; Mao & Qian, 2015). However, the model was long applied in immigrants' studies, since acculturation deals with relative long-term adaptative issues and emphasizes both host and ethnic groups' bidirectional attitudes. In addition, Berry's conception is inclined to consider the acculturative process as a conscious choice of individuals. In the real-life situation, many strangers, especially sojourners, as most of them come to a new environment to achieve certain specific goals, they may behave in the new society with both conscious and unconscious choices (Kim, 2001). In this sense, the adaptative process will be considered as a more gradual and natural way following models of Kim's cross-cultural adaptation as a basis in this study.
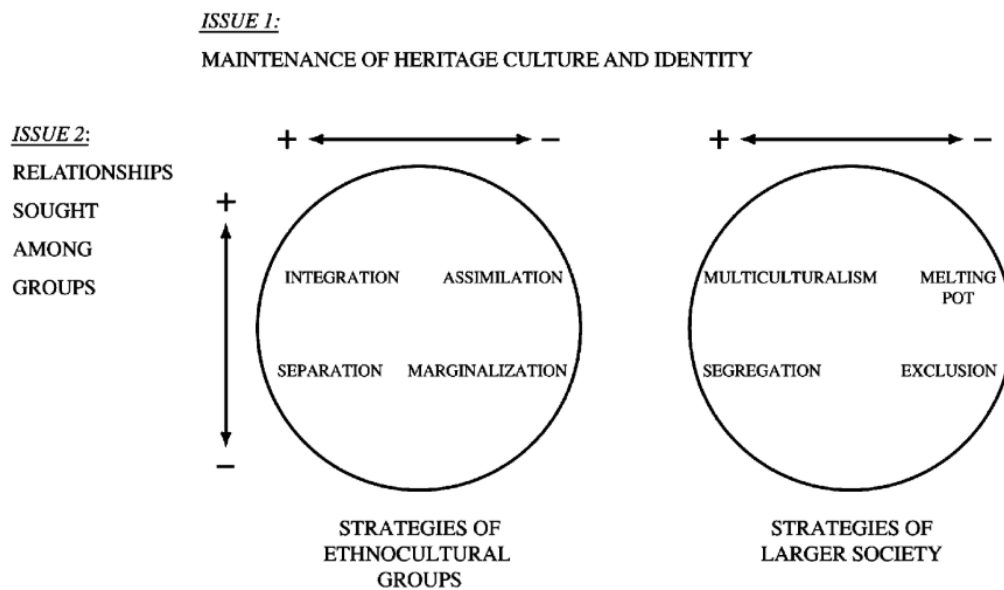
Figure 2. Four acculturation strategies proposed by Berry in ethnic groups, and the larger society

(Source: Berry J. W., 2005, p. 705)

2.1.4 Structure of Kim's cross-cultural adaptation theory

As it is illustrated in different models of adaptative process, cross-cultural adaptation is stressful for most of the individuals who enter a new and unfamiliar society for the first time. However, some people can overcome the feeling of stress and become integrated into the host society meanwhile some others remain struggling with their daily troubles. Kim (2001) has synthesized various dimensions and specific factors that facilitate or impede the level of cultural adaptation.

Kim (2001) identified six dimensions of cross-cultural adaptation: host communication competence, host social communication, ethnic social communication, environment, predisposition, and intercultural transformation.

The most highlighted dimension proposed by Kim is the host communication competence. It refers to the ability of the stranger to receive and process information appropriately and effectively (decoding) and to design plans to initiate messages or respond to others (encoding) in accordance with the host communication system (Kim, 2001). The theory is based on Ruben's (1975) parameter of human communication dimensions of personal communication and social communication process. Personal communication is regarded as all the internal mental activities that occur in individuals. When more than one individual come into interaction, the social communication happens.

Similar to Chen & Starosta's (1996) division of ICC, the elements that consist of the host communication competence can be divided into three categories: cognitive, affective, and operational (behavioral) (Kim, 2001). Cognitive competence includes knowledge of host language, nonverbal codes such as facial expression and body movement, knowledge of host communication rules and cognitive complexity. The cognitive complexity refers to a high level of capacity to differentiate and integrate the perceived information into a meaningful and coherent whole system. Affective competence serves as the favorable capacity for strangers to deal with the various challenges in the host milieu. Affective competence involves adaptive motivation, identity orientation, and aesthetic orientation. Adaptive motivation affects strangers' willingness to participate and become functionally fit in the host society. Identity orientation or identity flexibility helps strangers hold a more open attitude towards the out-group society and reduce prejudice and stereotypes. If a stranger's aesthetic ability overlaps with a native person, he/she is more likely to participate in such kinds of

activities with local people. Behavioral competence depends on the appropriateness and effectiveness to manifest individuals' cognitive and affective competences. It includes technical skills such as the ability to handle ICT, synchrony ability, and resourcefulness. Synchrony and resourcefulness are both key abilities that enable the individual to observe and adjust the interaction with others in order to make the communication appropriate and efficient.

Social communication is another dimension influencing intercultural adaptation, which can be separated into host social communication and ethnic social communication (Kim, 2001). Either host or ethnic social communication can further be divided into four categories again, which are host/ethnic interpersonal communication and host/ethnic mass communication. Host interpersonal communication depends largely on the stranger's social network, which is to say, the host tie and strength with the host society. On the other hand, ethnic interpersonal communication depends on the ethnic tie and strength. Mass communication refers to the mass media, such as newspapers, magazines, televisions, and theatres, art galleries, restaurants, schools are also taken in account. According to Kim's theorems (2001, p.91), long exposure to host interpersonal communication and mass communication facilitates strangers' intercultural transformation while long exposure to ethnic social communication defers intercultural communication.

The environment serves as the cultural and sociopolitical context that influence the adaptation. Host receptivity, host conformity pressure and the ethnic group's strength in the host society are key environmental factors (Kim, 2001). From a stranger's perspective, host receptivity usually alludes to potential accessibility with the host society. From the host perspective, it refers to the attitudes of the natives toward strangers to a large extend, which vary from friendliness, openness to indifference and even hostility. Natives' attitudes toward strangers are manifested in daily verbal and non-verbal communication in both conscious and unconscious ways. Furthermore, natives' attitudes also affect their level of tolerance and acceptance toward stranger's original cultural habits and behaviors carried out in the host milieu. As a consequence, strangers will perceive certain level of pressure in order to conform appropriately consistent with local patterns. The last factor called ethnic group strength is reflected by interpersonal and institutional support one can receive from his/her own ethnic groups, in which linguistic vitality plays an important role (Giles & Byrne, 1982;

GILES & JOHNSON, 1987).

Predisposition entails individuals' personal and background characteristics. It consists of ethnic proximity, preparedness for change, and personality attributes. Ethnic proximity measures the degree of similarity between the stranger's ethnicity-based characteristics and the host milieu's predominant characteristics. Non-verbal behaviors, languages, communication rules, aesthetic orientation and behavior patterns are parameters of ethnic proximity. Preparedness for change includes formal education and pre-training for entering the new environment. In addition, as every single person has his/her own traits, an individual's openness, personality, flexibility constitute the personal attribute (Kim, 2001). Generally speaking, individuals who can perceive host interactions in a more positive way are more likely to achieve adaptability in the host society.

As the adaptive process is a long stress-coping process, the internal transformation is happening both quantitatively and qualitatively. The adaptive outcomes can be assessed according to the increment of functional fitness, psychological health, and intercultural identity development (Kim, 2001). The stranger's cognitive, affective and behavioral patterns fit with the host society more appropriately and effectively. Individual also gradually gain an intercultural identity, which allows him/her to see oneself and others respecting the uniqueness and locate the university.

After introducing the dimensions of cross-cultural adaptation proposed by Kim, we can notice that all the dimensions are interdependent. The structure of these six dimensions can be presented as follow (see Figure 3). Although six dimensions are defined, host communication competence works as the fundamental engine guiding strangers to conduct different social communication types. In this sense, host social communication and ethnic social communication are developed as the sub-dimensions in accordance with the host communication competence. As a whole, these three dimensions are core factors that guide strangers to navigate in the host milieu. At the same time, predisposition serves as the initial predictors for the sequent social activities and the environment also plays an important part in these interactions. These three main dimensions, together, contribute to intercultural transformation and are influenced adversely.

Along with Kim's perspective of the process of adaptation, other scholars also proposed

remarkable structures of adaptation. When Church (1982) introduced the concept of sojourner's adjustment, he identified elements affecting sojourners' adjustment, which can also be classified into background variables, situation variables and personality variables. Among these variables, elements of background and personality variables overlap in a large extent with Kim's dimension of predisposition. Nationality, language proficiency, personal resiliency are examples of these two variables. When it comes to situation variables, the social interaction with host people is also emphasized as the most crucial factor in terms of sojourner's adjustment (Church, 1982).

Figure 3. A structural model of factors influencing cross-cultural adaptation
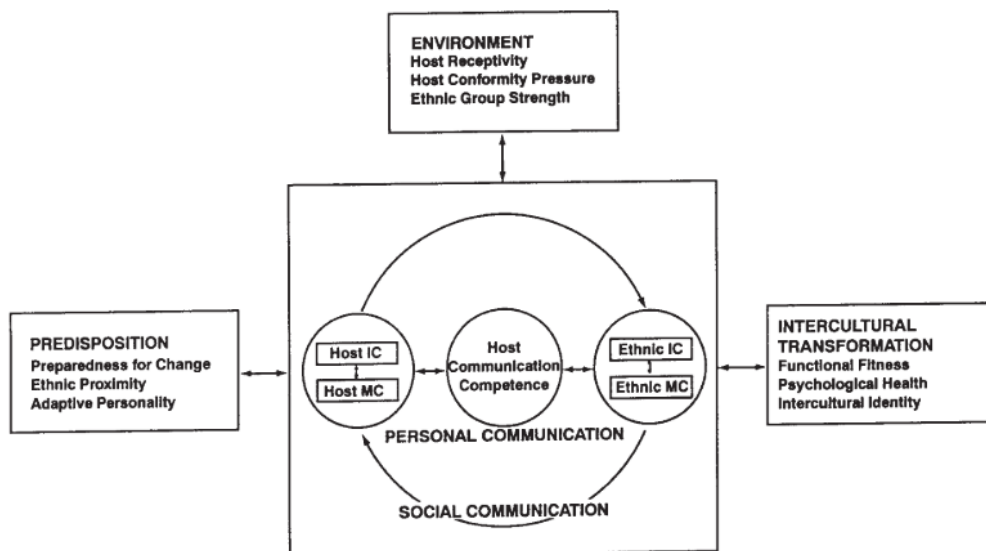
(Source: Kim, 2001, p. 87)

As Church's consideration of adaptative elements is still fragmentary due to limited studies at the exploratory period of intercultural study, Berry (1997) also suggested a framework (see Figure 4) to illustrate the elements influencing the acculturation process, which correlate with Kim's structure and serves as a compliment. Berry considers the acculturative process as a "stress-coping" journey. Every time faced with a new life event in a new environment, strangers may feel stressed thinking about different strategies to deal with it. Through daily practices dealing with the stressors, one stranger is likely to adjust to the host society. During this process, both a macro and micro dimension are suggested by Berry (1997), influencing the sequential acculturative

outcomes. Many cultural and group-level elements are taken into accounts in the macro perspective, which corresponds to Kim's dimension of the environment in great measure. Furthermore, contextual variables of stranger's original society are considered relevant in this structure, such as political, economic contexts and demographic factors. Meanwhile, variables from the micro perspective are more congruent with Kim's dimension of predisposition and host communication competence. In addition, individual's acculturative strategy is taken into account as well. It is believed that strangers who conduct integrative strategies are more likely to adapt successfully.

Figure 4. The framework of acculturative factors influencing individuals' adaptation
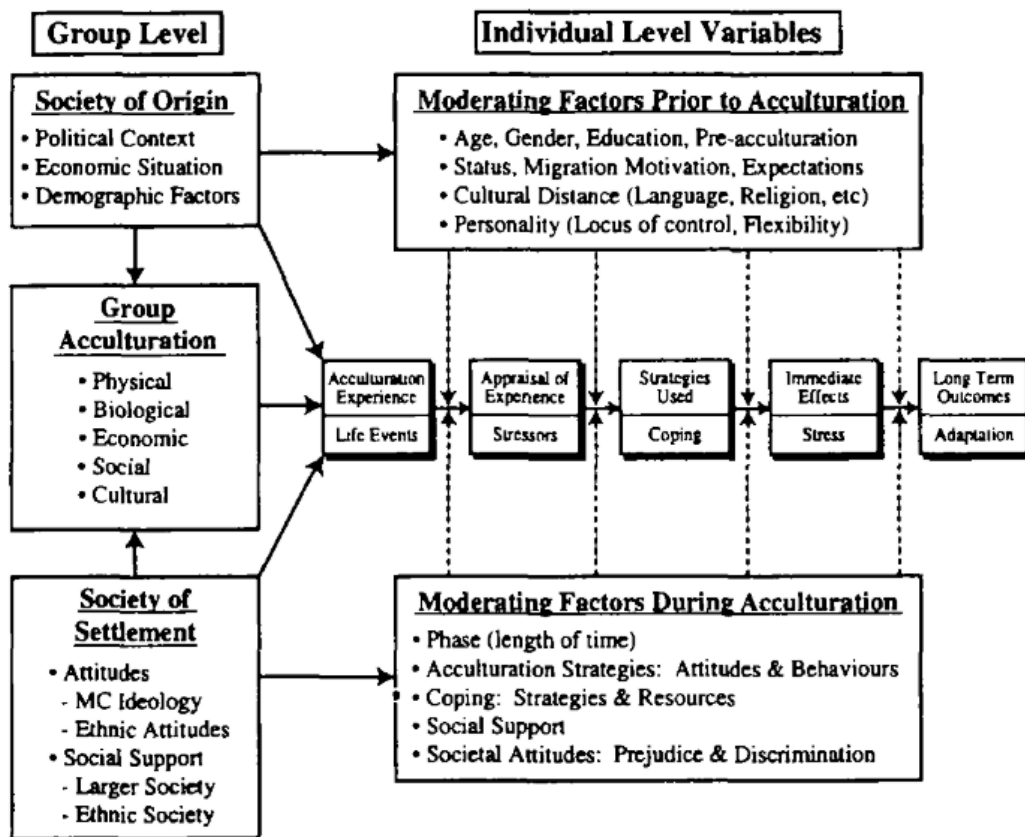
(Source: Berry, 1997, p. 15)

2.1.5 Transformations and outcomes of cross-cultural adaptation

A review of different structures of intercultural adaptation shows that, no matter what

kinds of factors are considered relevant in the dynamic process, the ultimate direction of this struggling adventure leads to a relative long-term adaptation (Church, 1982; Berry, 1997; Kim, 2001). Adaptive outcomes have been described and constructed into fragmented concepts. Although it is challenging to integrate all the scattered ideas into a standardized model to measure the cross-cultural transformations, many outputs are interrelated and overlap with each other.

The introduction of adaptive transformations will still set out from Kim's (2001) cross-cultural adaptation theory. As indicated as a sequent dimension in the adaptive structure, intercultural transformations can be divided into three facets: functional fitness, psychological health, and intercultural identity. Transformations usually take place in parallel with the stress-adaptation-growth process.

First of all, functional fitness refers to the dynamic growth of one's capability to cope with the external everyday activities smoothly (Taft, 1977). It is reflected by the increasing conformance of individuals' subjective meaning systems between strangers and host nationals as well. According to Kim (2001), one method to assess one's functional fitness is to observe the precision of the stranger's interactive patterns and obtain feedbacks from bilateral interlocutors.

The second transformation is located in psychological health or integration. It refers to a harmonious status in which individual's cognitive, affective and operational competence are progressing in a positive direction (Kim, 2001). A general psychological health status is difficult to examine due to the implicit taken-for-granted appearance, however, many psychological illness symptoms are easily to identify. Strangers' symptoms of psychological illness usually are manifested as low self-esteem in the host society, dissatisfaction with life in general, social isolation, and so forth. In some worse situations, strangers may even hold hostile and aggressive attitudes toward the host society.

Lastly, intercultural identity is manifested as the consecutive mark of a well-adapted stranger accompanied with functional fitness and psychological health. A newcomer's initial identity is constructed and confined by the original cultural milieu, in which one accomplishes his/her fundamental enculturation process. After entering a new cultural environment, the stranger experiences a brand-new process of enculturation accompanied by the shedding of some old cultural codes, in which an intercultural

identity is acquired as a consequent (Kim, 2001; Berry, 2005).

Kim's dimension of intercultural transformation depicts several outcomes that one is allowed to acquire in the new place; however, it remains in a broad facet and fails to introduce specific measurements of these transformations. In addition, Kim's definition of transformation seems more attached to unilateral assimilation of strangers towards the receiving society lacking a more comprehensive consideration of the complex social structure of the host society (Rodrigo-Alsina, 2012).

If we consider the intercultural adaptation as a stable transition that happens in an individual or group level in response to external stimulation, an assimilative attitude and a well-adapted stage may not be the only outcome of strangers in the host surroundings, which also count on their general acculturative strategies to a large extent (Berry, 2005). In this sense, adaptation becomes a bipolar parameter in which the level of transition is measurable.

Following this logic, Ward and colleagues (1990; 1994; 1999) proposed an integrative perspective of intercultural transformation based on a series of empirical studies on sojourners, which can be divided into psychological and sociocultural adaptation. Not only Berry's work of acculturative model (1997) gave inspiration to their proposal, the influential perspectives is also rooted in culture-learning approaches in the adaptation process (Brislin, 1981; Furnham & Bochner, 1986).

On the one hand, following a mentioned "stress-coping" attitude and strategy (Berry, 1997; Kim, 2001) applied by sojourners in response to a cultural shock period, a consequent psychological status emerges over time. A positive psychological status refers to the psychological and emotional well-being and general satisfaction in the host cultural environment. Personality, life changes, coping styles and social support are exemplary factors affecting one's psychological status (Berry, 2005; Ward & Kennedy, 1994; Ward, Masgoret, & Gezentsvey, 2009).

On the other hand, sociocultural adaptation is constructed based on a culture learning approach, which is related to the ability to "fit in" or negotiate interactive aspects of the host culture over time (Masgoret & Ward, 2016; Ward & Kennedy, 1994). It is highlighted that learning culture-specific skills is the key point for effective interactions in the new milieu. Key variables that facilitate sojourners to acquire such kinds of skills are elements like length of residence in a host surrounding, cultural distance, and

quantity of interactions with host nationals (Ward & Kennedy, 1994; Ward et al., 2009). And respecting specific cultural skills, it refers to the awareness in cross-cultural differences and similarities, such as verbal and nonverbal communication, rules, conventions, norms and practices that contribute to intercultural misunderstandings. Above all, host language proficiency and host communication competence are in the core of specific cultural skills, which further lead to the sociocultural adaptation as a final consequence mediated by effective intercultural interaction (Masgoret & Ward, 2016).

Comparing Kim's dimension of intercultural transformation with Ward and colleagues' perspective of adaptation, a lot of similarities could be found. Functional fitness perspective corresponds partially to the mediator of effective intercultural interaction; and psychological health perspective is similar to a status of psychological well-being. In addition, both perspectives of intercultural outcomes recognized the importance of host language competence influenced by culture learning theory (Y. Y. Kim, 1988; Masgoret & Ward, 2016).

Some hints of Kim's perspective of intercultural identity can also be correlated with Ward's work. As manifested in social identity theory, identity provide the individual with the sense of belongingness to a certain group with which the individual identifies one's self-ideals and conventions (Erikson, 1968). And cultural identity is considered as a type of manifestation of social identity, which refers to a sense of solidarity with the ideals of a given cultural group and to the attitudes, beliefs, and behaviors manifested toward one's own (and other) cultural groups as a result of this solidarity (Tajfel & Turner, 2004). These kinds of social and cultural identities will influence our attitudes towards in-group members (the group in which one identifies oneself) and out-group members (other than the in-group). As identity construction is widely considered as a dynamic process, cultural identity is likely to affect how the interlocutors see each other, how they regard themselves, and whether either party will be influenced to change their views as a consequence of the intercultural (Ward, Bochner, & Furnham, 2001). Ward and her colleagues have also found that cultural identity is related to sociocultural adaptation and psychological adaptations. It is likely that strangers who are tenacious with his or her original culture are less willing to carry out interaction with host nationals and, therefore, potentially suffer from social difficulty and psychological distress (Chen, Benet-Martinez, & Bond, 2008; Stuart & Ward, 2019;

Ward & Searle, 1991). Combining three classical elements of ICC with different approaches to intercultural outcomes, a theoretical model could be drawn to illustrate the interrelated dimensions and sequential outcomes (see Figure 5).

Figure 5. The ABC model of culture contact
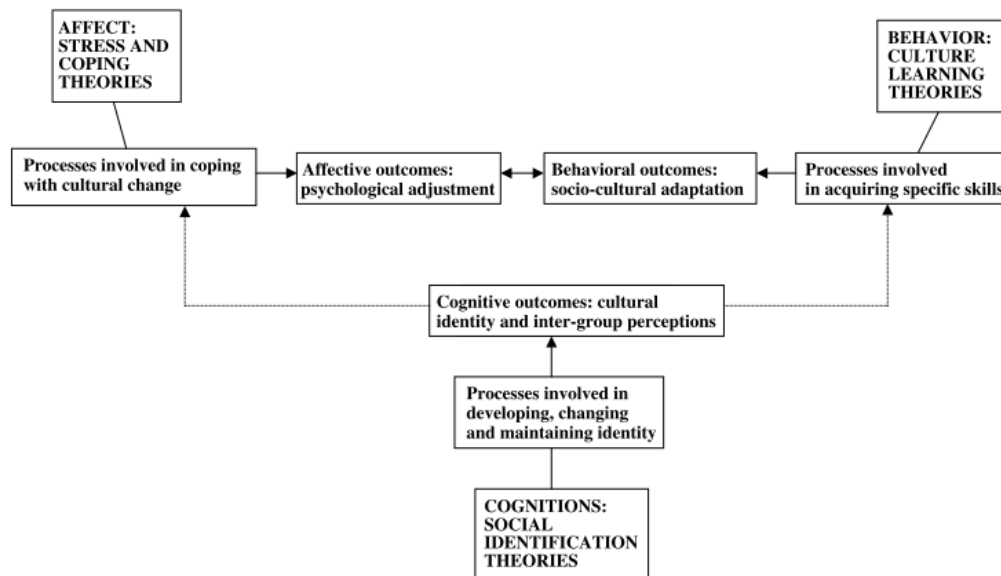
(Source: Ward, Bochner & Furnham, 2001, p.271)

Another important contribution of Ward and colleagues' division of cross-cultural adaptation is that they brought out a seminal scale for the purpose of measuring an individual's sociocultural adaptation level. The first version of the Sociocultural Adaptation Scale (SCAS) was originally proposed in the study with Searle and Ward (1990) as a means to examine sojourners' sociocultural and psychological adjustment in New Zealand. The original scale is based on specific problems faced by international students in New Zealand and also made reference to Furnham & Bochner's (1982) Social Situations Questionnaire. The original scale contained 16 items and was modified by Ward & Kennedy (1999, p.663) to 41 items in total. Nowadays, many empirical studies are using the latter version of SCAS to examine the cross-cultural outcomes of immigrants and sojourners, in some of which the scale has been modified to fit in the specific situations (Hsu & Chen, 2020; J. Ye, 2006). Examples of the new SCAS include: "Making friends', "Communicating with people of a different ethnic group", "Coping with academic work", "Being able to see two sides of an intercultural issue', etc.

Aiming at examining strangers' psychological adjustment, many scholars have proposed scales to measure this cross-cultural outcome. In Ward and colleagues' studies, the scale of psychological adjustment has mainly followed the combination of the Zung Self-rating Depression Scale proposed by Zung (1965) and the Profile of Mood States (McNair, Lorr, & Droppleman, 1971). The latter one examined typical cultural shock symptoms such as tension, depression, anger, fatigue, and confusion. Nevertheless, a review of recent studies shows that some other scales are used more widely to assess psychological well-being (Bender, van Osch, Sleegers, & Ye, 2019; Hsu & Chen, 2020; Pang, 2018; Rui & Wang, 2015). As psychological well-being and satisfaction with host society are considered one of the symbols of psychological adaptation, the Satisfaction With Life Scale (SWLS) proposed by Diener and his colleagues (Diener, Emmons, Larsem, & Griffin, 1985) has been tested broadly over years. Five items were suggested and validated:

1. "In most ways my life is close to my ideal".

2. "The conditions of my life are excellent".

3. "I am satisfied with my life".

4. "So far I have gotten the important things I want in life".

5. "If I could live my life over, I would change almost nothing" (p. 72).

Further, Diener and colleagues (Diener et al., 2009) (Diener et al., 2009)take both positive and negative attitudes towards life into consideration. In this way, new measures of well-being were modified and proposed, including The Scale of Positive and Negative Experience (SPANE), Psychological Well-Being (PWB) and Positive Thinking Scale (PTS). Among these scales, PWB has also been applied in many studies to assess cross-cultural outcomes. The scale PWB consists of eight attitudinal items, including:

1. "I lead a purposeful and meaningful life".

2. "My social relationships are supportive and rewarding".

3. "I am engaged and interested in my daily activities".

4. "I actively contribute to the happiness and well-being of others".

5. "I am competent and capable in the activities that are important to me".

6. "I am a good person and live a good life".

7. "I am optimistic about my future".

8. "People respect me" (Diener et al., 2009, p. 263).

2.2 Social networks in the intercultural context

In this subsection, we will combine the social capital theory with the present study and discuss why it is appropriate for application. Firstly, we will compare social network and social capital since it is considered as key factors in the process of intercultural adaptation. Secondly, we will discuss how the rise of SNSs affect social capital and present recent studies in the intercultural context.

2.2.1 Introducing social networks and social capital

In the last chapter, we have compiled different models of cross-cultural adaptive process and consequent outcomes. The term "social communication" or "social interaction" is highlighted as the most crucial element that affects the transitions of intercultural adaptation (Church, 1982; Y. Y. Kim, 2001; Ward et al., 2001). As strangers leave their familiar surroundings and begin to live in a new environment, they face the realistic task of establishing (or reestablishing) and maintaining relatively stable, reciprocal, and functional relationships with the host environment. Strangers observe and learn skills and acquire emotional adjustment through constant relationship formation and personal interactions in the host milieu (Kim, 2001). Besides, strangers' relationships in their home countries also play an essential role in their stay abroad (Fontaine, 1986). It proves that social support acquired from strangers' networks works as an important resource in individuals' daily practices (Adelman, 1988)c.

Since interpersonal networks reveal predominant importance in intercultural studies, many scholars have tried to explain the paradigms of cross-cultural adaptation on the

basis of social network theory(Adelman, 1988; Y. Y. Kim, 1988, 2001; Weimann, 1989). From a social structure perspective, a social network consists of a set of nodes and the relations that connect all the nodes. In the center of networks is the node representing the "Ego", and the relations with the ego-node can be depicted in a radial structure with which all the other nodes are connected (Smith, 1999; Ye, 2006).

The relations among all the nodes are interconnected and complex, which allows different ways to assess the social network. From a general micro-level, a network can be considered as a multiple-layer net structure. In the center are the core ego node and first-order nodes, with whom the ego is connected directly. The second and other layers are the second-order or even peripheral nodes, with whom the ego is not connected directly. It relies on other nodes apart from the ego to finalize the connection (Morgan, Neal, & Carder, 1997). However, only those first-order nodes are included in a personal network from a narrow point of view. Furthermore, only influential first-order nodes that directly and significantly impact the ego are considered components of a personal network (Y. Y. Kim, 2001; McDermott, 1980). Based on the present study's aim, a combination of the first two delimitations of social network will be examined in the study since both online and offline behaviors of international students are objectives of this investigation. The second more confined delimitation will be emphasized in interpersonal situations. At the same time, the first comprehensive definition will be applied significantly to supporting the online intercultural behaviors, which will be explained afterward.

No matter which delimitation has been applied, some common structural properties have been characterized by many scholars for decades. Examples of the key properties are size, reciprocity, multiplexity, density, strength, among others (Adelman et al., 1987; Albrecht & Adelman, 1984; Smith, 1999). The size refers to the total number of nodes that the focal person reports to have a connection. The forms of nodes can vary from people, groups, to organizations, and so forth. The multiplexity depends on the multiple functions embedded in every single relationship from the network. For example, a colleague in the company may also be a close friend. In this sense, different communicative messages are exchanged in this single tie. The density pertains to the extent to which compositive nodes in a personal network are related with others. A network density can usually be described through percentage of direct and potential links in a network. Reciprocity assesses whether and to what extent the mutual

exchange between two individuals is completed equally from personal perception.

Furthermore, the strength of a social network is widely considered an important indicator to provide supportive resources through intercultural adjustment (Adelman, 1988; J. Ye, 2006). The strength of a network is usually evaluated concerning the attachment between two individual nodes (Smith, 1999). According to (Granovetter, 1992; Granovetter, 1973) measurement of tie strength, the combination of the strength of a tie is comprised of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie. Using survey data applied in two cities in the United States and a city in Germany, Marsden and Campbell (1984) further indicated that closeness is a key indicator to examine the tie strength, while the frequency and duration may remain problematic to measure it.

Based on the strength of tie, two main types of ties are defined to assess the strength level, which can be divided into strong tie and weak tie (Granovetter, 1973; Marsden & Campbell, 1984). Strong ties are usually used to describe those members who share dense intimacy with the focal individual. Members who are strongly tied engage in more mutual self-disclosure activities, especially in affective disclosure. Through these kinds of mutual self-disclosure of life experiences and mutual exchange of resources, both sides penetrate more into each other's life and a sense of solidarity, reciprocity and attachment is gradually constructed (Kim, 2001). As a consequence, they become one of the influential nodes in the core layer of each other's network. It is also indicated that strongly tied members are more likely to show similarities in many aspects, such as background, values, and experience.

On the other hand, people who are considered weak ties in the given network are usually excluded from the centric level and are more likely to share a loose link with the ego (Granovetter, 1973). Weak-tie relationships participate less in one's affective activities, so they become more independent from the pressures and dynamics of the strong-tie circle (Adelman, Parks, & Albrecht, 1987). However, weak-tie relationships have their uniqueness and advantages. Weak ties facilitate new information mobility and help the information reach the peripheral border from a long distance (Granovetter, 1973). In addition, weak ties also have the potential characteristics of anonymity and offer objectivity, which is not seizable easily in strong ties (Adelman et al., 1987).

Accompanied with the term "social network", social support is another terminology

discussed widely as an outcome of one's network. Social support refers to the level of support that the focal individual perceives from his or her embedded network, which provides the individual with practical help and protects the person from adverse outcomes (Albrecht & Adelman, 1984; Dao, Donghyuck, & Chang, 2007). The forms of supportive behaviors can be affective or instrumental. Several specific functions of social support have been discussed from the communicative perspective. For example, House (1983) has identified four functions of social support as the expression of emotional support (esteem, affect, trust), the communication of appraisal support (affirmation, feedback), providing information (advice, suggestions), and providing instrumental support (money, labor, time).

On the flip side, several functions of supportive messages (information) have been proposed (Adelman, 1988) based on uncertainty and control from the cross-cultural adaptation aspect. The first function lies in the perspective shifts on cause-effect contingencies, which alleviate the negative causal attribution to a certain occasion and the sequential feeling of overwhelmed or depressed. When sojourners enter a new culture, their causal attributions are somehow influenced and formulated by their network, which may afterward positively lead to satisfaction or negatively lead to prejudice towards the host milieu. The second function refers to the gradually enhanced control through skill acquisition. For example, as indicated by Kim (2001), strangers can observe and learn the standardized verbal and non-verbal communication from local people through personal contact with their host ties, which enhances their host communication competence and problem-solving ability. The third function lies in the enhanced control through tangible assistance. It is not only the direct assistance of material resources promote the adjustment for strangers, the sense of hospitality and feeling of being included contained in the actions are also a facilitator of reciprocity and psychological well-being (Bender et al., 2019). The fourth function of social support is the enhanced control through acceptance or assurance. The search for affirmation of self-value and a sense of belonging is the key function of these messages. The perception of acceptance from a certain group of ties will enhance the preferred contact in this group. The final function proposed by Adelman (1988) is the enhanced control through ventilation. Normally it is related to an overloaded situation when an individual suffers a stressful situation. Self-disclosure of the emotion and the perception of being listened to can temporally aid the troubled person from the unpleasant situation.

A review of Adelman's conception of functions provided by supportive messages seems to overlap with Kim's social communication perspective in cross-cultural adaptation. Through constant interaction in the host society, a stranger's host communication competence and psychological status will transform by means of their perceived support in the new surroundings. Moreover, Kim (2001) has proposed several assumptions respecting strangers' ties in the host society. In her words, having host strong ties relationship work as a strong facilitator for strangers' adjustment. Moreover, somehow, the weak tie with hosts also helps the transmission of information for strangers, especially with the introduction of mass media. Although interactions with host nations seem to contribute to strangers' cross-cultural adaptation, starting and maintaining links with hosts cannot be presumed to be an easy thing. Since the encounters between strangers (especially sojourners) and host nationals and the extent of interaction tend to be limited, many newcomers are more likely to have supports from co-nations at the beginning period after their arrival (Ward et al., 2001). Coincided with Adelman's (1988) view, Kim (2001) indicates that strangers tend to seek support from those who share similar background experiences with them in the initial period for the purpose of relieving uncertainty and pressure, which leads to at least short-term adaptation for them. However, since the process of adaptation implies both the acquisition of host culture and somehow the shedding of original cultural patterns to a ccertain level, homogeneous contacts with ethnic ties tend to impede the cross-cultural adaptive process in the long term (Kim, 2001).

Following Kim's (2001) logic, more intimate and centralized host relationships in the individual's network benefit from constructing a more comprehensive social capital for the stranger, which further facilitates its psychological and social functioning of the host culture. In this way, another term "social capital" which is similar to social network was introduced as well in the field of intercultural study. Social capital refers to the agglomeration of resources embedded in one's social network, which is constructed and obtained through the norms of reciprocity and trustworthiness (Bourdieu, 1986; Coleman, 1988; N. Lin, 1999).

As shown in the above-mentioned paragraphs, many studies work steadily in the history of the development of social capital theory and social network theory but seemed to progress in two parallel lines. However, in recent decades studies containing both notions have multiplied in multidisciplinary lines, dealing with problems such as

politics, immigration, youth behaviors problems, among others (Kwon & Adler, 2014; Moody & Paxton, 2009). Although both concepts in studies have many common elements, the structure of these two notions has their own emphases. While social network study focuses more on the structure of the set of nodes, the social capital study focuses more on the contents and its values embedded in the constructed structure of social ties (Moody & Paxton, 2009). More explicitly, certain kinds of returns are expected during the process of investment in social ties following the social norms and values such as reciprocity and trustworthiness (Kwon & Adler, 2014; N. Lin, 2001). Furthermore, from the multi-layer structure of networks, the ego gains access to indirect resources by relying on their direct ties' interactions and links with others under universal norms and values (Penuel, Riel, Krause, & Frank, 2009).

The potential resources and expertise provided by social capital have also been discussed widely by different scholars and overlap with social support outcomes to a certain extend. The flow of information, social credentials based on shared values and potential privilege through social ties are the main supportive outcomes from social capital (Lin, 1999).

If we focus on the community study (in-group/out-group as well), it is worth mentioning Putnam's (2000) division of two primary forms of social capital. Based on Granovetter's weak-tie theory, social capital was divided by Putnam into two primary forms: bridging social capital and bonding social capital. Bridging social capital is embedded in weak-tie relationships, where people are usually tentatively related and often move in a different circle from one's own. These people are more likely to provide useful information and new perspectives for one another but usually fail to provide emotional help. Williams (2006) conceptualized that bridging social capital is comprised of four main components: (1) broadening one's horizon and world views by challenging one's conventional perceptions, (2) contact with a broader range of people with different backgrounds. (3) considering oneself as part of a larger community, and (4) diffuse reciprocity with a broader community.

On the other hand, bonding social capital is embedded in strong-tie relationships, where people are typically from homogenous groups and have a tight relationship with each other. Emotional support and substantive resources are more easily achieved from strong-tie relationships (Putnam, 2000). The main components of bonding social capital

are: (1) providing emotional support, (2) having access to scarce or limited resources within close-knit networks, (3) ability to mobilize solidarity, and (4) boost exclusive identity and out-group antagonism (Williams, 2006).

2.2.2 The rise of social network sites for support in the intercultural context

As indicated in Kim's (2001) intercultural adaptation structure, offline social communication significantly influences an individual's adaptive process; mass communication also plays a significant role in this period. In her words, as both host and ethnic mass communication complement stranger's social communication in the host society, they may also impact stranger's network structure in an implicit way.

Before introducing the nature of online social communication in the intercultural context, I consider it relevant to explain standard interpersonal communication in the digital era as a background. In recent decades, as the introduction of the Internet in people's daily lives, conveying messages among human beings has gradually entered another level. New electric means, such as mobile phones and computers, have also transformed the way how humans interact across space and time. Unlike traditional media, namely television or radio, digital technologies provide the public with a commonplace to search for information, entertain and share opinions (Ye, 2006). Consequently, virtual communities soon became visible spaces gathering people with similar interests, beliefs, and ideas (Ye, 2005). Another significant transformation provided by digital media is how people maintcain their social ties and establish new networks online, which couldn't be endowed by traditional mass media (Elly A. Konijn, Sonja Utz, Martin Tanis, & Susan B. Barnes, 2008). Since then, interpersonal relationships in a computer-mediated society have been examined over time.

Just as Putnam (2000) proposed two forms of social capital in his book *Bowling Alone,* he used the phenomenon of decreased numbers of people who attended bowling leagues to infer the collapse of American citizens' participation in traditional public places. Somehow, he drew part of the conclusion to the electronic technology, which enabled citizens to entertain themselves alone in private spaces. At that point, electric technologies were still referred to as traditional mass media like radio or television. In

the late 90s in the past century, similar studies began to evaluate social capital issues with the advent of the Internet. Some researchers hold the view that internet use has adverse effects on social connectedness and detracts people from face-to-face interaction (Kraut et al., 1998; NIE, 2001). Wellman and his colleagues (2001) claimed that internet use could complement offline interpersonal contact. Furthermore, they considered heavy Internet use as a double-edged sword, which boosts participation in social activities but with many less-committed risks included. Besides, negative effects, namely loneliness and depression caused by internet use, were also emphasized by McKenna and Bargh (2000).

However, the dystopian views towards the Internet were widely criticized and opposed to the Internet's penetration rate in more households. For example, Turner and her colleagues (2001) suggested that online communication could work as an alternative to complement psychological support, especially for marginalized people. Even those researchers who once showed their worry brought critical novel views regarding the Internet. In his follow up study, Kraut and his colleagues (2002) admitted that internet use was positively associated with community involvement. Bargh and McKenna (2004) further identified that the Internet could improve our ties with close friends, family, or even acquaintances through digital tool such as email.

More recently, the rise of social media and social network sites (SNSs) again brought an interactive revolution for online interpersonal relationships. If we say that email has facilitated how people exchange messages, then social media provides us with more digital affordances. Generally speaking, today's social media environments include: chat, instant messages, online role-play games, collaborative work tools, online education, and digital devices with internet access (Elly A. Konijn et al., 2008, p22). And in many of these situations, the exchange of interpersonal messages happens.

Under this media environment, social network sites play crucial roles in the establishment and maintenance of social ties. Social network sites can be defined as "web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system" (Boyd & Ellison, 2007, p.211). As is illustrated in the definition, one uniqueness of SNSs is that they make individuals' social networks visualized and

enable new forms of articulation. Based on the US General Social Surveys in 2008, Hampton and colleagues (2011) found that Internet and mobile phone users tend to have more extensive and more diverse close ties by means of using certain social media. More specifically, the use of social media with the function of sharing photos and messages is associated with having a larger number of close ties. And obviously, these functions correspond with the characteristics of SNSs.

Since research related to social media's effects on social networks has been boosted in recent decades, efficient measurements to evaluate people's online social relationships are required as well. Based on the theoretical model of social capital proposed by Putnam (2000), Williams (2006) created a measure to evaluate social capital as the outcome of using the Internet. In order to avoid disregard of potential loss in the offline relationship caused by the online gaining, the measurement of social capital in his study is dichotomized into online and offline. Consequently, the four-facets framework of online/offline bridging social capital and online/offline bonding social capital was defined. Finally, ten item scales differing online and offline effects were created to examine bridging and bonding social capital respectively, based on social capital theory and weak-tie theory.

With the advent of new online social relations measurements, research interest about the relation between SNSs and social network has soon reached specific ones. As one of the most typical and famous SNSs worldwide, Facebook has been paid much attention in this area. One of the seminal studies is from Ellison and colleagues (2007) who sent a survey on a campus of the United States with the purpose of examining college students' perceived social capital inside the university using the scale designed by Williams (2006). According to their findings, it proved that Facebook helps them maintain or intensify relationships with other students on campus. Furthermore, as users' profiles are public in Facebook, it also enables users to discover their old high school friends or acquaintances and reestablish online links. In this way, it is found that college students who spend more time using Facebook have a higher bridging social capital than those who use it less. However, the high-intensity use of Facebook in their study seems to fail to predict bonding social capital considering the SNS's affordances as one possible reason. Apart from bridging and bonding social capital, the term "maintained social capital" was first proposed and examined in this study. In their words, maintained social capital refers to the ability to maintain valuable connections with acquaintances

and close friends after physically disconnecting with them as one may undergo life changes (Ellison et al., 2007). It is considered a constructive proposal of social capital considering that we live in a world with high mobility and applied in many succeeding studies.

Besides Facebook, the relation between other SNSs use and perceived social capital have been investigated by many researchers (Aharony, 2015; Bano et al., 2019; Hofer & Aubert, 2013; Kaigo, 2012; Li & Chen, 2014; Ye, Fang, He, & Hsieh, 2012). Twitter is also considered as a useful SNS to improve social capital and maintain social networks (Kaigo, 2012). Hofer and Aubert (2013) found that the numbers of followers and followees on Twitter have different effects on bonding social capital and bridging social capital, respectively. Another popular SNS, WhatsApp, has also been examined to strengthen individuals' social networks with others. Bano and colleagues (2019) have found a positive relationship between WhatsApp use and bonding social capital among university students in Pakistan. No significant association was found between the use of WhatsApp and bridging social capital. This finding is partly supported by Aharony (2015), who suggested that neither WhatsApp's number of contacts nor the time spent on WhatsApp were found to be correlated with bridging social capital.

How multiple SNSs usages affect individuals' social capital differently is yet to be studied extensively (Phua et al., 2017; Shane-Simpson, Manago, Gaggi, & Gillespie-Lynch, 2018). Based on an empirical study in the United States, Phua et al. (2017) pointed out that people who use different SNS as their favorite or most preferred one might have a significant difference in perceived social capital. More specifically, students who claimed to use Twitter as their most frequent SNS had the highest score in bridging social capital, while students who used Snapchat most frequently showed the highest score in perceiving bonding social capital.

2.2.3 SNSs in the context of intercultural studies

In the book *The network society: a cross-cultural perspective,* the author Castells (2004) identified the importance of culture in a network-based society. He describes that:

"The capacity to program the goals of the network (as well as reprogramming

capacity) is, of course, decisive because, once programmed, the network will work efficiently and reconfigure itself in terms of structure and nodes to achieve its goals. ICT-powered, global/local networks are efficient machines; they have no values other than performing what they are ordered to do… How actors of different kinds achieve the programming of the network is a process specific to each network… In the network society, culture is by and large embedded in the process of communication, in the electronic hypertext, with the media and the Internet at its core" (Castells, 2004, p. 32).

As new forms of mass media tools, social media and SNSs have replaced traditional media like televisions in numerous communicative contexts, as well as in the process of network formation. The advent of new mass media challenged the theorem that mass communication can complement the process of intercultural communication (Kim, 2001). Moreover, the transformation of online social capital is likely to influence the cross-cultural outcomes for strangers. In recent decades, considerable academic attention has combined the use of SNSs and social support in the area of intercultural study.

Before SNSs became common tools for daily communication, Ye (2005) investigated the impact of internet use on Chinese international students' network support and cross-cultural adaptation. It is indicated that both perceived support from interpersonal networks in the host country and online ethnic social groups could help alleviate social difficulties. Important information and knowledge are allowed to obtain from these two types of support, which further lead to the sociocultural adjustment in the host society. The finding is also consistent with Granovetter's theory that weak ties facilitate the flow of new information since most online ethnic groups are composed of people from the same culture with whom the student is loosely connected with each other. In contrast, it is found that maintaining old ties may bolster sojourners' emotional status in the host milieu; however, it fails to provide practical skills in order to deal with daily problems.

Evidence demonstrated that using SNSs plays an important role for strangers in building social networks in higher education, which further facilitated their adjustment in the new environment (L. Cao & Zhang, 2012; Forbush & Foucault-Welles, 2016; Sandel, 2014). Using ethnographic interviews with Chinese international students studying in New Zealand, Cao & Zhang (2012) stated that SNSs allow Chinese students

to maintain close ties through communicating online. At the same time, they can obtain academic support via online chatting with people who had a similar experience, which infers that SNSs use can potentially lead to academic adaptation. In accordance with quantitative data, higher intensity use of SNSs has the potential to change the size and composition of students' social network, which is considered as a supportive resource during their overseas study (Forbush & Foucault-Welles, 2016).

Although SNSs have been proved to be useful tools for the formation of social support, the fact that communication gap caused by cultural difference exists essentially (Chen, 2012). One of the manifestations is presented by adopting particular SNSs to communicate (Castells, Fernandez-Ardevol, Qiu, & Sey, 2006). It is suggested that cultural values (thinking patterns, expression styles, and cultural context) and other factors are likely to influence the social networking process online, which may further lead to different intercultural outcomes (Chen, 2012).

By comparing social relationships manifested online between young Chinese college students and American college students, it was found that young American generations tend to present more about their bonding social capital than those young Chinese users do. Users from both countries are exposed to a great numbers of bridging social capital online (Chu & Choi, 2010). On the other hand, a similar comparative study between young American users and Korean users revealed an opposite result. It was indicated that American college students tend to hold large, but looser networks, while those Korean counterparts hold smaller and denser networks and their weak ties are nearly equivalent to their strong ties (Choi , Kim, Sung, & Sohn, 2011). The inconsistent findings in studies reveal that the use of SNSs and perceived social capital can be cultural-specific because of cultural values, different digital affordances, and among other things.

Along this line, China's particular media ecosystem undoubtedly brings specific social networking process for their domestic users, which eventually affects their stay overseas. As the most popular domestic SNS in China, the overwhelming use of WeChat has immersed in most Chinese citizens' daily life. Pang (2018, 2019) further indicated that the network size and intensity of use of WeChat are positively associated with Chinese international students' perceived bridging, bonding, and maintained social capital, which further contributes to their life satisfaction and psychological well-

being in Germany.

Following this logic, a handful of studies focused on the SNSs use among sojourners (especially international students) by comparing a host SNS with a home-based SNS based on social capital theory. Li and Chen (2014) used Renren (a popular Chinese SNS) and Facebook as two comparative objects to examine perceived social capital level. The result illustrated that Facebook and Renren both had a positive relationship with bridging social capital; however, neither of the two SNSs predicted bonding social capital. In addition, Facebook demonstrated a stronger relationship with bridging social capital than Renren did. In other words, it seemed that Facebook was more useful to build up connections in the host country. Yuan & Fussell (2017) also found that Facebook use was more related to build connections with other groups. Partly contradicted with Li and Chen's study, a similar study conducted in the UK comparing the use of WeChat and Facebook also showed that both SNSs had a significant relationship with bonding and bridging social capital among Chinese international students. Facebook had a higher score regarding bridging social capital and WeChat contributed more to bonding social capital (Yuan & Keise, 2018).

Furthermore, a similar study (Li, 2020) comparing Facebook with WeChat was conducted in Macau. As a Special Administrative Region of China, Macau is one of the few regions in the world where both SNSs are widely used in the society. A survey was distributed to both local students and students from mainland China after controlling students' proportion from each group. It was also found that Facebook and WeChat use are positively associated with bridging social capital and bonding social capital. Only WeChat use is associated with maintained social capital. Students' satisfaction with life and their enhanced three types of social capital are found to be interrelated. Moreover, students use Facebook mainly for searching information, while they use WeChat for the purpose of social networking. These different functions also influence students' time distribution on each SNS, respectively.

In the following terms, some scholars argued that the different functions of social media use could also affect the outcomes of social capital and further the sojourners' psychological well-being (Guo, Li & Ito, 2014; Pang, 2018a). In their study, Guo et al. (2014) claimed that both the social-informational use and entertaining-recreational use of SNSs could predict bridging social capital but failed to predict bonding social capital.

Furthermore, the social-informational function of SNSs use was found to provide more informational support to satisfy sojourners' need, which contributed to their psychological well-being in the host society. Partly inconsistent with Guo's study, Pang (2018a) found that the recreational function of SNSs could also predict bridging social capital. These studies showed that the multiple motivation of using SNSs could lead to different outcomes concerning the enhancement of social capital, which may indirectly influence one's cross-cultural adaptation. It became relevant to investigate the intricate relationships between distinct types of SNS interaction and intercultural adaptation mediated by social capital.

2.3 Uses and gratifications and the selection of SNSs

In this subsection, the media-related theory uses and gratification is introduced as a proper concept to investigate individual's choice of media tools. Furthermore, a landscape of the popular SNSs around the world will be presented. Specific use habits of SNSs are focused on between China and Spain, especially among young adults. Specified Chinese SNSs and their host counterparts for investigation are determined. Lastly, a panorama of chosen SNSs' backgrounds and affordances will be displayed in this section.

