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An Investigation of Chinese International Postgraduate Taught Students' 'Third Spaces' and Their Psychological Well-Being in Scotland

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Abstract

This PhD study investigates the impact on health and well-being of the acculturation experiences of Chinese international postgraduate taught (PGT) students in Scotland. This is an important topic, as these students have only one year to acculturate to a qualitatively different social and educational environment. However, at present, there is little research on the psychological needs of Chinese students in Scottish higher education institutions. This is particularly true of their acculturation experiences in informal and recreational settings outside of study, work and home environments, which are known as third spaces. This PhD study, therefore, responds to previous calls by academics to comprehensively examine the critical factors that influence Chinese PGT students' health and well-being during their acculturation in Scotland, including their involvement in third spaces.

This thesis is divided into two studies. Both studies adopted a qualitative research design centred on semi-structured interviews. Twelve participants from the University of Glasgow were selected for each study. Specifically, Study One explored Chinese PGT students' overseas experiences of acculturation in Scotland. This study used the diagrammatic elicitation task to generate in-depth discussions of participants' acculturation experiences throughout the academic year. During the interviews for Study One, the majority of the participants identified exercise as the most important third space activity for their psychological well-being. This finding, therefore, formed the basis of Study Two, which investigated how exercise affected participants' well-being. Since Study Two took place during the initial stages of the COVID-19 pandemic, it also explored how COVID-19-related lockdown and social distancing measures influenced the students in question.

Thematic analysis was employed to make sense of the data. Furthermore, Study One used Martin Seligman's theory of PERMA (positive emotions, engagement, positive relationships, meaning, and accomplishment) to contextualise and interpret Chinese students' psychological well-being and third space participation. To reflect the impact of the COVID-19 outbreak, Study Two adopted Paul Wong's modified PERMA themes to incorporate the universal distress and lack of well-

being of the COVID-19 age. This PhD study, therefore, offers distinctive insights into the participants' complex acculturative experiences in Scotland before and during the pandemic.

The findings of Studies One and Two suggest that many Chinese international PGT students who found their third space were able to live a socially active life, thereby avoiding the dangers of isolation in confined student accommodations, in particular during the Christmas break and lockdown. Their third space experience significantly helped their acculturation, well-being and personal growth, both before and during the pandemic. Compared to students who chose not to engage with third spaces, or who engaged with them in a very limited way, those who took advantage of such spaces were likely to have a thriving and more meaningful international education experience. This result was largely due to a strengthened social network (positive relationships in the PERMA model), additional emotional support from peers (positive emotions), and engagement in an active lifestyle (engagement). Based on these findings, it would be beneficial for many Chinese students to consider focusing on 'positive relationships' to support a smooth acculturation during challenging times. For example, in cases of mandatory isolation (e.g., a pandemic), the extra socialisation opportunities offered by third spaces are possibly even more important than before, given that many international students may lack the face-to-face and immediate support of classmates and university staff over a considerable period.

Studies One and Two expand on the existing literature and highlight the importance of third space groups, which have been thus far overlooked by many academics, in creating a happy and meaningful experience for many Chinese PGT students in a Western society. This knowledge can serve as a catalyst for better supporting this group of students in their acculturation from China to the United Kingdom.

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Author's Declaration

I declare that except where explicit reference is made to the contribution of others, this dissertation is the result of my work and has not been submitted for any other degree at the University of Glasgow or any other institution.

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An Investigation of Chinese International Postgraduate Taught Students' 'Third Spaces' and Their

Psychological Well-Being in Scotland

Chapter 1 Introduction

1.1 Chapter Overview

This chapter introduces the research topic and outlines the background and the rationale of the present PhD study. Section 1.2 begins by briefly discussing how my own positioning and personal lived experience as a Chinese international student in Scotland informed the direction of this thesis. Section 1.3 critically discusses the research context in relation to Chinese students' overseas experiences and their impact on health and well-being, looking both at the challenges and the opportunities of international education. Section 1.4 sets out the PhD study's overall rationale and aims. Finally, section 1.5 provides an outline of the structure of this PhD thesis.

1.2 Personal Positioning and Research Direction

In 2014, I came to the United Kingdom (UK) to study for a Postgraduate Taught (PGT) Master's in Educational Studies at the University of Glasgow. I applied to the University of Glasgow after doing considerable research to choose the specific university online. My decision to study in Scotland was driven by several factors. First, the duration of the course was one year only. Second, the tuition fees and living costs were lower in comparison to other nations such as England. Third, the University of Glasgow, as the Russel Group University, is ranked as one of the top universities worldwide, and I thought that its reputation would help me in the labour market.

During my stay in Scotland, I discovered many new and interesting things, particularly a new cuisine and a new education system. The latter required students to use more frequently their independent, autonomous and critical thinking skills to address tasks, compared to the Chinese education system, which is largely based on collectivist beliefs and practices and prioritises group interests (Hsu & Wu, 2015; Kim et al., 2008, Tang et al., 2012). Some of these things were 'positive' while others were challenging. I tried to maintain meaningful relationships both with Chinese people

and people from other countries, cultures and backgrounds (e.g., Scottish, Japanese and Korean), as I thought I could learn something from all of them and broaden my horizons.