2.3.1 Uses and gratifications in the global environment

Since the primary stage after the advent of customized mass media and computer-mediated technology at the end of the 1990s, a new media ecosystem characterized by the integration of different media and its interactive potential has been identified by the Spanish sociologist Manuel Castells (2010). Multimedia tools, namely TV, VCR, computers, and even Karaoke, fulfilled people's need for comfort and shaped cultural trends; at the same time, the multimedia environment also transforms itself in response to the culture from a local/global perspective. According to Castells (2010), specific sociocultural patterns in the communicative environment dominated by multimedia

bring about certain features. Firstly, the social and cultural divide, characterized by both users' multiple interests and producers' segmented coping strategies, leads to a broader user segmentation. Secondly, social stratification among users will be increased largely determined by class, race, gender, country, among others. Thirdly, the communication of all kinds of messages in the same system becomes possible, and further induces an integration of all messages in a common cognitive pattern. Lastly, although cultural differentiation is discussed, multimedia possesses the possibility for cultural expressions with a large extent of quantity and diversity. According to Castells, we can realize that a more complex media environment has been transforming, emphasizing more on interactants' choices from both global and local perspectives. In this sense, an adequate paradigm such as uses and gratification approach is introduced to investigate users' motives and selective patterns for the media.

Uses and gratifications theory (U&GT) is one of the existing theoretical frameworks to investigate individuals' motives and use patterns on social media, which assumes that audiences are active and goal-oriented users seeking to fulfill needs and gratifications (McQuail, 1987). Every time the advent of new mass media has intrigued researchers to discover audiences' motives and selective patterns of applying such kind of mass media. In the history of mass communication, audiences' choices such as listening to soap operas, reading newspapers, listening to serious music, and reading comics have been investigated even early in the 1940s (Berelson, 1949; Herzog, 1940; Strang, 1943; Suchman, 1941). The dichotomic perspective, taken Wilbur Schram's (1949) idea as an example, classified that gratifications could be divided into immediate reward and delayed reward model of media gratifications. Besides using dichotomy to discover audiences' gratifications, Lasswell (1948) also indicated four-faceted media functions for society and individuals. They are surveillance, correlation, entertainment, and cultural transmission.

Regardless, early research concerning motives and gratification was criticized for being narrow in similar methodology and omit the frequency distribution about labeled categories. In addition, coherence between the gratifications and the psychological or sociological origins of the needs satisfied was omitted (Katz, Blumler, & Gurevitch, 1973; Ruggiero, 2000).

Departing from social and psychological factors, Katz and colleagues (1973) further

identified five models of needs gratifications: 1) cognitive needs, which refers to knowledge learning and information acquirement, 2) affective needs, which refers to emotional, pleasurable experience, 3) social interactive needs, which refers to the connections with family and friends, 4) tension release needs, which refers to audiences' relaxation and diversion, 5) personal integrative needs, which refers to identity exploration and enhancement. The models proposed by Katz were focused on traditional mass media audiences.

In the 21st century, many scholars began to apply U&GT to Internet communication and new media (Eighmey & McCord, 1998; LaRose et al., 2001; Stafford, Stafford, & Schkade, 2004).

Besides considering audiences as active and goal-oriented individuals, the arrival of the Internet has provided the U&G theory with more revolutionary new attributes, which can be classified as interactivity, demassification, and asynchronicity (Ruggiero, 2000). Firstly, interactivity refers to how participants can respond and transfer symbols in the mutual communicative interaction (Ha, James, Lomicky, & Salestrom, 1998). Five dimensions of interactivities were proposed by Ha and colleagues (1998): playfulness, choice, connectedness, information collection, and reciprocal communication. Online interactivity enabled individuals to fulfill different sorts of their needs in a virtual environment, which could be one of the explanations for the collapse of offline bowling clubs described by Putnam (2000). Secondly, demassification corresponds to the idea that individuals domain the selection of new media for a specific purpose. It is argued that we have entered an era with multiple choices empowered by the Internet and possess the ability to accommodate messages for their needs (Chamberlain, 1994). Thirdly, new technology based on Internet also enabled individuals with the concept of asynchronicity, which is characterized by the time flexibility allowing people to control messages at their convenience.

According to the new characteristics of U&G granted by the Internet, new sociocultural ramifications were introduced into consideration for researchers. Mostly because of the attribute of interactivity, the salience of interpersonal relationships in the online era and new informal conversation types became one primary research interest in the U&G area (Dicken-Garcia, 1998; Ruggiero, 2000). Another significant transformation provided by the Internet is that; people are gradually changing their ways to consume news

information, which used to be essentially provided by traditional mass media (Ruggiero, 2000). In this sense, it becomes important for us to understand new gratifications granted by new media and their consequential influence.

With the rise and prosperity of social media in the recent decade, a series of studies were conducted applying U&GT in this area, especially specific SNSs (Park, Kee, & Valenzuela, 2009). In Quan-Haase & Young's (2010, p.351-352) words, focusing on social media is vital because we need to understand what motivates users to switch from one tool to another. Moreover, the concurrent use of various tools suggests that each fulfills a distinct need making an analysis of U&G essential.

Using a user-generated platform called 'Everything2' as the sample, the study found that motivations for users' dependency in an SNS were dynamic and multiple. Users possibly started using a platform for a specific reason, while extra benefits were perceived in such platform, the sequential dependency to such platform occurred (Lampe, Wash, Velasquez, & Ozkaya, 2010). Park and his colleagues (2009) identified four motivations for participating in the Facebook Groups module: 1) socialization, 2) self-status seeking, 3) information obtainment, 4) entertainment. They also indicated that since the participation of social activities was usually carried out via the Groups application, a positive impact in promoting users' civic and political involvement by using Facebook Groups can be highlighted. The implication of this study can serve as one support to explain the enhancement of social capital via using Facebook. From a survey and interviews among undergraduates who use Facebook and Instant Messaging (Quan-Haase & Young, 2010), the idea from Park and colleagues is supported. It was found that Facebook was more likely to be considered as a public tool for entertainment and information seeking, while instant messaging was more associated with friendship development and maintenance. Facebook is used to find out about social events, friends' activities, and social information about peers. However, Instant Message does not show advantages for cognitive needs, since it is less efficient to communicate separately to each friend for information.

Some cultural-based social media were also examined by researchers, specifically, Chinese social media in our case. Entertainment and cognitive needs are central motivations for college students in China to use WeChat frequently (Chen, 2017). Specifically, recognition needs trigger young adults to seek social support, obtain

respect, and strengthen a sense of belonging by self-presenting in WeChat's Moments module, interacting with other WeChat users, and creating or joining WeChat groups. Entertainment needs motivated participants to pass the time and relax by watching videos, browsing news, playing games, reading jokes, among others. Similarly, by studying the continuance intention of using WeChat among Chinese citizens, Gan & Li (2018) has proposed a model to explain WeChat users' gratifications. In their words, four main gratifications are fulfilled: 1) hedonic gratification, which refers to the passing-time behaviors and perceived enjoyment, 2) social gratification, which refers to the social interaction behavior and sequential perceived social presence, 3) utilitarian gratification, which corresponds to the behaviors such as self-presentation, information documentation and information sharing, 4) technology gratification, which highlight users' perceived convenience via using WeChat to communication.

U&G theory has also been applied in the area of cross-cultural adaptation. As mentioned previously, the social-informational function of SNSs use was associated with psychological well-being in the host society mediated by social capital (Guo et al., 2014; Pang, 2018a). Evidence has found that Chinese students with a strong acculturation desire in the United States may use Weibo (a Chinese version of Twitter) to obtain necessary acculturation information, which boosts their use frequency and intensity on such SNS (Chen Yang, 2018a). Weibo appears to be a double-edged sword as Chinese students may use it to improve their living skills and cultural competence or escape from a limited social life. In addition, the intensity of Weibo use is found to be correlated with class, acculturative mode and length of stay in the host country.

A review of the study of U&G theory shows that this theory serves as a strong and effective model for researchers to investigate audiences/users motives and patterns related with certain media. Sequential social and psychological effects can also be examined efficiently in the intercultural context. However, U&G theory has also received criticism over time. First of all, most of the related studies are based on the assumption that audiences are conscious about their needs, which may result to be utopian. Since agenda-setting continues to exist in our society, it could be difficult for individuals to stay conscious and sober about their choices all the time. Secondly, the distinction between needs and motivations are hard to distinguish. The measurements of gratifications seem to be segmented and hard to generalize (Ruggiero, 2000). Thirdly, many other realistic factors, such as one's own social network, personality, and culture,

may limit one's real choices.

The third criticism is not considered as a significant limitation in the present doctoral thesis since it aims to discover the U&G based on the culture-specific comparison. However, I would like to introduce another two concepts in this chapter to complement the U&G theory.

The first term is media affordances. The concept 'affordances" is defined as the "multifaceted relational structure" (Faraj & Azad, 2012, p.254) between an object/technology and the user that enables or constrains potential behavioral outcomes in a particular context. Because the attributes and abilities of users, the materiality of technologies, and the contexts of technology use are all potentially dynamic, the concept of affordances provides a framework to probe these relationships in different ways while retaining a relational ontology (and not privileging any one aspect as deterministic of the others (Evans et al., 2017, p.36). The concept suggests that media are likely to differ in technological and aesthetic attributes, which consequently influence users' choices to fulfill their needs.

The second related concept is "polymedia". Since media affordances indicated that technological components are related with users' own attributes and contextual use, a media ecology in which the overall technical, social, cultural, and place-based components are considered decomposable or separable (Ito, 2013, p.31). In this sense, according to Madianou & Miller (2013), polymedia treats this ecology of communication opportunities as an integrated structure of affordances. Furthermore, polymedia does not only refer to the media environment; it also emphasizes how users exploit these affordances in order to manage their emotions and their relationships.

Following this logic, the third term, "platform-swinging", is proposed by Tandoc and colleagues (2019) in the context of social media. It describes how users navigate social media platforms by routinely swinging from one to another, maintaining their presence across various platforms, without abandoning older platforms. They argued that users are available to secure gratification opportunities to fulfill their overall social media gratification by using platform-swinging strategies. All in all, combining these three concepts with the classical U&G theory, a new orientation to study individuals' needs and gratifications in a technological society full of choices become possible and achievable.

2.3.2 The rise of social network sites in contemporary society

As previously mentioned in the section of literature review, social media, or social network sites according to the definition of Boyd & Ellison (2007), have obtained popularity around the world during recent decades. This new technology has greatly influenced how human beings communicate with each other, and further affected the structure of networks among individuals (Castells, 2004; McCollough, 2021). Until January 2021, it was reported that nowadays, there were 4.66 billion internet users around the world with a daily steady expansion as well. In addition, from all the internet users, 4.2 billion were also social media users (Statista, 2021). From the launch of recognizable SNS SixDegree.com in 1997 till nowadays in 2021, not only do we witness the growth of social media users worldwide, but also witness the spread of SNSs numbers for users to achieve their different goals.

As visualized in Figure 6, it can be observed that worldwide leading SNSs are diversified, conforming to their different positioning on the market, affordances, among others. The Figure 6 shows that the most leading social media platform around the world nowadays is Facebook, with more than 2.8 billion monthly active users in July 2021. Some following the well-known SNSs on the list are WhatsApp, Instagram, Snapchat and so forth. At the same time, some SNSs appear on the list due to their wide popularity within the Chinese community, namely, WeChat, QQ, Douyin (Chinese version of Tik Tok), Sina Weibo, and Kuaishou.

Many popular global SNSs such as Facebook and Instagram are unavailable to utilize in mainland China, which contribute to the particular landscape of SNSs consumed in China to a certain extent. In this sense, we can witness the rise of many indigenous SNSs in mainland China, such as WeChat, QQ mentioned in the last paragraph. The Figure 7 illustrates those most popular social media platforms consumed in the third quarter of 2020 in China. Most of the SNSs appeared on the list are exclusively widely used in the Chinese community, except for LinkedIn and Skype.

Although there exist popular indigenous SNSs as well in many other countries, such as VK in Russia, Line in Japan, few countries or regions are like China, which possesses a completely different set of the social media ecosystem. The particular case of China regarding its digital ecosystem has received much scholarly attention, especially in a digitalized networked society nowadays (Chang & Gomes, 2017; He & Pedraza-

jim énez, 2015; Li, 2020).

Figure 6. Most pupular social network sites worldwide in July 2021

Most popular social networks worldwide as of July 2021, ranked by number of active users (in millions)

Social Network	Active Users (millions)
Facebook	2 853
YouTube	2 291
WhatsApp*	2 000
Instagram	1 386
Facebook Messenger*	1 300
Weixin / WeChat	1 242
TikTok	732
QQ	606
Douyin**	600
Telegram	550
Sina Weibo	530
Snapchat	514
Kuaishou	481
Pinterest	478
Reddit*	430
Twitter	397
Quora*	300
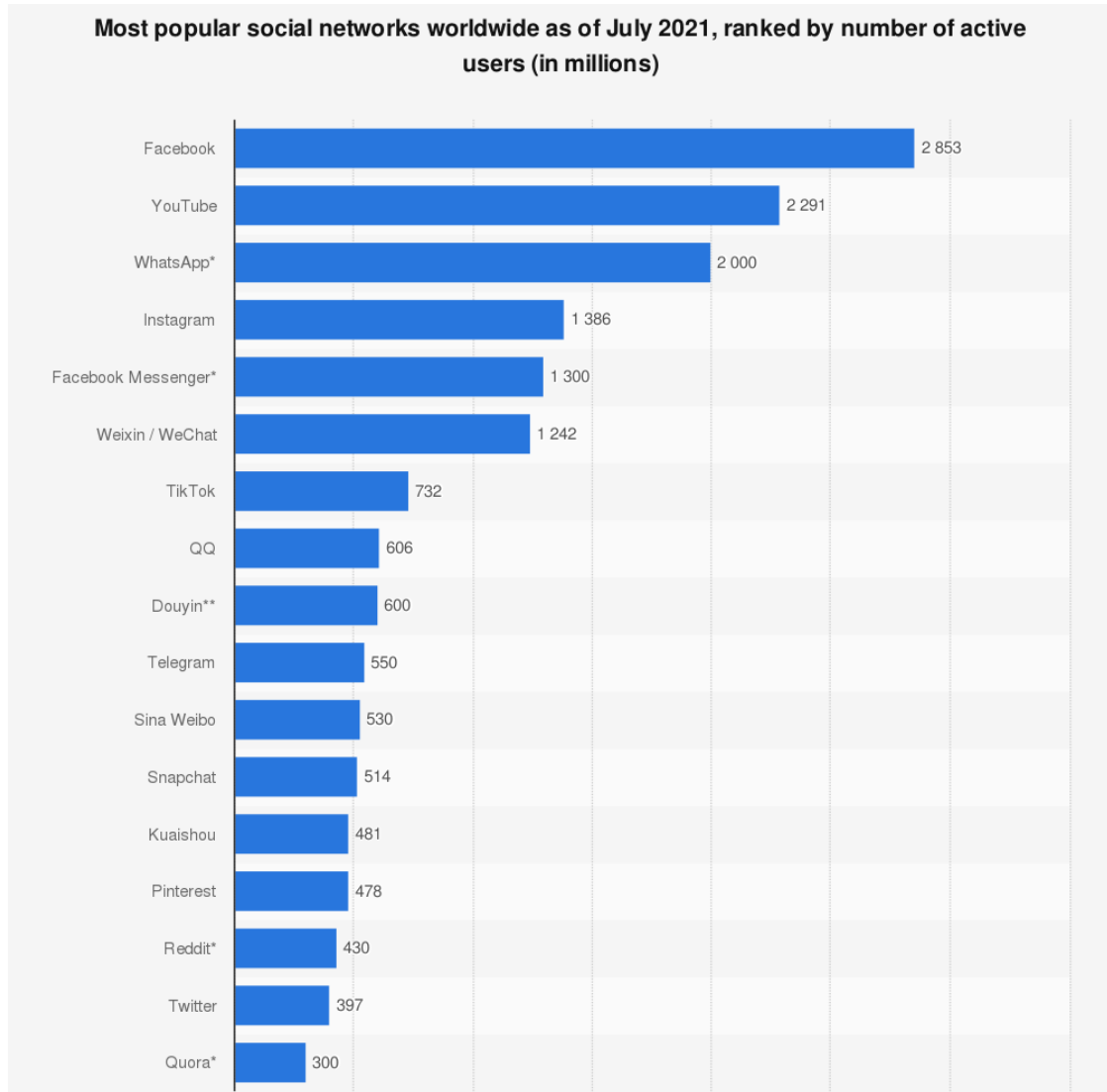
(Source: We Are Social, Hootsuite, DataReportal, July 21, 2021)

Figure 7. Most used social media platforms in China, 3rd quarter 2020

Share of internet users of the leading social media in China as of 3rd quarter 2020

Platform	Share of internet users
WeChat (Weixin)	73.2
Sina Weibo	47.1
Kuaishou	45.1
Douyin	41.1
Baidu Tieba	30.5
Youku	29.1
Tencent Weibo	27.1
Xiaohongshu	26.9
QZone	24.3
Douyu	18.6
LinkedIn	15.8
Huya	15.1
Meipai	10.2
Douban	8.6
Yizhibo	7.8
Skype	6.9
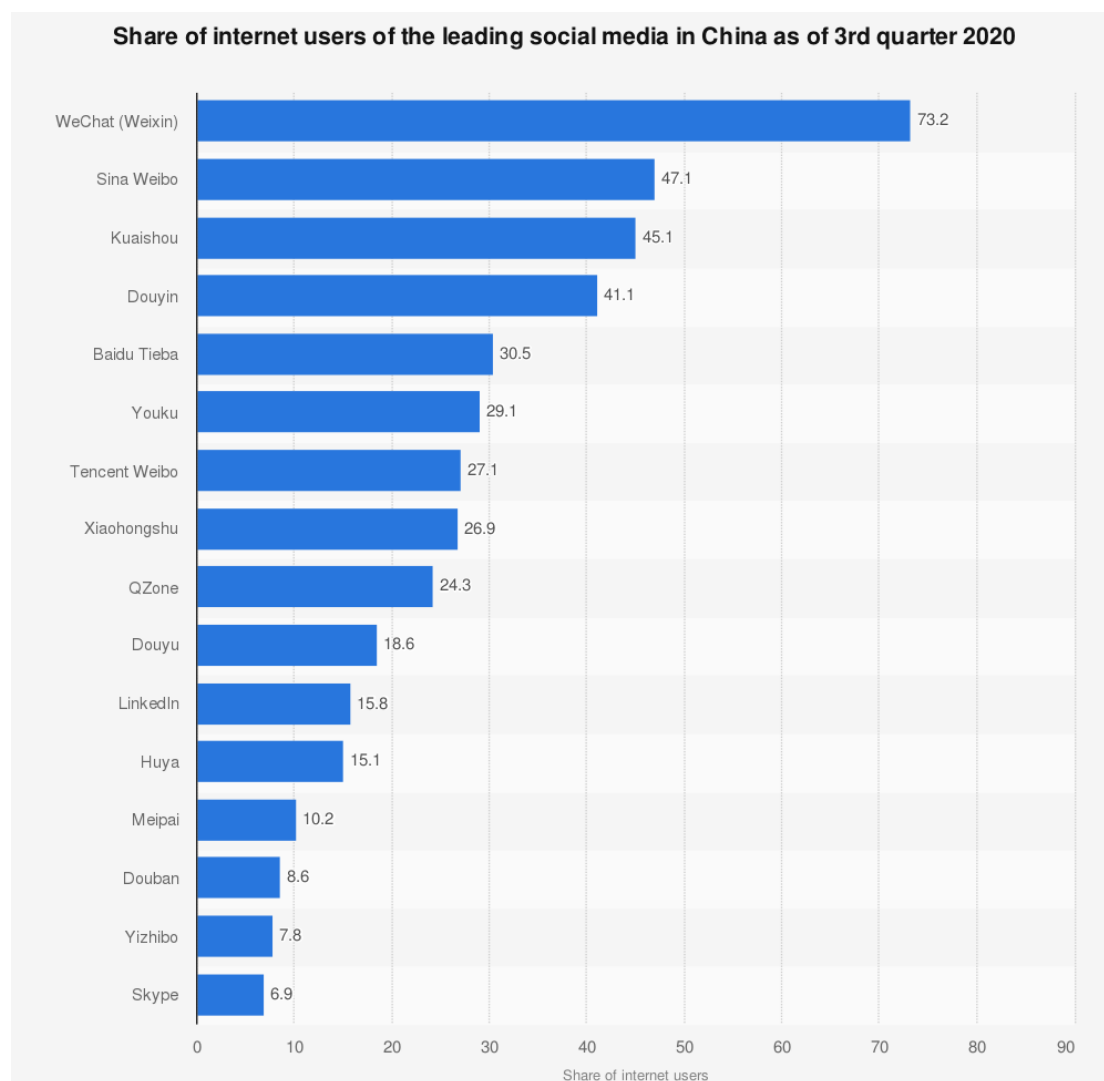
Note: [1]numbers in million. [2]Douyin is the Chinese name of TikTok.

(Source: We Are Social, & Hootsuite, February 9, 2021)

2.3.3 Digital journey in the host society

Following the logic in Kim's (2001) cultural adaptation theory, international students enter a new milieu not only with their pre-shaped cultural values and habits, but they are also likely to maintain their old habits of social media consumption as well. Moreover, as international students may not be familiar with the local facilities, they tend to take advantage of online resources to find help more frequently than local people (Chang & Gomes, 2017). With respect to the case of Chinese international students in specific, since the digital ecosystem of China is completely different from the western

digital ecosystem (in our case, digital ecosystem in Spain), it is highly possible that Chinese students remain completely different habits to conduct their online activities (Forbush & Foucault-Welles, 2016; Hofhuis, Hanke, & Rutten, 2019a). However, as their social contacts with the host society increase, they may have the tendency to apply more host social media platforms in their daily lives. To better understand the differences and processes, it is worth having a general concept of the social media consumed in Spain as well.

Figure 8. Most-used social media platforms in Spain, January 2021
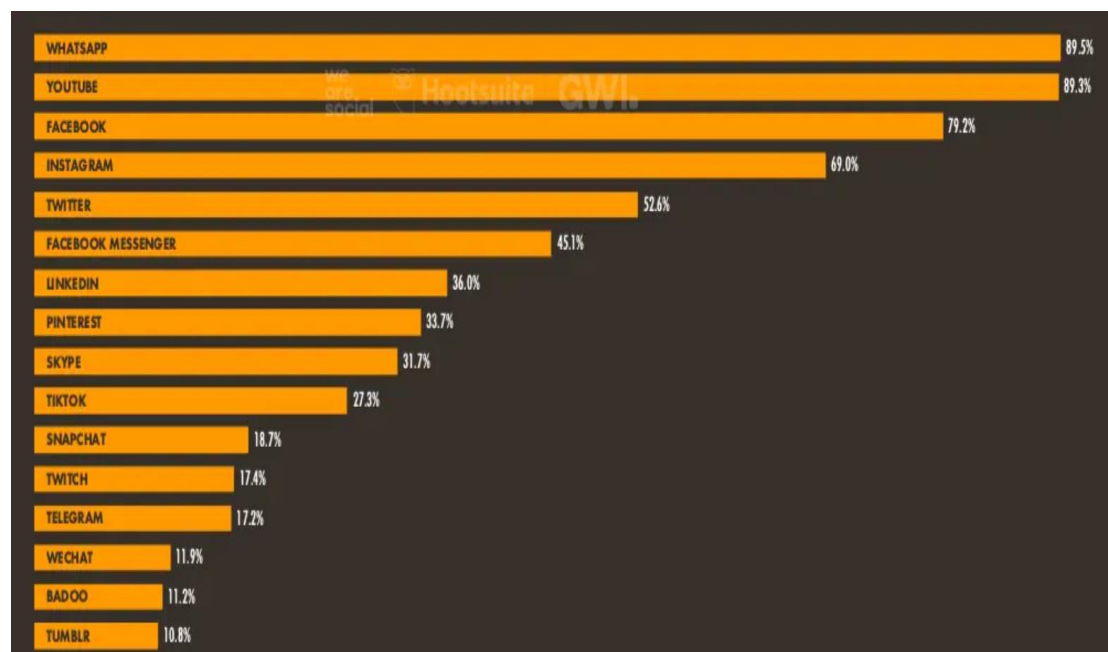
Note: Penetration rate based on internet users aged 16 to 64 in Spain

(Source: We Are Social, & Hootsuite, & DataReportal)

As visualized in Figure 8, most popular SNSs consumed in Spain are quite consistent with the global version presented previously except for those Chinese platforms. From another similar study directed among Spanish undergraduates in Barcelona, WhatsApp, Instagram and Twitter are the most used SNSs on their smartphones (Giraldo-Luque & Fernández-Rovira, 2020). Young people in Spain also apply different strategies to SNSs. For example, WhatsApp for communicating and organizing offline activities; Instagram for following friends and celebrities; Facebook for connecting with distant friends; and Twitter to search for useful information (Scolari et al., 2020; Tur et al.,

2017). Through online activities on multiple platforms, Spanish young people gradually gain different types of social capital (Vidales-Bolaños & Sádaba-Chalezquer, 2017).

On the other hand, as we can observe from the Figure 8, WeChat also appears on the list as one of the most-used social media platforms in Spain. Based on some previous studies about the Chinese diaspora's media consumption in Spain (Liu, 2020; Wang, 2018), We hypothesize that the Chinese diaspora in Spain contributes to the penetration rate of WeChat in Spain to a large extent. Although some former studies discussed the landscape of media consumption of the Chinese diaspora in Spain, none of them focused on the essentiality of social media for daily usage. Moreover, most Chinese international students are young adults characterized by active digital consumers and with better flexibility. It becomes crucial to understand how this group of Chinese sojourners manage SNSs use in their overseas life, especially facing issues of social support and cross-cultural adaptation. Following this logic, we have determined several most representative host and ethnic SNSs for the purpose of the present study. Brief introductions of main features and affordances will be provided in the following part in order to understand the reasons for selecting these sites.

2.3.4 A brief introduction to selected SNSs in the study

In the present study, we do not take SNSs as an entirety to investigate due to their proliferation in numbers and fragmented affordances. Hence, to answer the research question, in total, six SNSs were included as research objects. The six SNSs include two ethnic SNSs, WeChat (Weixin) and Sina Weibo (normally known as Weibo as well), and four host SNSs, Facebook, WhatsApp, Twitter, and Instagram. Students' daily activities on these six platforms will be discussed and related to their cross-cultural adaptation in the following chapters.

WeChat

First launched in 2011 by Tencent Holdings Ltd., WeChat[1] was designed as a "multi-modal online application that allows users to send short text messages, pictures, emoji, graphical interchange formats (GIFS), audio files, and/or some combination of each" (Sandel et al., 2019: 1). Throughout the development, WeChat is even combining more functions inside itself; for example, it affords online payment, video calling, mobile games, among others. With a lot of diversified functions embedded in the application, WeChat is widely considered a super-app in China, just like a Swiss Army knife loaded with everything (Sandel et al., 2019).

Talking about WeChat, it is inevitable to mention the other popular Chinese application, QQ, which is operated by Tencent company as well. Although QQ is also a multifunctional social media and has a longer history than WeChat, the active monthly users of WeChat soon surpassed QQ and became number one in China. One of the reasons is that WeChat is more mobile-oriented while QQ is more desktop-oriented at the beginning (Xia, 2017). Several most commonly used functions of WeChat will be introduced in the forthcoming part.

Entering WeChat, the main interface that appears by default is the screen with several chat bars arranged in a timeline (See Figure 9). One can easily send text messages, 60-s audio files, stickers, and other contents with other people or groups through chat bars.

[1] In China, it is called 微信, literally Weixin.

Figure 9. WeChat principal screen. Chat screen
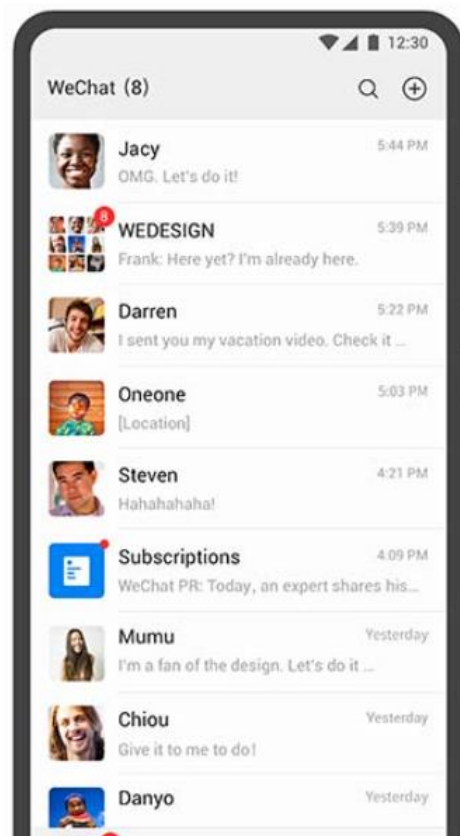
(Source: Captured from https://blog.wechat.com/)

Like Facebook or Instagram, WeChat also allows users to upload photos or text-based messages using the function "Moments" (Pengyouquan in Chinese). However, in WeChat, only those contacts the user added have access to see those posts by default. And those contacts who are allowed to see the posts can further interact with the user by giving like or commenting, among others (See Figure 10).

Figure 10. The interface of WeChat Moments

(Source: Captured from https://blog.wechat.com/)

Another important function of WeChat is the "Subscriptions", where public accounts can publish articles and information. This function makes WeChat an important platform as the information source to a large extent. For a WeChat user, subscribing to a public account on WeChat is similar to following an account on Twitter or Instagram. And users can also send messages directly to those public accounts. All the public accounts the user subscribed to will appear in the bar "Subscriptions", which usually shows up in the main interface of WeChat (See Figure 9 and Figure 11 for reference). Actually, there are also two other types of public accounts: service accounts and enterprise accounts. But the most widely used type is the subscribed accounts which appear in the Subscriptions.

Figure 11. An example. CCTVnewscenter's official account on WeChat

(Source: Captured from https://kf.qq.com/faq/120911VrYVrA15091832Qzqq.html?scene_id=kf3384)

Weibo

As WeChat is the most popular instant messaging application in China on the one side, Sina Weibo is positioned as the second most used social media and the largest microblogging platform in China. After worldwide platforms such as Twitter and Facebook were blocked in China, Sina Corporation seized the opportunity to launch the indigenous microblogging platform Sina Weibo in 2009. Few years after its launch, Sina Weibo continued beating other domestic microblogging platforms such as Tencent Weibo and Sohu Weibo. According to the data, active users of Weibo surpassed 500 million in the fourth quarter of 2019 (Statista, 2021). Due to its dominant popularity, nowadays, on many occasions, it is mentioned as "Weibo"[2] directly despite the existence of other microblogging platforms in China.

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[2] Literally microblog in Chinese.

Some common functions of Weibo used by users include 140 characters limited posts, posting images, instant messaging, following public users, trending topics, and so forth. In 2016, Sina Weibo also removed the 140 characters limit; users can publish longer content on the platform since then.

WeChat can not be considered as a simple counterpart of Twitter in China. For example, former studies have proved that Weibo users tended to disclose more personal information than Twitter users. Moreover, while institutional and political topics were discussed quite frequently on Twitter, users of Weibo tended to mention these topics with less frequency. Actually, Weibo users were more likely to switch their attention to different public issues on the platform (Q. Gao, Abel, Houben, & Yu, 2012; Sullivan, 2012).

Figure 12. Main interface of Sina Weibo

(Source: https://roolifegroup.com.au/driving-sales-campaigns-with-weibo/)

Facebook

In the present study, we do not assume that all readers are familiar with worldwide SNSs, such as Facebook, WhatsApp, Instagram, and Twitter. Hence, brief backgrounds and features of these SNSs will be introduced in the following part.

In the beginning, the social network site Facebook was designed simply as a platform to connect college students at Harvard. It soon became popular and the membership soon expanded to the whole United States and Canada. In 2006, Facebook opened its registration worldwide to everyone older than 12 will an email address.

After registration, users can provide some basic information (such as name, date of birth and gender) to create a personal profile on Facebook. Facebook can afford functions like posting text, photos, videos, and sharing external content. All the content the user published will appear on their personal page in a timeline, which is also known as "the wall" (Caers et al., 2013). On the homepage (also recognized as News Feed), users can see all the updates from their friends and those accounts that they followed. Moreover, once two users become friends on Facebook, they can add activities to each other's news feed. Over time, Facebook also incorporates new functions to the platform, from allowing users to find interesting events to even find jobs on the site. In October 2021, Facebook's parent company changed its name from Facebook to Meta, with the ambition of buiding the "metaverse". However, this change didn't affect the name of the SNS itself.

Figure 13. News feed interface of Facebook
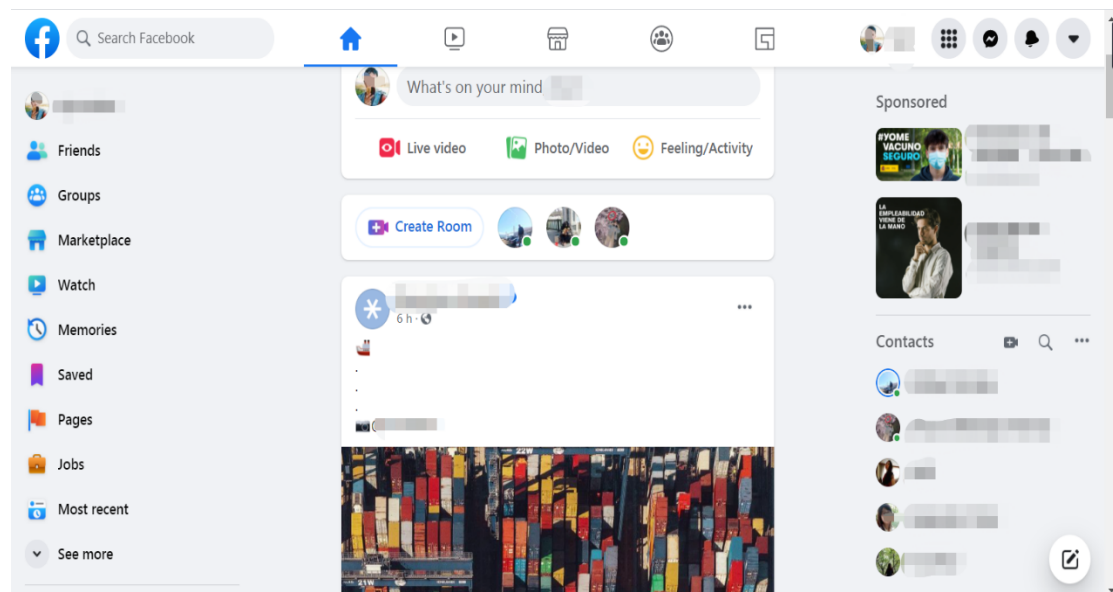
WhatsApp

First founded in 2009, WhatsApp Messenger or simply WhatsApp, was acquired by Facebook (Now, Meta) in 2014. It is nowadays one of the most popular applications in more than 100 countries over the world (Baulch, Matamoros-Fernández, & Johns, 2020). Users register WhatsApp accounts based on their mobile phone numbers. When registering, users need to enter mobile numbers and receive verification SMSs.

Unlike Facebook or WeChat, WhatsApp is mainly an application that allows users to send instant messages in forms such as text, voice, photos, and videos. Functions like disclose self-status on the wall in Facebook or WeChat Moments are infeasible on WhatsApp. Though affordances are quite limited, the availability of connecting people in a group of up to 256 users makes the platform an ideal place for social networking. The feature of broadcast lists further facilitates the circulation of information. Nowadays, WhatsApp has become an important channel to spread news and cultures as well (Baulch et al., 2020).

Figure 14. The interface of WhatsApp
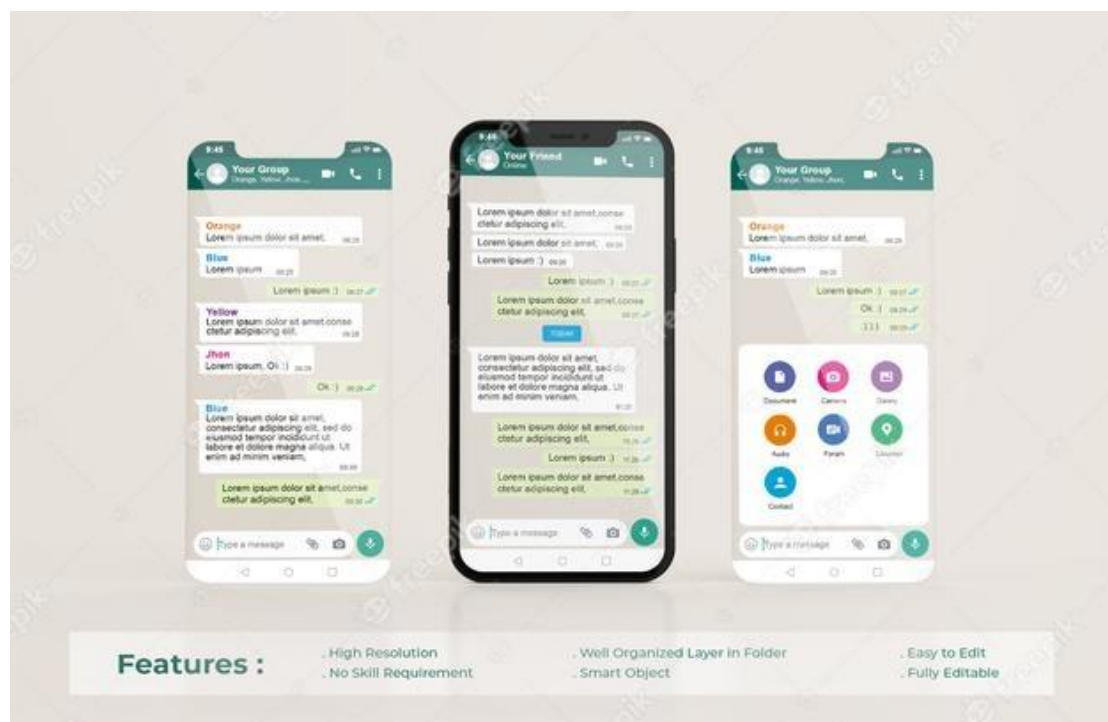
(Source: https://www.freepik.es/psd-premium/plantilla-interfaz-whatsapp-telefono-movil-maqueta-presentacion-aplicacion-ui-ux_13377540.htm)

Instagram

Released in 2010, Instagram is a social media platform where users can share photos and videos freely with the public. In 2012, Instagram was also acquired by Facebook (Now, Meta). Similar to Facebook and many other SNSs, Instagram enables users to like, comment and send private messages to other users on the platform. Its focus on visual culture made the SNS somehow outstanding compared with other SNSs, which are more text-based. As one of the most growing SNSs worldwide, it received more than one billion registered users in 2018.

Besides being a platform featuring its visual attraction, Instagram incorporates many new functions during its development. Users are allowed to add captions to each post and use hashtags or location marks to make their posts more findable by others. Users can view all the posts from the accounts they have followed on their home interface. In 2016, Instagram released the function Instagram Stories which allowed users to update photos or videos which expire after 24 hours. In 2020, Instagram also incorporated functions like "Reels", which has similar features to Tik Tok. Until now, Instagram has become one of the most preferred SNS by Generation Y and Z (1981-2012) due to its visual features (Alhabash & Ma, 2017; Shane-Simpson et al., 2018).

Figure 15. The interface of Instagram
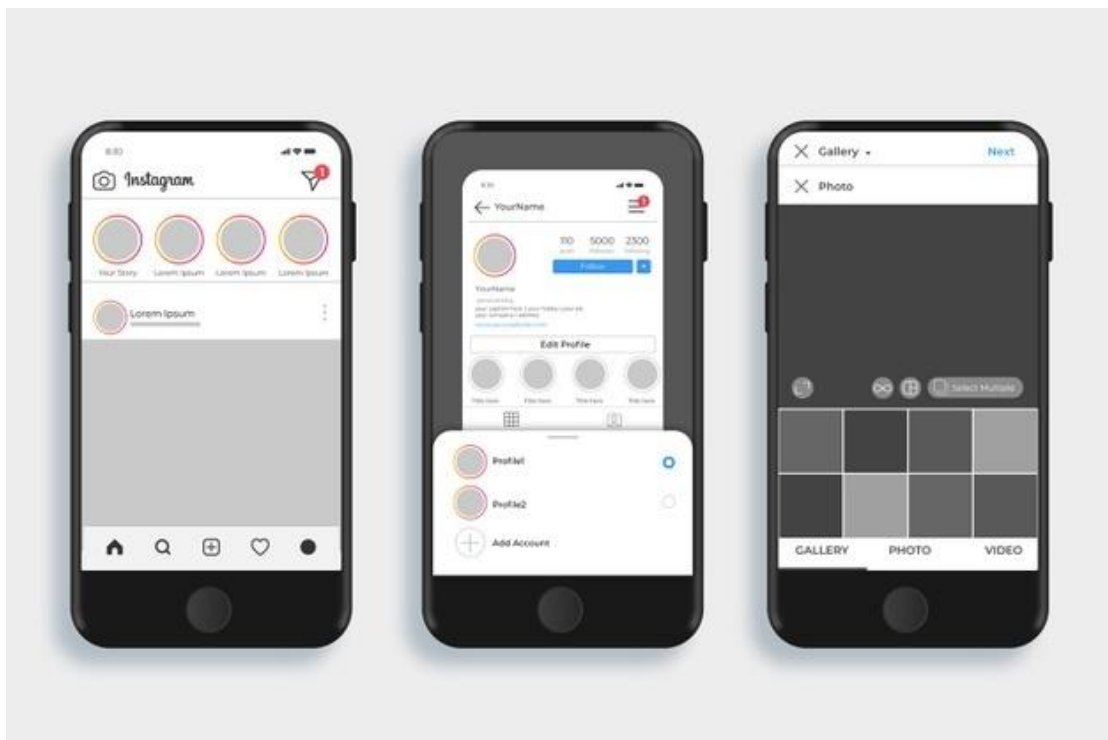
(Source: https://www.freepik.es/vector-gratis/plantilla-interfaz-perfil-instagram-telefono-movil_6849106.htm)

Twitter

Launched in 2006, Twitter was originally an American social networking tool. Users can publish short statements (known as tweets) to share what they are doing or thinking about. In the beginning, Twitter only allowed tweets restricted to 140 characters; however, the restriction was changed to 240 characters in 2017.

Similar to Instagram and Weibo, users of Twitter do not need to be mutual friends to follow or be followed. Normally users will receive feeds from those accounts that they have followed on the home page. Only registered users are allowed to like, comment, or retweet posts on the platform. Besides tweets, "trending topic" is another function used frequently on the platform. It illustrates what words or topics people are greatly mentioned in the current moment.

Nowadays, Twitter is highly considered an important source of news and information, which seems to weigh more than its social networking function (Kwak, Lee, Park, & Moon, 2010; Pittman & Reich, 2016). A bunch of academic attention has focused on how Twitter use can facilitate the area of education, political engagement, information dissemination, among others (Arceneaux & Dinu, 2018; Fenoll, Cárcamo-Ulloa, & Saez-Trumper, 2018; Matassi & Boczkowski, 2020; Tur et al., 2017).

Figure 16. The interface of Twitter
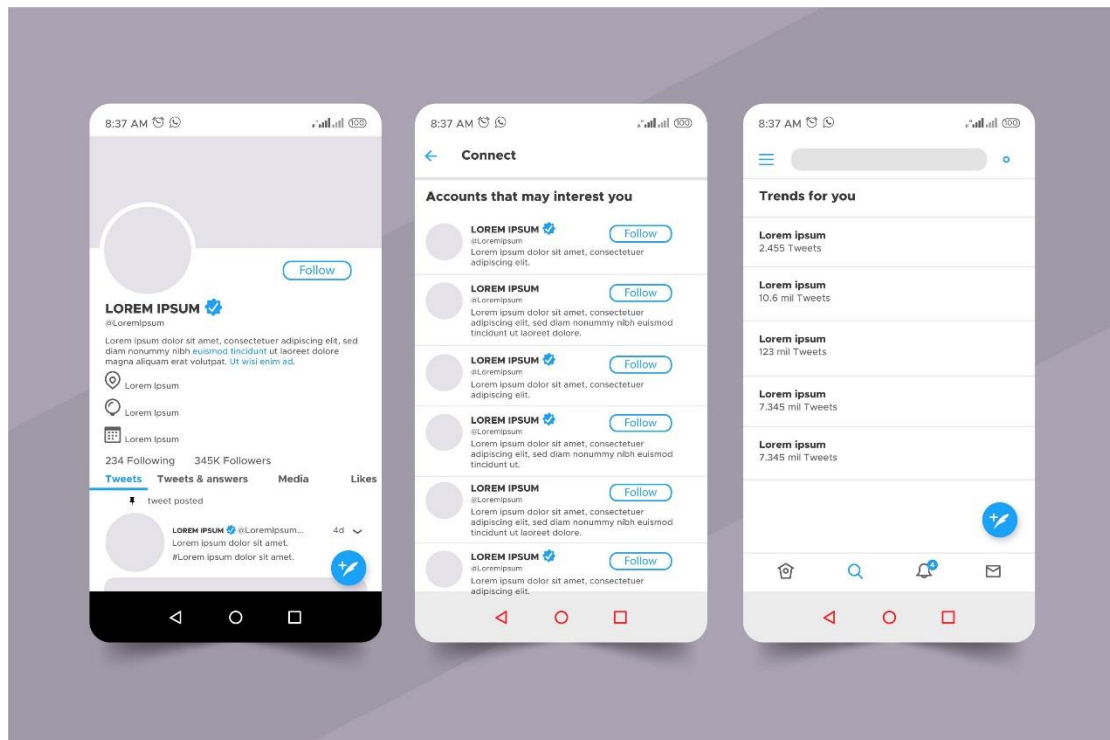
(Source: https://www.freepik.com/free-vector/twitter-interface_8945466.htm)

Chapter 3

Methodology

After a global review of the above-mentioned theoretical frameworks, we found that these theories echoed and supported each other from multiple dimensions. Moreover, the findings from existing empirical studies remained inconsistent. And we believe that the mechanism of how cultural-based SNSs use affects international students' cross-cultural adaptation mediated by social capital still remains unexplored to a large degree. Including all the factors, the present study is considered as an explorative investigation with the intention of examining Chinese international students' daily SNSs consumption and the dynamic development of social capital and adaptation during their study in Barcelona. To achieve the goal, we will elaborate on the specific research questions, the applied research methods and the specific operational processes in this chapter.

3.1 Research objectives and questions

Faced with the different digital ecosystems that exist substantially in China and Spain, and the reality of Barcelona as a multicultural metropolis, the main objective of this study is to examine the SNSs behaviors and motivations of Chinese students in Barcelona in general and how such SNSs habits affect the establishment of social capital and the degree of individuals' cross-cultural adaptation. In response to the overall research objectives, several broad research questions were posed as follows:

RQ1. What social network sites (SNSs) are Chinese international students using during their stay in Barcelona?

RQ2. How does Chinese international students' multiple SNSs use affect their social capital?

RQ3. How does Chinese international students' multiple SNSs use affect their cross-cultural adaptation process?

Further, in order to avoid an aimless enumeration of international students' social media,

we have narrowed down the social media usage of Chinese students to six specific platforms based on previous research on the current state of media use among Spanish students and Chinese students. The selection of the six social media was broadly based on their similar affordances, social popularity, and support from previous literature. In total, six popular SNSs were selected in the present study. Firstly, the most popular domestic SNSs in China, WeChat and two host-based SNSs, Facebook and WhatsApp, were chosen due to their similar affordances. Weibo and Twitter were selected due to the same reason as well. It is worth mentioning that during the first attempt to conduct the initial fieldwork of the research, we discovered a high penetration rate of Instagram use among the Chinese students. In this way, Instagram was included in the final version of target SNSs as well. Finally, six SNSs, namely, WeChat, Weibo, Facebook, WhatsApp, Twitter and Instagram, were selected eventually as the target SNSs for the present research objective. Considering the wide application of the Use and gratification theory to the use of specific social platforms as well (Alhabash & Ma, 2017; Chen, 2017; Yang, 2018b), the first research question can therefore be further refined as follow:

RQ1.1. What target SNSs do Chinese international students use during their stay in Barcelona?

RQ1.2. What are the differences, if any, in motivations to use those target SNSs in the study?

In addition to identifying target social media for the present study, we also noticed inconsistent findings relating the SNSs use with perceived social capital and adaptation (Hofhuis et al., 2019a; Rui & Wang, 2015). Combining the review of social capital theory and cross-cultural adaptation theory of the study, more specific research questions were raised in an attempt to delve into RQ2 and RQ3, which are presented as follows:

RQ2.1. What is the role of using target SNSs for Chinese international students to build up their three types of social capital, respectively?

RQ2.2. How do Chinese international students' target SNSs activities affect their social capital formation specifically?

RQ3.1. What is the role of using target SNSs for Chinese international students to

facilitate their sociocultural, academic and psychological adaptation, respectively?

RQ3.2. How do Chinese international students' target SNSs activities affect their cross-cultural adaptation specifically?

3.2 Research approach: mixed methods

Aiming at examining how do multiple functions of SNSs use affect Chinese international students' cross-cultural adaptation process, a mixed-method approach was executed during the data-collecting phase. According to Creswell & Creswell (2018, p.54), mixed methods tend to be utilized when researchers deem necessary that collecting diverse types of data best provides a more complete understanding of a research problem than either quantitative or qualitative data alone. To follow the approach, we need to recognize that both quantitative and qualitative methods may have some limitations, respectively. Many qualitative studies were criticized for being not representative enough by highlighting the individual differences for interpretation, while quantitative studies were widely criticized for the possibility of ignoring the uniqueness of the minorities (Hodgkin, 2008; Oakley, 1998). And through a convergence of qualitative and quantitative methods, researchers are able to describe and explain the investigation from different perspectives by using multiple datasets.

Following the mixed-methods approach, the current study used a quantitative method by conducting questionnaires followed by the implementation of in-depth interviews as the qualitative method. Echoing the objectives of the present study, the quantitative survey method was planned with the aim of exploring the general SNSs use habits of Chinese international students in Barcelona, and further trying to probe the potential impact of these habits on their social capital. On the other side, qualitative in-depth interviews were conducted in order to interpret the intricate motivations of using multiple social media platforms and the potential influence on different dimensions of intercultural adaptation. Some digital observations and field notes were also included in the qualitative part to complement the research. This type of methodological design corresponds with the explanatory sequential mixed methods (Creswell & Creswell, 2018), which allowed researchers to use quantitative methods first to explore and

describe the tendency and then explain and complement the observed phenomena through qualitative methods. Through the combination of different methodological datasets, a methodological triangulation was formed for a better representation of Chinese students' digital migration and its potential social influence (Jensen, 2002; Thurmond, 2001).

In the following subsection, the processes and strategies applied for each research method will be described in detail.

3.3 Research design

Following the previous subchapter, before the formal presentation of the selection and design of the mixed methods, some of the problems and considerations close to the methods decision of the present study deserve to be mentioned. In order to achieve the objectives of the study, after doing masses of literature reviews and online observation, the researcher tried firstly to enter the field and conduct pilot in-depth interviews with two participants in September 2019. However, after a preliminary case study of these two participants, the research found it relatively difficult to represent the general SNSs use of Chinese international students in Barcelona from the date of two interviewed particiapnts. One of the reason was because two participants' use of SNSs varied considerably. However, the selected SNSs for the study was supported to be appropriate with the confirmation from two interviewees. Moreover, the importance of the personal social networks was highlighted by both of the interviewees. Based on practical considerations, in the end, the researcher decided to conduct firstly a quantitative approach to obtain descriptive characteristics of the sample and numerical data from Chinese students in Barcelona, and then to make a preliminary interpretation of the sample by means of statistical analysis. This process of obtaining demographic and descriptive data was later supported by Scolari et al.'s (2020) research project which studied teenagers' media uses in Barcelona.

3.3.1 Quantitative research: online survey

Consistent with previous explanations, this study began with a quantitative research approach, specifically, an online survey was chosen for the study. The cross-sectional survey was designed mainly to examine two dimensions: one is the use intensity of target SNSs by Chinese international students, and the other is their perceived social capital in Barcelona. The survey method was considered appropriate because it was widely utilized as an ideal tool to obtain numeric information about individuals' attitudes by investigating a sample of the target population (Creswell & Creswell, 2018; Jones, Baxter, & Khanduja, 2013). Specifically, an online survey was conducted under the consideration of its economic advantage, convenience and efficiency. Furthermore, the online survey increased the possibility for researchers to reach participants with social media experience (Van Selm & Jankowski, 2006), which was ideal for the objectives of the present study. In the next part, we will focus on the presentation of sampling and participants collection, measures of the online survey, and lastly the quantitative analysis of the data.

3.3.2 Sampling and participants collection

The field to collect samples should be delimited to recruit general and descriptive data about Chinese international students' SNSs use. In the present study, we only focused our sample on Chinese international students who are or have studied in Catalan universities for tertiary education. The reason to delimitate the sampling in Barcelona was based on the criteria that media culture studies were closely associated with the study of a specific society, let alone the cultural differences could be one decisive factor for users' online interaction (Castells, 2010; Kellner, 2014). Due to its competitive educational and economic advantages, Catalonia, especially Barcelona as the province, has gradually become one of the popular destinations for Chinese students to pursue international education. Due to the objective linguistic and cultural differences between Catalan society and Chinese society, the researcher considered that the study of the social media use of the Chinese student community in Catalan society could be cultural-specific.

Multiple approaches were used for the recruitment of participants for the online survey. The process of online survey collection began in December 2019. Firstly, the doctoral

researcher took advantage of his personal social network to invite friends who were Chinese international students to fill out the first version of the questionnaire. And after modifying and completing the final version of the questionnaire in January 2020, international students collected from personal networks were then invited again to supplement the information on the extended questionnaire. In the next step, taking researchers' own convenience, we then sent over 100 invitation emails to Chinese international students of a master's program at a public university in Barcelona, inviting them to fill in the official online survey. The invitation emails were sent bilingually in Chinese and Spanish, and the second reminder letters were set up later. In addition to sending emails, the researchers also used their own resources to access a master's class at another Catalan university and handed out invitation letters with QR codes, which contained the link of the online questionnaire, to Chinese students in the class.

Besides snowball sampling and sending invitation letters, the hyperlink of the questionnaire was also posted on several popular Chinese social media platforms to recruit more participants. In order to avoid posting the link of the questionnaire on a specific SNS with the tendency of producing bias in the use of the same SNS by the sample, the online survey was initially posted on a non-targeted SNS, Douban[3]. The introduction and hyperlink of the survey were posted in Douban interest groups, such as "巴塞罗那[4]", "战斗在西班牙[5]". According to preliminary digital observations, it was found that there were also many WeChat group chats that gathered many Chinese international students from the same Catalan university with a maximum of 500 people in a single group. Hence, links and invitations were likewise posted in those WeChat groups in order to be able to get more participants. Following a similar approach, interest groups were searched through Facebook, Twitter and other host SNSs with the aim of reducing the bias of collected SNSs use, however, no relevant active groups were found, which could be considered as a limitation of the data collection process.

The questionnaires were collected mainly in January and February of 2020. In March 2020, the questionnaire collection almost came to a halt due to the outbreak of COVID-19. Although in the summer of 2020, when the social restrictions of the epidemic was

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[3] Douban, which was originally a content platform providing information about books, movies and music. There are also many interest groups on Douban for users to publish content and events. It is usually considered similar to the American website, Reddit.
[4] Literally, "Barcelona".
[5] Literally, "Fighting in Spain".

relatively reduced, it was considered no longer appropriate to combine with the data collected before the epidemic due to the potentially interferential impact of the epidemic on Chinese international students' SNSs use.

Finally, a total of 275 students responded to the survey. After excluding uncompleted or unqualified questionnaires, 146 questionnaires remained effective and were retained for further analysis of the study (See Table 1). Among all the 146 participants, 23.3% (n = 34) were male and 76.7% (n = 112) were female. Of the participants, 64.4% (n = 94) of the participants were master students, 13% (n=19) were undergraduate students and 22.6% (n = 33) were doctoral students. All the participants were aged between 18 and 33 years with an average age of 24.58 years of age (SD = 2.90). More than half (52.7%, n=77) of the participants were young adults aged between 22 and 25 years old. In addition, more than half of the Chinese students (52.1%) only resided in Barcelona for less than 1 year. This could be partly explained by the fact that most Masters' programs in Spain are for a year only. It is worth mentioning that there were four missing values with regard to the report of age and year in Barcelona, respectively.

Table 1. Descriptive statistics of respondents (N=146)

Variables	Percentage % (N)	Mean	S.D.
Gender			
Male	23.3% (34)		
Female	76.7% (112)		
Age range		2.32	0.768
18-21	10.3% (15)		
22-25	52.7% (77)		
26-29	26.7% (39)		
30-33	7.5% (11)		
Education level		2.12	0.713
Undergraduate students	13% (19)		
Master students	64.4% (94)		
Doctoral students	22.6% (33)		
Year in Barcelona		1.84	1.109
Less than 1 year	50.7% (74)		
1-2 years	25.3% (37)		
2-3 years	11.6% (17)		
3-4 years	5.5% （8）		
More than 4 years	4.1% (6)		

3.3.3 Survey design and measures

With the intention of answering the research questions, a cross-sectional online survey was initially planned to examine samples' general social capital and intercultural adaptation dimensions at once. However, after a thorough review of literature, we found no well-established existing scales that could appropriately distinguish the three dimensions of cross-cultural adaptation that were intended to be discussed in the current study and further related them to the intricacies of social media use. In addition, such a complex set of variables would make this quantitative survey become lengthy, which could be a disadvantage of the online survey (Van Selm & Jankowski, 2006), especially concerning the limitations of collecting enough participants.

After further consideration, the final version of the survey was designed to examine participants' target SNSs use and their perceived social capital while studying in Barcelona. The online survey was created using the software tool Alchemer, which was formerly known as SurveyGizmo when the survey was conducted. The survey contained a total of 78 items and was divided into three main blocks, which are:

(1) *Demographic information*. The participants' demographic data were collected at the outset and were taken as control variables for further quantitative analysis. Questions related to gender, age, educational level (undergraduate, master's student and doctoral student), length of stay in Barcelona (months in Barcelona), field of study were added in the present survey. To exclude participants who were obviously unqualified, we also added filter questions in this section. For this sake, respondents' current status was questioned, and if they had graduated, the question of the graduation year was followed up. In addition, some Chinese international students might have the experience of living in other regions of Spain before coming to Barcelona. Therefore, the length of time spent living in Spain was also asked about.

(2) *Target SNSs use*. After collecting basic socio-demographic data, participants were then asked if they ever had an account of one of the six target SNSs that was mentioned previously (WeChat, Weibo, Facebook, WhatsApp, Twitter and Instagram). If they answered Yes, they were then sent to the next page of the survey to respond to several questions designed to evaluate their intensity of use on each platform during their overseas stay. The measurement used in the present study for the intensity of SNSs use

basically followed the classic Facebook Intensity Scale developed by Ellison and her colleagues (Ellison et al., 2007). This well-established scale has been widely used to measure the intensity of use of different social media (Aharony, 2015; Hofer & Aubert, 2013; Xiaoqian Li & Chen, 2014; Phua et al., 2017). To measure WeChat, Facebook and WhatsApp use, respondents had first to indicate how many friends they have on these platforms and how many times they spent by choosing the interval in which they fit in. As for Weibo, Twitter and Instagram use, respondents had to answer the numbers of followers, followees, and followees who were their followers as well (mutual following) on these platforms, respectively. The time they spent on these platforms were also collected. After these choice questions, on the next step, five attitudinal questions using a 5-point Likert scale were followed as the complementary measurement of each SNS's intensity for further analysis. To do so, participants were asked to rate the extent of agreement or disagreement (i.e., 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree) statements which are designed to evaluate their emotional connection and daily interaction with the corresponding SNS. Some items included "Using this SNS is part of my everyday activity" and "I feel out of touch if I have not logged into this SNS for several days."

(3) *Three types of social capital*. After collecting information about general SNSs use, the survey continued to examine the perceived social capital of the samples. Specifically, bridging, bonding, and maintained social capital were measured using a 5-point Likert-scale, and these three types were further gauged as the dependent variables for the study. The assessment of social capital was adapted from Williams's (2006) and Ellison et al.'s (2007) validated version of Internet Social Capital Scales. Each of the social capital consists of five items measuring their agreement with the statements. Many former studies focused on measuring social capital by assessing students' accessible resources within the university. It was explained that generally students have relatively limited experience and social networks off campus (Li & Chen, 2014). However, the student's on-campus life could vary greatly due to the diverse educative styles in different countries. It is important to emphasize that most of the universities in Barcelona are small-scale, and students usually live off-campus. Additionally, many universities in Barcelona are located in the center of the city, facilitating students' access to more local society resources. Based on this context, the items are not limited to evaluating students' social capital on campus. As a substitute,

students' general bridging, bonding and maintained social capital within the city were gauged in the study. Some items are, for example, "I am willing to support general activities in Barcelona", "There are several people in the city I can turn to for advice about making important decisions" and "I would be able to stay with some friends in China if traveling back to China".

(4) *Other information*. At the end of the online questionnaire, participants were asked if they were interested in accepting interviews for further research. Those who showed interest left their email address with their consent. The reason for collecting this information was to send in-depth interview invitations to those participants who left their email addresses.

3.3.4 Quantitative analysis

All quantitative data collected from the online survey were entered and analyzed in the statistical software IBM SPSS version 26. Given that the purpose of this quantitative study was primarily to answer parts of the RQ1 and RQ2 in this doctoral dissertation, the selection of SPSS enabled a convenient intuitive report of the sample's usage patterns on the target digital platforms, such as the numbers of online friends, time of use and use intensity.

The measurement used by Ellison et al., (2007) was referenced when measuring the intensity of targeted SNSs intensity. The main purpose of measuring the intensity of SNSs use was to apply this dimension as an independent variable in the multiple quantitative analysis methods in the next step. However, unlike Ellison et al.'s (2007) original scale in which self-reported numbers of friends and time of use were both assessed, only one choice question of time spent on each SNS as part of the intensity measurement considering the different measures of friends on multiple platforms. Then the self-reported question about time spent on each SNS was standardized firstly and averaged to form a scale of SNSs use intensity due to its different scale range[6].

Moreover, the three types of social capital were measured in a similar way as dependent

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[6] The choice question of time spent followed a 6-point scale, while other attitudinal statements followed a 5-point scale. See more details in the appendices.

variables in the statistical analysis. Since the attitudinal statements used to measure social capital followed the same scale range, the data were averaged for further analysis directly.

Before officially conducting the analysis, all scale data were first tested for reliability to ensure the applicability of the statistical analysis. Reliability refers to the consistency of an instrument. It is especially important to examine the reliability of an existing instrument to test its repeatability. And it was indicated that the most important form of reliability was internal consistency, which suggested to which degree the series of items of an instrument behave in the same way (Creswell & Creswell, 2018, p.215). The internal consistency is usually illustrated by a Cronbach's alpha (α) value ranging between 0 and 1. The higher the value of the alpha coefficient, the higher the internal consistency of the scale and the greater the reliability of the scale. It is generally accepted that a scale is reliable when its reliability coefficient is greater than or equal to 0.7. In this study, the Cronbach's alpha of all measured independent and dependent variables were greater than 0.70, indicating that these variables are all reliable. Details of the data will be presented in the Results chapter.

After examining the reliability of the survey data, correlation analyses and regression analyses were conducted in order to answer the RQ1 and RQ2.

Correlation analysis is defined as the association or relationship between two (or more) quantitative variables, and it also assesses the extent of a relationship between the variables (Cohen, Cohen, West, & Aiken, 2014; Gogtay & Thatte, 2017). In doing so, the tendency of correlation is manifested by a Correlation Coefficient whose values range from -1 to +1. A correlation coefficient closer to +1 indicates that the relationship between the variables tends to be more positively correlated. In contrast, a coefficient closer to -1 infers that the relationship between the variables tends to be more negatively correlated.

As for the current study, the correlation analyses were conducted between all the independent variables and dependent variables after controlling the demographic variables. The purpose of conducting the partial regression analysis was to evaluate a possible relationship between all the six target SNSs and social capital to filter the potential SNSs for the next step of regression analyses. The results from the correlation analyses will be displayed in the next chapter.

After conducting correlation analyses, further multiple linear regression analyses were conducted between independent and dependent variables to assess the intricate internal impact of using multiple SNSs on Chinese international students' perceived social capital. Linear regression was considered adequate for the further analyses since it is the statistical method to determine the causal effect of one variable upon another (Sykes, 1993).

3.3.5 Qualitative research: in-depth interviews

As the quantitative online survey was designed to answer the general RQ1 and RQ2, more specific details remained unexplored. In this way, qualitative interviews were conducted aiming at investigating participants' specific activities on target SNSs and how these activities further affect their social capital and intercultural adaptation process. The advantage of conducting in-depth interviews is that detailed information about the sample's thoughts and behaviors could be obtained and a more comprehensive picture related to the research subject could be provided (Boyce & Neale, 2006).

As some previous studies claimed that certain kinds of SNSs use were associated with sojourners' adaptation to the host society mediated by social capital (Guo et al., 2014; Pang, 2018b), in-depth interviews allowed researchers to complement this dimension by providing vivid incidents from the case of Barcelona. Moreover, in the face of the ever-changing affordances of social media, this study also intended to explore, through interviews, how interviewees managed the affordances of different platforms for their own use during their study abroad.

Considering that asking about specific life experiences and online usage experiences can be a relatively intimate topic, one-to-one in-depth interviews were also considered a suitable method for the purposes of the study. Because it is considered that in in-depth interviews, participants are more confident, more relaxed and they feel more encouraged to express the deepest thoughts about a certain subject (Rodica Milena et al., 2006, p.1279).

3.3.6 Interviewees collection procedure

The main interviews were conducted from June 2020 onwards. Due to the impact of the COVID-19 prevention policy at that time, and for reasons of convenience and health safety, an online plus offline format was combined for the in-depth interviews, and participants could choose how they wanted to be interviewed.

As presented in the quantitative study design, we asked respondents of the survey to leave their email addresses to contact them for the interview invitation. In this way, I sent out invitations to a total of 20 participants who had left their emails. And four interviewees were included through email invitations to participate in the qualitative interviews. Other respondents did not respond to the interview invitations. One possible reason for this situation may be due to the relatively long interruption between the questionnaire distribution and the interview invitation period, which was more than four months due to the outbreak of COVID-19.

In order to be able to collect more interview data, after the four initial interviewees who accepted the interview invitations had been interviewed, we invited them to recommend more potential subjects to be further included in the interview and kept expanding the sample in the same way. The whole process followed a typical snowball sampling procedure (Parker, Scott, & Geddes, 2020). Furthermore, in order to minimize possible bias arising from the snowball sampling process, the researcher again invited potential targets to participate in the interviews by sending out the interview invitation poster to several WeChat groups, which gathered a lot of Chinese international students. In the final round of sampling, a number of respondents were again collected in an attempt to ensure balanced attributes in terms of gender and educational level, which further followed a quota sampling technique (Sharma, 2017).

In the end, a total of 17 respondents took part in the qualitative interview study. In the next step, the interview process will be presented.

3.3.7 Interview Protocol and strategies

The formal interview process began in June 2020. In order to be able to learn enough

about the participants' process of intercultural adaptation, the interviewees for the present study were all Chinese international students who were living or had studied in Barcelona for more than six months. In addition, the respondents were diverse in terms of gender, age, major, educational level, length of stay, host language competence and pre-departure background. This minimized the possibility of homogeneity in the results of the qualitative study, which could lead to biased findings.

Among the total 17 interviews, seven of these interviewees were interviewed offline in a face-to-face situation. This included two interviewees collected from the pilot interview phase in 2019. The interview locations were usually designated by the interviewees themselves, usually in a quiet coffee shop or the interviewees' homes. As for the other ten interviews, they were all conducted online as specified by the participants. In order to maintain a relatively relaxed and sincere atmosphere during the online interviews, the online interviews were all carried out in the form of video calling so as to build up a basic trust between interviewees and the researcher. The online interviews were generally conducted via WeChat video or zoom video.

All interviews were conducted in Mandarin Chinese. Being interviewed in their mother language ensured that the Chinese international students in this study understood the questions accurately and were able to express their views in a more in-depth manner. All interviews were recorded with the consent of the interviewees. Interviews usually lasted between 1-2 hours. The length of the interviews usually depended on the personality of the interviewees themselves and the extent to which they were involved in the daily use of SNSs. All the interviews were recorded and further transcribed for analysis.

All the conducted interviews followed a researcher-developed protocol aiming at examining participants' SNSs behaviors, social capital development process and intercultural adaptation process during the overseas study. The protocol for the current qualitative study was established by the research after a review of similar studies about sojourners' adaptation in another country (Demes & Geeraert, 2014; Sandel, 2014; Sawyer & Chen, 2012; Tu, 2018; Zhang, 2012; Y. Zhao, 2018), and the protocol was constantly modified with minor changes throughout the implementation of all the interviews. In this way, it was hoped that the research questions of the dissertation could be better presented and answered.

At the beginning of each interview, basic information about the interviewee was asked during interviews to complement the profile of the participant's background. In this way, a detailed table was presented, which contained specific personal information (See Table 2). All the participants for interviews were young adults, a group that was relatively active in the use of social media. The vast majority of respondents were in academic projects taught mainly in Spanish (some also in Catalan), which required them to have at least an intermediate to a high level of the target language proficiency. Moreover, expertise of the host language also undoubtedly facilitated the possibility of using a wider variety of SNSs. The length of stay in Barcelona also varied considerably among the participants, which made the presentation of the qualitative data more heterogeneous.

Table 2. Participants' profile data of the interviews

Participant number	Gender	Age	Degree	Spanish proficiency	Years in BCN	Duration of interview
P1	Female	25	master	B1-B2	1-2 years	73 min
P2	Female	22	master	B1-B2	<1 year	58 min
P3	Female	24	master	C1-C2	<1 year	55 min
P4	Female	25	master	C1-C2	<1 year	83 min
P5	Female	24	master	C1-C2	<1 year	74 min
P6	Female	26	master	B1-B2	2-3 years	103 min
P7	Female	28	master	B1-B2	1-2 years	78 min
P8	Female	23	master	B1-B2	1-2 years	69 min
P9	Female	24	master	B1-B2	1-2	115 min

					years	
P10	Male	27	PhD student	B1-B2	>3 years	101 min
P11	Female	24	master	B1-B2	1-2 years	91 min
P12	Female	24	master	C1-C2	2-3 years	61 min
P13	Male	22	undergraduate	C1-C2	2-3 years	96 min
P14	Female	24	PhD student	C1-C2	2-3 years	121 min
P15	Male	22	undergraduate	B1-B2	>3 years	108 min
P16	Male	31	PhD student	C1-C2	>3 years	69 min
P17	Male	27	PhD student	C1-C2	>3 years	58 min

The main content questions for the qualitative study included two primary parts. The first section focuses on the respondents' SNSs use strategies during their study abroad. More specifically, the interviews focused firstly on respondents' use of six target SNSs (WeChat, Weibo, Facebook, WhatsApp, Twitter and Instagram), from the basic question of whether they used them, to why they engaged/disengaged these platforms in daily life. As different U&G models were identified in the literature review section, these models worked as a guideline to help respondents constantly recall their motivations and behaviors on these platforms. Some examples related to these basic questions were as follow:

Which affordances of this SNS do you usually use?

Do you use this platform for information seeking? How?

In addition to social media activities, another focus of this section is to unearth the personal social capital that respondents have placed on these social platforms. Therefore, during the interview process, the researchers kept asking who the

interviewees usually had different activities with on these platforms. For example, these questions were constantly asked during the first part of the interviews:

Who do you usually interact with on this platform?

Who do you usually follow through this platform?

In addition, in order to be able to confirm the intersection of respondents' online and offline social capital, some additional questions were usually followed at the end of the first part. For example:

Do you think you are a person who likes to make friends online?

Do you think your online friends are usually people you know offline as well?

After learning about the SNSs habits of the interviewees, it was time to move on to the second part of the interviews, which focused on the different dimensions of cross-cultural adaptation during their study abroad. The interview questions of the second part were partially based on items from the different scales for measuring sociocultural and psychological adaptation, which was mentioned in the literature review chapter (Diener et al., 1985, 2009; Ward & Kennedy, 1999). Further, the behavioral interview technique (McClelland, 1998) was applied in the interview. Behavioral interview technique was an adaptation of the critical-incident technique (Flanagan, 1954) which was usually used to assess human competency (McClelland, 1998; Zhang, 2012). Based on interviewees' answers related to the cross-cultural adaptation, the participants were encouraged to give vivid examples and describe typical events in their expatriate experience on how the SNSs use influenced different facets of the adaptative process in the host society (Alhabash & Ma, 2017; I. L. B. Liu, Cheung, Lee, Liu, & Cheung, 2010; Zhang, 2012). Some example questions for the second part were as follows:

Do you feel that your social media use helped you be more prepared in adjusting to the host culture (giving specific situations)? How?

Have you ever felt lonely or homesick in Barcelona? Do you feel that SNSs help you alleviate loneliness? Does SNS even strengthen the sense of loneliness?

During the process of interviews, questions were likely to be asked in different ways and in different orders, depending on the personality and response style of the participants. However, this does not detract from the exploration of the research

questions. All dimensions were covered one after another during the interview process according to the interview protocol. The specific interview protocol could be found in the Appendix section.

3.3.8 Qualitative data analysis

All the interviews were audio-recorded and transcribed verbatim in the original language. Furthermore, the interview data were analyzed qualitatively using the software Nvivo11. Since the aim of the qualitative study is mainly to complement and explain the results found in a quantitative study, a qualitative content analysis approach was applied for the approximation of the general findings. Qualitative content analysis is considered as an appropriate method to attain a condensed and broad description of a specific phenomenon, and the outcome of the analysis is concepts or categories describing the phenomenon (Elo & Kyngäs, 2008, p.108). The key point of content analysis is to condense the complex textual data into more concise categories, which usually furnishes readers with new insights or explanations (Cavanagh, 1997; Krippendorff, 2019).

In order to be able to efficiently set up a coding system for the analysis and interpretation of research questions, a direct approach to content analysis was primarily applied during the coding process. In a direct approach, existing theory and previous research serve as an incomplete structure to guide researchers to build up the final coding systems (Hsieh & Shannon, 2005). More specifically, in the initial process of coding, the direct approach of content analysis allowed researchers to firstly assign fragments of interviews into predetermined categories. In the next step, researchers gradually modify the coded fragments based on the open research questions of the study, and create new categories and combine sub-categories as a process of successive approximation for interpretation (Hsieh & Shannon, 2005).

In the practical process of coding, during the process of revising interview texts, the author attempted to initially categorize fragments that could be potentially based on the research objectives and research questions. And the fragments were initially coded into predetermined structures which were mentioned in the literature review part. Following this logic, aiming at answering the three general research questions, the coding frame

also consisted of three main categories: SNSs use and motivations, social capital management, and adaptation issues.

For the SNSs use and motivations, the initial coding structure followed a coding frame based on previous U&G models with the author's own modification (Alhabash & Ma, 2017; I. L. B. Liu et al., 2010; Zhang, 2012). However, during the process of advanced coding, the initial frame for SNSs use and motivations were found to be too redundant for the present study, especially facing the fact that six different SNSs were examined at once. In this manner, the final category of target SNSs were simplified for the purposes of this research.

As for the coding for social capital management, a predetermined frame was also proposed according to the author's own elaboration after a comprehensive review of the measurement of social capital (Brown, 1997; Lin, 1999; Nahapiet & Ghoshal, 1998; Putnam, 2001; Putnam, 2000). For the adaptation issues, previous models for different dimensions of cross-cultural adaptation were applied in the initial stage of coding. Specifically, a simplified 12-items scale of the Sociocultural Adaptation Scale (SCAS) proposed by Chen (2010), the Psychological Well-Being Scale (PWB) developed by (Diener et al., 1985, 2009) and the Student Adaptation to College Questionnaire (SACQ) were used for reference.

After several rounds of re-examination and combination, final categories were determined for the presentation and interpretation of different objectives. To better illustrate the connections between the SNSs behaviors and other social outcomes, several matrix coding queries were conducted using the qualitative software Nvivo11, which facilitated the process of analysis as well. The specific process of approximation and the final findings will be further extracted and presented in the following chapters.

Chapter 4

Chinese international students' general SNSs use and motivations

The first chapter of results focused on introducing Chinese international students' general SNSs use activities and motivations. This part of the result is considered exploratory and fundamental, which helps depict a large amount of digital consumption of Chinese students during their overseas study in Catalan universities. Moreover, the result allows us to understand better why they conduct relatively distinct online activities compared with local students from an intercultural point of view.

In detail, the exploratory part of data from the quantitative questionnaire will be displayed first in the chapter. In order to interpret and exemplify the data from quantitative results, motives and activities collected from interviews with volunteered participants will be illustrated in the second part.

4.1 Results from questionnaire

After collecting respondents' demographic information, they were asked about their use habits of the six chosen SNSs in order to explore the penetration rate of each SNS among the population.

The penetration rate of chosen SNSs and the time spent on each SNS were presented in the research to investigate Chinese international students' SNSs use habits (Table 3). Not surprisingly, all the participants answered that they had a WeChat account. And it showed that respondents still used WeChat most frequently during their stay in Barcelona ($M = 4.90$; $SD = 1.29$). The other home-based social media platform, Weibo, was used by 89.7% (n = 131) of all the respondents with a relatively lower time spent per day ($M = 3.23$; $SD = 1.86$). The current findings reflected that many Chinese international students remained their former social media habits in their life abroad to a large extend.

Concerning host SNSs used in Barcelona, 84.2% (n = 123) participants answered that they had a Facebook account, 95.9% (n = 140) were using WhatsApp, 86.3% (n = 126) had an Instagram account, and Twitter had the lowest users with 55.5% (n = 81) participants using it. The penetration rates of host SNSs among Chinese international

students corresponded largely with the results from former studies conducted in Spanish universities as well (Giraldo-Luque & Fernández-Rovira, 2020). Among the four host SNSs, Instagram turned out to be used with longer time than other host SNSs ($M = 2.50$, $SD = 1.39$) followed by WhatsApp ($M = 1.86$; $SD = 1.19$), Twitter ($M = 1.21$; $SD = 0.80$) and Facebook ($M = 1.13$; $SD = 0.80$). Among the sample, only 73 (50%) participants applied all six SNSs in their daily use during their stay in the host society.

Table 3. Descriptive statistics of SNSs penetration rates and time spent per day

SNS usage	Mean or % (N)	S.D.
WeChat members	100% (146)	
WeChat time	4.90	1.29
Facebook members	84.2% (123)	
Facebook time	1.13	0.80
WhatsApp members	95.9 (140)	
WhatsApp time	1.86	1.19
Weibo members	89.7% (131)	
Weibo time	2.94	1.86
Twitter members	55.5% (81)	
Twitter time	1.21	0.80
Instagram use	86.3% (126)	
Instagram time	2.50	1.39

Note: 1 = less than 10 minutes; 2 = 10-30 mins; 3 = 30 mins -1 hour; 4 = 1-1.5 h; 5 = 1.5-2 h; 6 = more than 2 hours.

In the next step, respondents' reported friends on each SNSs is presented in Table 4. Based on the self-reported findings, we could also observe that respondents managed a comparatively large network size on WeChat, which is reasonable since most of their formed old ties in their home country were maintained online through WeChat. With respect to those platforms that distinguished followers and followees, it seemed that respondents generally followed more accounts than to be followed on these SNSs. The tendency will be discussed in the qualitative section as well.

Table 4. Descriptive statistics of the network size on each SNSs

SNS usage	Mean or % (N)	S.D.
WeChat friends	7.14	2.10
Facebook friends	3.17	2.07

WhatsApp friends	2.32	1.16
Weibo friends		
Weibo followees	4.94	2.62
Weibo followers	4.92	2.94
Weibo mutual following friends	2.89	1.80
Twitter friends		
Twitter followees	2.25	1.58
Twitter followers	1.38	0.70
Twitter mutual following friends	1.23	0.55
Instagram friends		
Instagram followees	4.36	2.44
Instagram followers	3.46	2.05
Instagram mutual following friends	2.80	1.71

Note: 1 = less than 10; 2 = 11-50; 3 = 51-100; 4 = 101-150; 5 = 151-200; 6 = 201-250; 7 = 251-300; 8 = 300-400; 9 = more than 400.

Moreover, respondents' SNSs intensity was illustrated in Table 5. Besides reflecting simply time spent on these SNSs, SNSs intensity also disclosed respondents' affective dependency and attitudes towards these digital platforms. The data of time spent on each SNSs was standardized due to the different scales used in the intensity scale. After being averaged with the data from attitudinal statements and time spent, the final intensity of each SNSs was shown in the following table. The Cronbach alpha of each SNS intensity was above 0.70, which meant that the internal consistency of the measurement was reliable. The result of SNSs intensity from high to low also followed the same order of time spent on each SNS (Table 3) in their daily overseas life.

Table 5. Participants' SNSs use intensity

SNSs intensity	Mean or % (N)	S.D.
Intensity of WeChat use (Cronbach's a =0.80)	4.16	0.68
Intensity of Facebook use (Cronbach's a =0.81)	2.16	0.70
Intensity of WhatsApp use (Cronbach's a =0.87)	2.85	0.87
Intensity of Weibo use (Cronbach's a =0.89)	3.23	1.00
Intensity of Twitter use (Cronbach's a =0.81)	2.26	0.77
Intensity of Instagram use (Cronbach's a =0.87)	3.18	0.86

The explorative data also involved a correlation analysis after controlling for all demographic variables to evaluate a possible relationship among the intensity use of chosen SNSs. Correlation analyses were conducted separately concerning the numbers of users for each SNS (see Table 6).

Table 6. Correlation among SNSs intensity

Variables	1	2	3	4	5	6
1.Intensity of WeChat use	1					
2.Intensity of Facebook use	0.16	1				
3.Intensity of WhatsApp use	0.16	0.51^{***}	1			
4.Intensity of Weibo use	0.30^{**}	0.31^{**}	0.17	1		
5.Intensity of Twitter use	-0.13	0.51^{***}	0.41^{***}	0.29^{*}	1	
6.Intensity of Instagram use	0.30^{**}	0.37^{***}	0.47^{***}	0.36^{***}	0.39^{**}	1

Notes: $*p < 0.05$, $**p < 0.01$, $**p < 0.001$

According to the correlation data, we can see that participants' use intensity of host SNSs were significantly interrelated. For example, the intensity of WhatsApp use was significantly interrelated with participants' intensity of Facebook use ($r=0.51, p < .001$), intensity of Twitter use ($r=0.41, p < .001$) and intensity of Instagram use ($r=0.47, p < .001$). On the other hand, the intensity of WeChat use was only interrelated with the other home SNS Weibo ($r=0.30, p < .01$) and Instagram ($r=0.30, p < .01$). Moreover, the intensity of Instagram use was significantly interrelated with all the other SNSs. According to the data, the highest correlation coefficient lay in the variables between the intensity of WhatsApp use and Facebook use, which was 0.51. The numerical value indicated that no severe multicollinearity issue was found among these variables, which meant that further statistical analysis could be conducted based on the variables of intensity use.

In the next step, we also compared demographic data with SNSs intensity so as to examine if demographic differences impact on multiple SNSs intensity. Demographic information (gender, age, educational level and length of stay in Barcelona) was entered in SPSS to compare with the dependent variable SNSs intensity.

First of all, an independent samples t-test was used to explore the effects of gender on SNSs intensity. The results indicated that no significant preference for gender was found to influence SNSs intensity significantly. However, a marginally significant impact was found for gender and Twitter intensity use (t (1.831, p=0.07), which might infer that male students used Twitter more intensively than female students with closely significant intensity.

In the second step, respondents' categorized age level was analyzed using one-way ANOVA analysis with multiple SNSs intensity. The results also indicated that students' age had a little statistically significant effect on their SNSs intensity, with only one exception which is shown in the Weibo intensity use ($F(3,127) = 4.76$, p=0.004). A Bonferroni post hoc test indicated that a significant difference was found between the age group of 22-22 and the group of 30-33 concerning their Weibo use intensity (p=0.007).

In the third step, respondents' educational levels were entered in the one-way ANOVA analysis as well to explore the effects of SNSs use intensity. The results also found little significant effect between educational level and different SNSs intensity. The only significant equation was also found in respondents' Weibo intensity ($F(2,128) = 3.82$, p=0.024). The post hoc analysis using Bonferroni criterion for significance indicated the similar significant higher intensity of Weibo in the group of master students ($M = 3.39$, SD = 1.04) compared with the group of PhD students ($M = 2.81$, SD = 0.71), p = 0.027. It is reasonable since educational level could be relevant with their age level.

In the last step, respondents' length of stay entered the statistical analysis using the one-way ANOVA again. The result showed that no significant effect was found between length of stay in Barcelona to their multiple SNSs use intensity ($F(4,126) = 3.929$, p=0.005). The only exception also occurred in Weibo use intensity due to the same reason as explained in the last paragraphs.

After conducting a series of statistical analyses, some preliminary results were found to explore the multiple SNSs uses and their effects on respondents' information. The next qualitative section will discuss specific SNSs use behaviors based on selected participants' interviews.

4.2 Qualitative results

The main aims of the qualitative analysis were to explore and examine the nature of Chinese international students' use of SNSs during study abroad and how it is related to the cross-cultural adaptation process. Specifically, this study focused on the use of two representative Chinese SNSs (namely, WeChat and Sina Weibo) and four representative host SNSs (namely, WhatsApp, Facebook, Instagram and Twitter). The reason to choose these host SNSs was their similar affordances and social functions compared with the two indigenous Chinese SNSs. In this chapter, the overview of collected usage patterns on chosen SNSs is presented. Further, the author categorised and compared the organised patterns and activities in line with the thematic structure.

4.2.1 Thematic structure used in the study

During the interview with all 17 participants, I thoroughly asked them about their specific activities exploited on each chosen SNSs. At last, 635 activities from all the participants were collected in total. And all the activities were categorized into the three dimensions of uses and gratifications, respectively: **content gratification, social gratification, and recreational gratification**. In the following sections, different uses and gratifications are provided in conformity with the three dimensions.

4.2.2 WeChat U&G

As is shown in the quantitative data, WeChat is the most frequently used SNS among Chinese international students during their study abroad. In this part, we have collected 317 activities related to WeChat use. Participants' motivations for using WeChat in their daily lives are greatly diversified, which is illustrated in Table 7. The data reflects that participants intensively implement their social needs and content needs via WeChat. The more perceptible graph to understand the functions of WeChat for participants is visualized in Figure 17 as well.

Table 7. Summary of motivations for WeChat use

Codes categories	Case frequency	Number of codes
WeChat social gratification	17	128
WC maintained ties	17	59
WC bonding ties	15	28
WC bridging ties	17	41
WeChat content gratification	17	177
WC content production	17	41
WC surveillance on information	17	110
WC surveillance on friends	14	26
WeChat recreational gratification	7	12
Total WeChat codes		317

Figure 17. Hierarchy for WeChat use
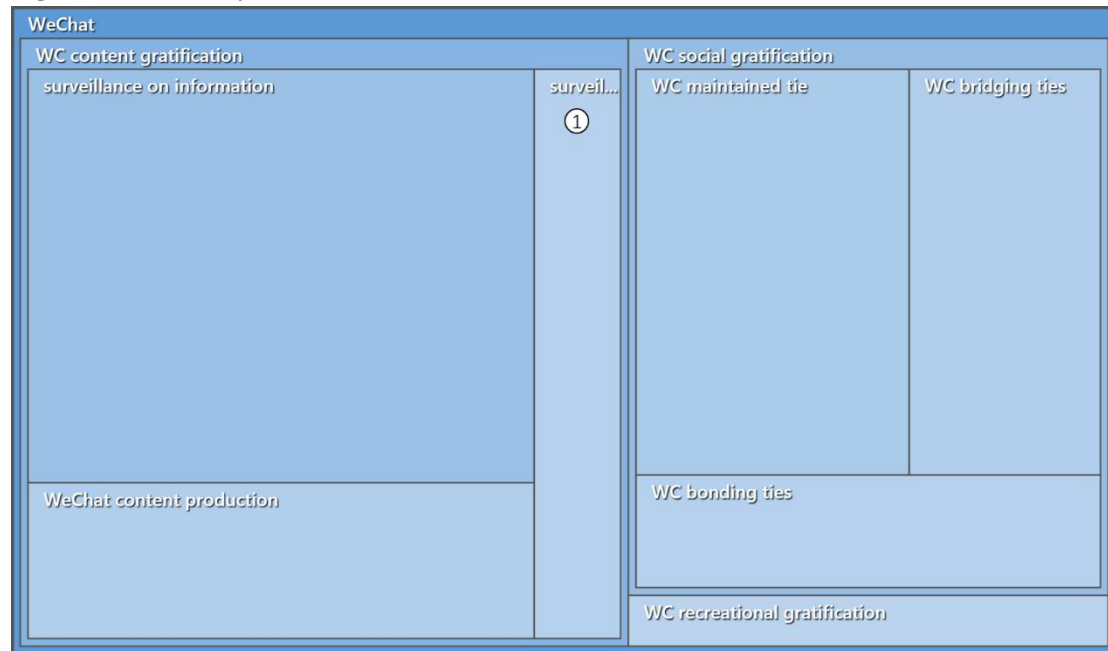
Note: 1=surveillance on friends

4.2.2.1 WeChat social gratification

In total, 128 use activities were observed and coded as social gratification on the platform WeChat. According to different social capital types proposed in the former chapters, social gratifications activities were classified into three dimensions: bridging types, bonding types and maintained types. It should be mentioned that we only took participants' ties in the host society into consideration for the categorization of bridging

and bonding types. The reason to do so is to distinguish these two types of relationships with maintained ties. In this way, we make sure that the three subthemes to be exclusive and abundant. The same strategy is also applied in other SNSs coding systems.

WeChat use for bridging ties

In total, 41 activities from all 17 participants were coding as social interaction for Chinese students to extend their social ties. Considering WeChat as a relatively exclusive platform and its own affordances, it is not an SNS oriented to meet new people. However, it helps Chinese students to stay connected with both existing weak-tie relationships and be involved in potential larger social circles in Barcelona. When asked why they remain associated with their bridging ties, especially those who also lived in Barcelona, participants mainly reported two motivations.

The first motivation to develop bridge activities in WeChat for participants was to establish and maintain new relationships with other compatriots. Most of the time, participants established new relationships online due to their offline interaction, which is consistent with Ellison et al. (2007)'s idea that individual's online contacts overlap largely with offline networks. In some cases, participants also take advantage of the structural holes to meet new friends through their common acquaintances (Burt, 2002).

One participant (P1) mentioned that she used WeChat to get in touch with other Chinese students with specific purposes:

"For example, I regularly organize thematic salon at my home, and I will need to ask some of my friends through WeChat if they know anyone who is familiar with the concrete theme. Further, I have to use groups in WeChat to call people to participate in the activity." – P1

As we can interpret from the case above, the first step for some Chinese international students to establish new ties was to capitalize on existing relations. And participants (e.g. P1) can maintain these weak ties by forming a group in WeChat and sending instant messages for specific purposes. However, creating groups to strengthen bridging ties was not common cases.

In all the cases, participants mentioned that they joined many groups in WeChat. The

groups they joined during study abroad were mostly local life related, involving different issues about their life in the host society. Most of the participants mentioned that they joined functional groups like second-hand trading groups, apartment rental groups. Another type of group constantly mentioned by students was university-related. Participants tended to join groups of their universities in Barcelona with the purpose of being connecting with other Chinese students who also studied in the university. The third type of group mentioned frequently was interest groups, taking photography hobby groups and restaurant-sharing groups as examples. Participating in numerous WeChat groups reflects participants' main needs for socializing, entertaining, and information seeking, which correspond with former studies about SNSs groups (L. Chen & Yang, 2015; Namsu Park et al., 2009). The narration of one participant could be an epitome of these activities:

"I have an apartment renting group within my WeChat because sometimes you may need to change residence in Barcelona. So maybe you need some resources from the apartment renting group. I also participated in a group about delicacies, it is to say, in this group people share good restaurants or delicacies that they enjoyed in Barcelona. Further, there are also the alumni groups of UAB (Universitat Autònoma de Barcelona) and maybe groups of other universities. Sometimes I also created my own groups and added my friends in. And there are also a WeChat group with all the Chinese classmates in my major. Probably that is all." – P15

WeChat use for bonding social ties

In the qualitative study, all the participants claimed that they used WeChat to keep in touch with their ethnic friends in Barcelona. And many of them mentioned that they have close ethnic ties in Barcelona to support them in different aspects, such as emotional support, social companion, and sometimes information consultation. Due to the nature of being international students in a new environment, some participants were likely to have relatively limited social networks. In these cases, most of their bonding ties were usually their ethnic roommates or classmates. In this sense, WeChat became the most important tool for them to communicate online while they were temporarily separated. It is not difficult to understand since it is common that sojourners tend to affiliate with people from the same backgrounds due to the uncertainty avoidance

theorem (Kim, 2001; Lim & Pham, 2016). One of the participants shared his experience about how WeChat use with close friends can support him:

"Probably the main thing that WeChat brings me is an affective bond. I would use WeChat to talk to those people I am close to... Because I don't think I know people on WhatsApp who can bring me any emotional comfort, it's mainly WeChat." – P16

On the one hand, WeChat demonstrated to connect participants with all their co-national relationships. However, on the other hand, some participants also reported that they might even convert their offline host ties on their familiar platform, WeChat. This phenomenon happened more often when participants already developed a quite close relationship with the non-ethnic links. In other words, the foreign friends gained the intention to assimilate to this platform with the purpose of maintaining mutual ties.

"To close foreign friends, sometimes I just introduced to them that we have a mobile app called WeChat, and its functions could be diverse. Although those functions may not be useful for them, we can simply use WeChat to chat. And absolutely, they said ok." – P13

WeChat use for maintained ties

Consistent with many former studies, one of the indispensable motives for participants to use WeChat is to communicate with social ties they formed before coming to the host country (Sandel, 2014; Sawyer & Chen, 2012). All the previous networks participants had also varied in relation types. According to the interview data, participants frequently use WeChat to communicate with their old close friends, family members. Connecting with family was one of the daily routines for many students to use WeChat, and sometimes it could be a very time-consuming habit.

"I made casual conversation mainly with my family (on WeChat). It's not very convenient to call them by their phone numbers abroad, so the main way to communicate with them is through video calls (on WeChat). All my family can talk together for two hours or even three hours because everyone has things to say." – P7

As connecting with family might be a routine for the students, participants tended to communicate with old close friends with an irregular frequency. Moreover, as they

were no longer physically convenient with old friends, participants tended to maintain conversations with a relatively small network of old friends on WeChat. And the connections with old friends on WeChat became looser as the time they were spatially disconnected became longer. As one participant reported that:

"As everyone is all over the world now, not to mention there's a time difference, I only keep in touch with some old close friends once every two or three months." (P1)

Some participants also reported that they used WeChat to stay connected with their acquaintances left in their home country. The feeling of stay connected with some old acquaintances remained valuable for them to some extent. Maintaining old bridging ties may not cost much effort for them since WeChat Moment afforded them the convenience to know others' status and interact by simply giving a like on the post or commenting. This finding is consistent with some former studies about maintaining old ties through Facebook use in United States (Ellison, Lampe, & Steinfield, 2010; Ellison et al., 2007).

"For example, I have already stayed abroad for more than a year. After all, I had worked in Shenzhen for four years, so I got quite a lot of colleagues there. So many people like me, born in the 90s, are getting married or buying a house or a car. Since I am abroad, they will not always send me messages. Sometimes I saw their posts then I would leave them a message like 'congratulations' or something else." – P7

4.2.2.2 WeChat content gratification

In this part, we have coded 177 activities as content gratifications, which is the most coded theme among all three motivations. Facing a large number of activities collected from participants related to their content use through WeChat, we cannot simply report them as an entirety. Participants' content gratifications were first identified into two dimensions: content production, which refers to the active process of creating contents and self-exposure; content consumption, which refers to the process of acquiring and receiving contents. The specific subthemes of content motives will be displayed in this part.

WeChat content production

Self-exposure is considered as the content production process which Chinese international students conducted on WeChat. All the participants claimed that they conducted several self-exposure activities through WeChat. Considering the platform's affordances, WeChat Moment is the most common means that they used to expose themselves to others. Words like "share", "document", "dairy" and "feeling" were frequently mentioned by participants concerning self-exposure activities on WeChat. First of all, students tended to share things that happened around them in Barcelona and post photos through WeChat Moment. Secondly, they also published their instant feelings. Thirdly, they used WeChat to share their points of view about some public issues. This kind of expression was usually accompanied by a shared link of the original information.

"I also use Moments (to post). It is generally a place for me to convey some ideas and attitudes of mine." – P16

"For example, if I just went out to entertain and took some really nice photos, I might post them in Moment. And sometimes I may be in a particularly good or upset mood, I may post my feeling in Moment and make a privacy setting to allow only parts of my friends to view my feeling. Yes, it's probably like this." – P10

When asked about why they present self-status on WeChat, participants usually mentioned two main reasons. Similar to social interactions on WeChat, the first reason to post self-status is to maintain some social relationships and keep informing one's own network about what's happening around the participant. The second reason for self-exposure is more internal. Some participants claimed that they kept updating their status for the purpose of documenting their own life and wanted to keep them as diaries. As one participant mentioned that:

"I think (post in) Moments is equivalent to keeping a diary for me. I posted principally for myself to review. In fact, I don't really care if others watch it or not. It is just preservation for me." – P11

Besides using Moments for self-exposure activities, some participants also pointed out that they had the habit of publishing contents in public accounts on WeChat. These Chinese students tried to use their individual public accounts to write articles and express a bunchc of their personal thoughts or even knowledge. Since the main function of public accounts is to publish articles, participants are inclined to consider publishing

via public accounts as a more serious or practical behaviour. Comparing sharing similar themes in Moments and public accounts, one participant shared her opinion about constantly updating her individual account:

"Because I like writing. I feel that writing down my experience is equivalent to writing a book for myself. When I look it back again later, it's all part of me. Things fade if you don't write them down. And you must write them down at that moment because your thoughts change at each moment. It is also possible to share these things with people I care about. Another advantage is that writing articles in public account is also a process of sorting out my own thoughts. In fact, I enjoy the writing process more. After publishing, I will receive some comments and interactions from other friends. That will also make me happy." – P7

Some participants during the interview also revealed that they share practical information and knowledge about Spanish or Spain through public accounts.

"I always write things that I am more interested in, such as useful information about learning Spanish. Although it cost a lot of time, but since it is Spanish related, I think it is worthwhile." – P12

The diverse self-exposure behaviours students made via WeChat revealed that even within the same SNS there could still exist different sharing patterns by means of multiple affordances of the platform. Furthermore, the findings coincide with the idea that individuals actively present themselves to share information, maintain relationships, and to manage their identity (Bazarova & Choi, 2014; Gan & Wang, 2015).

WeChat content consumption: surveillance on friends

Echoing the self-exposure activities of participants, we also collected their surveillance behaviours on WeChat, which was usually carried out via Moments. The most important motivation for students to conduct surveillance activities through WeChat Moment was to keep up with what was happening with their ethnic friends on WeChat, both who were in China and in Barcelona. In other words, the Moment function of WeChat supplied them with a potential approach to maintain their networks on WeChat. Some students reported that they further frequently interact with their close friends in Moments after viewing their posts. Moreover, surveillance on friends in WeChat

Moments potentially facilitates the maintenance of some weak-tie relationships. As a participant said that:

"I use Moments to see if there's anything new happened to others, or better to say anything that happened to the people. It's because you can't talk to everyone there (back in China), you can still know what's going on with them (through Moments)." – P8

Except from knowing friends' daily status, some participants also mentioned that they followed friends' posts to be informed about the idea-expression of their circles. In this way, surveillance on friends could probably reinforce our impression of the personal image of others. For example, when asked about how she organized social activities with friends, one participant (P2) claimed that:

"I usually look through Moments. For example, if someone shared interest in an area, taking communication or linguistics for example, I will take the initiative to ask them if they are interested in participating in my activity." – P2

WeChat content consumption: surveillance on information

Getting informative content from friends' posts only constitutes a small portion of the participants' surveillance behaviours on friends. However, most of the participants acknowledged that they actively engaged in information-seeking behaviours on WeChat. Students took advantage of several affordances of WeChat to keep updated with news and practical information. One of the most common functions for information mentioned by students was through following public accounts on WeChat. During their stay in Barcelona, most of the participants identified that they still proactively followed new public accounts and had the habit of reading articles from public accounts.

Concerning the motivations to attain information via public accounts of WeChat, three principal motivations were identified in line with the interviews. Firstly, students intentionally keep up with news about local society and the home country at the same time. As Chinese sojourners, they tried to become familiar with the host milieu, meanwhile, they still want to maintain the nexus with their home country.

"I often follow public accounts from WeChat. I use it (the function) a lot. And I think

the only way for me to connect with domestic news directly is to watch the public accounts, such as the CCTV News Center (央视新闻) and People's Daily (人民网). In my daily life in Barcelona, I don't use Weibo, I don't know (a lot) about what's happening in China, and then I turn to public accounts, and get informed." – P11

"One particularly important thing is that there are some public accounts. You can read information about Barcelona or about international students over here just through surveillance… In fact, you have to be kept informed because sometimes they (public accounts) will post some new policies and news (about local society). Since you live here, you can also know exactly what is happening here (through this way)." – P9

Secondly, students also followed a bunch of public accounts for functional information. With the help of the accounts, they can acquire valuable information to obtain some specific goals in daily life, such as task-solving, job-finding, among others.

"Well I generally use public accounts constantly, for example, when I want to renew my TIE (Tarjeta de Identidad de Extranjero, Foreigner Identity Card), or when I want to apply for university, I will intentionally go to read them (articles in public accounts). And after achieving my goal, I will not immediately unsubscribe them, just in case I might still use them in the future." -- P7

Thirdly, many students also subscribed to different kinds of public accounts to gain knowledge for self-enhancement. This type of publics accounts might be followed by participants before they left home country. At the same time, as their interests develop and change during their study abroad, they may continue to follow new public accounts to obtain information and continue to shape their own identity.

"For example, I like reading knowledge-oriented public accounts, I have followed a public account talked about the Chinese history of the pre-Qin period. I constantly read it, because I know this person who runs the public account from another SNS (Zhihu)… I am a fan of historical things, so following history (through public accounts) is a very big point of my interests." – P16

Besides the use of public accounts to obtain information, WeChat groups were also a major source for students to conduct surveillance activities and get information. As many participants have mentioned, they tended to join a bunch of local-related groups on WeChat. These WeChat groups about Barcelona have gathered thousands of

Chinese international students who are studying or had studied in Barcelona. In this sense, the flow of information in these group chats are quite intensive. Many students identified that they can easily access useful information simply through surveilling the history of group chats. Most of the time, this function is applied when they are faced with task-solving problems.

"I joined a WeChat group for second-hand trade, and the group also serves as a Q&A group. Well, for example, if I want to apply for a document, the same problem has been encountered by many others. Therefore, many people had already asked the same question that I wanted to know. I just need to go through their group chat history and the problem can be solved." – P6

The last frequently used function for surveillance on information is the search engine afforded by WeChat. Some participants highlighted that they may use the search function of WeChat when they have specific information needs.

"I think there is a function of WeChat that may be used increasingly frequently in recent years, that is, the search function. I find that this function is also being optimized. For example, if I wanted to write about a western artist, I might not be able to find anything about him in Baidu (the counterpart of Google in China). However, I would use the search bar of WeChat to find information about him, and I would be able to meet articles from public accounts that had introduced him." – P4

4.2.2.3 WeChat recreational gratification

Consistent with previous studies about WeChat, the present study confirmed that Chinese students adopt WeChat for different kinds of entertaining activities. In total, 12 activities were coded as WeChat recreational gratifications from interviews. As a networking-oriented SNS, many features of WeChat still allowed students to have fun or pass time during their stay abroad. Tons of WeChat mini-programs embedded in the social platform enabled Chinese students to relax themselves in their free times.

"And I play some games (through WeChat), such as the Proverb Scholar (literally, Cheng Yu Xiao Xiu Cai, in Chinese), I also look through the mini-program of

Xiaohongshu[7] on WeChat, and I play the latest popular game Let's Jump (literally, Tiao Yi Tiao, in Chinese) through WeChat as well." – P10

Furthermore, students also claimed that they subscribed many public accounts which publish entertaining contents regularly. Through these accounts, they can consume funny contents varied from horoscope to cosmetics. Following these funny stuffs is like a daily habit for some of them.

"Um I have followed a WeChat public account called Abnormal Human Research Center (literally, Bu Zheng Chang Ren Lei Yan Jiu Zhong Xin, in Chinese). This public account will sort out the funny jokes from Weibo every day and then make a WeChat article and push it to subscribers. I just read it every day." – P6

4.2.3 Weibo U&G

In total, 85 references were coded as participants' Weibo use motivations. As is presented in the Table 8, although three types of gratification were all collected, participants relied largely on the contents provided by Weibo. Further percentage of different motivations is also illustrated in Figure 18.

Table 8. Summary of motivations for Weibo use

Codes categories	Case frequency	Number of codes
Weibo social gratification	5	8
WB maintained ties	3	3
WB bridging ties	3	4
WB bonding ties	1	1
WB content gratification	11	48
WB surveillance on information	10	35
WB content production	6	8
WB surveillance on friends	5	5
WB recreational gratification	10	29
following celebrities	7	11
follow funny stuffs	7	18

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[7] Xiaohongshu, also known as Little Red Book, is a famous Chinese e-commerce and content sharing SNS. See also in: https://www.linkfluence.com/blog/little-red-book-xiaohongshu (retrieved from 02 Aug 2021)

Total Weibo codes	12	85

Figure 18. Hierarchy for Weibo use
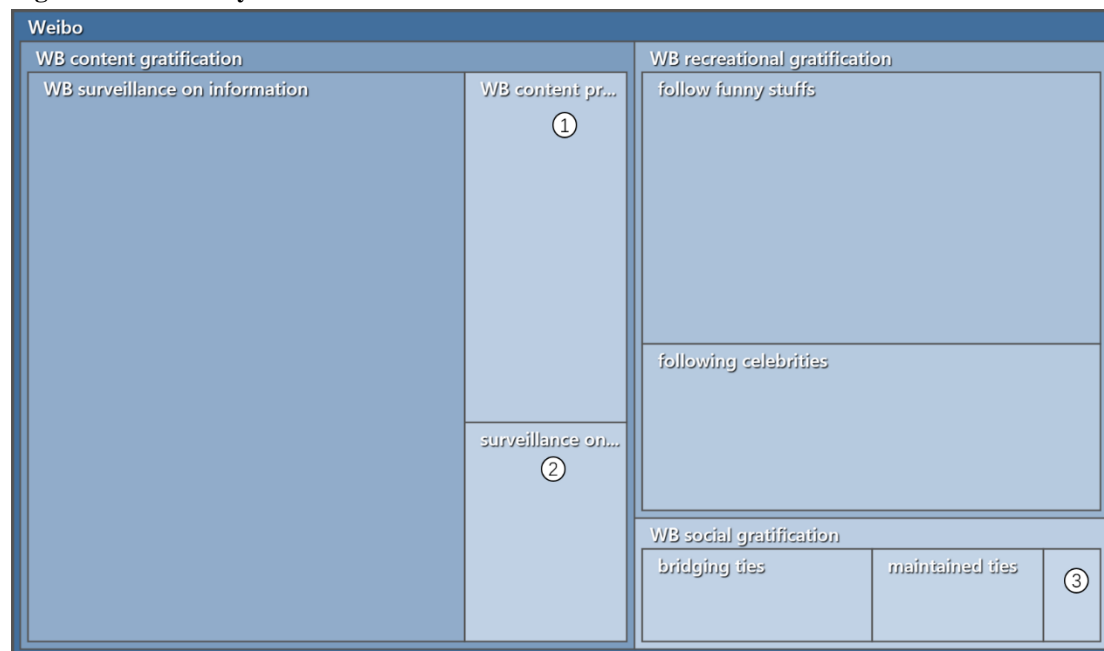
Note: 1= WB content production; 2= WB surveillance on information; 3= WB bonding ties

4.2.3.1 Weibo social gratification

Concerning social gratifications of Weibo use, only 8 activities were gathered from participants' reports. More specifically, only one participant in the study mentioned that they used Weibo for bonding interactions. This tendency is reasonable due to several reasons. On the one hand, many former pieces of research have indicated that microblogging platforms like Twitter and Weibo are predominantly utilized for information diffusion and consumption. Moreover, these SNSs are plainly prone to facilitate loose social interactions most of the time (Kwak et al., 2010; I. L. B. Liu, Cheung, & Lee, 2016). On the other hand, as a home-based microblogging site, the intensity use of Weibo among Chinese international students were relatively low, as was demonstrated in the quantitative section. As a result, all collected social gratifications will be presented in the same unit.

The first social gratification to use Weibo during residence abroad is to maintain existed ties. During the interviews, many participants remembered that they started to use Weibo at an early age when they were still in China. And their use intensity of Weibo

decreased as they moved abroad. As a social platform that has been used through different periods of their lives, Weibo also agglomerates particular social networks of these students. As one male participant narrated that:

"Almost every people I know, from my birth to the present, if I consider that our relationships are quite close, and that person also use Weibo, we will follow each other on Weibo. It seems like this is a very large number what I said, however, in fact, there are only more than one hundred people who are in my Weibo friendship list." – P13

Many participants admitted that they only actively follow those offline ties with whom they feel more intimate. However, mainly due to the features of microblogging platforms, most of the participants are not actively using Weibo to interact with their old friends to keep their relationships. Giving a 'like' to friends' posts or commenting on their posts are the most common interactions they have done with their maintained ties on Weibo.

As for using Weibo to develop new bridging ties, these behaviours were even more rarely observed on Weibo. Commenting on the posts of public people's accounts on Weibo was mentioned by two participants. Interestingly, one participant illustrated how she actively used Weibo to meet new friends.

"There was a girl who searched for exhibitions in Barcelona via Weibo and she saw that I had shared my experience of going to an exhibition in Barcelona, so she sent me a private message through Weibo and introduced herself to me. She said that she was also a master student studying art in Barcelona and wanted to invite me to visit exhibitions together. And I figured it out that we actually live very close to each other. Since then we go to exhibitions together a lot. And we became very close friends" – P4

This case inferred that by actively sharing one's original contents or sending private messages via Weibo, students get potential access to establish new ties.

The only activity has been collected as interacting with bonding ties on Weibo. The participant (P4) mentioned that she regularly comments on the posts of her close Chinese friends in Barcelona through Weibo. The lack of this kind of reports can be partially explained by that international students are supplied with multiple SNSs, and Weibo is not the major platform for them to develop bonding social capital during their overseas life. Moreover, this tendency is also evidenced in the following parts.

4.2.3.2 Weibo content gratification

In this part, 48 activities were collected as content gratifications of Weibo use. Participants' content gratification on Weibo were also identified into content production and content consumption. Concretely, 8 activities were classified into content production and 40 activities were classified into content consumptions. The specific reasons for content gratifications will be presented in this part.

Weibo content production

As 8 activities coded as content production behaviours on Weibo, it only constitutes 16.7% of all the content behaviours. This finding partially indicated that Chinese international students' involvement in self-exposure behaviours were relatively scarce.

Corresponding to all the collected content production activities on Weibo, there are two main categories why participants engaged in exposure actions on the platform. The first reason for participants to expose themselves on Weibo is to update their self-status or to share things happened around them. As one participant recalled that:

"I just want to post and troll through Weibo. In fact, I post on Weibo to disclose and judge something, or to share some funny things happened recently. I don't make it very serious (on Weibo)." – P13

While the first reason is consistent with the self-exposure motivation for using WeChat, some participants identified that they tended to publish private or negative feelings on Weibo, which is somewhat different from the motivation to publish on WeChat.

"I rarely post (on Weibo). If I post on Weibo it is usually when I have very negative feelings. That is, sometimes when I am unhappy, I just disclose it on Weibo. Since only few friends followed me on Weibo, and these friends have lots of things to follow on Weibo, my negative information will be neglected in the information flow. No one will pay attention to my posts. I think it works well in this way." – P3

"But I also post, but I only post when something comes to my ind. Because I feel like Weibo is a private territory to me, I don't need attention... And then some of my microblogs are things that I don't really feel comfortable posting in Moments, but I just

want to document them… My microblogs seem to be more abstract, maybe simply a sentence, only I can understand it myself." – P14

The cases indicated that the motivations for self-exposure on Weibo are very diversified. Students are likely to apply different content production strategies depending on their social networks embedded in the platform.

Weibo content consumption: surveillance on friends

5 activities were coded into the subtheme of surveillance on friends, which merely compose 10.4% of all the content behaviours. During the interviews, most Weibo users acknowledged that looking through Weibo friends' updates was one of their routines on the site. However, consistent with what is reflected in the Weibo self-exposure section, most participants claimed that they only pay little attention on the contents of their social circles on Weibo. Furthermore, most of them only limit their actions to surveillance, and they seldom started interacting with other friends on Weibo.

"I usually don't go to other friend's homepages (to view their status). I will just go directly to my most frequent visits[8]. I only follow the updates of these people I frequently visit, so I seldom troll through the main interface of Weibo." – P4

Weibo content consumption: surveillance on information

35 codes were classified into the information consumptions on Weibo, which contained 72.9% of all the content consumption activities on the site. This result confirmed that most participants use Weibo as an informative platform during their oversea life, which is compatible with previous study (Yang, 2018).

Most participants who use Weibo claimed that they use Weibo to obtain news and information. The features of the domestic microblogging site provide students with convenience.

"I think the most important thing that Weibo supplies me is instant news. Because it is very fast. The latest news will be updated on Weibo at the first time. I think this is a

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[8] *My most frequent visits* is one function of Weibo, which allows users to have a convenient access to visit the homepages of those people who they visit frequently.

place where things update at an extremely high speed." – P7

According to the interviews, many affordances of Weibo facilitate the way for students to obtain the information. Among all the functions, Weibo Hot Search is one of the most used function to acquire the real-time trends. In this way, participants are able to catch up with the latest social news happened in the home country.

"I take Weibo Hot Search as my news source. Every morning or every night, I just browse the Hot Search after getting up or before going to bed." – P6

Some participants also make use of many public accounts on Weibo to intentionally acquire the news that they want to follow. By following specific accounts, participants can choose to receive news about specific regions. In some cases, participants obtain news both news about their hometown and Barcelona.

"I follow the Chengdu Economic Daily (on Weibo), because I am from this city. I want to follow some news media of Chengdu." – P14

"I follow some accounts to get to know Spain in time. For example, we may have a lack of understanding in law or what is happening in the host society nowadays. As international students, we may not be able to keep up with these kinds of information easily." – P8

Besides following public accounts for news, students also claimed that they followed a bunch of accounts for self-enhancement or to solve some specific problems. For example, one participant (P12) mentioned that she followed some Spanish-learning accounts in order to enhance her level of Spanish.

Furthermore, in some cases students use the search function of Weibo when they are goal oriented. One participant (P4) mentioned that she directly searched Rome on Weibo because she was going to travel to the city. And she used Weibo as a tool for her trip guide.

4.2.3.3 Weibo recreational gratification

In total, 29 activities were coded as Weibo recreational activities, which represent 34.1% of all the coded Weibo activities. Different from the diverse affordances that WeChat

facilitate Chinese students for entertainment, students principally consume contents on Weibo with the purpose to entertain themselves and pass the time.

Many interviewees reported that they followed funny and entertaining pieces of stuff on Weibo. Many themes they followed on the platform are related to their personal hobbies or interests. And they just maintained the same habit for entertainment during their overseas residence. One participant (P2) mentioned that she followed a lot of micro-celebrities who publish contents about cooking, fashion style, travelling and healthy life respectively. And watching these celebrities' vlogs is a popular way to pass time and have fun.

Besides watching funny contents on Weibo, many participants also mentioned that they used Weibo to follow Chinese famous celebrities' news. It is reasonable that most of the Chinese international students are not familiar enough with host celebrities. Moreover, even if they wanted to know news about foreign celebrities, one participant (P3) mentioned that she can keep up with the entertaining information of her foreign icon using the function Super Topics. In this way, they continued to follow celebrities' contents in order to be connected with their home country and relax themselves.

"For example, when it suddenly appears a super astonishing entertainment news, I will open Weibo to see what's happening. And when I check it out, I just feel, whatever, it makes feel that netizens are stupid…" – P17

"Because mainly I consume a lot of Chinese songs. It is not saying that I don't listen to foreign songs, but I don't feel like following foreign bands as a fan. On the contrary, I followed many Chinese bands on Weibo" – P14

The cases reflected that as a microblogging platform, Weibo offers many entertaining contents for the users. As one participant (P7) indicated that, she considered browsing Weibo as a very time-costing activity. It makes her feel that one hour passes without noticing.

4.2.4 WhatsApp U&G

Dissimilar to other SNSs, the main function of WhatsApp lies in instant messaging which facilitate interpersonal interaction and group communication (Costa-Sánchez & Guerrero-Pico, 2020). Based on the affordances of the platform and data from the interviews, only social gratifications and content gratifications will be presented in this section (See Table 9). No specific recreational motivations were coded in this section. The visualized graph is presented as Figure 19 as well.

Codes categories	Case frequency	Number of codes
WA content gratification	13	20
WA surveillance for information	13	20
WA social gratification	17	49
WA maintained ties	1	4
WA bridging ties	15	34
WA bonding ties	9	11
Total WhatsApp codes	17	69

Table 9. Summary of motivations for WhatsApp use
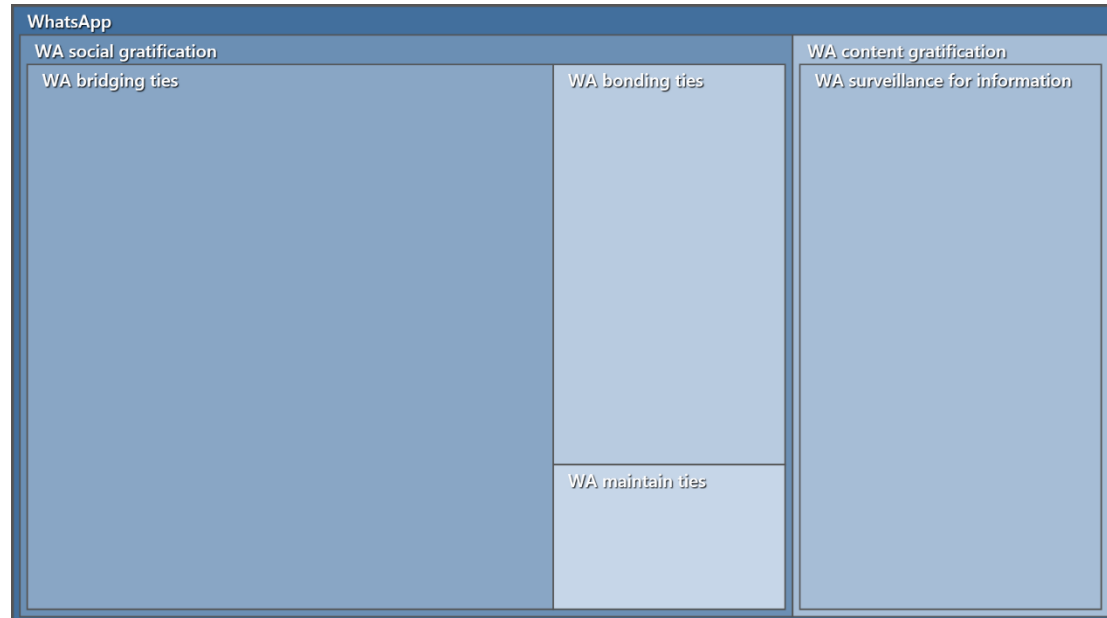
Figure 19. Hierarchy for WhatsApp use

4.2.4.1 WhatsApp social gratification

In total, 49 activities were observed and coded as social gratification on the platform WhatsApp. Most of the codes on this platform were identified as bridging types, with 34 nodes. And 11 nodes were coded as bonding type, 3 were coded as maintained type.

WhatsApp use for bridging ties

In overall, participants reported 34 activities about their WhatsApp use with bridging ties. The frequency of codes reflects that participants' activities carried out on WhatsApp were principally connected with different network circles. Since most international students only have stayed in host society for a relatively short period, it is a commonplace that they are bound to establish new ties with people from different cultural backgrounds. Furthermore, WhatsApp provides them with a cyber place to manage their connections with non-ethnic people. Most interviewees mentioned that they basically only communicate with foreign people on WhatsApp while they prefer to communicate with conational ties via WeChat.

Due to limited resources in the new milieu, most interviewees reported that their conversations on WhatsApp were associated with their offline circle of relationships, most commonly, classmates, roommates, and colleagues. Moreover, some students claimed that they turned to WhatsApp to communicate with foreign friends for specific information or functional needs. One participant shared his experience:

"I only use the chat function of WhatsApp to communicate with classmates, such as issues about courses, in another word, things happened in the university. It is to say, I will use WhatsApp to communicate with them about curricular issues." – P13

Apart from private interpersonal chats, students also joined in or set up group chats via WhatsApp to deal with different educational issues, such as group works, information seeking, among others.

Moreover, WhatsApp is also the platform for interviewees to manage most of their foreign relationships. These ties not only lie in their social circles from school or workplace, but also include people like the landlord, shopkeepers, online friends, among others. One participant shared his experience about transferring his online friend from dating app to WhatsApp:

"Sometimes, for example, I have been chatting with someone I met from dating app for a while, I may then turn to WhatsApp to continue the conversation. In this case, it usually means that I am willing to continue to know more about that person. It didn't happen a lot. And for me I think chatting with some online people via WhatsApp is basically the last step, which means that if we don't get well on WhatsApp, that's the end of the relationship." – P16

The vivid cases reflect that for some participants, using WhatsApp to chat with foreign people is considered as a relatively personal method to establish and develop the relationships. It is deemed as the common digital place to start and agglomerate their social capital.

WhatsApp use for bonding ties

Based on the qualitative data, 11 activities were classified into WhatsApp use for bonding ties. The evaluation for coding activities in this theme is principally based on the fact that some participants reported that they did not only manage their WhatsApp use for informational need, but also use it to complement their daily life and to be emotionally involved.

Some participants mentioned that they use WhatsApp to organize offline activities with their foreign friends. Through the combination of online and offline communication, some participants established bonded relationships with host and international friends. Two participants also reported that they used WhatsApp to stay connected with their boyfriends who are natives of Barcelona, especially during the lockdown period of Covid-19. And, not surprisingly, respondents generally used WhatsApp as a platform to connect with close friends who were not Chinese, as WhatsApp was also the primary online communication tool used locally:

"WhatsApp is to connect with foreign classmates and some groups, and also with some of my close friends." – P9

WhatsApp use for maintained ties

Although WhatsApp is not considered as a prevailing SNS for communication in China.

In our research, we still collected some activities from one participant to maintain existed ties through WhatsApp after her relocation to Barcelona.

One participant (P7) indicated that she had experience of using WhatsApp in China in order to maintain the relationships with the foreign clients from her former job. Even during her residence in Spain, she still uses WhatsApp to keep in touch with those old ties through messaging or phone calls:

"*I use it (WhatsApp) to communicate with customers. Because foreign customers generally use more WhatsApp.*" – P7

This case also showed that some participants already have the experience of using WhatsApp before moving abroad, which may facilitate their understanding about the prevailing SNS in the host society.

4.2.4.2 WhatsApp content gratification

In total, we collected 20 activities related to content gratification on WhatsApp. And all the activities were coded in the category of surveillance on information.

WhatsApp use for surveillance on information

Although WhatsApp is mainly a site for social interaction, we still collected 20 activities of surveillance on information from interviewees' data. No specific content production activities were found in the present study, which the limited affordances of WhatsApp could largely explain.

According to most of the participants, they read WhatsApp groups' messages to acquire different kinds of information. Most commonly, participants browse messages from curriculum-related groups to keep up with important information. As one participant claimed:

"*We have a WhatsApp group of our master project. They shared some information that I didn't understand during the class, such as what's the date for exam… For example, if the class was cancelled, and the teacher would send an email to all the people. The*

first person who saw the email would spread the message in the WhatsApp group in case someone didn't check the email." – P6

Apart from surveillance on WhatsApp groups for educational contents, some students also browse groups information for other practice. One interviewee shared that he constantly read messages from those WhatsApp groups of social organizations that he joined, because he wants to know if there are some interesting activities to participate.

4.2.5 Facebook U&G

Among all the six examined SNSs, Facebook use is the least mentioned SNS in both quantitative and qualitative studies. In all, only 24 coded segments were collected as Facebook use, which further was classified into Facebook social gratification and Facebook content gratification (See Table 10). No specific Facebook recreational gratifications were found in the current study. The hierarchical graph is provided as Figure 20.

Codes categories	Case frequency	Number of codes
FB social gratification	4	7
maintain ties	2	3
bridging tie	3	4
FB content gratification	7	17
FB surveillance on information	5	12
FB surveillance on friends	2	4
FB content production	1	1
Total Facebook codes	8	24

Table 10. Summary of motivations for Facebook use

Figure 20. Hierarchy for Facebook use
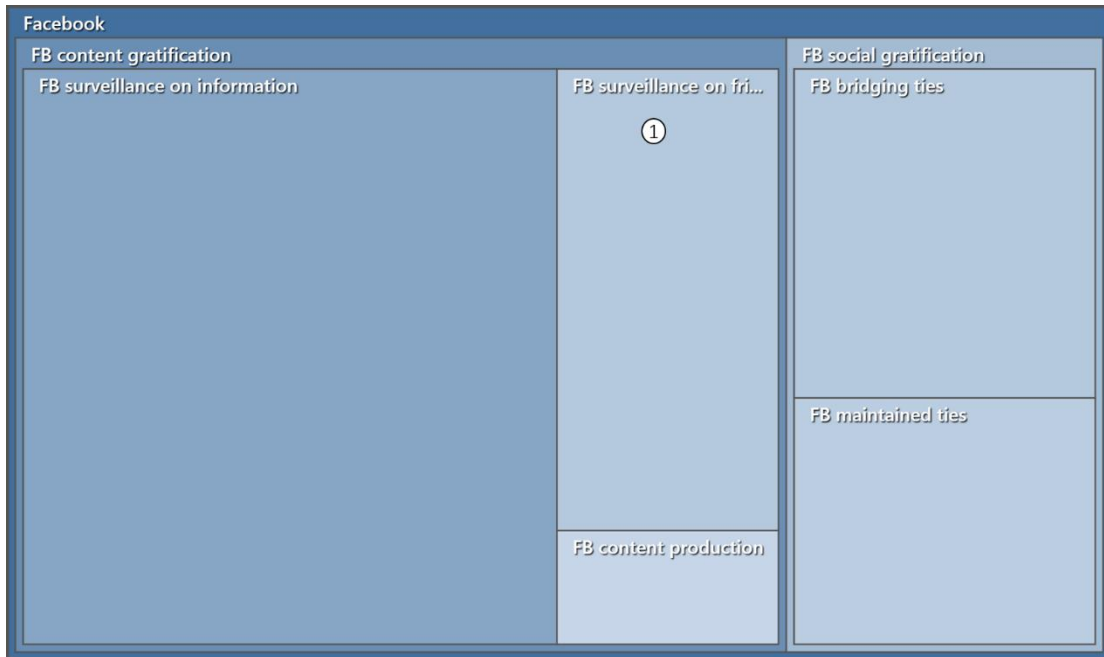
Note: 1= FB surveillance on friends

4.2.5.1 Facebook social gratification

Participants reported 7 activities of social gratifications, which were forward divided into use for bridging ties and maintained ties. Both social motivations will be presented in the same paragraph.

Most of the students in the study stated that they mainly use Facebook to manage bridging ties. Due to the feature of recommending potential acquaintances, participants mentioned that they can continuously add new friends on Facebook. However, they barely chat with others through Facebook, because they usually prefer to chat with others on other social media platforms. Furthermore, some participants mentioned that they actively joined some Facebook groups to be connected with a broader community stemming from their personal interests.

As previously mentioned, some participants already established social ties with international friends when they were still in China. In this sense, Facebook serves as a similar platform like WhatsApp which helps participants to keep in touch with their former established international relations via Facebook. Besides, one participant (P13) also stated that he used Facebook to maintain connections with his friends in United Sated because of his early overseas experience in there.

4.2.5.2 Facebook content gratification

17 nodes were collected as Facebook content gratification. Among them, 16 activities were coded as surveillance behaviours, while only 1 activity was coded as content production. It seemed that participants tended to use Facebook more for seeking information.

Facebook content production

We only collected 1 node under this theme. Only one interviewee has explicitly mentioned that he had published posts on Facebook. The main motivation is to share daily life with friends on Facebook. However, due to limited numbers of friends on the platform, the participant mentioned that he usually considered Facebook as a complementary platform to post status. It can be partially explained by that nowadays young students are more likely to present themselves on other SNSs, such as Instagram or WeChat.

During the interview, the participant also revealed his own experience of publishing contents on Facebook in order to defend his rights:

"There was once that the Spanish bank blocked those accounts of Chinese residents in Barcelona, including me. So I posted some photos and videos through Facebook and other SNSs to protest, although I think it turned out to be useless." – P16

This case indicated that some students are aware of the function of Facebook, they took advantage of the platform to participate in civic activities for the sake of public attention.

Facebook content consumption

Participants reported 4 activities of surveillance on friends and 12 activities of surveillance on information via Facebook. The findings show that students browse other friends' posts on the site to know their status, especially foreign friends. One participant shared her idea about visiting friends' personal pages taking the features of Facebook into consideration:

"In Facebook, I think that someone's personal information can be presented more comprehensively. I can basically understand many aspects of this person, such as work experience and academic background." – P7

Facebook was also considered as an information source. Participants reported that sometimes they followed information to fulfil their functional needs or cognitive needs. Most of the time, they only proactively acquire information through Facebook when they were faced with specific issues. One participant mentioned that:

"The last time I used it (Facebook) was when the epidemic was particularly severe. Then you wanted to know what happened outside (of China). Then if you were in China, you must use Weibo. Since I'm here, I thought okay, maybe I had to use Facebook or Twitter to see what happened, what everyone thought and let's take a look at what everyone was searching for." – P9

As shown in the case, Facebook was habitually used when participants applied extensive search strategies to attain information through multiple platforms. The uniqueness of Facebook for supplying information was not found in the present study.

4.2.6 Twitter U&G

In total, we have collected 39 activities on the SNS Twitter from 9 participants. As the prevailing microblogging widely used in Spain, Twitter has been recognized as a platform with great potential by some participants in the present study. Specific motivations for different types are illustrated in Table 11. And the visualized graph also showed the percentage of different motivations (See Figure 21).

Codes categories	Case frequency	Number of codes
TW social gratification	2	3
bridging tie	2	3
TW content gratification	9	34
TW surveillance on information	9	28
TW surveillance on friends	2	3
TW content production	1	3

TW recreational gratification	2	2
Total Twitter codes	9	39

Table 11. Summary of motivations for Twitter use

Figure 21. Hierarchy for Twitter use
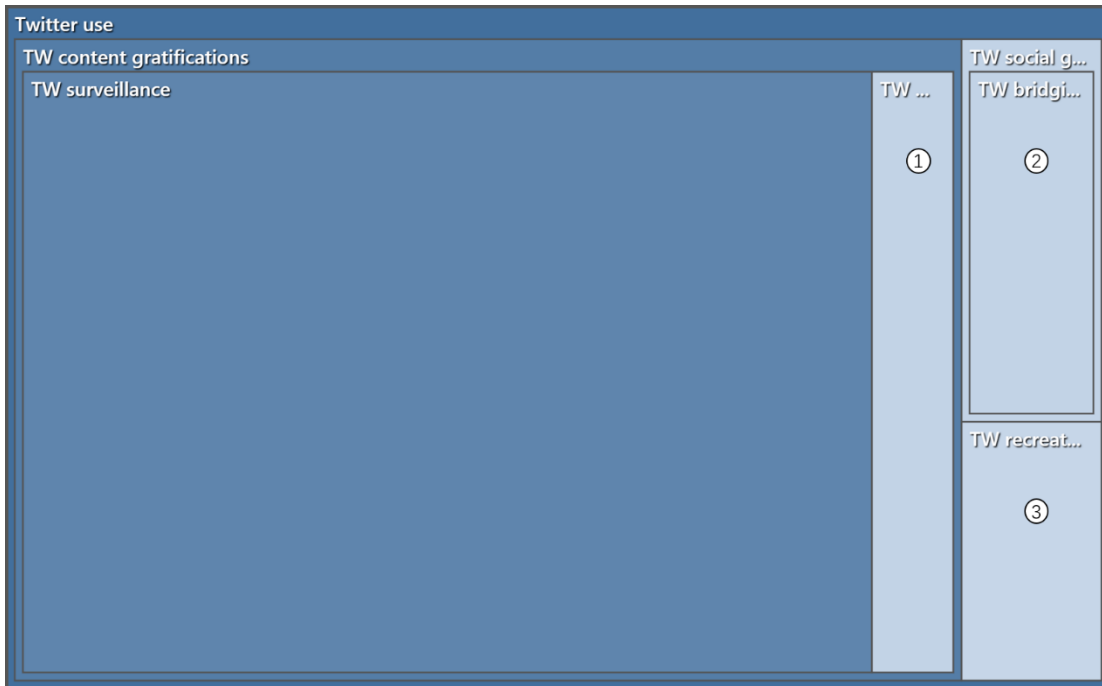
Note: 1= TW content production; 2= TW bridging tie; 3= TW recreational gratification

4.2.6.1 Twitter social gratification

We solely collected 3 activities which symbolize participants' social interaction with bridging ties through Twitter. This tendency is coherent with similar studies, in which Twitter was considered largely as a content-oriented platform and involves less social network interaction (Kwak et al., 2010; Phua et al., 2017).

During the interview, one participant claimed that he regularly follows new people and maintain superficial interaction with his social circles for academic purpose.

"My active activities on Twitter are all academic-related, I don't have any personal stuff on there (on Twitter) basically. Of course, if someone else has published something that I think is good, I'll give this post a like or maybe further follow the person. Then again, for example, if a certain person did a presentation at a conference, I probably didn't even look at what he did, and maybe not even click on the photo, I just clicked on

the retweet button to support this person." – P16

The interaction via Twitter can also proceed from functional needs. Another participant (P6) mentioned that she used the function of private message on Twitter to consult the custom service of her Spanish bank. And she found the communication via Twitter to solve issues very convenient.

The reports showed that due to the unfamiliarity and other reasons, participants' social activities were still limited in cursory level. However, some of them already realized that Twitter could be a potential platform for them to build new relationships and interact with more local and international people. Moreover, through different kinds of social activities, they are likely to accomplish their different kinds of goals.

4.2.6.2 Twitter content gratification

In this part, 34 activities were collected as content motivations via Twitter. Morevoer, 28 activities were related to surveillance on information, which occupied most of the behaviors in this part.

Twitter content production

In the present qualitative study, only 3 activities of self-exposure were collected from one participant. This finding is quite consistent with the use intensity and penetration rate of Twitter among Chinese students.

According to the participant, he published posts on Twitter for several reasons. The major reason for self-exposure is to build a self-image on the platform with the aim of promoting his personal academic works. As he stated that:

"I posted on Twitter, sometimes something official. For example, maybe something that related to the research of our group, or a research paper that our group just published. In this situation, we'll turn to Twitter and edit a post to promote our achievement. Because this kind of self-advertisement does work." – P16

Some other motivations to post on Twitter mentioned by the participant were civic

engagement to express personal opinions about social issues. It is reasonable since Twitter has long been a powerful platform to foster the participation of social activities.

Twitter content consumption

Concerning content consumption on Twitter, 31 activities were classified in sum, which constitute 79.5% of all the activities of Twitter use. This finding reflects that participants principally utilize Twitter in favour of their information gratifications.

One participant (P14) reported that she uses Twitter to follow her friends' posts, however, her principal motivation for these behaviours still lies in the cognitive need for the information and knowledge shared by her friends. This is not surprised, since former study identified that many Spanish students had already regarded Twitter as a platform for resource sharing (Tur et al., 2017).

"Two classmates of mine, they post a lot of things they wanted to share (on Twitter), and then through browsing their posts, I acquired a lot of knowledge about Spanish literature. I used to think that there was no way to know those writers and books. Yes, because if someone you know recommends to you, and he personally tells you what the book is about, you will feel particularly interested in it. If you just read the information through a commercial account, you will feel less interested in it, and there's little motivation to read it." – P14

Apart from surveillance on friends, students also conduct other surveillance activities to acquire information. Following professionals and public agencies are mentioned most frequently concerning their functional use of Twitter.

"In my opinion, Twitter is a little bit less commercial than Weibo. Because I feel like I really follow a lot of text-based accounts on Twitter, like western writers, journalists, publishers, etc." – P14

Following public issues is also one of the motivations that participants mentioned on Twitter. Students tended to pay more attention to more serious events and figures compared with their surveillance behaviours on other target SNSs. For example, Catalan political figures and Donald Trump were public figures mentioned by some interviewees. One participant also revealed her interest in following social issues:

"There were a lot of contents about the sexual assault against women's rights… I originally noticed these things on Twitter." – P4

Moreover, some interviewees reported that they began to utilize Twitter in their daily life for the sake of searching specific information. In this sense, the search engine of Twitter plays an essential role for participants to find the information they want.

4.2.6.3 Twitter recreational gratification

We only collected 2 activities related to entertainment on Twitter. This can be explained by low intensity use of the SNS. Most participants merely consider it as a functional platform, they don't spend much time on the site for relaxation.

On the other hand, as previously indicated in the recreational use of Weibo, some participants still used home-based SNSs to know the status of their concerned entertainment stars. In this sense, only few participants mentioned that they used Twitter to follow celebrities and icons that they were interested in. However, in some cases, Twitter could be an indispensable platform if student's icons were relatively active here. One interviewee stated that:

"Because I like a football coach from Spain very much. He just doesn't use Instagram, he only has Twitter, so I can only turn to Twitter to follow his status. I have no other choice." – P8

4.2.7 Instagram U&G

Among all the four SNSs widely used in the host society, Instagram is the SNS that we have collected most activities. Generally, 100 activities were observed on Instagram (See Table 12), which is consistent with the finding in the quantitative section, where the intensity use of Instagram was relatively high compared with other host SNSs. The percentage of each gratification is also illustrated in Figure 22.

Codes categories	Case frequency	Number of codes
Ins social gratification	12	28
maintained ties	5	6
bridging ties	6	13
bonding ties	7	9
Ins content gratification	15	55
Ins surveillance on friends	7	10
Ins surveillance on information	6	21
Ins content production	13	24
Ins recreational gratification	14	17
Total Instagram codes	16	100

Table 12. Summary of motivations for Instagram use

Figure 22. Hierarchy for Instagram use
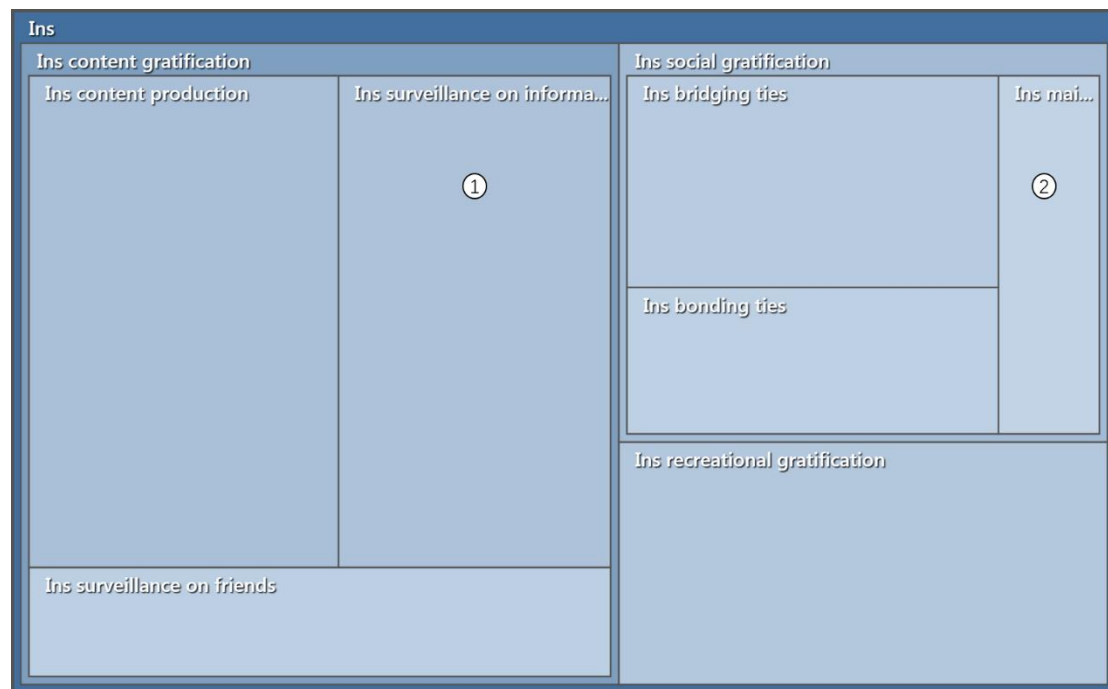
Note: 1= Ins surveillance on information; 2= Ins maintained ties

4.2.7.1 Instagram social gratifications

We collected 28 activities related to social gratifications on Instagram. Among them, 13 activities were coded as interaction with bridging ties, while 9 activities were related to bonding ties and 6 activities were related to maintained ties.

Instagram use for bridging ties

13 quotations related to bridging use of Instagram were recorded. As one of the most popular social media platform among young people (Shane-Simpson et al., 2018), most interviewees mentioned that they started to connect with others on Instagram influenced by their social circles. To a certain extent, participants chose to maintain connections with other people on Instagram to accomplish social activities during their study abroad. As one participant reported that:

"When I came here there were Chinese students and students from other countries in my class. At the beginning of the first semester, we had a group on WhatsApp where we said we should follow each other's Instagram accounts. Then in this way we left our accounts names and added each other." – P5

Besides being connected with offline friends, some participants also claimed that Instagram works as an essential platform for them to establish new relationships online. On one hand, Instagram afforded participants the function to know their potential social capital by recommending people who share common friends with themselves. On the other hand, some participants are also involved in a proactive process to follow people who share some similar interests or views with them. For example, an interviewee (P17) claimed that he actively followed local people who care also been actively engaged in Catalan politics. In this way, some native politicians also followed him back, and they became online friends on Instagram.

Through gradually adding friends and new people on Instagram, participants tended to conduct a range of activities to interact with both ethnic and foreign bridging ties. Giving like to other people's Instagram posts or stories is the most common behaviour to interact with bridging ties on the platform. However, in some cases, few participants confessed that they used Instagram to establish new ties by sending private messages, commenting on other's posts, etc.

Instagram use for bonding and maintained ties

It is relatively difficult to distinguish maintained and bonding activities on Instagram, since sometimes students' bonding ties in the host society would convert into maintained ties if fellow Chinese friends went back to China. In total, 9 activities related

to bonding ties and 6 activities related to maintained ties were recorded respectively.

During the interviews, some participants reported that they prefer adding close friends on Instagram if they also have accounts during their overseas residence. It is to say, students usually don't want to limit their close friends to one single platform, such as WeChat or WhatsApp. As a popular SNS afforded with many fashion technologies, young students are likely to add both ethnic and international close friends on Instagram in order to conduct many kinds of social activities. Commenting and sending instant messages were frequently applied when they interacted with close relationships.

We observed some contradictory phenomena respecting social interaction with close friends and relatives via Instagram concerning maintained ties. On the one hand, some participants repeatedly compared Instagram with WeChat, since most participants combined both ethnic ties and foreign ties on this platform. In this case, Instagram was commonly considered as an intermediary platform for communication with bonding relationships. For example, Participant 15 stated that:

"after chatting for a few moments (on Instagram), I will switch to WeChat. I don't communicate with my friends in that place for a long time, we chat more often on WeChat." – P15

On the other hand, another participant also mentioned that:

"To a large extent I would prefer to talk to friends via Instagram, rather than talk via WeChat. I feel more comfortable talking on Instagram… I hold just a kind of obsessive fear towards WeChat right now. As soon as I open WeChat, I feel like I have to communicate with my customers and then it makes me annoyed. I would rather chat or post something on Instagram, yes." – P17

This contradictory finding reflects that due to students' social network composition and other individual differences, the use of Instagram with bonding ties could be rather complicated. A potential digital journey from WeChat to Instagram for daily communication is likely to take place over time (Chang & Gomes, 2017).

4.2.7.2 Instagram content gratification

We collected 55 activities related to content gratification on Instagram. Most collected activities in this part were coded as content production, with a total of 24 nodes. And 21 activities were coded as surveillance on information, while 10 activities were related to surveillance on friends.

Instagram content production

In total, 24 activities related to content production on Instagram were coded. Most of the participants recognized that they have posted their self-status on Instagram to share their life abroad, especially those who have a stable and extensive social network on the platform. Furthermore, as an image-based SNS, students are prone to relate posting behaviours on Instagram to self-image management. As one participant confessed as follow:

"The things I posted on Instagram are definitely related to my overseas life. I usually publish high-quality exquisite photos on Instagram." – P2

However, another function simplifies participants' self-exposure activities, which is the Instagram Stories. Rather than publishing photos attentively on their personal pages, Instagram Stories allowed students to share their self-status or thoughts by solely displaying 24 hours. One participant mentioned that:

"I still post a lot of daily stuffs through Stories. For example, if a joke came to my mind suddenly, I will post it, or some funny things occur to me. Because that (post) was only for a while, so you don't have to well prepared for it." – P14

Instagram content consumption: surveillance on friends

Many Instagram users in the present study confirmed that they actively entered Instagram to keep up the statues of their friends. Generally, 10 activities related to surveillance on friends were collected.

On one hand, interviewees stated that they are willing to discover what is happening with their foreign friends. To achieve this goal, the first SNS came to their mind is usually Instagram. As one participant stated that:

"Because you can see a lot of people outside of China. Besides, my friends here in Barcelona, they post their status on Instagram, so I browse Instagram to follow them a lot." – P9

Apart from viewing foreign friends' contents, many students also clarified that they would like to pay more attention to their Chinese friends' posts on Instagram than on WeChat. This tendency is consistent with the finding that students attend more frequently to those people who share physical proximity with them on SNSs and, on the other hand, try to disconnect with their old ties to some extent (Ellison et al., 2010; Yang & Lee, 2018).

Instagram content consumption: surveillance on information

Apart from viewing friends' updates on Instagram, participants also reported that they followed a bunch of public accounts to acquire information. In sum, 21 activities associated with surveillance on information were recorded.

As an image-based SNS, Instagram is widely used as an online source for students to follow things that they are interested in. It should be highlighted that, in most of the cases, participants reported that they followed global or host-based information through Instagram. As one participant confirmed that:

"I used Instagram to follow news about the host society, such as El País, El Mundo, La Vanguardia[9]…" – P12

Aside from following contents, Instagram also works as a search engine for some participants. They actively used the platform to search things for their functional needs. For example, an interviewee shared her experience:

"For example, if there's a certain disco club that I want to go, I might search its name on Instagram or something like that." – P14

4.2.7.3 Instagram recreational gratification

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[9] *El País, El Mundo, La Vanguardia* are all leading daily newspapers in Spain.

According to the interviews, participants mentioned many times that they used Instagram for entertainment and killing time, which is consistent with former studies (Alhabash & Ma, 2017; Shane-Simpson et al., 2018). In total, 17 activities about recreational use of Instagram were coded in the present study.

Due to the affordances of Instagram, participants can relax themselves by viewing photos and interesting videos. Students also transferred some of their entertaining habits from other SNSs (for example, Weibo) to Instagram. They used to follow international celebrities' recent updates, latest fashion styles, cooking videos, and others. For many of them, they can distinguish the difference between entertaining via Instagram and other home-based SNSs. As one participant mentioned during the interview as follow:

"I don't follow dressing styles via Weibo, because I like foreign styles, so it has to be Instagram. I find it hard to follow these things on Weibo, it's useless." – P6

4.3 Gratifications to use multiple SNSs

After enumerating daily activities on target SNSs, participants' principal motivations for using these SNSs were presented based on the predominant affordances of each SNS. In this part, we try to compare the gratifications that participants expected and obtained from multiple SNSs and how do these gratifications differ across platforms.

As shown in the Table 13, the findings reflect that participants all reported social need and content need for using each target SNS. Furthermore, content gratification is the prevailing gratification that keeps participants using these SNSs. The tendency supports some recent studies indicating that although SNSs were originally aspired to connect social networks (Boyd & Ellison, 2007), nowadays, netizens joined SNSs for multiple reasons, especially for convenience and self-expression (Alhabash, Chiang, & Huang, 2014; Alhabash & Ma, 2017). The only exceptional case turns out to be motivations for using WhatsApp. It can be largely explained by the nature of WhatsApp itself, which afford few functions for participants to conduct activities other than social interaction.

Coding frequency	WeChat	Weibo	WhatsApp	Facebook	Twitter	Instagram
1	Content (55.84%)	Content (56.47%)	Social (71.01%)	Content (70.83%)	Content (87.18%)	Content (55%)
2	Social (40.38%)	Recreation (34.12%)	Content (28.99%)	Social (28.99%)	Social (7.69%)	Social (28%)
3	Recreation (3.79%)	Social (9.41%)			Recreation (5.13%)	Recreation (17%)

Table 13. Coding frequency of use motivations across 6 SNSs

All the mentioned SNSs also accomplished the social need of the interviewees, however, the distribution of the corresponding gratification differs across platforms. Generally speaking, social gratification was less discovered on text-based platforms, namely Weibo and Twitter. More details will be discussed in the following sections in both quantitative and qualitative way.

With regard to recreational needs, participants stated their intense use of microblogging to relax themselves. Besides, Instagram also showed its important role in providing entertaining functions. Videos, pictures, jokes are widely consumed via Weibo and Instagram. Dissimilar to some studies based on western background which highlighted the super potential of Facebook for offering hedonic contents (Alhabash & Ma, 2017; Dhir & Tsai, 2017), participants in the current study didn't report their entertaining need by using Facebook and WhatsApp. The possible explanation will be discussed afterwards as well.

4.3.1 Different social gratification across SNSs

With respect to social gratification in specific, as illustrated in Table 14, the most frequently mentioned SNS for social gratification is WeChat, which encompassed more than half of the codes in this theme. The second and third most frequently mentioned SNSs for social motivations are WhatsApp and Instagram. As for Weibo, Facebook and Twitter, the data from interviews fails to represent that these SNSs are effective tools for Chinese students to carry out their daily social interactions.

Coding frequency	WeChat social gratification	Weibo social gratification	WhatsApp social gratification	Facebook social gratification	Twitter social gratification	Instagram social gratification
Total codes	128	8	49	7	3	28
1	Maintained 59 (46.09%)	Bridging 4 (50%)	Bridging 34 (69.39%)	Bridging 4 (57.14%)	Bridging 3 (100%)	Bridging 13 (46.43%)
2	Bridging 41 (32.03%)	Maintained 3 (37.5%)	Bonding 11 (22.45%)	Maintained 3 (42.86%)		Bonding 9 (32.14%)
3	Bonding 28 (21.88%)	Bonding 1 (12.5%)	Maintained 4 (8.16%)			Maintained 6 (21.43%)

Table 14. Coding frequency of social gratification across 6 SNSs

The distinct distribution of multiple types of social interactions on SNSs reflects participants' attitudes and strategies for managing different social ties in a multi-platform society to some extent. Generally, most students are able to recognize the social affordances of host and home-based SNSs. As one participant stated naturally:

"Like the last time I went to travel with my Spanish neighbour, we communicated on WhatsApp all the time, because she used it for daily communication and we talked in Spanish. She didn't have WeChat, so it has to be WhatsApp. But if the person I want to contact is Chinese, then the first choice is absolutely WeChat" – P7

As for specific social interactions defined in the present study, we can also observe that participants manage interactions with different types of social networks intensively through WeChat. It's not surprising since WeChat is already their familiar SNS that has been utilized in their daily life before moving abroad. Except for WeChat, other SNSs in the study were more repeatedly reported for applying bridging interactions. Among them, WhatsApp was quoted heavily with 34 references, which constitute 69.39% of all the social motivations via WhatsApp.

Concerning bridging behaviours in particular, although WeChat and WhatsApp were both coded with high intensity, the functional motivations for carrying out bridging interactions on the two SNSs were relatively distinct. As declared previously,

participants were more likely to conduct bridging activities through WeChat with the aim of meeting new friends or searching for interest groups. On the other hand, they used WhatsApp to develop bridging ties with more functional goals, such as accomplish academic tasks, consulting local issues, among others. As for Instagram, in which bridging tie interactions were recorded 13 times as well, it worked as a combination for students to meet new friends and maintain connections with bridging ties. Other SNSs, Weibo, Facebook and Twitter, usually performed as complementary platforms to satisfy their bridging interactions. In this sense, only occasion incidents were recorded in the interviews.

With respect to bonding interaction across platforms, WeChat still displayed its prominence for connecting bonding ties. During the interviews, many participants mentioned that they usually communicate with close ties through WeChat. For example, one participant stated that:

"Probably the primary thing that WeChat brings to me is an emotional bond. Because those people I'm close to, I usually talk to them using WeChat..." – P16

The situation is commonplace since Chinese international students, as sojourners are more likely to have ethnic ties than local ties (Kim, 2001; Lim & Pham, 2016). In this sense, they turned to WeChat more frequently to seek different bonding support.

Moreover, some students also revealed that they have established bonding ties with native people, and the online communication usually took place through WhatsApp or Instagram. However, some of them still claimed certain inconvenience by socializing via host SNSs.

"At the beginning, I used to keep in touch with my boyfriend, who is local from Barcelona, through WeChat. And... step by step, we shifted to communicate through WhatsApp! Sometime I still feel weird or uncomfortable, because I think the memes in WhatsApp are not under my control, I don't have enough memes in WhatsApp to express myself." – P12

As for maintained interactions, WeChat is most commonly mentioned as the platform to connect with their old ties with 59 quotations in total. The finding partly emphasized the importance of WeChat for being the salient tool for Chinese students to keep in touch with their old ties back in home country. Besides WeChat, participants also

mentioned many times that they maintained ties with co-national friends through Instagram. However, the difference between preserving ethnic ties between these two SNSs was considerably large. Students claimed that they only communicated with their family members using WeChat; meanwhile, they usually added Chinese friends who also had overseas experience on Instagram. One participant shared her personal opinion about the difference:

"Because all my family members only have WeChat, and all my family members do not have accounts of Instagram. In addition, some friends may not have lived abroad (experience). In fact, if you only live abroad for like half a year, you don't necessarily get an Instagram account for this. So it's a pretty small circle (of Chinese friends on Instagram). Those who are on Instagram are the kind of (Chinese) friends who have lived abroad for a period of time. But generally, foreign friends I know here, if they have accounts, I will usually add them." – P14

4.3.2 Different content gratification across SNSs

In reference to content gratification across six SNSs, as presented in Table 15, most of the coded segments distributed in *surveillance on information* dimension, only with the exception of Instagram, where the content production activities were slightly more intensive than information activities. The second dense code segments were *content product*, while *surveillance on friends* was the least dense segments among the three categories of content gratification. The findings also partly supported formers studies indicating that nowadays SNSs serves as an important source for young people to acquire information (Arceneaux & Dinu, 2018; Takahashi, 2010; C. Wang, Huang, Li, & Chen, 2020).

If we focused on information-seeking activities in specific, participants informed that they switched among multiple SNSs for information in general. Among all the platforms, WeChat was utilized most frequently. As stated previously in the last chapter related to WeChat use for information, many participants remained their habitual routines of viewing contents from WeChat public accounts and groups, which increased notably their information-seeking motives through WeChat. One of the reasons is that, most Chinese students were still concerned about things happened in home country

when they studied abroad. Moreover, some students were quite aware of how to manage multiple SNSs for different types of information. As an interviewee discussed that:

"But the focus (of information) is not the same. WeChat, I regard it as an application used a lot in China, so I may seek more life information from the perspective of a Chinese in a foreign country, such as renew my residence permit, second-hand trades, and something else. As for WhatsApp for example, I may look for information about curricular stuffs, and then something else including their local policies and so on. I will get this type of information (via WhatsApp)." – P10

Coding frequency	WeChat content gratification	Weibo content gratification	WhatsApp content gratification	Facebook content gratification	Twitter content gratification	Instagram content gratification
Total codes	177	48	20	17	34	55
1	Information 110 (62.15%)	Information 35 (72.91%)	Information 20 (100%)	Information 12 (70.59%)	Information 28 (82.35%)	Content production 24 (43.64%)
2	Content production 41 (23.16%)	Content production 8 (16.67%)		Friends 4 (23.53%)	Friends 3 (8.82%)	Information 21 (38.18%)
3	Friends 26 (14.69%)	Friends 5 (10.42%)		Content production 1 (5.88%)	Content production 3 (8.82%)	Friends 10 (18.18%)

Table 15. Coding frequency of content gratification across 6 SNSs

Most codes were distributed in WeChat, Weibo, and Instagram use in content production activities across platforms. Facebook and Twitter were only occasionally mentioned to be used for content production activities. Due to its limited affordances, no content production activities were found on WhatsApp. During the interviews, if they both used WeChat and Instagram for self-expression, most participants can clearly explain the different motives of posing distinct contents on these two sites. Instagram was considered as a free platform for them to post personal status. As one participant described:

"Like Instagram, I think I post more routine stuffs. WeChat, for me, it is more like a platform to post summarized contents. It is to say, I collect some photos that I took during a period and post them once from time to time, yes. Unless it is some special moments, and then I will post on both platforms at the same time, that's all. I post less on WeChat, more frequently on Instagram." – P11

When it comes to content consumption about friends' status, it seemed that participants mentioned less frequently about this motive. It can be partially explained by the fact that individuals tend to constantly follow the status of their strong ties than the weak ties (Bozdag, 2020). Furthermore, as displayed previous in the uses of multiple SNSs, participants followed status of their different types of friends on each SNS. For example, WeChat is used mainly for keeping up with old friends' status; Weibo is to follow close Chinese friends' ideas and status; and Instagram is the most important platform to follow foreign friends' status as well as parts of ethnic friends.

4.3.3 Different recreational gratification across SNSs

In the current study, recreational gratification was not categorized into subthemes due to limited codes and objectives of the study. As illustrated in Table 16, the recreational activities were also distributed mainly in WeChat, Weibo and Instagram uses.

Coding frequency	WeChat	Weibo	WhatsApp	Facebook	Twitter	Instagram
	Recreation 12	Recreation 29			Recreation 2	Recreation 17

Table 16. Coding frequency of recreational gratification across 6 SNSs

The forms of entertaining behaviours across SNSs also differed to some extent. As a multifunctional SNS, WeChat afforded many mini-programs and online games for users to entertain themselves. As for Weibo, students tended to focus on its entertaining

contents to relax themselves. The same also worked with respect to Instagram. For example, by watching videos made by Chinese or foreign celebrities, participants found it a useful way to pass time and develop their hedonic gratification. Besides, due to the language preference, Weibo use for recreational motives was reported relatively more frequent compared with Instagram use for the same motive.

4.4 Discussion

Based on the differences of motives across platforms, we have concluded several noticeable factors that may influence participants' preference and intensity towards each SNS. In general terms, three principal factors were determined in the present research: **media affordances, social network and intercultural adaptation competence**.

First of all, as indicated by some former studies, international students tended to stick to those familiar social media due to their habitual routines and favoured affordances of these SNSs (Binsahl, Chang, & Bosua, 2015; S. Chang et al., 2012; L. Chen & Yang, 2015; Shane-Simpson et al., 2018). During the interviews many participants mentioned their preference of specific affordances of their preferred platforms, such as memes, openness, privacy, etc. When asked about why they didn't apply some host SNSs in their daily life, some participants responded that they deemed that the interface of some host SNSs (for example, Facebook) was too complicated. On the other hand, some participants also reported their preference for using some host SNSs.

"For me, Instagram is very integrated, I don't have to switch over. In it, I can know what someone did, and then simply chat, and I think its chat function is also very good, which is very convenient for me. However, on WeChat, I have to keep browsing, and then I have to comment under one's post. I will not click on someone's WeChat avatar and start a private conversation with him/her for commenting. In Instagram it's different, I can start conversation by commenting." – P17

Another interesting type of disengagement of some SNSs was due to multiple platforms' overlapped functions or contents. For example, one participant shared her daily routine of view foreign celebrities' news through Weibo:

"Because many celebrities from Instagram and their updates, actually their contents will be transmitted on Weibo, and these celebrities will not post very frequently. Well, so I only have to glance at these contents (on Weibo) … And these contents are updated almost simultaneously on Weibo… So I don't use Instagram to follow them again. It's like repeated work." – P3

Secondly, social network size was also mentioned as an important reason why participants manage their use intensity differently, which is consistent with some previous studies (Chang & Gomes, 2017; Chang & Hsiao, 2014). In the qualitative study, we have observed a typical digital network transition from home SNSs to host SNSs (especially from WeChat to Instagram) from some participants. Just as one participant recalled how her social network and Instagram use shaped her digital use mutually:

"I gradually conduct less activities via WeChat than via Instagram. I don't know why I suddenly used Instagram more frequently and smoothly… I feel that the circle of my friends, they mainly use Instagram now, so I feel that my focus is slowly... And most of my Chinese friends, they already went back to China, but they still use Instagram sometimes." – P11

The finding supported former studies indicating that nowadays most students' online friends are their offline relationships and further they tend to maintain relationships with higher frequency based on their physical proximity (Boyd & Ellison, 2007; Ellison et al., 2010).

Lastly, intercultural adaptation competence was also observed as an essential factor which affect participants' choices of SNSs use. Consistent with many former studies, elements such as acculturation orientation, language competence, and cultural identity were mentioned continuously in the study. The choice of social media usage was argued to be language-based to a large extent (Lai, Gu, Gao, & Yung, 2020; Sleeman, Lang, & Lemon, 2016), the preference on ethnic language especially affects students' recreational use of social media. One participant in the present study confessed that:

"I usually have classes nearly every day, for six hours a day, and I feel tired after class. Moreover, I get homework after class. And during this process, I don't have time to use home social media a lot. So when I have a break, I may want to use my mobile phone to read some relaxed content, such as Weibo or something else. I don't usually read

Spanish content when I want to relax myself, I just read contents in Chinese…" – P2

Besides language, cultural identity also impede or facilitate participants' use of host SNSs (Binsahl et al., 2015; Gomes, Berry, Alzougool, & Chang, 2014; Lai et al., 2020). For example, during the interview, one participant actively reflexed about how identity shaped her preference of using SNSs to express herself:

"Or… maybe because I feel that when I use Twitter, my voice is relatively weak, and I think people will tend to use social media that is more comfortable for them, right? It is similar to, if you post on WeChat Moment, you receive a lot of likes, you may prefer to post via Moment, right? So, considering myself as a female Asian from China, what do I want to express when I tweet and how can I make my voice heard by them? … There was a lot of news on Twitter that makes you angry when you see it. Since I have so faint voice on this platform, I don't want to feel so bad in that environment." – P4

Many previous studies usually discussed social media use and these discussed factors as a unilateral process (Hsu & Chen, 2020; Sawyer & Chen, 2012; Chen Yang, 2018b). In the present study, we considered students' social media use and intercultural adaptation as a back and forth process. The following sections will discuss distinct strategies of SNSs use applied by participants and their intercultural outcomes.

Chapter 5

SNSs use and social capital among Chinese international students

This chapter presents part of the results from the questionnaire study and interviews, which were in connection with Chinese international students' SNSs use and their perceived social capital during their study abroad. To be more specific, the questionnaire study in this part will display the correlation between students' multiple SNSs use and their different kinds of social supports in Barcelona based on the social capital theory. Following this, the qualitative data from interviews will complement and delineate the strategies that participants applied to manage their social capital and the consequential outcomes. The specific approaches applied during the investigation will be explained afterwards.

5.1 Results from questionnaire

As respondents' SNSs use intensity information was presented and analysed in the last chapter of quantitative results, we will now focus on how their multiple SNSs use influence the perceived social capital in the host city. To achieve this goal, respondents' perceived social capital was measured based on self-reported statements from the social capital scale adapted from Ellison et al. (2007) and Williams (2006)' s works. As a result, As a substitute, students' general bridging (Cronbach's α=0.82, M=3.62, SD=0.58), bonding (Cronbach's α=0.87, M=3.76, SD=0.66) and maintained social capital (Cronbach's α=0.90, M=4.27, SD=0.57) were gauged in the study.

The three types of social capital were measured to be dependent variables with the aim to develop statistical analyses with SNSs use intensity and other variables. Before conducting these analyses, a correlation analysis among the three types of social capital was conducted primarily to make sure that no severe multicollinearity issue was found among the dependent variables. As illustrated in Table 17, the highest correlation coefficient was between bonding and maintained social capital, which was 0.41. The coefficient was lower than 0.85, which was one of the indicators suggesting that no severe multicollinearity was found among these variables. In this sense, more statistical

analyses will be conducted to explore the effects.

Variables	Bridging	Bonding	Maintained
Bridging social capital	1		
Bonding social capital	0.37***	1	
Maintained social capital	0.21*	0.41***	1

Table 17. Correlation among SNSs intensity and social capital

In the following step, we focused on answering the research question proposed in the methodological section. Several hierarchical regression analyses were conducted to assess the internal connection between three types of social capital and chosen SNSs. It should be highlighted that, before carrying out regression analyses, we first entered six chosen SNSs to perform correlation analyses with three types of social capital in order to explore the latent association. The preliminary results for correlation analyses indicated that no significant correlation was found between the intensity of Weibo or Twitter use and all three types of social capital. On the basis of the results, we can conclude that neither the intensity of Weibo nor Twitter use has a significant relationship with any type of social capital. Consequently, these two SNSs were eliminated from the further linear regression analyses to evaluate the intricate connection between SNSs use and social capital. As a consequence, only four effective SNSs were entered in the final interpretation (namely, WeChat, Facebook, WhatsApp, Instagram).

Firstly, the effects of multiple SNSs use on bridging social capital were tested. Demographic variables were first entered as the first block followed by the intensity of each SNS in the order of WeChat, Facebook, WhatsApp, and Instagram in the second block, which constituted model 1, model 2, model 3 and model 4, respectively (see Table 18). Furthermore, in model 5, only participants who were using all four target SNSs were entered in the analysis to examine the multi-platform effect on bridging social capital, which reduced the number of participants to 111.

Table 18. Regression for bridging social capital

	Model 1[a]	Model 2[b]	Model 3[c]	Model 4[d]	Model 5[e]

	β	β	β	β	β
Step 1					
Gender	-0.11	-0.09	-0.11	-0.12	-0.10
Degree	.14	0.10	0.14	0.16	.135
Age	-.05	-0.01	-0.05	-0.06	-.083
Year in BCN	0.12	0.14	0.12	0.15	.146
R^2	0.07	0.06	0.07	0.08	0.07
Step 2					
WeChat intensity	0.02	–	–	–	-0.06
Facebook intensity	–	0.29**	–	–	0.17
WhatsApp intensity	–	–	0.32***	–	0.06
Instagram intensity	–	–	–	0.36***	0.28**
ΔR^2	0.00	0.08**	0.10***	0.12***	0.15**
R^2 total	0.07	0.14	0.17	0.20	0.22

Notes: *p < 0.05, **p < 0.01, **p < 0.001

[a] N = 146. [b] N = 123. [c] N = 140. [d] N = 126. [e] N = 111.

As presented in Table 18, a significant regression equation was found in model 2 (F (5,117) = 3.798, p= .003) with an R^2 of 0.14. After entering the intensity of Facebook use in model 2, the variance of this model increased by 8% (ΔR^2 = 0.08). Model 3 illustrated that the intensity of WhatsApp use could significantly predict bridging social capital (F (5,134) = 5.335, p< .001), with an R^2 of 0.17. Model 4 also supported that after entering the intensity of Instagram use, the regression equation was found to be significant (F (5,120) = 6.14, p< .001), with an R^2 of 0.20. No significant association was found between the intensity of WeChat use and bridging social capital (F (5, 140) = 1.963, p = .09). However, the p-value in this equation indicated a marginally significant association between the intensity of WeChat use and bridging social capital. In the fifth model, when we entered all four SNSs in the second block, the model showed a significant result (ΔR^2 = 0.15, p= 0.001). However, only the intensity of Instagram use (β =0.28, p< 0.01) was found to be significant in this model.

On the basis of the results obtained so far, the research question can be partly answered. It demonstrated that the intensity of Facebook use is a significant predictor of participants' bridging social capital. No association was found between bridging social capital and the intensity of WeChat use. In addition, the intensity of WhatsApp use and Instagram use was also found to be significant predictors of bridging social capital. The model 5 indicated that using host SNSs in the study could significantly influencing Chinese international students' bridging social capital. However, Instagram seemed to be the most notable SNS which had the most significant influence on international

students' social capital.

In the second section, hierarchical regression analyses were also conducted using the same model to study the relationship between participant's bonding social capital and intensity of SNS use. As displayed in Table 19, under the condition that all the demographic variables were controlled, only the regression equation with the interaction of WeChat intensity obtained significant results (F (5, 140) = 6.554, p < .001).

Table 19. Regression for bonding social capital

	Model 1	Model 2	Model 3	Model 4	Model 5
	β	β	β	β	β
Step 1					
Gender	-0.02	-0.01	-0.01	-0.04	-0.06
Degree	0.14	0.08	0.13	0.09	0.07
Age	-0.11	-0.07	-0.10	-0.06	-0.06
Year in BCN	0.33***	0.38***	0.33***	0.40***	0.42***
R^2	0.15	0.17	0.15	0.19	0.21
Step 2					
WeChat intensity	0.20*	–	–	–	0.19*
Facebook intensity	–	0.06	–	–	0.00
WhatsApp intensity	–	–	0.10	–	-0.04
Instagram intensity	–	–	–	0.13	0.16
ΔR^2	0.04*	0.00	0.01	0.02	0.07
R^2 total	0.19	0.17	0.16	0.21	0.28

Notes: *p < 0.05, **p < 0.01, ***p < 0.001

[a] N = 146. [b] N = 123. [c] N = 140. [d] N = 126. [e] N = 111.

Consequently, the second research question can also be answered that only the intensity of WeChat use was a significant predictor of bonding social capital. The intensity of host SNSs use had no significant relationship with bonding social capital. Furthermore, the relationship between bonding social capital and the intensity of Facebook use, WhatsApp use or Instagram use has not been established.

Hierarchical regression analyses and the same models were used again in the third section to test the relationship between intensity of SNS use and maintained social capital. According to the result (see Table 20), after adding the intensity of WeChat use in model 1, a significant association was found (β= 0.18, p <0.05). Additionally, a surprising significant association was found in model 4 after entering the intensity of Instagram use (β= 0.34, p <0.001). After entering all target SNS in model 5, the

Instagram intensity was still significant while WeChat became no longer significant.

Table 20. Regression for maintained social capital

	Model 1	Model 2	Model 3	Model 4	Model 5
	β	β	β	β	β
Step 1					
Gender	.042	0.13	0.04	-0.03	0.04
Degree	0.20*	0.16	0.19	0.15	0.13
Age	-0.11	-0.14	-0.11	-0.03	-0.06
Year in BCN	-0.07	-0.05	-0.08	-0.07	-0.06
R^2	0.03	0.05	0.03	0.02	0.02
Step 2					
WeChat intensity	0.18*	–	–	–	0.12
Facebook intensity	–	0.08	–	–	-0.04
WhatsApp intensity	–	–	0.14	–	0.01
Instagram intensity	–	–	–	0.34***	0.36**
ΔR^2	0.03*	0.00	0.02	0.11***	0.15**
R^2 total	0.06	0.05	0.05	0.13	0.17

Notes: $^*p < 0.05$, $^{**}p < 0.01$, $^{**}p < 0.001$

[a] N = 146. [b] N = 123. [c] N = 140. [d] N = 126. [e] N = 111.

According to the data, it demonstrated that the intensity of WeChat was a significant predictor of maintained social capital answering part of third research question. No significant result was found between Facebook use and maintained social capital. Instagram played a significant role in influencing maintained social capital. The influence of Instagram intensity was even stronger than WeChat intensity. Based on the fact that many Chinese international students manage both ethnic and host relationships through Instagram, this tendency could be explained to a large extent. More details will be discussed in the qualitative part.

5.2 Results from interviews

In the last part of this chapter, we have collected use activities and motivations from interviewees of the research. Based on the presented qualitative results, we had an exploratory understanding about how Chinese international students interact with their social ties among different SNSs. Moreover, the general quantitative data also proffered evidence that distinct platforms could attach Chinese students with different types of social capital.

Following what we have achieved so far, in this subsection, the qualitative result will be organized and presented with the aim of relating interviewees' SNSs use behaviors with their process of social capital accumulation. In the following session, we classified interviewees' social capital into different levels based on former assertions about the measurement of social capital (Mathwick, Wiertz, & de Ruyter, 2008; Nahapiet & Ghoshal, 1998), then we combined their SNSs behaviors in accordance with the classified groups. In this manner, we have concluded several strategies applied by the participants in order to develop their social capital in the host society.

5.2.1 Qualitative data analysis

As demonstrated in the questionnaire study, we understood that Chinese students had the access to manage their use of domestic SNSs and host-based SNSs in order to accrue their three types of social capital. More specifically, we observed that the host SNSs use intensity could facilitate students' bridging social capital; WeChat use intensity but not Weibo use intensity supported them to improve bonding social capital; meanwhile both WeChat use intensity and Instagram use intensity strengthened their maintained social capital. Our quantitative results related to social capital, to a large extent, are on an equal footing with recent studies which also examined individuals' social capital using quantitative methods (Li & Chen, 2014; Li, 2020; Pang, 2018). However, there is paucity of qualitative data to depict the sophisticated aggregation of social capital from different dimensions, and far further combine intricate dimensions with the SNSs uses. To achieve the goal, we first departed from the argument on how to measure social capital.

The measurement of social capital

Following Putnam's (2000) definition of bridging social capital and bonding social capital, we could distinguish these two forms of social networks on the basis of the strength of social ties, and further understand potential outcomes embedded in these distinct forms of ties. However, the dichotomy of social capital only stands for a corner of this structured concept. There is a much more extensive dimensions which is embedded in the social structure (Coleman, 1988). Aiming at measuring interviewees'

social capital from a more thorough way, we synthesized more definitions and measurements of social capital in the qualitative analysis.

When introducing the concept of social capital, Nahapiet & Ghoshal (1998) proposed three highly-related facets to assess it, which are **structural dimension, relational dimension and cognitive dimension**, respectively. Structural dimension of social capital pertains to the overall connectivity between actors in social networks. This facet emphasizes the existence or not of certain relationships, and how one is positioned in the hierarchical networked structure (Burt, 2002). Relational dimension of social capital refers to the interpersonal relationships that actors have developed with each other based on a set of longitudinal interactions (M. Granovetter, 1992). This facet underlines the different behavioral influences that actors have towards others in the social structure. Actually, Putnam's (2000) dimension of bridging and bonding social capital dovetails largely with the relational concept proposed by Nahapiet & Ghoshal (1998). Lastly, cognitive dimension of social capital highlights the resources embedded in social networks that have the tendency to accommodate certain shared interpretations, symbols and values. The cognitive dimension facilitates the consolidation of social norms in certain exclusive groups while also promote the mutual understanding among different groups.

Similar to Nahapiet & Ghoshal's (1998) measurement of social capital, some scholars also intended to explain different facets of social capital based on a stratified aspect. For example, Brown's (1997) assessment of social capital could be classified into micro, middle and macro dimensions. In the micro dimension, the totality of resources embedded in networks were emphasized. And how these resources were characterized and utilized are main focuses in the micro view. In the middle dimension, the accessibility to resources concerning one's own position in an extensive social structure becomes the focal point. And in the macro dimension, it considered an individual or a certain group's dominance and utilization of social capital from an organizational or international perspective.

Taking numerous dimensions of social capital into consideration, we highlighted two clusters as the main representations of social capital: individual social capital and collective social capital. The first cluster is the individual social capital, which is characterized by the possession and utilization of social capital (Bourdieu, 1986;

Boxman et al., 1991; Granovetter, 1973; Putnam, 2000). Learning from the experience of previous studies, we considered several elements to measure individual's possession of social capital. The first element is the network size, which was explained by Bourdieu (1986: 248) as "the size of the network of connections he can effectively mobilize and the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected". The second element is the density of ties, which is highly correlated with numbers of strong ties and weak ties in one's own network (Lin, 1999; Granovetter, 1973). The third element is the position the individual hold in the social structure. Because according to Burt's (1992) theory of structural hole, the one who occupies more structural holes and get a better position is more likely to get rewards in the community. The fourth element is the attributes that the individual's contacts have. For example, the position that one's contacts have considering their socioeconomic status might also influence the ego's social capital.

The other main dimension of individual social capital is the utilization of social capital, which is highlighted by the resource types and dependency on social capital. The types of resources that one usually exchanges with others could vary from information exchange to emotional supports, among other things. According to some scholars, the different resource types hinge on the strength of ties to a large extent (Granovetter, 1973; Putnam, 2000). Respecting dependency on social capital, it pertains primarily to the extent that one relies on its own social capital to accomplish their goals in daily life. In other words, it evaluates to what extent the individual has other alternatives to achieve their goals other than social networks.

The second cluster of the evaluation structure is the collective social capital. Based on Adler & Kwon's (2002: 20) dichotomy of internal and external social capital, we can consider individual social capital as the compilation of external social capital to a considerable degree. In this manner, the external social capital constitutes the core of collective social capital. Analogous to Nahapiet & Ghoshal's (1998) cognitive dimension and Brown's (1997) macro dimension of social capital, in this study, the collective social capital focuses on the common constructive norms that ensure the feasibility and functionality of social capital from an organizational or communal perspective. Shared values, reciprocity, trust, voluntarism become key elements that constitute the collective social capital; moreover, these elements are also negotiated and constructed reversely in a certain community (Lin, 1999; Putnam, 2001).

Following this logic, we conclude that throughout the amalgamation of individual and collective social capital, individuals can actively participate in different forms of social interaction (Putnam, 2000). With the rise of SNSs in the society, some recent studies have widely concentrated on the relation between social capital and social interaction in the online environment (Jeong, Ha, & Lee, 2020; Mathwick et al., 2008; D. Williams, 2006b). On the other hand, some researchers argue that "online-to-offline interaction is still a core part of many online contexts" (Ellison et al., 2010: 126). In the present study, we don't delineate an incompatible line between online and offline interactions as a consequence of social capital, since they are able to interchange easily due to the physical constraints. As a result, the framework used to measure social capital in this study and its relationship with SNSs interactions can be shown as follows (See Figure 23).

Figure 23. A structure for the measurement of social capital
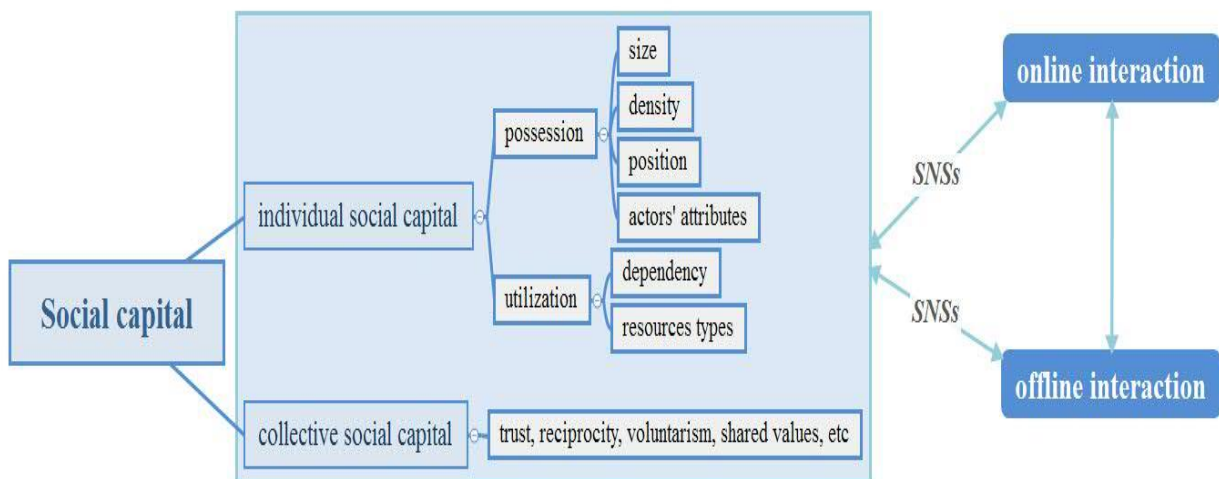
Source: Author's own elaboration

After having a global concept about the measurement of social capital, we began to explore participants' SNSs activities with their social capital considering those elements discussed above. During the procedure of analyzing qualitative data, the author evaluated the degree of interviewees' social capital accumulation after applying different forms of interactions, which is like a bottom-up processing work. By this process, the researcher reflected on the data many times over based on the elaborated structure, which is like a top-down processing work (Rauss & Pourtois, 2013). During

the repeated reflection and modifications, a fundamental guide was built in order to classify the participants into specific groups (see Table 21).

Table 21. A guideline to evaluate participants' social capital in the study

Social capital facets	Specific reflection
possession of individual social capital	the user's on/offline network size; the numbers of weak ties and strong ties the user possessed; the position the user occupied in the social network; the willingness the user cherished to expand the network; the attributes of ties that the user owned;
utilization of individual social capital	to what extent the user relied on the social capital to conduct activities in daily life; what types of resources the user usually exchanged through social capital;
collective social capital	if the user followed some types of shared norms during the interaction; if the user would share his/her own value, ideas on the online platforms; if the collective social capital further facilitate their accumulation of individual social capital and other types of capital (cultural capital, intellectual capital);

Source: Author's own elaboration

Following this guideline, the author evaluated each interviewee's social capital during their stay in Barcelona separately. Since it is commonplace that sojourners may need to fulfill primary socialization and establish a relatively stable social support in the host milieu for a sense of belonging (Y. Y. Kim, 2001), and we also observed the accretion of social capital from all participants. In this way, we finally placed participants on a one-way vector according to their degrees of social capital accumulation, which can be classified from minor growth to major growth. On the other hand, inspired by Zhao's (2018) quadrant classification to analyze social capital acquired from different SNSs, we also divided the investigated SNSs into two types with the aim of guiding our analysis. To do so, we separated WeChat and Weibo into home SNSs, and other four SNSs (Facebook, WhatsApp, Twitter, Instagram) into host SNSs. As a result, a

quadrant classification was created to guide the following qualitative analysis (See Figure 24).

Figure 24. Classification of social capital based on different types of SNSs
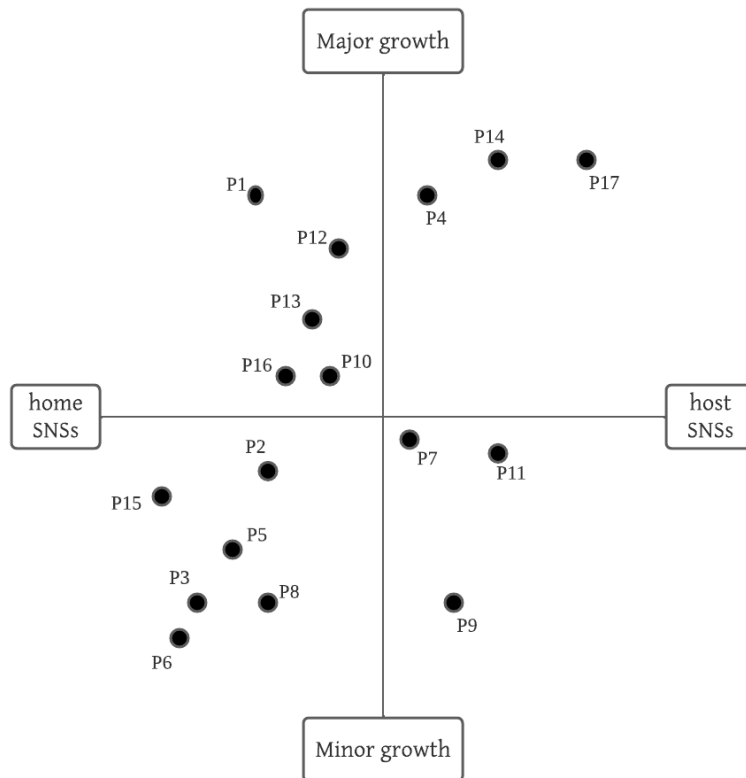
According to the Figure 24, we can observe that participants were classified into four categories in accordance with their expressed preference of SNSs use and reported social capital. P1, P10, P12, P13, P16 were categorized into the first category, entitled as *Major growth group with preference for home-based SNSs*, which represents a relatively major escalation in social capital while more online activities related to it were found on home SNSs. In the same quadrant, we compared the respondents' network size, position in the social network, and capability to access scarce resources, and finally determined their position on the vertical axis through continuous attempts of analysis and discussion. Similarly, we repeatedly compared the respondents' frequency of use of host and home SNSs, and their dependence on both types of social media systems, and finally determined the position of each respondent on the horizontal axis in the same quadrant. Through this form of approximation, for example, P1 was

considered to be the example with most elevated social capital in this group, while at the same time, she was the respondent in the same group who reported the highest dependency on ethnic SNSs, as she rarely uses other host SNSs besides WhatsApp.

P2, P3, P5, P6, P8, P15 were classified into the second category, entitled as *Minor growth group with preference for home-based SNSs*, which symbolized a rather minor escalation in social capital while online interactions tended to occur more frequently on home SNSs. The approximation of the participants in the quadrant also followed the same approach in the first category. For example, P6 was considered to be the interviewee with least elevated social capital with relatively high dependency on home-based SNSs.

P7, P9 and P11 were collected into the third category representing a minor escalation in social capital while combining more online behaviors on host SNSs, which was denominated as *Minor growth group with preference for host SNSs*. The approximation of the participants in the quadrant followed the same approach in the first category as well. For example, P9 is considered to be the case with the least elevated social capital in this quadrant, but at the same time, she reported a relatively high percentage of host SNSs interventions in her target SNSs habits.

And finally, P4, P14, P17 were classified into the fourth category, entitled as *Major growth group with preference for host SNSs*, which stands for a major increase in social capital applying more frequently online activities on host SNSs. For example, in this grouping, P17's social capital increased significantly, and at the same time, host SNSs has taken up a considerable proportion of his reported digital habits.

Hereinafter, we will present participants' activities and social outcomes under the four categories in detail and try to find the commonalities and particularity among them.

5.2.2 Presentation of the Major growth group with preference for home-based SNSs

Participants who were classified in the first category tended to rely more on home SNSs to conduct activities. As shown in the Table 22, which presented the matrix query of selected participants' SNSs use and social resources from ties, we can observe that more

digital activities were collected from home SNSs. Although the frequency of nodes obtained from the qualitative data does not have statistical significance, it does reflect to some extent the frequency with which respondents mentioned these SNSs during the interviews, which has a certain reference value.

	P1	P10	P12	P13	P16
1 : perceived social capital	5	2	4	8	1
2 : Facebook	0	0	0	1	3
3 : Instagram	0	5	9	2	2
4 : Twitter	0	0	0	0	7
5 : WeChat	17	20	14	9	10
6 : Weibo	0	0	2	4	1
7 : WhatsApp	1	3	4	4	6

Table 22. Matrix query of mentioned participants' SNSs use with perceived social capital in the first group

Participants in this category all reported that they had lived in Barcelona for more than one year. It is also an important indicator suggesting their relative expanded social networks within the city. And this propensity also could be reflected in their online activities. Facing different situations in their own life, participants in this category are involved in active online activities to expand or maintain their social networks. For example, for P1, to extend her network size was not a tough nut to crack. As we have presented in the last qualitative part, P1 enjoyed organizing activities to connect with friends and to know new Chinese friends: "I regularly organize thematic salon at my home, and I will need to ask some of my friends through WeChat if they know anyone who is familiar with the concrete theme. Further, I have to use group chats in WeChat to invite people to participate in the activity." When further asked how she built up her social networks especially in Barcelona, she shared her experience combining the use of SNSs as well:

"I am a friendly person. I can naturally become friends with many people. For example, once I walked on the street and helped a passer-by who was seeking for help. And I got a box of sushi in return. Another time, I added a person who was selling her books in a WeChat group of 500 people, and when I went to pick up the book, it turned out that

the girl was also very sociable, we talked for four hours. Later that evening I went to the amusement park with her and her friends. Basically, I can get to know people as long as I take the initiative when I go out. And I will also participate in activities, such as dragon boating (a teamwork-based boat racing sport) in Barcelona." – P1

According to P1's statement, joining in WeChat groups, viewing groups' information and interacting with people in the groups is an effective approach for her to extend her networks, especially with co-nationals. Moreover, as we can notice from the Table 22, WeChat was the predominant SNS for her to manage both online/offline activities. As for this point, P1 was quite conscious of the importance of WeChat in her daily networking life. When asked why she followed friends' feeds on WeChat Moment, She commented that: "As I already abandoned Instagram, Facebook and Weibo, WeChat Moments is the only place where I can keep up with what my friends are doing."

As P1 preferred to expand her social circles taking advantage of inclusive WeChat groups, P10 also tended to expand his social circles through the use of SNSs. In his case, he relied more on the platform QQ[10] to join in different interest groups and meet new people. Sometimes, he would transfer some of his online ties from QQ to WeChat after he felt closer to some of his online friends. For him, WeChat is more used SNS to develop the density of his social capital. He also remained this kind of online interaction in his overseas life.

"I think I used QQ more often to meet people who have the same interests as me, which could be considered as my online friends, sort of. For example, I like some TV series so I would join some theme QQ groups related to the TV series. I might also join some social science groups because I majored in social science. And then I might discuss some things to learn more from them and improve myself... For some people I met in QQ, when I feel that we have known each other for a long time, I will exchange our WeChat accounts. Because you may be relatively closer here (on WeChat), or because I have contacts in work and study with these people."—P10

P10 was not the only case who expanded the social networks using home SNSs and replaced them in WeChat. In another case, P16 also claimed that he was a heavy user

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[10] Similar to WeChat, QQ is also an instant messaging software run by Tencent. It was first released in 1999, which has a way longer history than WeChat.

of Zhihu[11], and he enjoyed sharing his knowledge and interacting with other users on that platform. In addition, he emphasized a lot the quality of social ties that he considered transferring them to WeChat:

"I sometimes replace some users that I interact frequently to WeChat. For example, there is one guy, we talked online (through WeChat) regularly, and we're planning to cooperate on a project, yes, so we finally became friends on WeChat." – P16

How P10 extended his social circle also reflected that proactively sharing the possessed knowledge increased his chances of obtaining potential social capital. This tendency also coincided with one of the motivations of surveilling friends through WeChat that we found in the last chapter. That is to say, some SNSs users were likely to be attracted by those active users who constantly shared their opinions, which in turns, may help active users get a better position in the network. A similar case also happened with P12. She shared her experience of operating a WeChat public accounts sharing Spanish learning knowledge with her Chinese friends in Barcelona: "I've got a couple of friends who are maintaining the public account together with me, so they'll update contents. They created new contents and then as the owner (of the public account) I would log in and post them." In this way, she also maintained a WeChat group with these friends in order to keep discussing content creation and public account management. As the creator and organizer of the WeChat public account, she acquired a relatively central position in this small social group.

Besides obtained a better position in the social circle, the interaction between P12 and ties from the WeChat group also seemed fruitful. Since the objective of operating the public account was to spread knowledge related to Spanish language and culture, she had to think and determine the contents with her friends regularly: "For example, I am not in charge of contents of recommending recreational activities, so one of my friend may have posted more (about this topic). She usually pays more attention to topics such as culture and art." Through the collaboration with friends who shared different interests, not only the topics presented in the public account became more diversified, but P12 herself also transformed from creator into readers and obtained information.

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[11] Zhihu is an online Q&A community, where users can create and answer questions. It also includes functions for users to interact with each other in the online community. It is considered as the Chinese version of Quora.

The importance of the attributes of participants' ties was also revealed in all the other cases in this category. P16 emphasized that he liked to interact with "high-quality" ties, that is, they can bring actual value to him. Interacting with "elites" from different fields through SNSs (namely, Zhihu and WeChat) was a major way for him to obtain social capital.

"There was one man, whom I didn't chat with him a lot online, but I did obtain some actual benefits (from him). Because he was an editor of a Chinese newspaper, and he was the one who came to me inviting me to publish an article in their newspaper. And I did get an article published after some work with him. This is the kind of person who, in my opinion, is more helpful, who can bring you something real, not just gossiping with you in the digital world." – P16

We also evaluated their dependency on social capital to achieve certain goals by asking the interviewees how they accomplished certain specific things during the interviews. Among all the cases in the category, P13 recognized that most of his time on WeChat was socializing with different kinds of people. And he seldom used the public accounts function or functional groups in WeChat to search for informative help. He carried out many social activities thanks to the different ties he owned: "For example, when looking for an apartment, I sometimes look for it through an agent, and sometimes I look for it through the recommendation of my Chinese friends, but I rarely look for it through WeChat groups." Since P13 holds a relatively big social network size, it was not difficult for him to obtain support from the network. And during the interview, he mentioned several times that he enjoyed sharing his status on SNSs such as WeChat, Weibo and Instagram. Frequent online self-exposure became one of the principal access for him to keep interactions with his ties. When asked if he thought that online interaction with people on WeChat occupied too much time of him, he responded: "If I think about it seriously, the answer must be yes. But if you just immersed in the process, you won't realize if you are occupied."

A similar case also happened with P1. We talked about how she successfully completed her master thesis during the interview. She was grateful to many people for helping her in completing her thesis:

"When I first arrived here, I was unaware of the structure of a thesis and my friends helped me a lot in this regard. I had friends who helped me transcribe the interviews I

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did in Spanish together, and friends who helped me with the formatting of my bibliography, and friends who helped me with my Spanish grammar… Among them, there were Chinese friends who studied the same master project last year, my Chinese friends in the US, my friend who is a second-generation immigrant in Spain, my Chinese friends studying translation, a Spanish journalist friend, and my Spanish roommates, and so on. Some of the interviews I did were with friends of my Spanish householder, or even his friends' friends." – P1

From the cases demonstrated above from P1 and P10, we can notice that they received lots of support which can directly influence their daily behaviors. Besides that, participants also relied on social ties to acquire information help. While P13 still claimed that he preferred to obtain information directed from acquaintances or friends, P10 indicated that he also took advantage of WeChat themed groups to get information. In other words, he was inclined to obtain information-level resources through this looser relationship.

"There was a year, I needed to renew my resident card, and the result of application (for card) took so much time to come out. I asked about the situation in a WeChat group, some people in the group responded that this happened occasionally, and then I waited again. After a period, I finally found my application passed." – P10

From the perspective of collective social capital, we could observe that all the participants indicated to a certain extent their social trust to connect with people through WeChat. This kind of social trust towards the platform also leads them to develop different forms of social interaction on WeChat and other home-based SNSs to a certain extent. As mentioned in some of the former cases, participants may accumulate their social capital by sharing common values and collective interests. Activities such as organizing thematic salon with Chinese in Barcelona (P1) and operating a Spanish-learning public account on WeChat were representations of the social trust embedded in the WeChat network community. However, the norm of social trust didn't always work well on these home SNSs. As a result of the nature of exclusiveness and overloaded ethnic relationships inherent in WeChat, sometimes participants also claimed their distrust toward the site. In certain circumstances, norms of trust and reciprocity failed.

"I also use Moments to convey some personal ideas and attitudes. I don't set privacy

setting and let everyone see my posts only when occasionally I share my life status, because I want to tell others that I am still alive… But now I generally don't share the opinions and articles that I agreed on WeChat Moment… How many people have got trouble for this behavior! This became a very strange thing for me now. It's just that, everything you post, others can find a reason to judge your post. So, nowadays many people don't like to publish posts, because you get stupid labels for every content you posted. It's very ridiculous." – P16

The reasons why participants in this category engaged less frequently on host SNSs were quite similar. Many have mentioned privacy concerns and lack of reciprocity towards some host SNSs. A sense of social trust was not constructed sufficiently between specific host SNSs and the participants. Furthermore, they may not even think about sharing content related to opinions, values on these sites.

"I'm not a big fan of social media because I think it occupies lots of time. In the case of Facebook, I value my privacy and I feel like it's connected to too many other sites and I'm afraid of having my big data stolen, so… In fact, there are no more than 10 foreign friends who have close relations with me. I can get in touch with them through WhatsApp, so I don't think it matters whether to use Facebook or not." – P1

"At the beginning, I even communicate with my Catalan boyfriend on WeChat. Then we gradually transformed the platform to WhatsApp. Because I just feel more like WeChat is in my domain. For example, I have more stickers in WeChat. But I don't have enough in WhatsApp." – P12

For a series of reasons mentioned previously, respondents' host SNSs interactions related to social capital in this category were largely presented in a goal-oriented or interindividual pattern. For example, compared with his active activities across different home SNSs, P16 tended to use host SNSs in a more passive and defensive way. His behaviors on Twitter was a typical case, as he indicated that: "The activities that I posted on Twitter were all academic-related, I basically didn't post anything personal. As for my surveillance behaviors (on Twitter), I usually don't even read carefully the title of article that other people share, I just like the post for social etiquette."

Figure 25. Collected SNSs strategies related to social capital from the first group

	Home SNSs	Host SNSs
Individual	**WeChat**: • Joining multiple group chats and interacting in groups (eg.P1, P10) • Present self-status via Moments (eg. P 13) • Active interpersonal communication with mixed social capital **Weibo**: • Post self-status and manage self-image (eg. P13) **Cross-platforms management**: • Transit social relations across platforms (eg. P10, P16)	**WhatsApp**: • Interpersonal communication **Instagram**: • Present self-status **Twitter**: • Present academic status (eg. P16)
Collective	**WeChat**: • Organizing interest-related activities via group chats (eg. P1) • Disclose cultural knowledge, personal identity via Moments, public accounts (eg. P1, P12, P16) **Cross-platforms management**: • Disclose cultural knowledge, personal identity via other social media (eg. P16)	Mainly for information-consumption activities. **Twitter**: Occasionally showing value-oriented attitude (eg. P16)

Ultimately, after comparing SNSs activities with individual/collective social capital through a cross-matrix, we summarized the patterns of SNSs strategies of all the cases in this subgroup, which can be illustrated by and large in the Figure 25. As indicated at the start, respondents in this group reported richer incidents for social capital accumulation through home-based SNSs, thus more diverse patterns of online social interaction and content production were found. In contrast, they tended to apply more interpersonal interaction through host SNSs, which could be largely their offline international friends; in terms of content gratification, interviewees were also disposed to conduct more content consumption and recreational activities, which involved collective or cultural values less frequently.

5.2.3 Presentation of the Minor growth group with preference for home-based SNSs

We included students who applied more activities on home SNSs and reported minor social capital in the second category (See Table 23). In this way, six students were included in total. Compared with the students from the first category, although students from the present category actually also applied different platforms in their daily overseas life, their specific behaviors on theses platforms differed to some extent.

	P2	P3	P5	P6	P8	P15
1 : perceived social capital	0	6	2	10	4	5
2 : Facebook	1	0	2	0	0	0
3 : Instagram	2	4	4	6	3	5
4 : Twitter	1	0	0	4	2	0
5 : WeChat	9	19	20	20	13	13
6 : Weibo	7	4	0	12	11	0
7 : WhatsApp	2	3	5	2	4	2

Table 23. Matrix query of mentioned participants' SNSs use with perceived social capital in the second group

The length of stay of students in this category ranged from one year to three years. Supported by quantitative finding of the present study and former evidence (Kim, 2001; Ye, 2006), those students, who resided in Barcelona for a short period, were more likely to have a small social circle and it may also further influence their digital preferences (S. Chang & Gomes, 2017). This is somewhat consistent with the cases of P2, P3 and P5, all confirmed that their principal social circle were their classmates or Chinese roommates. As P3 claimed that: "Basically, 90% of my friends in Barcelona are classmates. Sometimes maybe classmates would introduce me to meet their friends, but the connection would be over after the meeting. I won't take the initiate to exchange our WeChat accounts and talk (online) later or even I don't want to start the process." This kind of attitude also affected P3's intention for online interaction: "I do not like meet new friends online. I feel that going from unfamiliar to familiar is a very energy-intensive process. It's too tired (for me)."

Although the on/offline network size differed to some extent, participants in this category all showed their preference of maintaining a stable and inclusive circle for online and offline interactions. Students in the second category demonstrated less interest in expanding their social circles and preferred private online messaging with established ties compared with participants in the first category. Some participants spent hours per day chatting with close friends in China (through WeChat). P5 said that: "Sometimes when I cook (at home), I just wear headphones and chat with my friends in China." In another case, P6 disclosed her aversion to technological media in general, which impeded her accumulation of social capital.

"I don't really like pure social media. I've never liked telephones since I was a kid, I got nervous when people called me. And now this happened the same with WeChat. We know that WeChat has that notification function for incoming messages. It made me nervous when it alerted me with the notification sound. I want to drop my phone, but I force myself to pick up the cellphone. I just don't like purely chatting (online)." – P6

As a result, we observed that many interviewees' preferences of online activities further affected their position in the social network structure in this group. They needed to seek more external supports in order to achieve some goals. Besides interacting online with close friends, students in this group also performed more passive activities such as surveillance on information or friends. Like many other participants, these interviewees claimed that they joint lots of themed groups of WeChat, because they believed that these groups would be useful for them during their stay in Barcelona. P8 said that: "I moved here from another city (in Spain), and the reason I joint (WeChat) groups was because I was afraid that something would happen, and then, well, I was looking for something than made me feel that I was not alone in this city. Because if I came here alone and I didn't have these groups, I might feel isolated and helpless myself. I wouldn't know who to turn to, if I have a problem." However, most students only passively read information from these groups randomly, or even muted the groups notifications in some cases. According to the observation, participants often turned to these WeChat groups only when they had instrumental needs.

"I rarely read those messages in WeChat groups now, only a few times for a period. Like yesterday, I clicked on one group because it showed that there were many unread messages. I found a second-hand toaster for sale and actually my roommate wanted

one. Then I added the guy who was selling the toaster and went to pick it up yesterday."
– P6

During the interviews, students in this group tended to emphasize one or some specific compatriots who influenced their overseas life significantly. In most cases, these people were usually their roommates in Barcelona, Chinese students who were in the same academic project, and their boyfriend or girlfriend. Some of these relationships may have supported the interviewees in many ways due to having more resources or knowledge than the interviewees, making them crucial social capital during interviewees' stay in Barcelona. In one case, P6 shared that her boyfriend, a Chinese immigrant who had lived in Spain for decades, had helped her a lot in her daily life.

"My boyfriend, who is Chinese and lives in Spain, is more aware of these things. When I first came here, I asked him for everything. For example, he took me to all the good restaurants here. I rarely went out to eat when I first arrived, because I thought they were very expensive. Since he knew where to eat, he would take me to the places where the locals went, showing me the local culture. Moreover, because I'm bad at recognizing the ways, I was very scared of going out, especially in a place I was not familiar with, then he taught me how to use the subway." – P6

As for the collective social capital, we found that students all mentioned that although WeChat was one of the SNSs that they used every day, they lacked fundamental trust with WeChat to some extent, which were less mentioned in the first category. Participants in this group emphasized that the complex social relationships carried by WeChat make them feel pressured, which to a certain extent reduces the possibility of their self-exposure through WeChat. As P15 said: "I think WeChat incorporates too many people, because I've been adding the people over the years. In WeChat, there are a lot of people who are close or not close to you, no matter you need them or not. As a result, I think the network is too complicated (in WeChat), I don't really like to share my life status to my contacts in WeChat."

Moreover, as home SNS WeChat may lose some of its social trust for the students, other SNSs become new destinations for them to present themselves. In the present study, these SNSs referred to Weibo and Instagram in particular. All the participants who used Weibo in this group (P2, P3, P6, P8) stated that they preferred to disclose themselves more frequently on Weibo, especially some negative thoughts. One of the reasons was

that they involved less friends in their Weibo accounts, which made them feel more unrestrained to express values. In one case, P3 claimed that:

"There are more strangers on Weibo who followed me. I think I published negative emotions on WeChat Moments and viewed by my acquaintances, friends, and family, it will have a greater impact. I think it's not necessary. Sometimes it was just an impulsive decision to say something, so I think it was not very appropriate to publish these things on Moments." – P3

In another case, P2 considered that Weibo was bound up with a small circle of trusted ties, which made the platform more confidential for her: "Weibo is generally posted about trivial details of my life. Because my ties on Weibo are generally close friends who followed each other."

The same also happened with some students' ideas about using Instagram. A shift of platforms in self-expression preference was observed in the case of P6 and P15. The main reason for this change was that they had a higher degree of trust in the social networks that they transferred to Instagram. As P15 stated that: "I think there are not many friends (on Instagram), and the social circle is not very intricate, which makes me willing to share, and my posts on Instagram are all about myself. However, I seldom post myself in Moments." In addition to distrusting the complex social circle, avoiding too much interference from bonding ties was also one of P6's considerations to present more on Instagram. She said that:

"Instagram is about beautiful things that I want to document in my life. Some of these things may not be suitable for posting in WeChat Moments. For example, the first time I dyed my hair, I didn't want to send it to Moments, because my parents wouldn't let me dye my hair, and I didn't want them to see it, then I would post it on Instagram." – P6

In general, participants in the second category were less involved in host SNSs or presented more instrumental purposes on them. As for the use of home SNSs, although it may not be notably different from the first group in terms of intensity of SNSs use, students tended to maintain their old bonding ties (currently considered as maintained social capital) or bonding ties in Barcelona more frequently. Meanwhile, less active self-exposure activities via WeChat group chats and moments were collected.

Figure 26. Collected SNSs strategies related to social capital from the second group

	Home SNSs	Host SNSs
Individual	**WeChat**: • Joining multiple group chats mainly for surveillance (eg.P1, P10) • Maintaining interpersonal communication with offline social capital • Selective self-exposure **Weibo**: • Selective self-exposure (eg. P2, P3, P6)	**WhatsApp**: • More instrumental use **Instagram**: • Present self-status to a small mixed circle
Collective	**WeChat**: • Social fatigue, reduced trust for presentation (eg. P6, P15) Overall disinterest or deficiency in online collective activities and presentation	Overall disinterest or deficiency in online collective activities and presentation

5.2.4 Presentation of the Minor growth group with preference for host SNSs

We included three students, namely P7, P9, P11 in the third category (See Table 24). WeChat still maintained its indispensable place in daily life; however, they also involved as many as host SNSs activities in their overseas life, especially compared with students in the second category.

	P7	P9	P11
1 : strength of social tie	7	5	8
2 : Facebook	6	1	4
3 : Ins	5	5	5

4 : Twitter use	0	1	3
5 : WeChat	34	15	15
6 : Weibo	6	3	0
7 : WhatsApp	9	3	3

Table 24. Matrix query of mentioned participants' SNSs use with perceived social capital in the third group

Echoed with Berry's (2005) theory of acculturation strategies, students in this category generally hold an integration strategy with the host culture and were more aware of utilizing host SNSs to seek interpersonal interaction and social participation. For P9, one of her main purposes of studying abroad is to reflect on her original character constructed in the Chinese society and try to reshape it through contacts with different cultures. As she said:

"Because you know the personalities of foreigners are not the same as our general personalities in China, the way we deal with things, you know? That's why I want to live with people from other cultures here in Barcelona. I want to learn more positive things from them, so that I can change my mind, for example, my reluctance to express myself and some other things." – P9

As for P7 and P11, both of them mentioned that they had used host SNSs trying to engage in local activities in the interviews. The first station of P11 was Sevilla, a major city located in the south of Spain, since then, P11 has tried to find interest groups on Facebook, participate in activities, meet local people and experience culture. For P9, she also tried to participate in interest groups through Facebook, although it turned out to be unsuccessful:

"I used to follow a business group (on Facebook), which was related to commerce, but then I found it useless and I quit. I've been following the business group before, but I found I couldn't plug in, so I quit. They always email you activities and you can participate in the cafeteria. But there were some membership fees things. Once I heard that I have to pay, I became very cautious (and quit)." – P7

Respondents in this group showed a more clearly positive attitude towards participation in the host culture, meanwhile, it is worth mentioning that students in this group did not deliberately completely abandon the influence of their home country's culture on them. However, the overall increase in their social capital was limited, and this was more

consistent with their attitudes and strategies in using multiple SNSs.

Respecting the use of home SNSs during the overseas life, some participants stated that their intensity of WeChat use had decreased after they relocated in Barcelona over time. According to the interview, it was showed that P9 did not actively used WeChat to maintain and expand its social circle in her daily life. When asked if she often used WeChat recently to contact Chinese friends she met here, she stated that she still thought that her contact with her family (in China) was more frequent. Moreover, unlike many other students who joint lots of WeChat themed groups, P9 expressed her reluctance to join too many WeChat groups and she claimed that: "Because I didn't add many (WeChat) groups, if there were new messages in groups, I immediately go and browse them."

The situation for P11 was slightly different. In her case, she felt that she lost contact with many of her old ties and focused more on connecting with co-national ties in the host society through WeChat. She also recognized that she joint many WeChat themed groups, and somehow actively take advantage of these groups to ask for information: "Just like during the Covid-19 lockdown, the Chinese Consulate in Barcelona was distributing health packs (medical materials such as masks and medicine) for the Chinese diaspora, and I was in the official WeChat group for this issue. I was like, asking again and again, when would they dispense these goods to us. Then there was a widespread reaction, and then many others (in the group) were asking together when the health packs were going to be issued." As for P7, she recognized that she still used WeChat as frequently as before. She emphasized that WeChat was the important tool for her to connect with her family almost every day. She also actively browses WeChat Moments in order to stay connected with maintained ties and ethnic ties in Barcelona.

Although the examples of P7 and P9 seemed to be active in using WeChat to carry out social interactions, their actions were still considered to be relatively homogeneous in the present study. Few activities were found to be related to expand social ties on WeChat. All three participants tended to conduct more passive and interpersonal interactions through WeChat.

Similar patterns were observed on other platforms as well. Participants in this category indicated that they were more inclined to have private online interactions on host SNSs, especially through WhatsApp. During the interviews, the three interviewees clearly

distinguished the types of social relationships maintained by WhatsApp. As indicated by P11, "WhatsApp is generally used to communicate with foreign friends here. Because with Chinese friends I basically use WeChat."

According to the data, although respondents applied some host SNSs intensively in their daily life, they revealed that the use of these host SNSs was focused on maintaining existed offline relationships. P7, who used to be in charge of the Latin American market in a foreign trade company in China, recognized that WhatsApp was her fundamental tool to maintain the original customer relationships and communicate with foreign friends in Barcelona: "The main market I was in charge of before was Latin American, and they (customers from Latin American) mainly use WhatsApp. Moreover, it is very convenient to use WhatsApp here in Spain. So, I just use phone calls or send messages (via WhatsApp) ... Besides, to communicate with some non-Chinese classmates and friends, I use it every day, generally around half an hour."

For P7, the main reason she took the initiative to join Instagram was also influenced by her foreign friends. She uses Instagram as a major platform for her to connect with these foreign relationships: "At the beginning I joint it (Instagram) for curiosity wondering why they like it so much, especially young people. In addition, if there is a friend around you who always uses this and wants to share it with you, you can't say no all the time. You will turn out to have no topics (with your friend). So, I tried it." However, her proactive self-involvement on Instagram was not high, and she rarely posted contents on it. Her opinion towards Instagram was that: "Things were very trivial (on Instagram). I prefer to pay more attention to things with more value."

No clear accumulation of collective social capital was found in the present category. One of the reasons could be that students in this group engaged in less public self-disclose activities related to shared opinions and values. Besides, another reason could be that some respondents were not conscious enough about why they realized several kinds of digital transformation of platforms. For example, both P9 and P11 recalled that they found that their digital activities of surveillance and self-presentation had gradually switched from WeChat to Instagram. As P11 claimed that: "I don't know how I suddenly use Instagram more frequently, and found it more convenient… Yes, I feel that the circle of my friends, they mainly use Instagram now, so I feel that my focus is slowly (altering)..."

Participants in the third group shared similarities with members of the first and second groups, respectively, in some of the behavioral patterns. On the one hand, the members of the third group were similar to the second group members in terms of their activities on home SNSs and were more inclined to stay connected with bonding relationships. Relatively little heterogeneous communication was observed via home SNSs. And more information-oriented behaviors were observed. At the same time, their usage patterns on host SNSs did not differ significantly from their activities on home SNSs, which was different from the second group. A gradual similar host and home SNSs use was shaped, with the same focus on interpersonal interactions and self-presentation of personal status. Moreover, quite similar to the members of the first category, they were more proactive in including host SNSs in their content consumption use, usually as a source of host-oriented information or as a supplement to learn about different perspectives.

Figure 27. Collected SNSs strategies related to social capital from the third group

	Home SNSs	Host SNSs
Individual	**WeChat:** • Joining several group chats mainly for surveillance • Maintaining relations with home friends and family (P7, P11) • Selective self-presentation via Moments or public accounts **Weibo:** • Catch up on home-based news (eg. P7, P9)	**WhatsApp:** • Interpersonal communication with non-ethnic friends **Instagram:** • Present self-status to a small mixed circle **Facebook:** • Proactively seeking and participating host events/groups (eg. P7, P11)
Collective	**WeChat:** • Join group chats to get information to follow community rules, such as measures against Covid-19 (eg. , P11) Overall deficiency in online collective activities and presentation	**Facebook, Instagram, Twitter** • Trying to understand collective discourse and value by surveillance on information Overall deficiency in online collective activities and presentation

5.2.5 Presentation of the Major growth group with preference for host SNSs

Three respondents (P4, P14, P17) were classified in the fourth category due to their mayor accumulation of social capital and more intensive use of host SNSs (See Table 25). By observing the social media behaviors of interviewees in this group, we found that compared with students from other groups, they were more actively involved in the online interaction and self-presentation activities on different platforms. At the same time, they generally had a clearer and more proactive understanding and use strategies for different platforms.

	P4	P14	P17
1 : strength of social tie	1	9	3
2 : Facebook	0	1	0
3 : Instagram	8	14	12
4 : Twitter	7	4	2
5 : WeChat	19	18	10
6 : Weibo	10	6	3
7 : WhatsApp	3	5	6

Table 25. Matrix query of mentioned participants' SNSs use with perceived social capital in the fourth group

Generally speaking, respondents' behaviors on home SNSs and host SNSs were both abundant. First of all, concerning respondents' online behaviors on WeChat, it was reflected that all three respondents tended to apply more active activities, such as bridging interactions and content production. Like most of the other international students, all three interviewees said that through WeChat they had joined a number of different Barcelona-related WeChat groups on different topics. Moreover, in P17's case, he also shared his experience of setting up a WeChat group gathering Chinese students who were studying in the University of Barcelona (UB, afterward):

"The purpose to organize this group was to add some students who came to the university in 2016. At that time, I just thought, we (Chinese international students in the UB) could try to know each other. At first, everyone knew each other in the group, but later on, there were all kinds of people. Well, most of them were still from the UB, but now it is a place where people share some rental information, second-hand

information. In some cases, for example, in certain periods every year, some freshmen will join in, and they will ask if there are people from the same major, and then they can ask questions." – P17

Apart from using WeChat groups, respondents in this group also engaged in diverse content production activities, taking advantage of WeChat affordances, such as Moments and public accounts. The most representative case was from P4. She reported that she established many bridging and even some bonding ties by operating a WeChat public account sharing knowledge about art and life moments in Barcelona.

"I often spend a lot of time on the WeChat public account, and then it may take a week to prepare for this matter, from preparing materials, editing, organizing, to publishing, it often takes a week… And there are several girls, I think they were readers of my public account, we met each other thanks to the public account." – P4

Among the three respondents, P4 was also the only one who was actively involved in self-disclose activities on Weibo. As shown in the last chapter, through self-presentation on Weibo, P4 also got access to know new people who might have similar tastes or values. During the interview, P4 shared her conscious arrangement of presentation among different home SNSs considering the multiple outstanding affordances:

"I find that the attributes are different from platform to platform. If I take it (content production channels) as my personal brand, the contents would be different from platform to platform. For example, on Douban I would publish more professional articles sharing my understanding, and develop open discussions. I would treat it as a more serious platform. But when I post the same content (on WeChat public account), I had the lowest page views in my history for that day. I knew that a very long and well-researched article would not be read (on WeChat). But if I posted a more instrumental article, like "the ten best places to take photos in Barcelona", there would probably be a lot of collections. So if I'm very serious, I'm probably less likely to re-post it to the public. And then Weibo, it can't be a long blog. I don't post my articles on Twitter."

On the other hand, compared with respondents from other groups, all three students also applied more active use on host SNSs. Besides using WhatsApp as the instant messaging tool to communicate with non-ethnic ties, Instagram was the most representative host SNSs for them to maintain and capture social connections.

Specifically, the three interviewees actively used Instagram to shape their online identities in an attempt to increase their social capital, but in this process, the motives and strategies of the three students showed their own uniqueness.

With reference to P4, she clearly realizes that Instagram was a very suitable platform to help her complete intercultural communication and image building: "I feel that the influence of Instagram on me is to establish my personal image in front of your foreign friends. Because WhatsApp does not give me this function. Most of my classmates who use WhatsApp are not friends who chat with me every day, hence, they are less likely to understand what kind of person I am. But you can use Instagram as if you can create your own personal image." After she realized this effect, she gradually began to strengthen her self-presentation on Instagram, and reported that she had strengthened relationships with foreign friends:

"I didn't use Instagram that much in the first semester. It might be that I knew that the relationship with my foreign classmates was based on my daily offline interaction and chatting. In the second semester, I started to present more on Instagram because of the epidemic. And after the lockdown, some foreign friends, with whom I was not so familiar, started to ask me to hang out. Maybe they thought I was quite interesting, and we could go to some places and take photographs together." – P4

In addition to daily life sharing, P14 increased the connection with other Instagram users by sharing its own handicrafts on Instagram and operating an independent account for it. By means of operating both personal and brand-based accounts, P14 recognized that she had established some cooperation and friendships. Faced with the influence brought to her by Instagram, she stated that:

"Currently, because of the epidemic, communication is not particularly convenient. However, this kind of online friendship, anyway, we talked about meeting offline and eating something together like this in the future. Yes, it feels very fun, and it also helps our career to a certain extent." – P14

As for P17, the intensive active activities via Instagram was mainly aimed at shaping and strengthening his own identity, especially political identity. In his daily life in Barcelona, he actively followed local political news and expressed his opinions about public issues through Instagram. Moreover, throughout methods such as adding hashtags, he gradually got to know a lot of users on the platform with similar opinions.

He also pointed out the unique significance of this platform to himself:

"It's just like, I have a channel to express my opinions, and I'm not trying to make a big impact. It's just to make my character a bit more multidimensional, with personal life and a little bit activist in it... And in this way, you have the opportunity to know different people, not only limited in Spain or Europe, but also in South America, Africa and the US. These people have different perspectives on things, for example, different points of view on the same news." – P17

During the interview, P17 also mentioned that the complex interpersonal relationships on WeChat were one of the reasons that made him gradually convert to express his voice on Instagram. Through his constant online interactions, the social trust towards WeChat as a platform was gradually decreasing, while social trust towards Instagram as the platform for expression and interaction was strengthened. As indicated by himself:

"If I post on WeChat, I have to block so many people. I don't even want them to see my contents, so I've been really lazy to block a series of people. I'll just choose to disclose myself on Instagram. Because I feel like I don't really have to consider some (stuffs) on there. I have a little bit more freedom, so I can just post whatever I want." – P17

Taken together, participants in the fourth category maintained relatively active online behaviors on both host and home SNSs. Compared to members of the second and third groups, members of the current group had a higher level of trust in their relationships on social media and were more willing to interact with others and self-disclose on different platforms and make new friends. At the same time, they also distribute higher social trust on host SNSs. They intended to manage their social and content use of social media in order to help them reconfigure their social circles. Such an integrative intention also usually required higher selective strategies.

	Home SNSs	Host SNSs
Individual	**WeChat:** • Joining several group chats for interactions and diffuse contents • Active selective self-presentation via Moments or public accounts • Interpersonal communication with three types of social capital **Weibo:** • Catch up on home-based news (eg. P14, P17) • Emotion-oriented self-disclose (eg. P14) • Post self-status and manage self-image (eg. P4) **Cross-platforms management:** • Transit social relations across platforms (eg. P4; P17)	**WhatsApp:** • Interpersonal communication with non-ethnic friends • Joining groups for activities (eg. P17) **Instagram:** • Post self-status and manage self-image • Proacitve interactions via commenting and messaging **Twitter:** • Catch up on host-based news **Cross-platforms management:** • Transit social relations across platforms (eg. P14, P17)
Collective	**WeChat:** • Disclose cultural knowledge, personal identity via Moments, public accounts • Establishing WeChat group chats based on shared interests (eg. P17) **Weibo:** • Disclose cultural knowledge, personal identity (eg. P4)	**Instagram:** • Trying to understand collective discourse and value by surveillance on information • Actively disclosing intercultural value, personal identity **Twitter:** • Trying to understand collective discourse and value by surveillance on information

Figure 28. Collected SNSs strategies related to social capital from the fourth group

5.3 Discussion

By dividing the respondents into four categories according to their social capital improvement level and their social media use, we identified similar patterns between major-improved and minor-improved cases. Combining the available results in this part and the review of previous literature, we have summarized several factors of SNSs use that have the most potential impact on social capital enhancement, which are: **active/passive strategies**, **consciousness/ unconsciousness**, and **demanded/undemanded attitudes**. In line with the cross-cultural adaptation theory (Kim, 2001), which considered respondents' gradual inclusion of host SNSs in their

daily lives, members from four categories in the matrix (see Figure 24 in this section) actually presented different attributes on these three factors. Furthermore, participants' attributes can be generalized as shown in the following Figure 29.

Figure 29. A framework of participants' general attributes from different groups
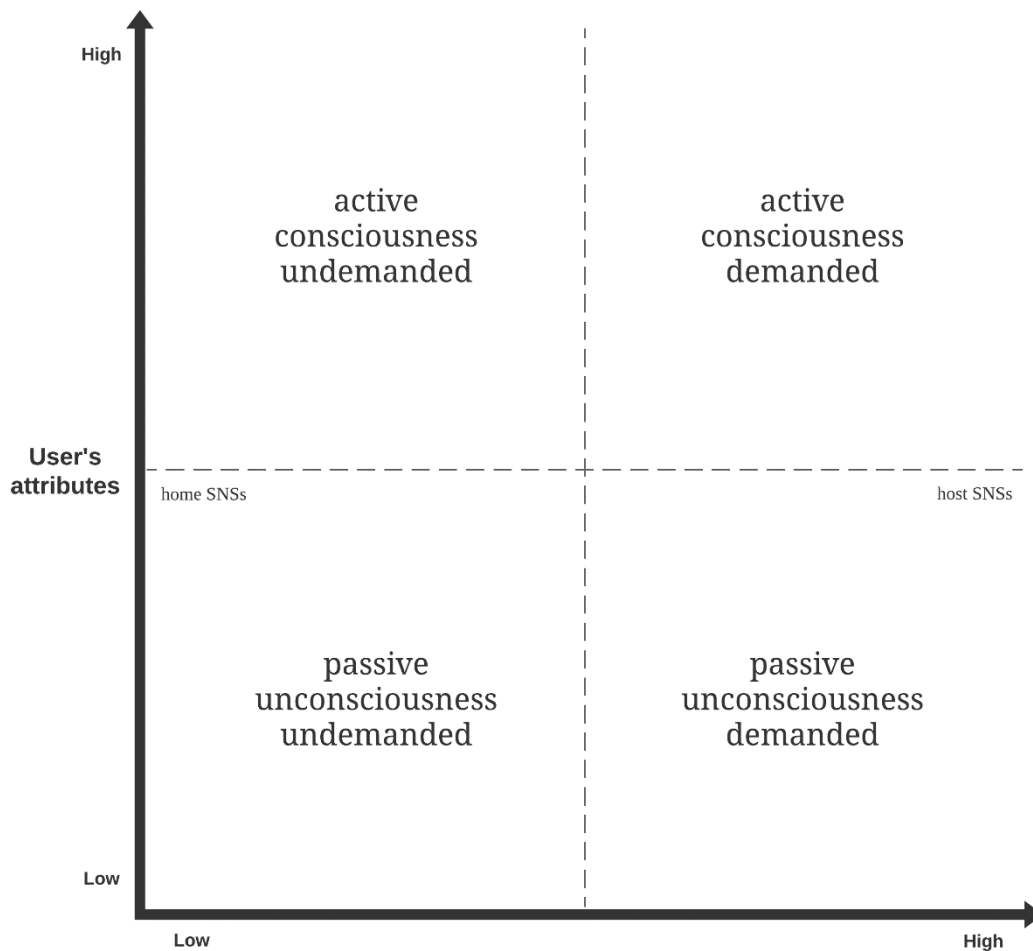
Source: Author's own elaboration

The first factor is **the active or passive strategy**. Many recent studies have argued that different SNSs use strategies tend to have differential effects on an individual's social outcomes (Craig, Eaton, McInroy, Leung, & Krishnan, 2021; Frison & Eggermont, 2020; Verduyn et al., 2015). According to former studies' definition, active SNSs use refers to those online activities that involve direct changes or facilitate the communication, for example, sending private messages, posting personal status, and

commenting on others' posts (Escobar-Viera et al., 2018; Frison & Eggermont, 2020; Ng, 2020). As for passive SNSs use, it corresponds to the online behaviors that do not directly lead to online interaction or contribute to low level of engagement in online interaction (Craig et al., 2021; Escobar-Viera et al., 2018). Based on the categorization of respondents' SNSs uses and gratifications in the previous chapter, **social gratification and content production** from content gratification can be classified as active SNSs use in this study, while **surveillance on friends, surveillance on information and recreational gratification** can be classified as passive SNSs use. As mentioned in many recent studies, while active SNSs use tended to enhance an individual's social capital and further promote a sense of social support (Burke, Marlow, & Lento, 2010), passive SNSs use had a tendency to cause social comparison, depression and further undermined the psychological well-being (Verduyn et al., 2015). Similar findings also applied to social media use in a cross-cultural context (Pang, 2020), including the sample of Chinese international students in Barcelona in this study.

For students in the first and fourth categories, their SNSs use behaviors were more based on active norms. Students in these groups engaged more intensively in social uses and content production use of SNSs. More specifically, some respondents actively joined in interest groups and made full use of the groups. For example, some respondent (P1) constantly connected with new bridging ties through interaction on WeChat salon group and consolidated her relationships with existing ties within the group. Others (namely, P10, P16) tended to connect with other like-minded people across online platforms and manage bridging and bonding relationships through platform switching.

Besides those active interpersonal interactions and small groups communication, another essential active activity of respondents lies in the self-presentation behaviors across SNSs. In the present research, most of the students in the first and fourth categories were more likely to share their personal status or opinions in the online public spaces. Depending on the sociocultural context, most respondents (e.g. P4, P12, P13, P17) would selectively concede part of their privacy in order to present an ideal self across online platforms in an orientated way.

Although actively involved in content production activities, these students who reported major social capital accumulation also differed in their self-presentation strategies. As indicated by previous studies, individuals were prone to manage

impression or control information through self-presentation (Chu & Choi, 2010; Goffman, 1959; Schlenker & Britt, 2001). Furthermore, according to the data from the current study, it is possible to classify students' self-presentation patterns into two categories broadly. The first and most common type of self-presentation is disclosing one's status, for example, disclosing one's daily life through selected photos and texts. Through self-presentation with personal agenda-setting, most active interviewees managed their own image to their social circles across platforms as a way of guiding the construction of others' impressions towards themselves. As this type of content production usually did not involve the exchange of values and opinions, this kind of presentation was more likely to allow the respondents to maintain connections with their existing social ties and made it possible for some weak relationships in the network to become strong ones.

Another form of self-presentation is to express personal opinions or share the knowledge one possesses, mainly through retweeting, commenting and sharing information. As mentioned in the previous parts, some of the active cases used SNSs to express their own opinions towards social issues (e.g. P17). Some other cases shared their knowledge on the online platforms, such as the Spanish language learning and art history (e.g. P4, P12). Through these kinds of online communication of values, these cases were more likely to connect with other online weak ties and deepened their connections with loose ties who shared their views as well.

On the other hand, we found that their SNSs activities were more in congruence with the passive use for students in the second and third categories. On the issue of social gratifications, passive users were more likely to conduct private interpersonal communication with their bonding ties and maintained ties. As for the interaction with bridging ties, the most frequently cited online behaviors were surveilling friends' posts and pressing the "like" button. However, as Escobar-Viera et al. (2018) argued, liking others' posts might not be considered an active activity, since it did not consequently create new contents through manipulation and interaction with the digital platforms.

Passive participants also tended to disclose themselves less frequently on SNSs. This could be related to their general lack of sufficient social trust in the relationships carried by SNSs, which leaded them to choose self-exposure on SNSs more cautiously. For example, P3 stated her attitude towards self-presentation on WeChat:

"I don't want, it is to say, everyone can see what my previous life was like, and also for the protection of privacy. I feel that by revealing too much former information about myself, I could be exploited by people to judge my history. It would make me feel more insecure." – P3

The second factor is the **demanded or undemanded** gratification, which largely depends on the extent to which Chines international students' social capital accumulation needs can be satisfied by the affordances of the specific SNS. As indicated by previous studies (S. Chang & Gomes, 2017; Hamid et al., 2016; Y. Y. Kim, 2001), when international students first relocate in the host society, they wound not instinctively transform their former digital habits for social networking and other resources. After living in the host country over time, international students may simultaneously begin to make a digital behavioral shift as a result of increased interaction with local environment and the availability of a wider range of affordances provided by diverse SNSs.

From the social capital point of view, individuals interacted through SNSs basically seeking for two objectives: one is the flow of information (Granovetter, 1973), and the other is the reinforcement of one's own identity, values, social trusts through interaction (Garc á-Valdecasas Medina, 2011). Following this logic, in the present study we observed that participants had different levels of demands towards home and host SNSs, which could be partially reflected from the categorization. It is worth pointing out that the judgment of the intensity of host SNSs use and home SNSs use in the study was relative, for example, the intensity of host SNSs may be higher for some members in the first group than in the third group due to the overall higher intensity of SNSs use.

On the one hand, respondents' preferences of SNSs were influenced by their need to maintain social relationships that were segmented into different platforms, which could be related to the network size, the strength of the network, and the respondent's acculturative strategy on the specific platform (Dong, Ding, & Duan, 2020; Ellison et al., 2007; C. W. (Tina) Yuan & Fussell, 2017). For example, when asked about why she didn't continue to use Facebook where most ties were her friends from Latin America, P2 indicated that:

"One is that there (on Facebook) is not much information, and probably also because I don't have so much interest in the lives of those friends on the platform anymore.

Because those friends have gone back to their countries. Maybe also due to the language or cultural background, if I interact with them, most of time I will only type "saludos" ("salutes" in Spanish) and that's it. There is not much other substantive communication." – P2

On the other hand, many respondents attempted to choose the most convenient approach to fulfill their SNSs gratification. If most of their needs could be met within the affordances of home SNSs, they were less likely to move to another platform to accomplish similar things. When comparing Instagram with Weibo for recreational use, P3 expressed her preference for Weibo:

"Because a lot of information about those foreign celebrities that I like and their dynamics, I can also encounter it constantly on Weibo. The information is finite, I just take a glance on it and that's it." – P3

The next factor is the **consciousness or unconsciousness**, which mainlcy refers to respondents' cognitive attitudes towards SNSs use. Inspired by previous studies (S. Chang & Gomes, 2017; Hargittai & Hsieh, 2010; Tandoc et al., 2019), in the current investigation, the consciousness suggested that participants, to a large extent, were aware of the positive outcomes of SNSs use, and were more motivated to actively engaged in online interactions by taking advantage of different affordances swinging across the home digital ecosystem and host digital ecosystem.

Generally, participants in the first and fourth categories demonstrated more consciousness about the advantages of SNSs, and tended to apply distinct strategies on multiple platforms in order to manage their social capital. For instance, understanding the different significance of distinct platforms, P4 managed particular strategies for self-presentation on WeChat and Instagram. As a familiar platform mainly used to maintain old relationships, WeChat was selected primarily to post a mix of contents, containing both the positive aspects of her study abroad life and the expression of values that represented her Chinese identity. Meanwhile, on Instagram, she chose to be more conservative and exposed more of her hobbies to gain potential social capital in order to better integrate into this host-based platform. Another typical example came from P17, who also had a clear preference for the convenient affordances provided by Instagram. And he clearly recognized that the convenience further motivated him to place and interact with his close ties on Instagram.

In summary, the quantitative results in this chapter revealed that multiple SNSs use were likely to influence Chinese international students' process of accumulating different types of social capital. Furthermore, accompanied by the qualitative data results, we concluded three fundamental factors that affected students' online patterns for social capital accumulation: active/passive strategies, demanded/undemanded attitudes, and consciousness/ unconsciousness. In the daily practices, the connections among these factors were bidirectional since any one factor can be a cause or a consequence of another.

Chapter 6

Social capital always works? Students' SNSs use towards the ultimate cross-cultural adaptation

In the previous chapter, we have analyzed the impact of multiple SNSs use on Chinese international students' social capital accumulation. The different strategies of SNSs use were proved to be elementary for Chinese international students' refreshed social capital enhancement in the new sociocultural environment. Nevertheless, social capital or social support were widely investigated as a mediator for the eventual cross-cultural adaptation for sojourners (Chen & Yang, 2015; Hofhuis et al., 2019; Pang, 2018b; Sandel, 2014; Ye, 2006). In addition, from the perspective of Bourdieu's (1986) capital theory, the enhancement of social capital also contributed to the increase of other types of capital, which may further infer an enhancement of intercultural communication competence as well. In order to explain the intricate process of cross-cultural adaptation mediated by social capital, more SNSs behaviors and factors will be discussed in the present chapter.

Since participants' aggregation of social capital was stratified into different layers according to the level of capital and preference on SNSs, the question of whether the categorization of social capital also corresponded to their cultural adaptive level remained ambiguous. In addition, despite those strategies of SNSs use discussed in the last chapter, what other SNSs strategies did participants apply in response to the adaptation process? Rooted in the primary objective of delineating similarities and differences between social capital accumulation and cultural adaptation, qualitative data collected from interviews and observation was considered adequate to present the effects of SNSs use on participants' intercultural adaptation process.

6.1 SNSs use in the process of cross-cultural adaptation

To better illustrate adaptation strategies applied by participants related to their SNSs use, we will present the intercultural adaptation strategies in three parts based on other seminal works in the following subchapter (Forbush & Foucault-Welles, 2016; Sawyer

& Chen, 2012; Ward & Kennedy, 1993), which are **sociocultural adaptation strategies**, **academic adaptation strategies** and **psychological adaptation strategies**. Distinguished from the presentation of results from the last chapter, the potential resources embedded in participants' social capital for adaptation will be mentioned in the current subchapter; on the other hand, participants' alternative online strategies apart from direct social capital will be emphasized in this part. It is worth emphasizing that although the study focused on respondents' online SNSs behaviors, the implications for cross-cultural adaptation may include both online and offline incidents.

6.2 Sociocultural adaptation dimension

During the interviews, the author continued to ask the respondents about their channels and strategies for sociocultural adaptation (SCA), meanwhile guided them to describe more sociocultural adaptation incidents based on previous methodological guidance (Sandel, 2014; Ward & Kennedy, 1999). Finally, based on the results obtained, the particular patterns of sociocultural adaptation were divided into four domains: **coping with daily problems, gaining local news and knowledge, participating in activities** and **seeing things from another view.**

After collecting respondents' activities for sociocultural adaptation, we further identified whether these activities were related to their previously mentioned SNSs use and motivations by correlating overlapped nodes between adaptation activities and SNSs use. Following this matter, the tendency between sociocultural adaptation and participants' multiple SNSs use was identified preliminarily (See Table 26). From the result, we can observe that WeChat use plays an important role for students to adapt better in the host society, while other SNSs work as complements in different domains. More specific patterns will be discussed in the following subchapters.

	coping with daily problems	gaining local news, knowledge	participating activities	see things from another view
Facebook	0	0	1	1
Instagram	1	7	4	1
Twitter	1	1	1	1

WeChat	23	15	10	0
Weibo	0	1	1	0
WhatsApp	1	3	4	0

Table 26. Matrix nodes interrelated between sociocultural adaptation and SNSs use

6.2.1 Coping with daily problems

As new arrivers in the host society, Chinese international students were likely to deal with a lot of daily issues in order to fit in the new milieu. In this way, *coping with daily problems* became the most collected sociocultural adaptation activity. In total, 39 activities were collected as nodes in this domain, in which, 26 activities were interrelated with SNSs use behaviors. Moreover, *coping with daily problems* was the most coded category in SCA. As international students were considered short-term strangers in the host society (Forbush & Foucault-Welles, 2016; Kim, 2001), it is not surprising that their main goal is to be able to adapt to daily life in a foreign culture in a relatively short period of time.

During Chinese students' stay in Barcelona, they had to deal with different kinds of issues both in willing and unwilling ways. After conducting a word frequency of this node, we found that applying for bank cards, renting apartments, renewing residence cards, and second-hand transactions were the most common situations that Chinese international students faced in daily life. These were usually the problems they were obliged to cope with as soon as they arrived in Barcelona, for the sake of convenience in their forthcoming life. As newcomers with little knowledge of the rules and cultural symbols of the new environment, some familiar elements from their original culture played a crucial role in this process of functional fitness, such as other well-adapted co-nationals, and further accustomed ethnic SNSs in their home country (especially, WeChat).

Since offline ethnic support seemed to be indispensable in the initial period, WeChat worked as the default online platform for newly arrived Chinese students to find ethnic support and other functional information. Actually, among all 26 online behaviors in this category, 23 behaviors were coded as WeChat use. Furthermore, the various potential Barcelona-related WeChat groups in WeChat have become an important

means for international students to use for behavioral support (mainly information support). For example, when asked about the reasons for joining different WeChat groups during their time in Barcelona, the answer of P12 reflected a general attitude of the respondents towards these WeChat groups:

"At first my purpose of joining in Barcelona-related WeChat groups might be to obtain the shared information, and then adapt to the environment as soon as possible... yes that's it, by viewing information (in groups). Now, I pay attention to those groups only when it is needed, for example, when I need to send an advertisement or rent a house, I will tap into these groups. Otherwise, I usually mute notifications from these groups."
– P12

The typical example of P12 showed that many members of these WeChat groups were both recipients of information while could also be transformed into potential information creators, which in turn facilitated other group members' information reception. At the same time, as it was shown in previous chapters, this is also one of the main approaches of connecting potential bridging tie under the relatively closed WeChat environment. However, equally due to the fast access to these WeChat groups, commonly, international students needed to be informed of the existence of these groups through some of their ethnic ties who were already in these WeChat groups and further asked ethnic ties to invite them to these groups. These introducers usually did not need to be bonding ethnic friends, as long as there was the existence of these ethnic connections, there was the possibility of accessing these WeChat groups and obtaining support. P16 described his experience of gaining functional help through social capital and WeChat group use:

"At that time, our Chinese students created a (WeChat) group, and then someone added me. I met B through A, C through B, and D through C, and in this way, I met a series of Chinese students. Moreover, I met some individuals in that group that I am still in contact with, they were Chinese students studying in the same Catalan university of mine. I couldn't rent an apartment at that point, so they introduced me to an apartment. I was introduced by a friend in that group, since he was leaving at that time, he introduced me the apartment he was living in. Then I got in touch with the landlord over here. When I arrived Barcelona，I didn't have to look for an apartment in this way. I just took a taxi and I was there, so it was a big help for me at that time." – P16

In addition to WeChat groups, another equally important use of WeChat to cope with daily problems was the use of public accounts. By reading articles directly from some public accounts, of which the main purpose was to share life in Spain, could also increase the functional fitness of Chinese international. As indicated by P14:

"I think I check a lot WeChat public accounts, yes. Because they have that kind of articles, which was written very clearly; and then you just follow the instruction they gave, it usually works." – P14

Although reading articles from public accounts to get information on how to handle things may seem like a passive consumption of online contents, in practice, it took certain means to learn about these study-abroad publics accounts on WeChat as well. Through the interviews, we learned that there were two principal ways to learn about public accounts: one is to turn to social capital for recommendations, and the other is to flexibly use the search function afforded by WeChat. For example, P7 reported that she would ask the Chinese study abroad agencies for life tips, at which point the agencies would usually send public account articles written by themselves and she would start following them. Another typical case was from P5, she shared her experience of using the search function of WeChat to acquire information from public accounts:

"I have searched for HPV vaccination. Because there were some vaccinated people, they might share some experience (through WeChat). I mean, I have to learn about how the process is, how much the cost is, how to communicate with them..." – P5

As reflected by the above-mentioned examples, the use of WeChat supported Chinese students to deal with various matters during their overseas study in Barcelona, the main reasons might arise from their familiarity and loyalty with WeChat platform and the fact that this platform brings together a large number of similar ethnic ties (namely, Chinese international students), generating a large flow of information. In contrast, no other SNSs in this study (neither home-based nor host-based) provided them a well-developed online community to obtain support to cope with daily problems. The online activities for coping with daily problems were merely observed sporadically; further, platform-swinging choices were observed when WeChat could not meet their daily needs. For example, P5 reported using WhatsApp to connect with native friends for waste sorting; P6 declared that she solved her problem with the bank through private

messaging on Twitter.

6.2.2 Gaining local news and knowledge

After relocating in the new milieu, international students not only have to acquire behavioral skills in order to deal with daily problems, they also undergo a long-term process of obtaining cultural-specific knowledge to guide themselves in particular social situations. In other words, the cognitive awareness about the host culture and society was emphasized in the sociocultural adaptation, which is also one of the important dimension of intercultural communication competence (Chen & Starosta, 1996; Kim, 2001; Ward & Kennedy, 1999). Based on this understanding, we collected the process of Chinese students acquiring host sociocultural symbols during their study abroad and defined it as *gaining local news and knowledge*. In total, 34 segments were coded under this category, among which, 27 segments were considered related to respondents' online SNSs use.

Consistent with Kim's (2001) theory, both Chinese students' host social communication and ethnic social communication figured prominently for learning host culture. On the one hand, some participants mentioned that offline interpersonal contact with local people boosted their understandings of local culture. When asked about how he started to follow local political affairs, P17 responded that:

"It was because of the contact with the Catalan language, the linguistic contact, and including the increasing contacts with local people. Therefore, I slowly get interested in this thing, and then just can not stop it, I keep following this affair." – P17

In addition to direct offline interpersonal interaction, such contacts are often switched between online and offline scenarios in actual daily life. In line with the quantitative finding of SNSs usage habits of Chinese students in Barcelona, WeChat still plays a non-negligible role in providing local news and cultural knowledge, which echoed with Kim's (2001) view that ethnic media usually provide at least some information about the host environment. Ethnic friends in local society, online forums, home-based SNSs were all sources for Chinese students to find everyday life information. When it comes to WeChat specifically, group chats and public accounts were still the most mentioned fountain for them to reach local news.

"In Barcelona, some days it will have demonstrations or something else, you don't need to reach for it yourself specially. They (other people) will discuss about it in (WeChat) groups. So, it's very convenient, being a free rider." – P10

"These kinds of public accounts, like Betevé, are channels for me to obtain local news. For example, they inform me how the epidemic is going on more conveniently." – P4

In this category, we only collected one activity where respondents used Weibo to obtain local knowledge. It could be possibly explained by that in the current study, only P8 can be labeled as a heavy user of the Weibo platform.

"Few days ago, I saw a blogger (on Weibo) updated that, there is a (law) in Spain, that is, the squatting of property, that is, if the house is empty, and then someone squat in the house illegally. Because of the law, it seems to protect these squatters. That is, you can not violently evict them. Therefore, the blogger shared this matter, reminding everyone to pay attention to this problem." – P8

The aforementioned examples reflected that in many cases, due to their daily media usage habits, Chinese international students tended to directly employ the available affordances of WeChat to obtain host news and information for convenience. However, at the same time, we also observed that as their contact with the local environment increased overtime, with the intention of obtaining more news and local knowledge, more host SNSs were involved in their choices of obtaining information. Consistent with participants' SNSs usage habits, Instagram was among the most popular host SNSs for some of them to follow local news. One typical example was from P12, as a content producer of a WeChat public account, she recognized the importance of following Spanish social trends through Instagram:

"I also use Instagram to follow some funny local accounts, so as to know what their recent trends are. For example, the article that we just published (on WeChat) was about the former king of Spain, talking about the anecdote that he offended everyone with his mouth, because he was not very good at talking sometimes. It may be considered a hot spot on the Spanish website, and everyone was teasing about him." – P12

Some respondents also showed a relatively high level of media literacy, comparing some of the information they saw on WeChat with the information they found on other

digital platforms.

"Usually I see something new on WeChat or on the Internet, and then I will turn to Twitter to search the original article, and to view people's comments or whatever it comes to me. That's the reason why I use Twitter, just wanting to see what the original article is like, yes, sometimes it's a kind of thought to know the prototype of the news." – P11

6.2.3 Participating in activities

As international students became more familiar with the local culture and knowledge, while overseas life became more normalized, a tendency to use the knowledge they already had to carry out day-to-day activities emerged. Therefore, we summarized the third category of sociocultural adaptation, which was defined as *participating in activities*. Participation in social activities, whether host-oriented or ethnic-oriented, had an impact on different aspects of international students' intercultural adaptation (Bender et al., 2019; Lim & Pham, 2016; Rui & Wang, 2015; J. Ye, 2006). The use of multiple SNSs was one of the most important ways to promote participation in offline activities. In total, there were 28 coded segments in this category, in which 21 activities were considered mediated by the use of SNSs.

As one of the most common channels, the offline social relationships that international students possessed was one of the important factors that directly affected their participation in offline activities. On the one hand, some participants reported that direct offline communication with people from different cultural backgrounds greatly enriched their offline life and increased their exposure to local culture and new experiences. One typical statement was from P14:

"At the beginning, I felt like traveling (around the city), going to museums and then climbing mountains, this kind of tourism. And then I went to some live houses and bars to listen live shows. Then because I met some local people at that time, or became more familiar with the city, I would find smaller places to go. It was like, went to party with others, and hang out, something like that." – P14

Founded on interviews and observations, we found that multiple SNSs acted as a

lubricant in the process of reaching and experiencing offline activities in the host society. Similar to P14's case, other participants like P16, P17 also mentioned that they got opportunities for offline activities due to their WhatsApp use, partially due to the fact that many individuals would relocate their offline ties to the online platforms (D. Liu, Ainsworth, & Baumeister, 2016; D. Williams, 2006b). In this way, this online and offline connection could also be frequently transformed, creating a long-term reciprocity. In this case, P17 reveals how he constantly got information for activity in a WhatsApp group.

"I participated as a volunteer at an NGO, of course I would know what activities they hold at the first moment. I would choose to participate. For example, through WhatsApp they sent some posters informing us and so on I might go... If they want more volunteer work, etc." – P17

In addition to the fact that through host SNSs, such as WhatsApp, respondents were able to gain more access to local activities through the mediator of social capital, the potential resources afforded by social media platforms also complement this process, especially when international students had relatively limited resources from social capital. Merely surveillance on other friends' status also offered them an easy and convenient access to learn about latest events. As P11 indicated that: "Friends often post on Instagram, (status) like going to scenic spots, and then I can know where they went, so I can go too."

On the other hand, both ethnic online and offline support was also found to be a strong facilitator for students to get in touch with certain activities in the study. As indicated by previous research, ethnic social media use could reinforce one's ethnic identity and further contribute to the cultural maintenance. Since WeChat private messaging and group chatting facilitated the connections between conationals in Barcelona, many participants could join offline ethnic activities, such as celebrating traditional festivals (P8) and participating thematic salons (P1).

However, to some extent, ethnic SNSs also served as intermediaries for the Chinese international students to participate in local activities. Some local activities posted by intermediaries on WeChat were more likely to be responded to by the students due to the general high-intensity use of WeChat. P7 gave us a common example:

"That is, the Chinese Embassy in Barcelona said before that there was a museum event,

and it would be free for a few days. If we booked ticked through the embassy, we could enter for free. I learned about it through their subscription account (on WeChat) that time, and then I even sent an email to ask for the ticket." – P7

6.2.4 Seeing things from another view

The last domain of SCA was defined as *seeing things from another view* and it was considered as one of the key outcomes of the adaptation process. In addition, as suggested by former researchers, the ability of seeing things from another view was reflected as one's intercultural communication competence, which further required the cultural-specific contacts and learning (Y. Y. Kim, 2001; Masgoret & Ward, 2016; Ward & Kennedy, 1999; Ward et al., 2009). A total of 17 elements were collected in this category, however, since the ability of seething things from another view relied largely in constant host social contacts, only 3 elements were coded as the benefits of SNSs use. Other elements in this group relied more on the mixed mechanism of coping with daily problems, gaining local news and knowledge and participating in activities.

In this sense, more elements were collected from participants who involved more in host contacts. For example, for P14, whose boyfriend was a Catalan, mentioned that when it came to some local political issues, she could understand more from the locals' view:

"*Because my boyfriend is Catalan, and many of my master's classmates are also Catalan people, and they also talked a lot (local politics) to me. In addition, during the time of the independence movement last year, the trashcan downstairs was burning at night, at that moment I felt that (this matter) was very close to me, and I could feel it very personally. I still needed to understand it more. In this way, I felt that I was quite integrated into it, considering myself as a person who had experienced it.*" – P14

Under certain circumstances, through host communication, some respondents also highlighted the significance of SNSs for them to better understand the host culture and guide them for a better intercultural point of view. The most direct example was through browsing contents from host SNSs, which provided convenience for Chinese international students to understand different cultural elements and perspectives. As P11 indicated: "For example, before following accounts of art (on Instagram) that you

had not seen them before, you never knew that some people could draw like that, and some could sing like this. Or, someone could make a handicraft in such a peculiar way. That would give me a lot of new perspectives and broaden my horizons." Moreover, P11 also highlighted the significance of using multiple SNSs to gain a more comprehensive understanding of social events, which facilitated her to gain a more cognitive communicative competence: "Before, I might only saw one side of things, and then maybe through some of the host SNSs (Twitter, Instagram) might provide the other side of things from their narration. I think it's important to, at least, have a complete view of things, although it won't change my determination for interaction. Well, a more comprehensive view, I think it is also an aspect of improvement."

Another respondent also shared her experience which the intercultural understanding further enriched her use of host SNSs:

"When I first came, when I talked about the differences between our countries (with my roommates), when they talked about something bad about China, at first I would be uncomfortable. But then I would critically think which were stereotypes, which were not, and then trying to be more objective... Afterward, when we talked about intercultural issues again, my attitude was like, I should check about them if I didn't know, for example, Google, YouTube... For example, the last time I used Twitter was to check what foreign people thought about the pandemic, seeing what they were searching (about this issue)." – P9

6.3 Academic adaptation dimension

According to previous studies, SNSs use was considered a facilitator for Chinese international students to receive alternative support for their educational achievement (Ali & Ahmad, 2018; L. Cao & Zhang, 2012). It helped students attain resources that may be difficult to reach in their offline support. In order to investigate the buffer that SNSs operated, it is necessary to combine the kinds of situations that students encountered both online and offline as well. For the objectives in this study, three main categories were determined in the present dimension, which are **perceived academic**

differences and difficulties, dealing with academic tasks and **academic competence improvement**.

6.3.1 Perceived academic differences and difficulties

When asked about their experience of studying in Catalan universities, most participants recognized that they had encountered certain level of academic difficulties, especially in the starting phase. Among all the problems, host language competence was mentioned with a great frequency. Respondents with relatively low language proficiency (between B1-B2) placed more emphasis on the impact of such issues on their academic adjustment, such as course understanding, self-expression and academic performance. For example, P15 indicated that he felt strong curricular pressure due to the language barrier:

"When I first started attending classes, there were only two or three Chinese classmates in the class, and everyone else was able to understand Spanish. And the teacher didn't care about you, just teaching the material. At that moment, I felt that I was stupid sitting in that place understanding nothing. I started to think why I decided to study abroad, and then I felt regretted about it. What I thought was, Spanish is their mother language, they (most classmates) have been listening to this language for more than 20 years, and then you just learned the language for a short time, and then sit there and listen with them. I couldn't understand anything, which made me very frustrated." – P15

In addition to Spanish, another language barrier that Chinese students in Catalonia may face is exposure to the Catalan language. The vast majority of Chinese students did not have the experience of learning Catalan before coming to Barcelona, which means that this is a language completely unfamiliar to them. During the academic period, even high-level Spanish learners might face a stage where they need to adapt to the host language. P17, who is now a high-level master of both Spanish and Catalan language, also faced a certain degree of language barrier when he first started his master's degree in Barcelona, although he didn't feel discouraged:

"On the first day of my master project, there was a class which was taught in Catalan. I might only understand 4 words in 3 hours, but I didn't feel very depressed. I knew that I would not understand it on the first day. I only needed to understand Spanish, it was

natural that I couldn't understand Catalan (at that moment)." – P17

Along with language barriers, other cultural factors also have an impact on the academic performance of Chinese students. Due to the difference in cultural background, some memes from host pop culture, or traditional host cultural concepts and history can be challenges for international students as well. As P9 indicated that:

"Especially I was scared during the classes, thinking that I couldn't pass the class, how could I get through this year? Especially in a class like poetry, it was a nightmare. All the class couldn't understand anything, including our Chinese students, and every time we had a poetry appreciation class, we couldn't understand it because the teacher told us some legends and stories that we didn't know, and we didn't have the common sense of the culture. Not understanding the cultural background of the host place, I was very annoyed. It took me quite a lot of time to prepare (for the class), and then later to adapt to the teacher's speech rhythm and speed." – P9

Another concept that was frequently mentioned by interviewees was the differences in educational styles. International students perceived this more often as a cultural difference rather than a direct difficulty. However, it usually took some time for them to adapt to a different educational system. Active participation in the class and critical thinking were the observed differences that students commonly mentioned after they came to study in Barcelona. As P5 claimed that:

"When it comes to assignments, the teacher prefers to assign written comments. For example, (a specific case of assignment), our teacher asked us to write our comments about it. However, the former education in China may have fewer assignments to write your own evaluation. In the case here, they want your opinion, and then you have to be able to say why, and this opinion is not to say which is necessarily right or wrong, that is (more about) each person has its own opinion, and you can explain yourself, that's the point. Yes, I think this kind of education is more about critical thinking." – P5

On the other hand, the need for self-expression in the classroom was intertwined with Chinese students' language skills and the cultural elements they have acquired, which in turn can become a source of stress in their process of academic adaptation. For example, P4 shared her thought about expressing in the class:

"In our class, the teacher wanted everyone to participate in debates. When the teacher

was talking about Western artists, we had no idea what the background of these figures were. And the teacher sometimes asked everyone to talk about their opinions about some artists' works. At that time, I used to feel quite uncomfortable, that is, I have not yet acquired comprehensive knowledge about it, why should I express? ... But the students around us (Chinese students), even if they didn't know, they were able to express a lot. At the beginning, this matter gave me a lot of pressure, because I would think that I was not very good at Spanish, and I might not know much about westerm art history, and then I would care a lot about how to express my views so that people would not laugh at me." – P4

From the above-mentioned series of examples, we can observe that Chinese international students generally faced some academic challenges caused by internal (e.g. language barriers, lack of intercultural competence) and external factors (e.g. difference in educational systems, lack of external support) after they came to study in the host country. As a consequence, improving academic skills became one of the main conflicts they need to face on a daily basis. Moreover, SNSs, the tools that accompanied all international students in their daily lives, contributed in varying degrees to the acquisition of external resources that they needed for academic adaptation.

6.3.2 Dealing with academic tasks

In the present study, the academic adaptation strategies applied by international students were mainly divided into two categories. The first category focused on tasks that students had to deal with in the context of the curriculum and SNSs use related to tasks-dealing activities. The second category was considered as a self-improvement process of academic adaptation, in which students subjectively adopt means to improve their academic competency in the face of educational challenges. Firstly, *dealing with academic tasks* will be discussed in this subchapter.

In accordance with former studies (Cao et al., 2021; Credé & Niehorster, 2012), social support was mentioned as one crucial coping strategy for international students to cope with tasks. As what was explained in the previous chapter of social capital, students tended to attain both information and instrumental resources from different types of social capital. And the mechanism also worked in the case of academic adaptation for

them. The ability of international students to handle tasks is refined through contact with different types of social support. Furthermore, the social support embedded in social ties were also reflected in their online SNSs contacts.

Many respondents mentioned that they would ask their teachers directly offline to help them with academic problems in the interviews. When it was not possible to contact teachers directly or when there were alternative ways to do so, we found that SNSs groups often played an important role in providing resources.

On the one hand, support from other co-national students was a frequently mentioned resource. In the study, many participants recognized they had at least one co-national classmate in the same class. Many students would turn to co-national students for help due to their similar cultural backgrounds and shared language. This was observed more often in cases where there were more co-national classmates and close relationships among them. As reported by P1: "The advantage of a class with a lot of Chinese people is that you basically know what the homework is once you ask on WeChat."

In some cases, interviewees also participated in group chats on WeChat to discuss curricular tasks with other Chinese classmates. Due to the cultural proximity and similar challenges faced by Chinese students, some students tended to seek help more actively through group chats of WeChat. For example, P11 recognized that the WeChat group of all the classmates helped her tackle academic assignments: "Our Chinese classmates, we also have a group on WeChat. And we would talk about today's class contents, or sometimes even if the teacher was giving a lecture, we interacted (through WeChat group) asking what the teacher meant."

On the other hand, coinciding with what was found in the U&G session, WhatsApp was also found as an element platform for Chinese students to better cope with academic tasks, since it facilitates social support from non-ethnic ties. Almost all the interviewees reported that they had attained academic help through WhatsApp to a certain extent. However, WhatsApp as the resource of educational buffer for Chinese students seemed to work relatively differently from WeChat. Generally, participants tended to apply more surveillance activities in WhatsApp groups related to curriculums. By simply entering the course-related groups on WhatsApp and browsing through the past conversations, Chinese students were likely to keep up with real-time information in a convenient way. As P12 indicated: "Maybe someone would share a link in the

(WhatsApp) group after the class. And without even opening the email, I can just get inside."

By all means, passive content consumption was not all the cases of Chinese students' WhatsApp strategies for academic adjustment. Some students, especially those who reported higher perceived social capital, tended to seek help from other host students or those international students with better academic competency personally through WhatsApp. For example, as reported in the social capital chapter, P1 switched between WeChat and WhatsApp to seek support to help with her research project and academic writing. In another case, P17 also asked his host classmate through WhatsApp for helping to revise his writing skills in Catalan: "I usually try to write it in Catalan myself first. I can also ask my classmates to take a look, because there were quite a lot of local classmates… For example, maybe the night before the due day, I would just ask a friend (through WhatsApp) and say 'I have an assignment to turn it in. Can you help me revise the orthography?'".

As shown in the cases above, WeChat and WhatsApp are often used by students to communicate or check information in order to help themselves complete their academic tasks through social support. In addition to direct social support, international students also applied other online tools to help them with their course tasks, such as using the university's online library and using search engines.

In the present study, we did not observe direct cases of using other targeted SNSs (Weibo, Twitter, Instagram, Facebook) to facilitate academic adaptation in terms of dealing with academic tasks. A possible explanation is that the target SNSs, other than WeChat and WhatsApp, are not the dominant platform for interpersonal communication in host nor the home society. In addition, it was also reflected partially that, in terms of task-oriented academic adjustment, SNSs mainly afforded the possibility of online social support for international students.

Furthermore, other social media, such as Chinese Q&A platform Zhihu, video platforms like YouTube and Bilibili [12], were mentioned occasionally by some respondents, primarily serving as sources of information for them to deal with academic problems. For example, P12 indicated that: "Sometimes the homework is essay questions. I would search the topic on Zhihu. I think the answers can help me broaden

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[12] A popular Chinese video website, which was originally themed around animation, comics, and games.

my ideas."

To summarize, faced with task-solving assignments, Chinese international students tended to manage their SNSs use for social interaction or content consumptions with the purpose of dealing with curricular tasks. More specifically, WeChat usually facilitates students to interact with co-national classmates to discuss homework and ask questions, both in group chats and private chats. On the other hand, WhatsApp is used commonly to search for information and discuss homework with non-ethnic classmates. Besides social interaction, students also utilize multiple online resources to seek information, such as audio-visual platforms and Q&A platforms.

Figure 30. Strategies applied by participants to deal with academic tasks
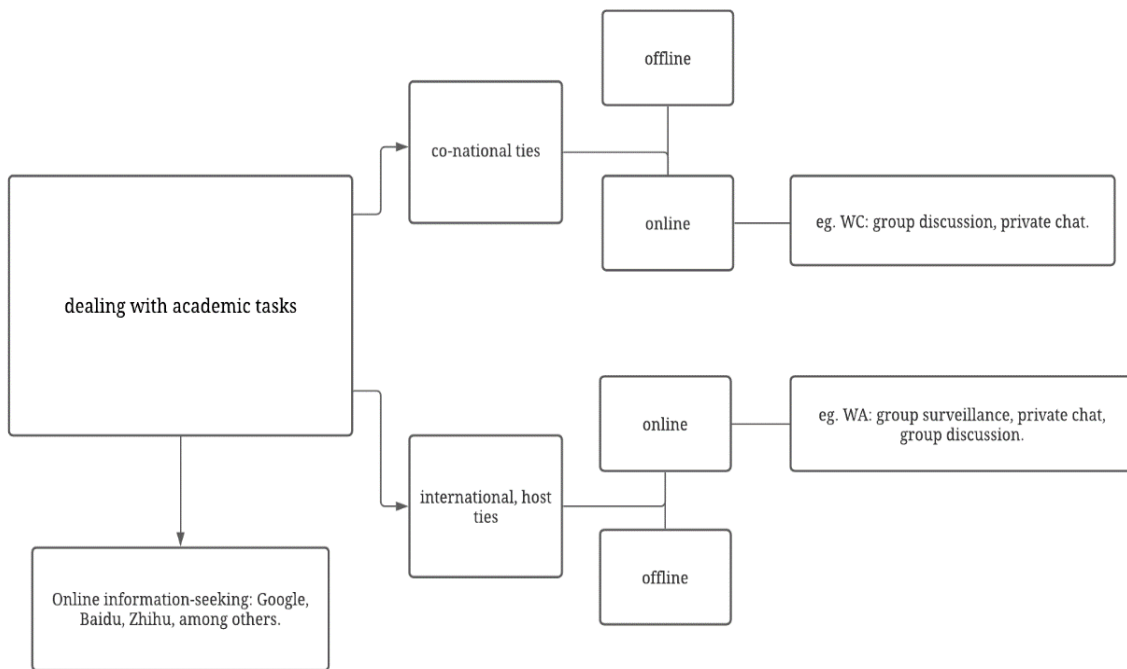
6.3.3 Improving academic competence

In addition to the necessary strategies adopted by Chinese international students to complete their academic tasks, as a group of sojourners whose main goal is to have better academic performance, they are usually motivated to improve their academic

competency through their own will, which in turn contribute to the academic adaptation at a long-term level. Different from problem-focused coping strategies, seeking for direct social support was less mentioned among participants in terms of improving long-term academic competency. Contrarily, self-improvement of academic competence is more akin to an internalized learning process during which a large amount of information is continuously absorbed, similar to the cultural learning process in socio-cultural adaptation (Masgoret & Ward, 2016).

The results from interviews confirmed that SNSs were one of the most important information sources that international students were exposed to, which was suggested in previous studies as well (Cao & Zhang, 2012; Hamid et al., 2016). As mentioned previously, language barriers were one of the major factors that hindered the academic performance of Chinese students. Consequently, some participants indicated that they would deepen their understanding by searching the same concepts that they learned in courses on ethnic SNSs, because they believed that the same contents in their native language would facilitate their comprehension. The search function of WeChat and the information provided by public accounts were mentioned as effective means. P4 is one typical case, who proactively applied SNSs for information seeking: "When I want to check more information about art history… I will use the search function of Weibo or WeChat (especially, the official account) for it." In another case, P10 demonstrated his strategy of searching for information across platforms to enhance his academic skills:

"I read materials on some Chinese websites to get information. And I followed a public account on WeChat. Moreover, this public account also updates its contents on Youku[13] and YouTube." – P10

Moreover, some participants also considered enhancing language skills as a feasible way to attain better academic performance. Two interviewees mentioned that after deepening their comprehension with the Chinese material, they would then go back to the Spanish version to adapt themselves to the original materials slowly. Following the above-mentioned manner, P10 continued to share his way of learning:

"To be honest, (I think) each field has its specific corpus, and then there are some words that repeatedly appear, including in the literature. These words will naturally be memorized after you read them time after time. Then some points of knowledge, you

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[13] Youku is one of the four most popular online video platform in China.

combine the Chinese literature and Spanish literature alternately for comprehension, after a while, there are certain similar things (between the literature of two language), you start to slowly understand, and there are some meanings you can probably predict. It took me probably about half a year after I studied here, I suddenly realized that I could understand the complete course. Since then there was no great pressure for me, things became much easier." – P10

Another benefit that SNSs expedited was the extra-curricular information for students to improve academic skills. Some respondents used SNSs to get more information that may not be mentioned in the classroom, which was likely to help them expand their horizons and learn new things. P14 was a good example of proactively applying social media resources for academic enhancement. By following different types of accounts on Twitter, P14 found a connection with extracurricular information:

"For example, any academic seminar and any thesis defense that you are interested in, you can participate as you want. Because I think the information is basically posted on Twitter. I use it mostly for academic things. I think this is very helpful for doctoral students. Because, in addition to the seminars that the teachers send you, you can also find them yourself." – P14

Similar to the last subsection, many other non-target SNSs were found to be useful for interviewees' self-improvement. A series of online platforms, such as Zhihu, Bilibili, YouTube, were mentioned during interviews. For example, P16 shared his experience of learning programming language by means of swinging across different social media: "First, I went to the platform like Zhihu to find some tutorials about R language. Then I use Bilibili to watch, including YouTube as well. These platforms would give me some basic concepts, I will follow their videos step by step to learn." Although a range of SNSs and video platforms provided avenues for Chinese students to progress, not every respondent talked about improving academic performance through these manners. Furthermore, SNSs were also considered to have a limited impact for improving academic competency. As P16 added after his statement: "I think social media only played a moderate role, it is not the vital element."

Figure 31. Strategies applied by participants to improve academic competence
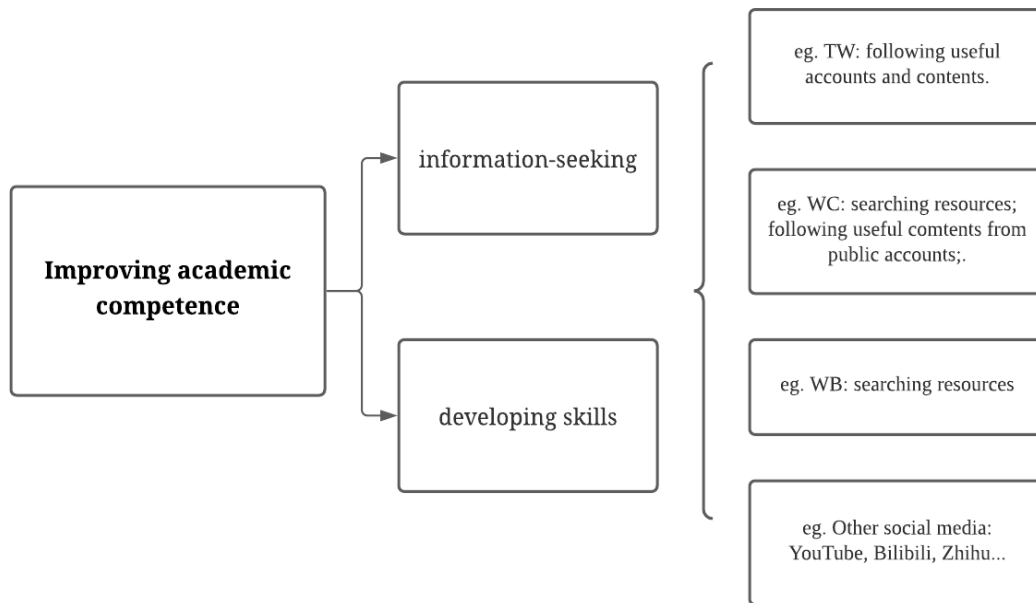
In general, unlike SNSs applied for coping with academic tasks, respondents typically adopted a great deal of content use when it came to the issue of improving academic competence. This may be mainly because self-improvement of academic competency is usually a long-term process, and it is usually difficult for individuals to achieve constant information for personal academic progress through the social use of SNSs over time. Therefore, international students usually manage their information-seeking skills to find available and stable resources.

Cases in the present study further revealed that the targeted SNSs have little help in improving participants' academic ability. This is mainly due to the limited number of research objects in terms of SNSs. During interviews, online video websites such as YouTube and Bilibili or search engines were frequently mentioned by interviewees as online resources. These platforms usually expose the interviewees to helpful content produced by other users through the Internet, which in turn afforded a sense of weak ties for online users.

6.4 Psychological adaptation dimension

Among different facets of cross-cultural adaptation, the psychological facet is commonly considered the most abstract one to perceive and measure, not alone combine it with the use of SNSs. It was discussed that sociocultural adaptation mainly followed a social learning framework to assess. However, on the other hand, psychological adjustment encompassed many subjective elements (Searle & Ward, 1990). As indicated beforehand in the literature, the term 'cultural shock' refers to a series of symptoms that many strangers might suffer after relocation to the unfamiliar environment, which is manifested by physical disorder and negative attitudes towards the host milieu (Oberg, 1960). Furthermore, after undergoing different stages of cultural shock, according to the present investigation, some students overcame the **cultural shock** stage, and recovered with a gradual stable and positive attitude towards life in the foreign country; meanwhile, some students still remained struggling with their own negative feelings.

Based on the interviewees' reported patterns of psychological adaptation, both positive and negative incidents were mentioned by interviewed students. These incidents will be discussed as specific psychological outcomes related to interviewees' SNSs behaviors in the following subsections.

After the compilation of incidents of different psychological outcomes, some common patterns became apprehensible. In this vein, I summarized the important factors affecting their psychological well-being during study abroad and divided this into two major directions: the first was **perceived social support**, which was interrelated with fewer difficulties and life satisfaction in the host milieu; the second point was their own **internal adjustment**, which might contribute to their positive or negative attitude towards the host society. These two factors will be further discussed in the discussion of this chapter.

6.4.1 Perceived cultural shock

Due to the lack of familiar social hints and network support at the initial period, some

participants reported that they had suffered noticeable cultural shock during the beginning stage of cultural adaptation. The extent of the cultural shock experienced when they first came to Barcelona is largely related to the interviewees' previous preparations for studying abroad. In fact, most of the interviewees who reported experiencing a significant cultural shock were usually not psychologically prepared to deal with changes and differences before setting out. At the same time, they suffered from issues like insufficient language proficiency, huge changes in lifestyles, or lack of social support.

"Because to be honest, from kindergarten until I graduated from my bachelor's degree, then two years' work experience, during all the process in my life I had not left China. I even never went abroad for travel before, I just used to move inside China. As a result, when I first came out, I felt a bit lonely and the local culture around me was quite different. When I first came here (in Spain), I stayed with a host family for two weeks, and I was really bad at speaking Spanish, and I couldn't communicate with my host family fluently at that time. I felt very tired of struggling with the language, and I also felt lonely psychologically at that time." – P10

From the example of P10, a typical case of culture shock could be clearly observed. This kind of emotional shock was more often brought about by the changes in the external cultural and social symbols. For example, different language symbolic systems, as well as the loss of the original social support system and among other factors. In this regard, P6 even reported a more extreme situation of cultural shock due to the loss of familiar symbols.

"I had a slight inferiority complex when I first arrived. It wasn't because of the lifestyle change, but because of my language competence. When I was in China, I thought I spoke Spanish quite well. but after I came here, I found that I couldn't make myself understood by local people, and I couldn't understand them either. I slowly became unwilling to talk to others. The most severe period, I stayed in home for two weeks, didn't want to talk, with a lot of anxiety, just lying on the bed and playing with my cellphone with the anxious feeling." – P6

Like P6 and P10, many respondents experienced certain kinds of cultural shock incidents in the process of studying in Spain. And each individual may have its own particular behavior in the face of these external and internal crises. Just like mentioned

by P6, when she suffered the period of cultural shock, she turned to her smartphone for a lot of entertainment use to pass time. However, these activities did not help her to reduce anxiety in a long term. Instead, P10 mentioned that during his worst period of cultural shock, he tried to focus on solving faced problems and expanding social networks to help himself in overcoming the period. Following this sense, more adaptive incidents will be presents in the following subsections to discuss the mechanism.

6.4.2 Positive psychological adaptation

As demonstrated in the examples above, losing familiar sociocultural symbols and facing changes in psychological status were often influenced by the social difficulties faced in the host country.

And as we mentioned in the previous sections of sociocultural and academic adaptation dimensions, Chinese international students often tended to use their mixed online and offline resources to circumvent the permanence of the status of cultural shock. Increasing social communication is widely proved to be a significant facilitator for sojourners to gain better life satisfaction in the host society (Kim, 2001; E.-J. Lee, Lee, & Jang, 2011; Yang, 2018b). The same evidence from P6 after she suffered severe cultural shock also echoed the suggestion.

"It was when I later started to do a part-time job, I became to feel better psychologically. I started to work part-time as a daigou-er[14] in February. Because to be a daigou-er of luxury I had to constantly go to the shopping center and talk to shop assistants. From here, I slowly started to speak Spanish with others, and also be confident enough to speak. It started from here." – P6

As illustrated in the case of P6, it is possible that the process of host social communication may reduce individuals' acculturative stress and thus increase their psychological well-being. Following this logic, the mechanism of the reduction of acculturative stress was proved to be mediated by SNSs use as well, especially the use

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[14] *Daigou*, literally translated as buying on behalf of, is a Mandarin term that refers to a form of personalized transnational trading activity, which is generally characterized by practices of purchasing locally manufactured products overseas and reselling them to consumers in China via international courier services (Zhao, 2021, p. 2).

of host SNSs (Namkee Park & Noh, 2018; Namkee Park, Song, & Lee, 2014), since those platforms afforded participants with more opportunities for host social communication. However, consistent with the finding in the last chapter, those students who reported to have relative stable bonding social capital seemed to report higher life satisfaction and less loneliness. This finding was also echoed with previous findings about the use of WeChat for Chinese international students, which suggested that bonding social capital embedded in the WeChat platform could facilitate students' psychological well-being (Pang, 2018c, 2019). Again, P6 argued that she gradually felt satisfied with her overseas life: "I think the first thing in life is that having enough money, and the other is that having good partners. In my case, I don't lack money, and now I'm doing well with my friends, so there are no major problems in life." Another similar case was from P8, she added that home SNSs, such as WeChat and Weibo, were more like platforms for her to kill time and feel pleasure in daily life.

In addition to the effect of social support on subjective well-being, from another side, as SNSs use, especially WeChat use, in the initial period facilitated many facets of interviewees' sociocultural problems and academic difficulties, it was also discussed that WeChat use might ultimately contribute to their psychological well-being. One of the reasons to explain that is that less social difficulties, more perceived social capital and social support are key components of a sense of psychological well-being (Billedo, Kerkhof, & Finkenauer, 2020; Chen Yang, 2018b; J. Ye, 2006). Examples of reducing social difficulties by increased social support were mentioned repeatedly in the social capital chapter as well as in the sociocultural and academic adaptation subchapters. Different social media played their original roles in the process.

In addition to seeking direct emotional support or reducing social difficulties, another interesting tendency was also found in the study. Since the expression of negative emotions was often perceived by students as private and intimate behaviors, when it came to emotional self-exposure, respondents usually tended to choose the platforms that they believed carry the appropriate function for negative self-disclosure. In this way, some respondents chose to disclose their negative emotions during their study abroad on Weibo. For example, P3 mentioned how she used Weibo to relieve the pressure when she faced the pressure of studying abroad:

"The things I post on Weibo are generally very negative things, that is, sometimes when

I am unhappy, I just talk about it on Weibo. But because there are very few people following me on Weibo, and these people (who followed me) have followed a lot of people, (I think) my negative information will be hidden in those messages. So, people may not pay attention to me. But I don't care, I think this method is good for me." – P3

Through self-exposure on Weibo, P3 has completed the release of inner pressure. And because of the potential offline relationships possessed on Weibo, although she expressed subjectively that she didn't care about the interpersonal interaction about her contents, objectively her posts got the possibility to be surveilled by other friends, and it might potentially bring some unexpected interactive effects. Based on this hypothesis, we argue that this is one of the reasons why some Chinese international students chose to expose their negative feelings on Weibo (for example, P2, P6, P14).

6.4.3 Negative psychological adaptation

Aside from the positive effects that both the use of home and host SNSs is disposed to work as a buffer for social support and a sense of well-being, some studies also discussed that the use of SNSs might have a negative influence on sojourners' well-being (Hofhuis et al., 2019b; Hsu & Chen, 2020). Firstly, excessive immersion in home SNSs' activities was deemed to be connected with psychological alienation, which might consequently reduce the overall satisfaction in the host society. This tendency was observed more frequently in cases with a higher dependency on home SNSs. A typical example was provided by P15, during the interview, he reported that he often turned to his old friends through WeChat to get psychological comfort and reduce acculturative stress, but the feeling of dissatisfaction with life still haunted him from time to time:

"I think it is inevitable to have such emotions when you go abroad, that is, when I was very unhappy, and then I also had many friends in Canada or in the United States. Because I think only friends with similar experiences will be able to understand this feeling. It's only when you've been there (studying abroad) that you can comprehend it, that we all have this feeling that we feel very lonely after going abroad, and we don't have any very close friends around us to talk to. And that's what I feel in this city. So, I will chat with my (Chinese) friends in Canada and the United States, through WeChat,

and then we will express our feelings, and during the time of sharing, we can feel better, cos we have an outlet." – P15

A similar situation is also reflected on P13. During the interview, he mentioned that facing life problems or daily activities, he would be more inclined to directly interact or ask his co-nationals in Barcelona through WeChat. According to the codes, few surveillance activities for information was observed among his home SNSs or host SNSs use. When asked how satisfied he was with his current status in Barcelona, he responded that:

"First, I don't really like staying here, it gives me a feeling of being a foreigner. It doesn't mean that the country is rejecting you or anything, maybe it's because of my personal feeling, I always have the feeling of being not integrated in this country. Moreover, I should say a foreign language every day, and the environment I face is relatively unfamiliar. I started from zero many things, for example, I didn't know anyone, and you slowly started to get to know some people, including other curricular difficulties... It all boils down to not being satisfied, not being very satisfied with the overall situation... So, I'm not really satisfied with the experience of studying abroad here... It's still unfamiliar (with the host milieu), even after being familiar (with some part), I still feel relatively unfamiliar." – P13

Cases from P13 and P15 corresponded to Kim's (2001) point that ethnic social communication might impede long-term adaptation to some extent. And the explanation could be that dependency on home-based SNSs was negatively related to uncertainty reduction in the host society, which further increased their acculturative stress. However, many positive cases also confirmed that the use of ethnic social media can actually enhance the psychological adaptation of Chinese international students in a number of ways, which was partially contradictory with Kim's (2001) theory. The mechanism of psychological adaptation may be more complex with the appearance of SNSs in the current society, for example the competence of swinging across platforms might be emphasized nowadays.

As the negative examples above mainly reflect an overdependence on ethnic social capital and home-based social media in coping with culture shock and adaptation, the case from P16 offered some perspectives from the opposite side. As Kim (2001) indicated that, the frustration of a stranger's intention for integration might reduce the

individual desire for acculturation in the host culture, in this sense, due to the dissatisfaction with his social networks with host and international ties, he gradually reduced his frequency of host SNSs use and turned to home SNSs more in order to relieve his acculturative stress and psychological disorder:

"Maybe WeChat can mainly works as an emotional bond (for me). Because I chat with those people who have a better relationship with me through WeChat. I also use WeChat to maintain old relationships every day and we still have WeChat groups. During this process, I feel that my life studying abroad in Spain is very unsatisfactory and very tough. If a person does not have a mental illness in such an extreme environment, it is very important to have people around him. Then I think WeChat afforded me a lot (in this way). Because I don't think that people I know on WhatsApp can bring me any emotional support. And I'm that kind of person who has negative emotions that I need to pour out. Then WeChat give me a channel to talk about it" – P16

The example of P16 also reflected that satisfaction with offline interpersonal relationships and overall life could also inversely influence international students' online social media use strategies. The same idea was also supported by Dong's (2020) article. The change in coping strategies caused by the failure of integration may further make international students reset their online behaviors on home SNSs to reduce acculturative stress. In the long run, this may, in turn, affect the transformation of Chinese international students' social adjustment level and their external psychological attitudes toward the host society. Thus, we argue that a positive support and comprehensive guide should be established from the host institutions.

6.5 Discussion

The principal findings presented in the present chapter were aimed to explore and understand how interviewees' target SNSs use influence their process of intercultural adaptation. Moreover, in the analysis process, we found that social capital also worked as an important mediator for intercultural adaptation. Along these lines, more vivid

examples of adaptation related to social capital were also provided in this chapter. Combining the adaptative strategies mentioned by participants, several distinctive patterns of SNSs use could be delineated from different adaptation dimensions respectively.

6.5.1 SNSs use and sociocultural adaptation

As it was shown previously, in this study we considered the respondents' SCA as a circulating process divided into four different facets: coping with daily problems, gaining local news and knowledge, participating in activities and seeing things from another view. The involvement of target SNSs in different facets was also amply demonstrated during the presentation of diverse cases. Combining the four categories of SCA with the presentation of SNSs use, a model of participants' SNSs use for SCA was gradually taking shape, which could be illustrated as Figure 32.

Figure 32. Participants' target SNSs use involved in the process of sociocultural adaptation
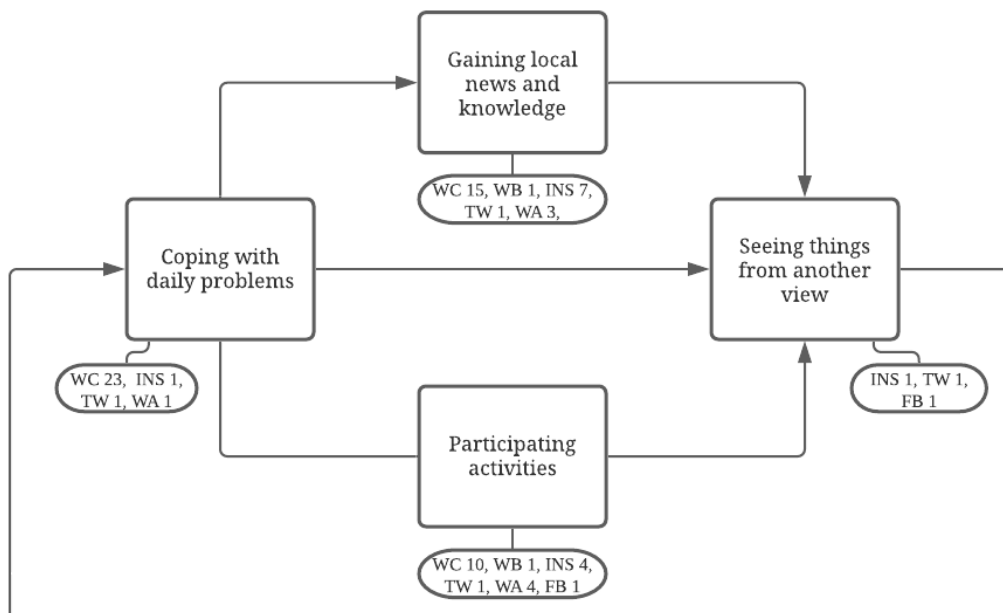
Consistent with Kim's (2001, 2015) classic concept of enculturation and deculturation which constitute the dynamic process of cross-cultural adaptation, Chinese

international students' SNSs use in Barcelona also underwent the process of enculturation and deculturation. Participants were more likely to face great adaptive challenges at the initial stage after their arrival in the host milieu, since they went through abrupt structural changes in familiar sociocultural symbols.

In most cases, coping with daily problems was one inevitable issue they had to face at the very first phase and along the whole overseas journey as well. Due to their limited resources at the beginning and ethnic minority background, it was not surprising that we observed the dominance of WeChat use to perform daily tasks. Given that WeChat is widely regarded as the default online platform to maintain ethnic relationships among Chinese community, the finding was echoed with previous studies indicating that ethnic supports was crucial for strangers to cope with acculturative stress and facilitate SCA, especially in the early stage (Kim, 2001; Rienties, Johan, & Jindal-Snape, 2015; J. Ye, 2006; Zixue, Jue, & Fengbin, 2019). On the other hand, this finding also reflected that Chinese international students usually maintained accustomed SNSs habits in their home country at the beginning period of overseas studies for daily life. In addition, the rich affordances that WeChat, a platform that was widely used by the Chinese diaspora in Barcelona, could offer Chinese students.

As respondents' lives abroad gradually settled down, in other words, as their cultural shock diminished, the proportion of host and home SNSs use that interviewees conducted through their adaptation process varied greatly and this would ultimately lead to their different adaptive outcomes. Firstly, WeChat still played an important role in this process, but the frequency and dependency of WeChat use among international students was decreasing, which was in accordance with the phenomenon of deculturation (Y. Y. Kim, 2001). Later, we found that more and more host SNSs became involved in the respondents' daily life. Specifically, in this study, Instagram, WhatsApp, Twitter and Facebook gradually appeared in Chinese international students' digital habits for SCA.

Consequently, through the acculturation of new SNSs behaviors and certain deculturation of old SNSs behaviors, interviewees gradually gained a more comprehensive cultural learning towards the host society and involved in more host online/offline contacts. As a new understanding of the host culture was attained, they were more likely to face the changes brought about by cultural differences with an open

mind, thus reducing cultural shock over time. Moreover, this tendency was more pronounced in those respondents who actively invested host SNSs use in their daily SCA. At the same time, the open-mindedness further re-invigorated their frequency of host SNSs use, which constituted a "back-and-forth growth" loop. This depiction echoed with Kim's (2001) model of stress-adaptation-growth dynamic to a large extent as well.

Once we have summarized the approximation of involvement of target SNSs in the process of SCA, based on the further findings presented in the SCA dimension, it was found that diverse activities on target SNSs facilitated participants' SCA in different directions as well. And the involvement of both home and host SNSs were significant in the process of adaptation as it was illustrated in the Figure 32. The findings from the figure echoed previous study (Lai, 2021) which indicated that ethnic minority adolescents' social media behaviors, such as information consumptions, online interactions with friends and online interactions with strangers, benefited their intercultural competence and facilitated the intercultural identity.

When such a view is combined with the findings of this chapter, we are able to find out that, first of all, that among all these target SNSs, the importance of WeChat was highlighted by all the participants in the whole mechanism. There is no doubt that as a powerful multi-modal social media, WeChat affords all the above-mentioned features that can help interviewees to become more socially competent in the host society, such as online interactions and information seeking. More specifically, the interviewed international students received support in adapting to the local society either by contacting local Chinese friends directly through instant messaging or by interacting with online local Chinese strangers through WeChat groups. On the other hand, from the perspective of information consumption, browsing through the previous chats history in WeChat groups or checking WeChat public accounts were also frequently mentioned as approaches. Information consumption is considered as a passive behavior, which usually involves less social capital in the process. In this way, respondents were usually able to achieve their goals with the skills they have at their disposal. It is worth noting, however, that social capital can be sill slightly involved in the initial phase of obtaining these skills, such as access to these WeChat groups and knowing these public accounts, but usually to a lesser extent.

To understand better this process mediated by social capital, we can see an example from P7. During the interview, P7 mentioned that she had asked acquaintances who had experience of studying in Barcelona to recommend some public accounts to her for the sake of knowing better the life there. She believed that she could trust more the public accounts recommended by her acquaintances. She indicated that: "There are too many public accounts and too many options, and I don't want to waste too much time on it (finding the right one). So, if others use it, and a friend I trust recommends it to me, I will trust it more. (P7)" Subsequently, she followed the public accounts of Chinese Consulate in Barcelona during her study and participated in local cultural events promoted by the consulate on its public account[15]. The case of P7 can be shown in the form of the following Figure 33. Examples like this supported that passive consumption of main-stream culture-related information on social media may contribute positively to participants' acculturation (Lai, 2021, p.19). And having access to main-stream cultural information through home-based SNSs such as WeChat can also have a positive effect on social adaptation, rather than simply hindering the ethnic minorities' adaptation on a long-term basis (Y. Y. Kim, 2001).

Figure 33. An example of WeChat content consumption for SCA mediated by social capital
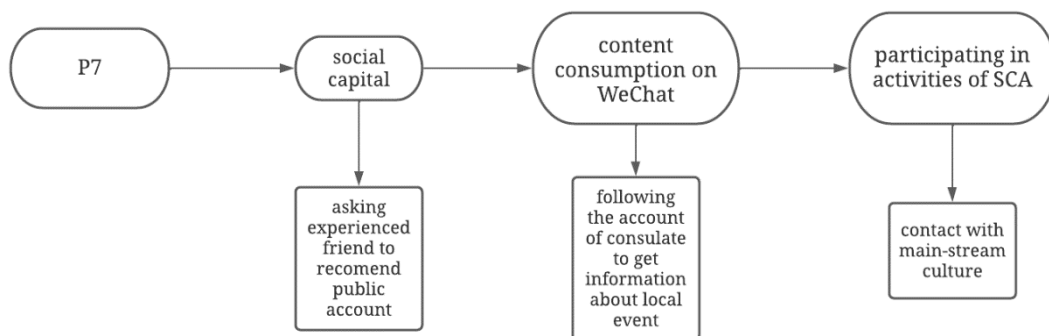
Source: Author's own elaboration

Similar to the model provided by P7, many respondents can directly or indirectly use social capital to adopt WeChat as an online community and information platform to obtain the forms of support they need. For example, due to the different characteristics of affordances, WeChat groups tended to provide more informative support through

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[15] See P.xx for the quote of this case.

interaction while WeChat public accounts was inclined to provide informative support through seeking and surveillance behaviors. Such a cycle model can be roughly represented in the form of Figure 34. The same mechanism as in Figure 34 can actually be applied to other platform communities as well, which can also provide very similar social support models.

In addition to the specific behavioral use of WeChat, many of the activities in which participants engaged in sociocultural adaptation through local social media can actually be considered as an attempt to engage in local culture. However, due to the limited domestication of host SNSs' affordances and local resources managed by the ethnic minority group as a whole, the amount of online activities on host SNSs for SCA that could be observed remained relatively limited.

Figure 34. A general model of WeChat use for SCA mediated by social capital
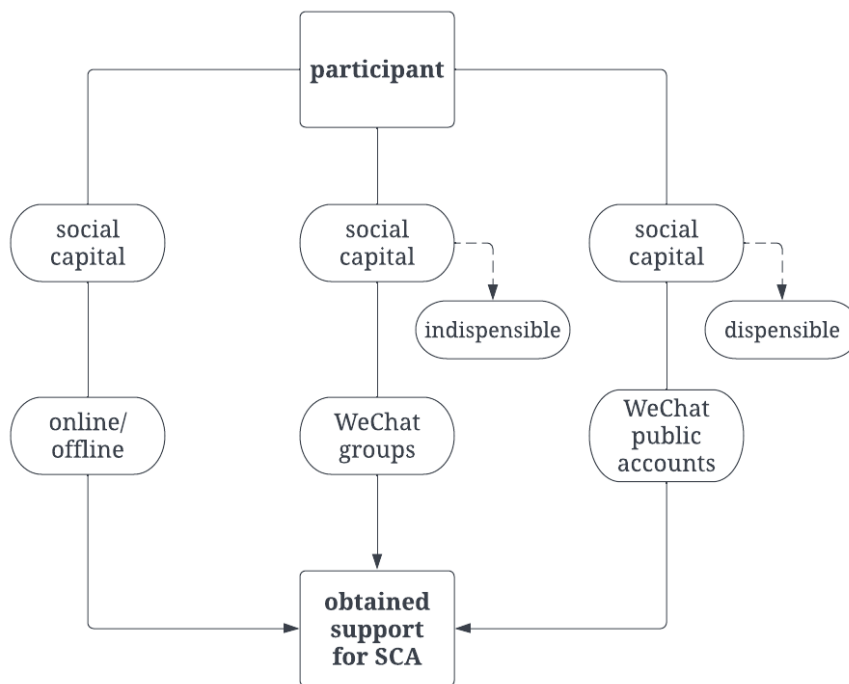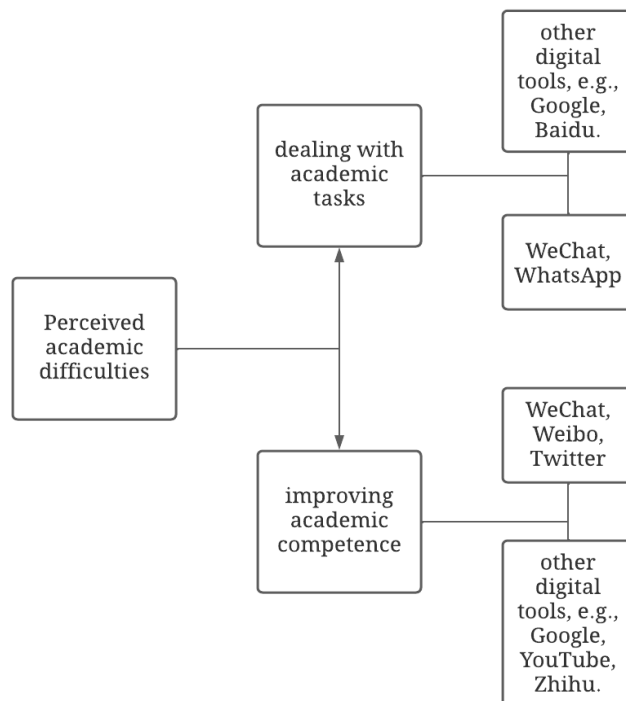

6.5.2 SNSs use and academic adaptation

As in the presentation of academic adaptation dimension, interviewed students' **perceived academic difficulties** were firstly identified as the background motivation

for a progressive academic adaptation. In this way, two major strategies, namely dealing with academic tasks and academic competence improvement, were distinguished as interviewees' reaction to the academic difficulties. Furthermore, the involvement of target SNSs and specific SNSs behaviors were enumerated in this chapter. Based on the empirical examples collected from this dimension, a model for the investigated students' SNSs use and academic adaptation could be extracted as the Figure 35.

Similar to respondents' SCA strategies, students in this dimension also followed a pattern of developing different digital strategies in response to the faced academic problems. And the facet of *dealing with academic tasks* actually echoed the facet of *dealing with daily problem* from SCA. However, in contrast to the process of coping with sociocultural issues, respondents' management of multiple SNSs tended to be more limited in the process of dealing with academic tasks. Namely, WeChat and WhatsApp were most mentioned by interviewees as the useful SNSs to deal with curricular tasks. One of the possible reason could be that these two mentioned SNSs provided respondents the platforms to gain social support, which was considered as a important source for them to deal with academic issues (Deandrea et al., 2012; Li & Croucher, 2020).

Figure 35. Participants' target SNSs use involved in the process of academic adaptation

On the other hand, improving academic competence was a strategy developed by students to enhance their cognitive and skill-oriented competence (Gong, Gao, Li, & Lai, 2020). With regard to participants' SNSs preference in response to improve their academic competence, it reflected that WeChat, Weibo and Twitter were mentioned more frequently as online tools for competence development. An absence of WhatsApp was reflected in this facet. And the possible explanation could be that WhatsApp was not the adequate platform for students to consume contents about skills development.

When it comes to respondents' specific activities on these social media, based on the cases presented in this section, we can see that WeChat and WhatsApp complement them with the opportunity to interact online with their classmates to cope with academic tasks. More specifically, WeChat allowed respondents to connect with their co-national classmates through private or group chats. In this way, they were able to discuss specific curricular issues and share ideas with each other. The use of WhatsApp, on the other hand, mainly facilitated the studied Chinese students' social interaction with Chinese students and international students from their home country or other countries. In contrast, respondents were not as active on WhatsApp as they were on WeChat due to the aforementioned language barrier and cultural identity. Based on the importance of WhatsApp itself to host students, they were more likely to discuss contents related to curricular issues through channels such as group chats on WhatsApp. And some participants in the study claimed that consuming information through history of WhatsApp group chats was quite helpful for them to obtain the information that they might not know before. By all means, participating in group chats or private chats via WhatsApp was also mentioned by some respondents. However, this usually required respondents to have relatively high intercultural competence to conduct interaction.

As for specific SNSs activities for improving academic competence, more content consumption and information-seeking activities were found through the use of WeChat, Weibo and Twitter. This finding was partially consistent with Cabezas-González et al.'s (2021) suggestion that online interaction with peers through message exchanges might not be profitable for young students to develop their digital competence and improve academic performance in a long term, since the competence-oriented skills were more likely to require individuals' possession of a structured learning system.

However, similar to the mechanism of SCA process, it was also argued that the process

of consuming information to improve academic competence also required social networks to play a role in it (S. Chang et al., 2012; C. Wang et al., 2020). As Chinese respondents were often not sufficiently aware of the information scattered on host SNSs, having some host social support to guide them or recommend sources they can trust can be a useful endorsement for their academic improvement. For example, the example of P14 presented in the previous Chapter 4 demonstrated that by becoming mutual friends with local classmates on Twitter and browsing academic-related accounts retweeted by her local classmates, she succeeded in gaining academic improvement[16]. And she considered it as a trustworthy approach to obtain host-related knowledge.

6.5.3 SNSs use and psychological adaptation

Finally, after collecting cases of the other two dimensions of adaptation, participants' affective reactions and coping strategies were enumerated in the last part. Rather than simply recite a series of examples of how interviewed students struggled with their psychological adaptation, the common affective transition issues were firstly identified as the perceived cultural shock. Furthermore, the coping strategies to the affective transition were classified into positive and negative cases, respectively. Overall, based on the presented cases, a model for promoting psychological adaptation was summarized based on the different coping measures of the respondents (see Figure 36).

The model emphasized the factor of having sufficient social support for a positive psychological outcome, since social support helped students to deal with daily problems and provide emotional support. Moreover, these two dimensions correspond exactly to the potential resources from bridging and bonding types of social capital. As a result, the findings of the interviews reaffirmed that appropriate SNSs use could facilitate psychological adjustment during the study abroad process. The content use of host SNSs was mentioned by participants to better deal with daily problems. And the social use of host SNSs contributed to reduce participants' acculturative stress by increasing their host social communication. According to the finding of the present study, both bridging and bonding type of social capital from host ties and co-national ties in the host society tended to contribute to Chinese participants' psychological well-being,

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[16] See P.123 for the quote of example.

since a sense of social support was provided (Hofhuis et al., 2019b). However, many previous studies pointed out that it was quite difficult for international students to establish constant contacts with local people, especially for establishing bonding social capital (Gomes et al., 2014; Shiau, 2016). In this sense, the direct emotional support was still usually observed through social use of WeChat. And Weibo worked as a complement for students to express their intimate emotions, which may potentially increase their psychological well-being (Chen & Li, 2017).

Figure 36. The factors related to psychological adaptation and participants' target SNSs use
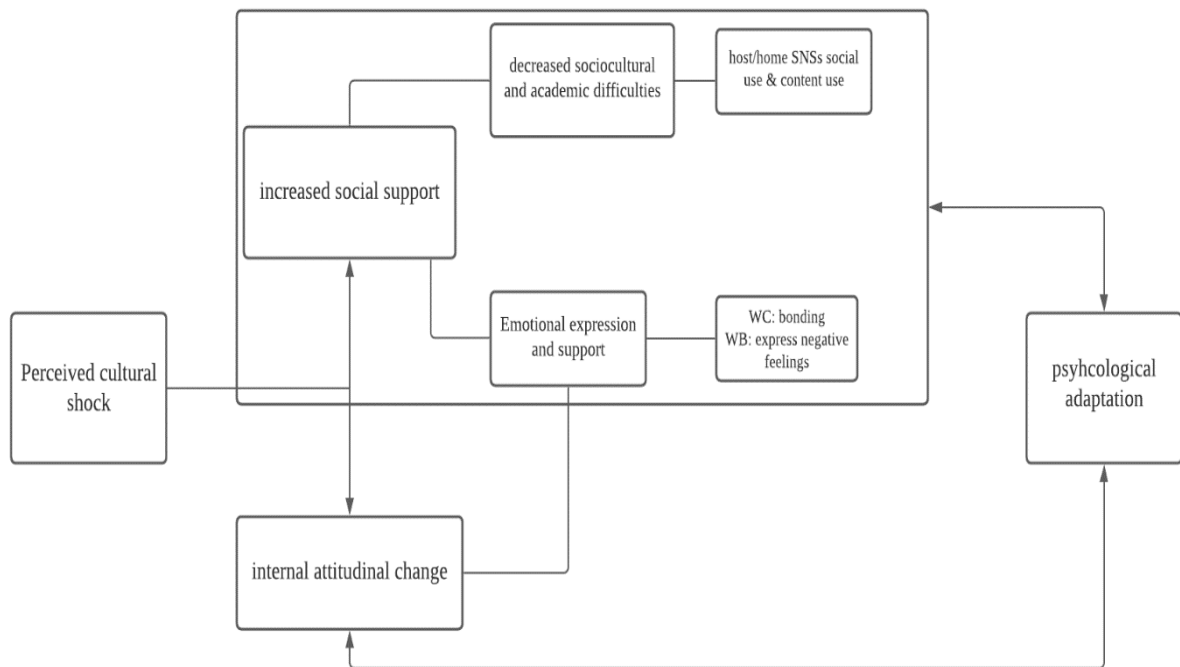
From a negative psychological adaptation perspective, abundant studies argued that in the long term, the dependency on ethnic social media were likely to hinder cross-cultural adaptation (Chen et al., 2018; Hsu & Chen, 2020; Quan & Wang, 2013). However, based on the comparison of negative and positive cases collected in psychological adaptation, we believed that specific behaviors on home-based SNSs may also be an affecting factor for this tendency. For example, the dependency of social interaction with maintained ties on WeChat seemed to provide emotional support for participants. Meanwhile, it might also contribute to their cultural maintenance, which made them stick to the home SNSs for other use. Therefore, they may be relatively lack

of channels to use host SNSs to obtain information related to the mainstream and reduce social and academic difficulties. It is also more difficult for them to obtain a mutual understanding of identity, thus affecting the overall positive outcome of psychological adaptation.

In general, interviewed students who were able to integrate their use of these host and home SNSs tended to show higher levels of life satisfaction and were more likely to consistently increase their positive attitudes towards the host society through the internal transition. However, it should be noted that, in this model, we do not focus on influences such as individual personality and environmental factors. However, according to individual cases, we can observe that these factors also have a significant impact on whether sojourners can develop positive attitudes toward the host environment.

Chapter 7

General discussion and conclusion

In each of the three previous chapters, the main findings of this doctoral study were presented respectively. Previously, research findings were presented in categories based on research questions and research methods, which were then discussed in relation to the corresponding theory. In this chapter, we will summarize and discuss both the quantitative and qualitative findings together based on the three theories applied in the study, since many intersections could be found and extracted. Finally, the theoretical contributions, limitations of the study and future research are discussed in the present chapter.

7.1 Answering the research questions

RQ1. What social network sites(SNSs) are Chinese international students using during their stay in Barcelona?

In the Chapter IV, we focused our discussion on answering the first research objective of the doctoral dissertation, which was the social media usage habits and motivations of the Chinese international students in Barcelona during their study abroad. More specifically, this chapter was used to answer two main research questions related to the objective:

RQ1.1. What target SNSs do Chinese international students use during their stay in Spain?

RQ1.2. What are the differences, if any, in motivations to use those target SNSs in the study?

In order to respond these research questions, results extracted from both quantitative and qualitative studies were presented in this part. Firstly, we have concluded that Chinese international students in Barcelona basically engaged in multiple SNSs use activities according to their different gratifications. Specifically, the Table 27 illustrated the penetration rate and frequency of use of the target SNSs among the sample in a

descending order. We can notice that there is some variation between the penetration rate and frequency of use. Overall, WeChat was the top choice of the sample group in both aspects. Weibo, the other home-based SNS, is also the second most frequently used, although it is only the third most held. These data also supported the finding that the international student group usually does not alter their media usage habits formed in their home country automatically while studying abroad (S. Chang & Gomes, 2017). In contrast, while WhatsApp was used by more Chinese students in the sample, the image-based platform, Instagram, seemed to be more popular within the group in terms of intensity of use. This tendency was also consistent with local Spanish students' social media usage habits (Giraldo-Luque & Fernández-Rovira, 2020). The rise of these differences was largely rooted in what the audience deal with these digital platforms, which was the focus of the RQ1.2 as well.

Table 27. Target SNSs ranked based on penetration rate and the use intensity of the sample

SNSs ranked based on penetration rate	SNSs ranked based on the use intensity
WeChat	WeChat
WhatsApp	Weibo
Weibo	Instagram
Instagram	WhatsApp
Facebook	Twitter
Twitter	Facebook

Source: Author's own elaboration

In order to understand the specific behavioral motivations of Chinese international students on these platforms, we took the form of in-depth interviews with 17 students from the sample. The participants' main types of activities on multiple platforms were then summarized using the qualitative software Nvivo, based on the interview responses.

Generally, we coded a total of 639 activities on different SNSs by 17 participants. Based on the similarity of the activities and the objectives of the study, collected activities were broadly divided into three main categories, which were social gratification, content gratification and recreational gratification. This approximation of

categorization echoed many previous studies comparing motivations for use of different SNSs (Gan & Li, 2018; Gan & Wang, 2015; Liu et al., 2016).

Within the established framework, we further found that there were clear differences in the social interactions, content usage habits and entertainment styles applied by the participants on different target SNSs. In other words, consistent with the classical U&GT (Katz, Blumler, et al., 1973; Ruggiero, 2000), the respondents in the study were able to manage the different affordances to satisfy their own gratifications.

Firstly, when it came to social gratification, respondents were usually able to place different types of social relationships to interact with on different SNSs. In this sense, social gratification was further divided into three types, based on interaction with bridging ties, bonding ties and maintained ties. As the social media ecosystems in China and Spain were relatively independent, interviewed international students often created an invisible blurred boundary to manage interactions with ties from their home country as well as those from other countries. As indicated by Dong et al. (2020), the social gratification on different platforms actually implied a form of cultural symbolic interaction as well as clear cultural boundaries. Specifically, WeChat was the primary SNS used by all respondents to conduct social interaction with their home-based maintained ties. WhatsApp, on the other hand, was the SNS they used most often to conduct social interaction with local or other international relationships, which were usually in the forms of bridging and bonding ties. This explained the high penetration rate of WhatsApp. In addition to this, Instagram was considered as a melting pot by some of the respondents. This was because they usually placed both same-country and foreign ties together on Instagram. And they use Instagram as a complement or alternative to the two SNSs mentioned above.

Secondly, when it came to content gratification, it was further divided into content production and content consumptions based on the different handling with contents. Furthermore, the content consumption was separated into surveillance on friends and surveillance on information according to the features of contents. And unsurprisingly, all target SNSs was mentioned by respondents as sources of access to information. Again, WeChat was the most frequently mentioned SNS for content gratification. As the interviewed students were already familiar with WeChat itself, they were more conscious of managing the different affordances to complete their information

consumption habits. For example, Moments was used for surveillance on friends, Public accounts and group chats were used for surveillance on information. And Weibo was the second most mentioned SNS as the information source. This finding echoed the statement that international students were more likely to rely on a pre-existing set of online information sources (S. Chang & Gomes, 2017). Nevertheless, many respondents admitted that they included at least one or two host SNSs as their sources for information-seeking. However, according to the data collected from the qualitative interviews, respondents' information consumption behavior on host social media was relatively more fragmented and individual-oriented. This will need to be concluded later in relation to their social networks and cross-cultural purposes.

As for content production, participants mainly self-disclose through WeChat and Instagram. In addition, Weibo was also mentioned by a proportion of the respondents (e.g., P3, P13, P14). Respondents were often voluntarily or involuntarily influenced by cultural boundaries when they self-disclose through these SNSs, just like indicated previously in social gratification (Dong et al., 2020). In general, respondents tended to make more self-disclosures on WeChat that were consistent with their Chinese identities, in order to cater to the social relationships that WeChat carried. In contrast, respondents who self-disclosed on Instagram usually presented a more blended cultural identity. Undoubtedly, there were also some respondents who manifested their caution about self-disclosure of cultural identity on Instagram, thus showing more defensive content production behaviors. This tendency also partially reflected the identity negotiation strategies of some international students in intercultural communication, based on the principle of (online) uncertainty avoidance (Gao & Gudykunst, 1990; Ting-Toomey, 1999; Yang & Zhang, 2021).

Lastly, in the chapter IV, participants' recreational gratification was also determined. During the coding process, some content consumption habits were considered clearly not part of surveillance on information and friends. In this sense, these codes were categorized separately as recreational gratification in order to be able to distinguish them from content consumption in the subsequent research objectives. In this domain, WeChat, Weibo, and Instagram once again demonstrated their important roles. The findings showed that the respondents' entertainment behaviors on Weibo and Instagram remained mainly focused on the consumption of entertainment contents, while WeChat afforded participants both entertainment approaches for social interaction and content

consumption. Moreover, culture-oriented personal interests motivated them to engage in entertainment activities among different platforms. For example, they were more likely to follow Chinese celebrities via Weibo and foreign celebrities via Instagram or Twitter. However, based on the essential purpose for relaxation, they were more likely to use the platforms they were already familiar with for relaxation. This was one of the most important reasons for the dominance of Weibo and WeChat in terms of recreational gratification. In addition, some respondents also mentioned that the diversity of affordances that home SNSs possessed also impede their motivation for completing the digital migration.

Overall, the diverse motivations for SNSs use collected from Chapter IV helped us to conclude several significant factors that affected participants' SNSs intensity and preference. And these factors were media affordances, social networks and intercultural adaptation competence, which can be considered as a conclusion from RQ1.2 to explain RQ1.1. These three factors reflected the reasons why international students apply platform-swinging strategies from perspectives of media appeal, social structure and intercultural adaptation. This again supported that social capital formation and adaptation strategies interacted with use and gratification itself, and provided the basis for the findings of the other two chapters.

RQ2. How do Chinese international students' multiple SNSs use affects their social capital?

In the Chapter V, we focused on the research objective of exploring the relation between Chinese international students' SNSs use and the formation of social capital. In order to respond this question, we first need to answer the first part of RQ2:

RQ2.1. What is the role played by using target SNSs for Chinese international students to build up their three types of social capital, respectively?

The large part of the quantitative survey was designed to answer this research question. After conducting the statistical analysis, the results firstly showed that partly consistent with previous findings (Ellison et al., 2007; Lin et al., 2012), Facebook, WhatsApp and Instagram usage had significant positive relationships with Chinese international students' bridging social capital. Secondly, only the intensity of WeChat use was

positively related to bonding social capital, consistent with previous studies (Ju et al., 2019; Pang, 2018). Thirdly, as the leading digital communication tool in China, the intensity of WeChat usage significantly predicted increased maintained social capital. No significant correlation was found between maintained social capital and Facebook, WhatsApp or Twitter use. However, a surprising strong significance was found between the intensity of Instagram use and maintained social capital among Chinese international students.

The results derived from the quantitative questionnaire provided us some results that were broadly in line with expectations. For example, the vast majority of host SNSs were able to provide significant help to the Chinese international students in building bridging social capital; while ethnic SNSs (with WeChat as the most dominant component) tended to help them build more bonding social capital as well as help them maintain ties with their home country. Such findings also largely echoed the different motivations for multiple SNSs use collected in the previous chapter. In addition, there were some relative surprising findings that warranted deeper exploration. For example, how the intensity of Instagram use to play a significant role in facilitating maintained social capital as well. And, why SNSs such as Twitter and Weibo were of little help to the Chinese students community in Barcelona when it came to forming social capital.

These specific situations, however, required specific insights into the cases to obtain more details. In this sense, the qualitative results of the study helped us to answer the second part of RQ2:

RQ2.2. How do Chinese international students' target SNSs activities affect their social capital formation specifically?

Overall, based on the criteria of social capital formed during the overseas study from qualitative interviews, participants were classified into four groups for the purpose of comparing their SNSs behaviors. After conducting several matrix queries using the qualitative software Nvivo, several tendencies of participants' SNSs behaviors that influenced social capital formation were identified. Specifically, three crucial factors that influenced their SNSs strategies for social capital development were concluded: active/passive strategies, demanded/undemanded attitudes, and consciousness/ unconsciousness.

Firstly, for those participants who attained major social capital by using more home-

based SNSs, they were more consistent with descriptors as active, undemanded and conscious. Respondents in this group were generally proactive in social interactions among different SNSs, especially on home SNSs. For example, joining different group chats and interacting within people in these groups. In addition, they were also more interested in self-disclosure on host SNSs (e.g. WeChat), such as posting about their status to maintain ties on these platforms. They also actively presented their cultural identities on domestic platforms and shared their views by integrating their knowledge, which might consequently expand their social capital. However, respondents generally maintained a low level of interest in making digital platforms migration. Their self-presentation on host SNSs (e.g. Instagram) usually remained at the level of self-image maintenance. More often, they were conscious of affordances hold by host SNSs for content consumption, thus completing instrumental use and augmenting their active activities on home-based platforms in turns.

Secondly, for those participants who attained minor social capital by using more home-based SNSs, they were more likely to hold passive strategies, undemanded attitudes and unconsciousness. Interviewees from this group generally tended to engage in more content consumption activities on both home and host SNSs. Their social interactions were more restricted to interpersonal level. Moreover, they usually had more concern and reservation about self-presentation activities. In terms of specific SNSs preferences, many respondents also expressed their unfamiliarity with the functions of host SNSs and the substitutability of these host platforms for them, which also further limited their active use on these platforms.

Thirdly, for participants who attained minor social capital by integrating more host SNSs with home SNSs, passive strategies, demanded attitudes and unconsciousness were more frequently observed from them. Although the online social activities of this group remained mainly at the level of interpersonal interactions as well, a clear incorporation of host SNSs into their personal digital habits was observed. Students from this group were even more likely to proactively attempt to build social capital through host SNSs, and to understand host-based ideologies, cultural identities and other contents through content consumption. However, the individuals interviewed in this study still showed a significant divergence of reliance on the target SNSs and a lack of systematic awareness of these platforms.

In the last group, participants who claimed major social capital formation by integrating host and home SNSs were identified. And these participants manifested the general active strategies, demanded attitudes and consciousness towards the multiple SNSs usage. Interviewed students in this group were more proactively involved in activities such as social interaction and self-disclosure on multiple digital platforms. Especially, in the process of self-presentation, they were more conscious of the characteristics of different platforms to effectively present themselves and were more motivated to become involved in identity presentation on host SNSs (namely, Instagram). All students in this group shared examples of connecting different types of social capital through active social media activities. Furthermore, they were also able to use different platforms for content consumption and turned to supplement their social activities and content production activities.

In summary, the findings of the mixed method in the Chapter V provided us comprehensive insights about the multiple SNSs use and specific activities on SNSs towards the social capital formation. Consistent with many previous studies (Chen & Li, 2017; Li & Chen, 2014; Lin et al., 2012), the results showed that host SNSs could worked as facilitators for Chinese international students to develop bridging social capital. Unlike previous studies that solely focused on Facebook use, this study provided further evidence that WhatsApp and Instagram were also included as platforms for Chinese students to manage bridging social capital in daily use, under the circumstances that SNSs are constantly being updated nowadays. And ethnic SNS, specifically WeChat, worked as a useful tool for Chinese international students to develop bonding ties during overseas study in Barcelona. In terms of specific online behaviors, SNSs use for socializing purpose and self-disclosure purpose was considered more conducive to the development of social capital by international students and increased the likelihood of further transforming bridging social capital into bonding social capital (Lee & Borah, 2020; Yang & Jiang, 2018). This was also based on the social norm that trust is built in interaction with each other (du Plooy, Lyons, & Kashima, 2020; Mathwick et al., 2008).

RQ3. How do Chinese international students' multiple SNSs use affects their cross-cultural adaptation process?

Continuously, in the Chapter VI we focused on the last general research objective, that is how do the target students' multiple SNSs usage impact the process of cross-cultural adaptation. As such studies were still in the exploratory stage, qualitative interviews were considered adequate to achieve this objective. In this way, the qualitative results in this chapter was designed to answer two specific research questions:

RQ3.1. What is the role played by using target SNSs for Chinese international students to facilitate their sociocultural, academic and psychological adaptation, respectively?

RQ3.2. How do Chinese international students' target SNSs activities affect their cross-cultural adaptation specifically?

The roles of different SNSs were specifically categorized into three predetermined categories for further analysis. Firstly, SNSs use in the sociocultural dimension was identified. The sociocultural domain of adaptation was further divided into four steps: coping with daily problems, gaining local news and knowledge, participating in activities and seeing things from another view. The results showed that Chinese international students in this study utilized multiple SNSs for different facets of sociocultural adaptation. Unsurprisingly, WeChat was most frequently mentioned by most participants, especially in the initial stage of coping with daily problems. The finding was consistent with previous studies indicating that international students who had been abroad for a shorter period of time were more likely to rely on ethnic SNSs for information and social support (S. Chang & Gomes, 2017; Y. Y. Kim, 2001; J. Ye, 2006). Furthermore, in the process of continuous adjustment, parts of the interviewees involved multiple host SNSs in their daily use to increase their understanding and interaction with the host society through continuous access to local information and participation in local activities. This observed tendency also echoed Kim's (2001) classical theorem claiming that the incorporation of host mass media in individual's mass communication activities could facilitate the host communication competence. More recent studies also supported that international students significantly incorporate host-based SNSs for adaptation and the use of host SNSs contributed to host country participation (Hendrickson & Rosen, 2017; Hofhuis et al., 2019b). Consequently, the contact with host culture leaded to the participants' intercultural understanding, which was also reinforced by the use of host SNSs. This finding also echoed Hofhuis et al.'s (2019) view that the overabundance of ethnic SNSs use would lead to the cultural

maintenance.

In the academic adaptation dimension, different SNSs use was found to affect the outcomes of academic adaptation. On the one hand, SNSs, namely WeChat and WhatsApp, were used to connect different social networks in order to help Chinese students in the study to deal with academic tasks. The finding showed that when Chinese international students faced with specific problem-solving tasks, SNSs like WeChat and WhatsApp contributed to their better academic performance by connecting the students with their mixed networks. Moreover, in the present study, some participants tended to engage in more group discussions via WeChat than via WhatsApp. A previous study in United States also supported that Chinese international students in US tended to conduct more reciprocal sharing activities via Renren than via Facebook, suggesting that students flexibly switch their behaviors to match the digital practices perceived from certain platforms (Qiu, Lin, & Leung, 2013). And on the other hand, SNSs, namely WeChat, Weibo and Twitter, were used by some participants mainly for content consumption with the aim of improving academic competence. By acquiring skill-developing knowledge and academic knowledge in the host society through consuming contents from SNSs, it was stated that individual could enhance its self-efficacy, which might further contribute to its academic adaptation in general by increasing cultural intelligence (Hu, Liu, & Gu, 2018). The findings were consistent with previous studies indicating that online social networks and online contents from SNSs were important sources for international students to acquire different types of informational helps (Natalie et al., 2018; Wang et al., 2020).

Lastly, in the psychological adaptation dimension, similar with previous study (Pang & Wang, 2020), the connections between SNSs use and psychological adjustment remained relatively blurred. According to the findings, the use of SNSs functioned more as a mediator, increasing international students' satisfaction with the host environment and facilitating students' psychological adaptation by providing them with social support and changing their internal attitudes. As for the ways in which social support (or social capital) was obtained and the ways in which international students' intercultural awareness was increased, these were mentioned in the previous conclusive sections. Generally, this organic whole again (See Figure 36 again) demonstrated that different types of behaviors on multiple digital platforms could have an impact on the psychological adjustment of international students ultimately. The findings from

psychological dimension echoed the views that the perceived social capital and self-identification, which were likely to be obtained through SNSs use with different social networks, tended to be conducive to reducing acculturative stress and improving the sense of well-being, respectively (Li & Peng, 2019; Pang & Wang, 2020; Yu et al., 2019).

7.2 A general conclusion to the research questions

After summarizing the main findings of each discovery chapter combining different theories, we found that some intersections emerged after answering the research questions from different theoretical perspectives. Although these theories were commonly adopted in the study of intercultural communication and social media research, few studies combined multiple theories to explain the cross-cultural adaptation process and social media strategies of international students. Therefore, we believed that only by combining these theories and holding an interdisciplinary perspective, we can better understand the internal mechanism of social media use by international students and provide further theoretical and practical contributions.

Based on Calderón Gómez' s (2021) cyclic conversion model of different forms of capital, the research argued that individual's digital capital nowadays became a sub-form of cultural capital and thus interacted with individual's other forms of capital, namely economic and social capital, which further engendered other social outcomes. Combined with this study's focus on the specific case of Chinese international students who, through their experience of studying at their destination, have crossed the social media constraints imposed by geography, and the relative homogenous conditions affected by economic capital on the group's social media use, cultural and social capital played significant roles to interact with their digital capital more importantly. The present study indicated that international students who included multiple SNSs in daily overseas lives and had a better digital capital to manage the adequate use of multiple SNSs were more likely to feel integrated and even attain a better position in the social structure. Again, the finding echoed Calderón Gómez's (2021) view, which argued that a motivated attitude and significant time investment in the digital literacy was emphasized in order to reproduce cultural capital and social capital.

And from the perspective of intercultural communication, former studies supported that proactive use of social media for socializing and attaining information contributed to the enhancement of cultural intelligence and self-efficacy, which further facilitated individual's cross-cultural adaptation (Hu et al., 2018; Hu, Liu, Zhang, & Wang, 2020; Presbitero, 2016). In the process of socializing or acquiring information through SNSs, international students undoubtedly needed to use their social or cultural capital for their personal adaptation purposes. In the process of using SNSs as a coping strategy for intercultural adaptation, the enhancement of cultural and social capital actually echoes the process of cultural learning theory (Masgoret & Ward, 2016; Ward et al., 2001), thus reflecting the enhancement of international students' intercultural communication competence. In this sense, inspired by the models of Calderón Gómez (2021) and Ward et al. (2001), a cyclic conceptual framework could be established to respond to the general objective of the present study (See Figure 37).

Figure 37. Cyclic mechanism of sample students' SNSs use and other outcomes
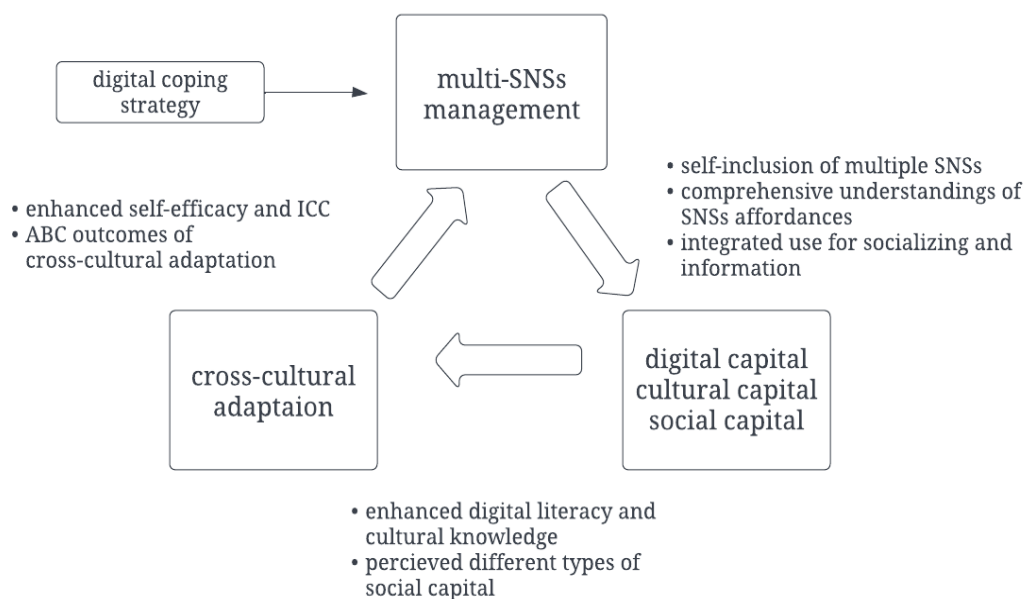
Source: Own elaboration

In conclusion, this doctoral study analyses the different choices faced by Chinese international students during their study abroad in Barcelona in the face of two relatively independent and well-established social media systems, and the resulting

multifaceted identity phenomenon and cross-cultural adaptation. Interdisciplinary intersections from sociological, communication and cultural theories were integrated to explain the phenomenon. The findings demonstrate that the tendency of swinging across social media platforms as a cross-cultural adaptation coping strategy by the Chinese international students can indeed be effective as a mediated factor to help them improve various social outcomes and in turn enhance their intercultural communication competence.

At a personal level, this study provides guidance on how the international students can make use of the digital resources they have when faced with an unfamiliar milieu for the first time. Unlike some of the previous papers that generally emphasized the benefits of using social media, especially host social media, for social outcomes such as cross-cultural adaptation (Forbush & Foucault-Welles, 2016; Mao & Qian, 2015; Namkee Park & Noh, 2018), this study makes more specific recommendations for Chinese students considering the different social media systems in China and Spain. For example, instead of singling out the benefits of using assimilation or integration strategies of social media use, this study focuses more on how international students can make more rational use of the potential social connections across social media to engage in online activities and enhance their capital and intercultural competence, based on their study goals and self-identity. In this vein, we emphasize that international students should pay more attention to enhance their overall digital literacy, which refers to their integrated skills to use digital technologies for operational, informative, social and creative purposes (Polizzi, 2020), with the purpose of adapting better during their overseas study.

On the other hand, while this study mainly focuses on how the international students use SNSs autonomously for social purposes, the findings could also be instructive from the macro level. Recent studies constantly stated that social support from host institutions was a significant source for international students to reduce their social difficulties and facilitated their psychological well-beings (Brunsting et al., 2021; Brunsting, Zachry, & Takeuchi, 2018). Educational faculties or cultural institutions aiming to attract this group of students can strategically deliver their information catering for the social media usage habits of Chinese students. Educational faculties should also guide international students to better integrate host SNSs in daily use for multiple purposes. By doing so, enhancing the digital literacy is obliged to be

emphasized from the institutional level as well.

7.3 Limitations and Future research

As one of the first attempts to examine cultural-different SNSs use and its outcomes among international students in Barcelona, our present doctoral study has limitations. The present study only focused on a specific ethnic sample, which was the Chinese international students sample. The specific cultural-based SNSs habits may not be generalized to larger multicultural ethnic groups. Futures studies could focus more on the general digital habits of more ethnic groups.

With regard to the cultural-based SNSs, we only focused on six SNSs in specific, mostly due to the limited time and resources for analysis. In this vein, some digital behaviors that Chinese students conducted on other digital tools were not well-studied in the present research. Future studies can develop more on the general use of multiple SNSs or include more SNSs in the study. Moreover, in the present study, the target SNSs for analysis was considered and determined from 2018 to 2019, during which, SNSs like Facebook and WeChat were the main socializing and informative tools for individuals. As the digital technologies developed rapidly in recent years, some emerging social media platforms, such as TikTok and Xiaohongshu were not included in the study. Future studies can include more trending digital platforms in the research.

Concerning the design of methodology, one limitation was related to the sample size and selection process. In the quantitative part, a large percentage of participants were drawn via email invitation from the same master's program. Because some demographic information may affect social capital, future studies should balance the sample's demographic variables to avoid homogeneity and potential bias. Aiming at evaluating participants' social networks in the host society, the measurement of social capital in the present study does not distinguish online or offline conditions. However, online and offline communication has proved to contribute differently to social capital (Williams, 2006). Finally, no significant correlations were found in the regression analysis either in Twitter or Weibo use in the present study. The low frequency of Twitter use may affect the results. Besides, the standard deviation of Weibo use is

relatively high in the study (SD = 1), which could influence the results. Future studies could focus on how the use of text-based SNSs influences individuals' social outcomes as well. As for the qualitative part, although the principle of heterogeneity was considered in the study, 17 participants could still be limited for a comprehensive generalization.

Generally, this study only focused on the analysis of SNSs use as the factor that influenced Chinese international students' cross-cultural adaptation process. However, other factors, such as host online/offline societal attitudes, individual personality were proved to be significant factors for adaptation as well. Due to the limitation of time and personal resources, the present study did not focus on the analysis of these. Future studies can take these variables into consideration as well. Especially, how can we make the online environment from both digital systems more tolerant and diverse for a better intercultural communication remains large amounts of studies.

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Appendix

Appendix 1. Questionnaire of SNSs use among Chinese students studying in Barcelona (English version)

Demographic information:

1. Gender: male, female.

2. Age (Please write in numbers): ____

3. Education level: A. Undergraduate student B. Master student C. PhD student D. Others, ____

4. Field of study: ___

5. Current situation:

A. Studying in Barcelona B. Finished study, and right now working in Barcelona. C. Finished study, still in Barcelona but not working. D. Finished study, and no longer in Barcelona. E. Others. ____

6. Months in Barcelona: ___

7. Months in Spain. ____

Intensity of WeChat use

1. Do you have a WeChat account? A. yes B. No

2. About how many WeChat friends do you have in total?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

3. About how much time do you spend on WeChat per day?

1 = less than 10 minutes; 2 = 10 minutes-30 minutes, 3 = 30 min – 1 h 4 = 1-1.5 hours, 5 = 1.5-2 hours, 6 = more than 2 hours

4. WeChat is part of my everyday activity. Likert 1,2,3,4,5 (1 means not agree at all, 5 means totally agree)

5. I am proud to tell people I am on WeChat. Likert 1,2,3,4,5

6. I feel out of touch when I have not logged onto WeChat for a day. Likert 1,2,3,4,5

7. I feel I am part of the WeChat community. Likert 1,2,3,4,5

8. I would be sorry if WeChat shuts down. Likert 1,2,3,4,5

Intensity of Facebook use

1. Do you have a Facebook account? A. yes B. No

2. About how many Facebook friends do you have?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

3. About how much time do you spend on Facebook every day?

1 = less than 10 minutes; 2 = 10 minutes-30 minutes, 3 = 30 min – 1 h 4 = 1-1.5 hours, 5 = 1.5-2 hours, 6 = more than 2 hours

4. Facebook is part of my everyday activity. Likert 1,2,3,4,5

5. I am proud to tell people I am on Facebook. Likert 1,2,3,4,5

6. I feel out of touch when I have not logged onto Facebook for a day. Likert 1,2,3,4,5

7. I feel I am part of the Facebook community. Likert 1,2,3,4,5

8. I would be sorry if Facebook shut down. Likert 1,2,3,4,5

Intensity of WhatsApp use

1. Do you have a WhatsApp account? A. yes B. No

2. About how many friends do you have on WhatsApp?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

3. About how much time do you spend on WhatsApp every day?

1 = less than 10 minutes; 2 = 10 minutes-30 minutes, 3 = 30 min – 1 h 4 = 1-1.5 hours, 5 = 1.5-2 hours, 6 = more than 2 hours

4. WhatsApp is part of my everyday activity. Likert 1,2,3,4,5

5. I am proud to tell people I am on WhatsApp. Likert 1,2,3,4,5

6. I feel out of touch when I have not logged onto WhatsApp for a day. Likert 1,2,3,4,5

7. I feel I am part of the WhatsApp community. Likert 1,2,3,4,5

8. I would be sorry if WhatsApp shut down. Likert 1,2,3,4,5

Intensity of Weibo use

1. Do you have a Weibo account? A. yes B. No

2. About how many Weibo accounts are you following in total?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

3. About how many Weibo followers do you have?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

4. About how many Weibo users have a mutual follow relationship with you?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

5. About how much time do you spend on Weibo per day?

1 = less than 10 minutes; 2 = 10 minutes-30 minutes, 3 = 30 min – 1 h 4 = 1-1.5 hours, 5 = 1.5-2 hours, 6 = more than 2 hours

6. Weibo is part of my everyday activity. Likert 1,2,3,4,5

7. I am proud to tell people I am on Weibo. Likert 1,2,3,4,5

8. I feel out of touch when I have not logged onto Weibo for a day. Likert 1,2,3,4,5

9. I feel I am part of the Weibo community. Likert 1,2,3,4,5

10. I would be sorry if Weibo shuts down. Likert 1,2,3,4,5

Intensity of Twitter use

1. Do you have a Twitter account? A. yes B. No

2. About how many Twitter accounts are you following in total?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

3. About how many Twitter followers do you have?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

4. About how many Twitter users have a mutual follow relationship with you?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

5. About how much time do you spend on Twitter per day?

1 = less than 30 minutes; 2 = 30 minutes-1 hour, 3 = 1-1.5 hours, 4 = 1.5-2 hours, 5 = more than 2 hours

6. Twitter is part of my everyday activity. Likert 1,2,3,4,5

7. I am proud to tell people I am on Twitter. Likert 1,2,3,4,5

8. I feel out of touch when I have not logged onto Twitter for a day. Likert 1,2,3,4,5

9. I feel I am part of the Twitter community. Likert 1,2,3,4,5

10. I would be sorry if Twitter shuts down. Likert 1,2,3,4,5

Intensity of Instagram use

1. Do you have an Instagram account? A. yes B. No

2. About how many Instagram accounts are you following in total?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

3. About how many Instagram followers do you have?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 =

251-300, 8 = 300-400, 9 = More than 400

4. About how many Instagram users have a mutual follow relationship with you?

1 = less than 10, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 300-400, 9 = More than 400

5. About how much time do you spend on Instagram per day?

1 = less than 30 minutes; 2 = 30 minutes-1 hour, 3 = 1-1.5 hours, 4 = 1.5-2 hours, 5 = more than 2 hours

6. Instagram is part of my everyday activity. Likert 1,2,3,4,5

7. I am proud to tell people I am on Instagram. Likert 1,2,3,4,5

8. I feel out of touch when I have not logged onto Instagram for a day. Likert 1,2,3,4,5

9. I feel I am part of the Instagram community. Likert 1,2,3,4,5

10. I would be sorry if Instagram shuts down. Likert 1,2,3,4,5

Perceived social capital

Bridging social capital

1. I am willing to spend time to support general activities in Barcelona. Likert 1,2,3,4,5

2. I am interested in what goes on in Barcelona. Likert 1,2,3,4,5

3. Interacting with people in Barcelona makes me want to try new things. Likert 1,2,3,4,5

4. In Barcelona, I come into contact with new people all the time. Likert 1,2,3,4,5

5. Interacting with people in the city reminds me that everyone in the world is connected. Likert 1,2,3,4,5

Bonding social capital

1. There are several people in the city I can turn to for advice about making important decisions. Likert 1,2,3,4,5

2. There are several people I feel comfortable talking to in the city about intimate personal problems. Likert 1,2,3,4,5

3. If I need an emergency loan of money, I know several people in the city I can turn to. Likert 1,2,3,4,5

4. There are several people in the city I trust to solve my problems. Likert 1,2,3,4,5

5. I do not know people in the city well enough to get them to do anything important. Likert 1,2,3,4,5

Maintained social capital

1. I'd be able to find out about events in China from some friends living there. Likert 1,2,3,4,5

2. If I needed to, I could ask some friends in China to do a small favor for me. Likert 1,2,3,4,5

3. I'd be able to stay with some friends in China if traveling back to China. Likert 1,2,3,4,5

4. I would be able to find information about a job or internship from some friends in China. Likert 1,2,3,4,5

5. It would be easy to find friends to come to my friend reunion party in China. Likert 1,2,3,4,5

What other SNSs are you using a lot in your daily life? If any, please note below.

_____

78. This questionnaire is part of the study of Chinese students' intercultural adaptation. If you are interested in participating in our further interview study, please write your email below. We will contact you afterwards.

_____

Please note: If you are interested in receiving follow-up interviews and leaving an email address, it means that you are willing to give up the anonymity of this survey. Researchers would ask some questions based on the answers from this questionnaire

during the interview part. Your answer will not be made public or used for any other commercial purpose in any condition. Thank you very much for your support and cooperation!

Appendix 2. Questionnaire of SNSs use among Chinese students studying in Barcelona (Chinese version)

I. 基本信息

请根据自身情况选择打钩或填写答案。

1. 性别： A. 男   B. 女

2. 你的年龄：____

3. 你目前/曾经在巴塞罗那就读的学历/课程是：

A. 大学本科   B. 硕士研究生   C. 博士研究生 D. 其他

4. 你在巴塞罗那就读的专业是：_____

5. 你近期在巴塞罗那的状态是？

A. 正在巴塞罗那留学 B. 已完成学业，并在巴塞罗那工作

C. 已完成学业，仍在巴塞罗那，并未工作

D. 已完成学业，并已不在巴塞罗那生活

E. 其他：_____

6. 你在巴塞罗那已经生活了多少个月？（如有因回国工作等情况中断或结束，请去掉中断月份）：_____

7. 你在西班牙（含巴塞罗那）已经生活了多少个月？如有因回国工作等情况中断或结束，请去掉中断月份）：_____

II. 微信使用调查

1. 你是否拥有微信账号？ （如选择"否"，则可跳过以下关于微信的所有问题）

A. 是　　　　　　　B. 否

2. 你一共有多少位微信好友？

A. 不超过 10 人　　　　　B. 11-50 人　　　　　C. 51-100 人

D. 101 – 150 人　　　　　E. 151- 200 人　　　　F. 201-250 人

G. 251-300 人　　　　　H. 301-400 人　　　　I. 400 人以上

3. 你每天大致的微信使用时长。

A. 少于 10 分钟　　　　　B. 10 至 30 分钟　　　C. 30 分钟至 1 小时

D. 1 小时至 1.5 小时　　　E. 1.5 小时至 2 小时　　F. 2 小时以上

1=完全不同意 2=不同意 3=不确定 4=同意 5= 完全同意 请在你的选择上打钩"√"					
4. 使用微信是我日常生活的一部分。	1	2	3	4	5
5. 我乐于告诉别人我在使用微信。	1	2	3	4	5
6. 如果一两天不使用微信，我会觉得和外界失去了联系。	1	2	3	4	5
7. 我觉得自己是微信用户的一份子。	1	2	3	4	5
8. 如果微信停止运营会让我感到很遗憾。	1	2	3	4	5

III. 脸书（Facebook）使用调查

1. 你是否拥有脸书（Facebook）账号？（如选择"否"，则可跳过以下关于脸书的所有问题）

A. 是　　　　　　　B. 否

2. 你一共有多少位脸书（Facebook）好友？

A. 不超过 10 人   B. 11-50 人   C. 51-100 人

D. 101 – 150 人   E. 151- 200 人   F. 201-250 人

G. 251-300 人   H. 301-400 人   I. 400 人以上

3. 你每天大致的脸书（Facebook）使用时长。

A. 少于 10 分钟   B. 10 至 30 分钟   C. 30 分钟至 1 小时

D. 1 小时至 1.5 小时   E. 1.5 小时至 2 小时   F. 2 小时以上

1=完全不同意 2=不同意 3=不确定 4=同意 5= 完全同意 请在你的选择上打钩"√"					
4. 使用脸书（Facebook）是我日常生活的一部分。	1	2	3	4	5
5. 我乐于告诉别人我在使用脸书（Facebook）。	1	2	3	4	5
6. 如果一两天不使用脸书（Facebook），我会觉得和外界失去了联系。	1	2	3	4	5
7. 我觉得自己是脸书（Facebook）用户的一份子。	1	2	3	4	5
8. 如果脸书（Facebook）停止运营会让我感到很遗憾。	1	2	3	4	5

IV．WhatsApp 使用调查

1. 你是否拥有 WhatsApp 账号？（如选择"否"，则可跳过以下关于 WhatsApp 的所有问题）

A. 是   B. 否

2. 你一共有多少位 WhatsApp 好友？

A. 不超过 10 人   B. 11-50 人   C. 51-100 人

D. 101 – 150 人   E. 151- 200 人   F. 201-250 人

G. 251-300 人　　　　　　H. 301-400 人　　　　　　I. 400 人以上

3.你每天大致的 WhatsApp 使用时长。

A.少于 10 分钟　　　　　B. 10 至 30 分钟　　　　C. 30 分钟至 1 小时

D.1 小时至 1.5 小时　　　E. 1.5 小时至 2 小时　　　F. 2 小时以上

1=完全不同意 2=不同意 3=不确定 4=同意 5= 完全同意 请在你的选择上打钩"√"						
4.	使用 WhatsApp 是我日常生活的一部分。	1	2	3	4	5
5.	我乐于告诉别人我在使用 WhatsApp。	1	2	3	4	5
6.	如果一两天不使用 WhatsApp,我会觉得和外界失去了联系。	1	2	3	4	5
7.	我觉得自己是 WhatsApp 用户的一份子。	1	2	3	4	5
8.	如果 WhatsApp 停止运营会让我感到很遗憾。	1	2	3	4	5

V. （新浪）微博使用调查

1. 你是否拥有（新浪）微博账号？（如选择"否"，则可跳过以下关于微博的所有问题）

A. 是　　　　　　　　B. 否

2.你大约关注了多少（新浪）微博账号？

A. 不超过 10 个　　　　　B. 11-50 个　　　　　　C. 51-100 个

D. 101 – 150 个　　　　　E. 151- 200 个　　　　　F. 201-250 个

G. 251-300 个　　　　　H. 301-400 个　　　　　I. 400 个以上

3. 你大约有多少位（新浪）微博粉丝（关注者）？

A. 不超过 10 个　　　　　B. 11-50 个　　　　　　C. 51-100 个

D.　101 － 150 个　　　　　E.　151- 200 个　　　　　F.　201-250 个

G.　251-300 个　　　　　H.　301-400 个　　　　　I.　400 个以上

4.　你在（新浪）微博大约有多少互关用户？

A.　不超过 10 个　　　　　B.　11-50 个　　　　　C.　51-100 个

D.　101 － 150 个　　　　　E.　151- 200 个　　　　　F.　201-250 个

G.　251-300 个　　　　　H.　301-400 个　　　　　I.　400 个以上

5.通常情况下，你每天大致的（新浪）微博使用时长是？

A.少于 10 分钟　　　　　B.　10 至 30 分钟　　　　　C.　30 分钟至 1 小时

D.1 小时至 1.5 小时　　　　E.　1.5 小时至 2 小时　　　　F.　2 小时以上

1=完全不同意 2=不同意 3=不确定 4=同意 5= 完全同意 请在你的选择上打钩"√"						
6.	使用（新浪）微博是我日常生活的一部分。	1	2	3	4	5
7.	我乐于告诉别人我在使用（新浪）微博。	1	2	3	4	5
8.	如果一两天不使用（新浪）微博,我会觉得和外界失去了联系。	1	2	3	4	5
9.	我觉得自己是（新浪）微博用户的一份子。	1	2	3	4	5
10.	如果（新浪）微博停止运营会让我感到很遗憾。	1	2	3	4	5

V.　推特（Twitter）使用调查

1.　你是否拥有推特（Twitter）账号？（如选择"否"，则可跳过以下关于推特的所有问题）

A.　是　　　　　　　　B.　否

2.你大约关注了多少推特（Twitter）账号？

A.　不超过 10 个　　　　　B.　11-50 个　　　　　C.　51-100 个

D. 101 － 150 个　　　　　E. 151- 200 个　　　　　F. 201-250 个

G. 251-300 个　　　　　H. 301-400 个　　　　　I. 400 个以上

3. 你大约有多少位推特（Twitter）粉丝（关注者）？

A. 不超过 10 个　　　　　B. 11-50 个　　　　　C. 51-100 个

D. 101 － 150 个　　　　　E. 151- 200 个　　　　　F. 201-250 个

G. 251-300 个　　　　　H. 301-400 个　　　　　I. 400 个以上

4. 你在推特（Twitter）大约有多少互关用户？

A. 不超过 10 个　　　　　B. 11-50 个　　　　　C. 51-100 个

D. 101 － 150 个　　　　　E. 151- 200 个　　　　　F. 201-250 个

G. 251-300 个　　　　　H. 301-400 个　　　　　I. 400 个以上

5.通常情况下，你每天大致的推特（Twitter）使用时长是？

A.少于 10 分钟　　　　　B. 10 至 30 分钟　　　　　C. 30 分钟至 1 小时

D.1 小时至 1.5 小时　　　　E. 1.5 小时至 2 小时　　　　F. 2 小时以上

1=完全不同意　2=不同意　3=不确定　4=同意　5= 完全同意 请在你的选择上打钩"√"						
6.	使用推特（Twitter）是我日常生活的一部分。	1	2	3	4	5
7.	我乐于告诉别人我在使用推特（Twitter）。	1	2	3	4	5
8.	如果一两天不使用推特（Twitter），我会觉得和外界失去了联系。	1	2	3	4	5
9.	我觉得自己是推特（Twitter）用户的一份子。	1	2	3	4	5
10.	如果推特（Twitter）停止运营会让我感到很遗憾。	1	2	3	4	5

V. Instagram 使用调查

1. 你是否拥有 Instagram 账号？（如选择"否"，则可跳过以下关于 Instagram 的所

有问题）

A. 是 　　　　　　　B. 否

2. 你大约关注了多少 Instagram 账号？

A. 不超过 10 个 　　　　　B. 11-50 个 　　　　　C. 51-100 个

D. 101 – 150 个 　　　　　E. 151- 200 个 　　　　　F. 201-250 个

G. 251-300 个 　　　　　H. 301-400 个 　　　　　I. 400 个以上

3. 你大约有多少位 Instagram 粉丝（关注者）？

A. 不超过 10 个 　　　　　B. 11-50 个 　　　　　C. 51-100 个

D. 101 – 150 个 　　　　　E. 151- 200 个 　　　　　F. 201-250 个

G. 251-300 个 　　　　　H. 301-400 个 　　　　　I. 400 个以上

4. 你在 Instagram 大约有多少互关用户？

A. 不超过 10 个 　　　　　B. 11-50 个 　　　　　C. 51-100 个

D. 101 – 150 个 　　　　　E. 151- 200 个 　　　　　F. 201-250 个

G. 251-300 个 　　　　　H. 301-400 个 　　　　　I. 400 个以上

5. 通常情况下，你每天大致的 Instagram 使用时长是？

A. 少于 10 分钟 　　　　　B. 10 至 30 分钟 　　　　　C. 30 分钟至 1 小时

D. 1 小时至 1.5 小时 　　　　　E. 1.5 小时至 2 小时 　　　　　F. 2 小时以上

1=完全不同意　2=不同意　3=不确定　4=同意　5= 完全同意 请在你的选择上打钩"√"					
6.	使用 Instagram 是我日常生活的一部分。	1	2	3	4	5
7.	我乐于告诉别人我在使用 Instagram。	1	2	3	4	5
8.	如果一两天不使用 Instagram,我会觉得和外界失去了联系。	1	2	3	4	5
9.	我觉得自己是 Instagram 用户的一份子。	1	2	3	4	5

10.	如果 Instagram 停止运营会让我感到很遗憾。	1	2	3	4	5

VII. 巴塞生活情况询问

	1=完全不同意 2=不同意 3=不确定 4=同意 5= 完全同意 请在你的选择上打钩"√" 注：本页所有选项涉及人物均不限国籍；本页所有选项涉及行为均不分线上或线下。					
1.	我愿意花时间参加巴塞罗那市内的活动。	1	2	3	4	5
2.	我对巴塞罗那每天发生的事情感到好奇。	1	2	3	4	5
3.	与巴塞罗那市内碰到的人交流能让我想要尝试新事物。	1	2	3	4	5
4.	在巴塞罗那我常常能认识新朋友。	1	2	3	4	5
5.	在巴塞罗那与人交往使我觉得人们紧密相联在一起。	1	2	3	4	5
6.	在做一些重要的决定时，我能向在巴塞罗那的一些朋友咨询。	1	2	3	4	5
7.	在巴塞罗那，我有一些可以倾诉个人私事的朋友。	1	2	3	4	5
8.	如果急需借 200 欧元，我能在巴塞罗那找到朋友帮助我。	1	2	3	4	5
9.	我在巴塞罗那并不认识能够帮我完成重要事情的人。	1	2	3	4	5
10.	我相信巴塞罗那的一些朋友能帮助我解决问题。	1	2	3	4	5

11.	我能通过国内的一些朋友了解他们身边正在发生的事情。	1	2	3	4	5
12.	如果有需要，我在中国国内有认识的朋友能够帮我完成一些小忙。	1	2	3	4	5
13.	如果我回中国度假，我能够和一些国内朋友待在一起。	1	2	3	4	5
14.	我能够通过中国内的一些朋友了解国内工作或是实习的信息。	1	2	3	4	5
15.	如果我回中国，邀请朋友重聚不是件难事。	1	2	3	4	5

16. 你日常是否还有其他常用的社交网站？如有，请列举。

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本问卷调查是针对巴塞罗那中国留学生社交媒体使用情况调查的一部分，如若你对此调查后续的访谈有兴趣，欢迎在此留下你的联系邮箱，之后可能会有研究人员与你联系。

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注：若您有兴趣接受后续访谈并留下邮箱，则代表您愿意让渡本问卷调查的匿名权限。研究人员会在访谈中针对您的部分回答进行提问。您的回答不会被公开也不会被用于任何其他商业用途。

如您对本研究有任何疑问或后续想了解调查的结果，欢迎通过邮件与我联系！

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再次感谢您的支持与配合！祝您在巴塞罗那生活、学习愉快！