Like many international students before me, I encountered several challenges (He & Huston, 2018; Wilczewski et al., 2021; Yu & Moskal, 2018). In my case, these were not related to academic study or language issues. Perhaps because I had studied in an international college in China, I was not too taken aback by the English learning environment. However, when my roommates went back home during the Christmas break, I felt extremely lonely. On three occasions, I experienced harassment by groups of drunken strangers, which made me very sad. Still, except for these instances, I would say that my international student experience was largely positive. I seemed to adapt well to the new culture, probably because I proactively participated in many recreational activities organised by the university and student organisations, particularly sports and exercise and through these avenues I made friends. This effort contributed to my social and emotional well-being.

The recreational activities included travelling around the UK with other students and doing exercise such as badminton and basketball. These activities, particularly the group exercise, made me happy and helped me maintain a positive attitude towards my postgraduate studies. Unfortunately, I also developed over-exercising, and I eventually badly injured myself. However, this negative experience did not outweigh the positives.

At the time, I asked myself questions such as: Do other Chinese PGT students have similar experiences to mine? Do they face the same challenges and negative feelings? How do they manage to acculturate to this new environment? What makes them happy? Do they exercise as I do? Do they find this activity helpful? What have they learnt from studying? As a result, my Master's dissertation in the Educational Studies programme used a qualitative design based on interviews to explore in detail Chinese PGT students' experiences of exercise. The dissertation focused on these experiences from the perspective of students' acculturation processes in Scotland. As there are differences in the lives of students in Scotland and other parts of the UK (e.g., food, accents, weather), this dissertation

study was situated in Scotland and looked at Chinese PGT students from the University of Glasgow, which is a competitive and research-intensive Higher Education Institution (HEI), for reasons of accessibility. It used a sample of eight participants from the University of Glasgow. In the end, I completed the Master's degree with a good grade (Merit) and was left with many happy memories. It was a stressful but enjoyable year that made me more confident, independent, and open-minded. This positive experience fuelled my ambition to the present doctoral project on international Chinese PGT students' overseas journeys (I started my PhD journey in October 2018).

For this PhD research project, I was interested in understanding international Chinese PGT students' life in Scotland, particularly the impact of recreational activities on health and well-being during their acculturation in-depth and in detail. These activities included but were not limited to recreational exercise, which is often supported through the host institutions' sports facilities. My experiences as a former Chinese PGT student at the University of Glasgow formed the basis for the present study. (Chapters 3 and 4 discuss how my interests evolved into specific research topics and questions.)

However, I should also note that this educational experience may have somewhat influenced this study (Korstjens & Moser, 2018; Roller & Lavrakas, 2015; Willig, 2013). (This might have been the case, for instance, with the selection and wording of the interview questions and with the aspects that were emphasised during the research process.) I took several steps to mitigate these influences as feasible as possible (researcher subjectivity is conceptualised as a resource for knowledge production in the study which ultimately shaped the knowledge produced) and improve the study's reliability. (For instance, I conducted pilot studies to help ensure the interview questions were understandable to potential participants and fit their common sense, rather than mine [i.e., my overseas experience]). More details on this process can be found in the methodology sections of Chapters 3 and 4.

1.3 Research Context: Chinese Students Studying in the UK

This section will introduce the broader context regarding Chinese international students living overseas, in particular those in the United Kingdom (UK). (For a more detailed discussion of Chinese international students' overseas experiences, please see the literature review chapter). This section focuses on reporting up-to-date figures and background information regarding Chinese students' numbers and their potential economic and socio-cultural impact (section 1.3.1), as well as evidence from the literature that highlights key elements in their health and well-being during acculturation (section 1.3.2).

1.3.1 Chinese Students' Economic and Social-cultural Impact

The UK is one of the most popular international destinations for students globally (Higher Education Statistics Agency [HESA], 2022). According to HESA (2022), approximately 2,700,000 students were enrolled in HE studies in the UK in 2020–2021, including over 605,000 students from non-UK countries. Among these international students, about 150,000 were from EU countries and 450,000 were from non-EU ones. Of a total number of over 620,000 PGT students, 240,000 came from non-UK nations and 210,000 came from outside the EU, including China. Therefore, non-EU students formed a significant cohort (e.g., about 30% of the PGT students) in the UK HE sector. In 2020–2021, additionally, there were over 140,000 Chinese students studied in the UK, which was significantly more than any other country, half of whom chose PGT courses (about 70,000). Furthermore, Chinese student numbers increased by over 40,000 over the past five years.

HE institutions in Scotland have also attracted many students from around the world, particularly from China. In 2020–2021, for instance, of a total of 282,875 students in Scotland, Chinese international students in Scotland numbered 17,000, 11,000 of whom chose PGT degrees. The number of Chinese students in Scotland has almost doubled since 2016–2017; this cohort also represented the largest international student group in Scotland over the past five years.

International students, particularly those from non-EU nations, have made significant academic, economic and socio-cultural contributions to the UK (HESA, 2022; London Economics). For example, of the total tuition fee and education contract income raised by British HEIs in 2019–2020, British students accounted for £12,486,501,000 (two-thirds of total income) and EU-domiciled students accounted for only £1,260,251,000. Non-EU international students contributed £6,969,275,000 (HESA, 2022). This money has been used to support staff recruitment, teaching, research, management and administration. In addition to fee income, international students contribute to the country's economy through other expenditures, including transportation, room and board, and recreation (HESA, 2022; London Economics, 2018; Scottish Government, 2018a).

International students may put pressure on local HEIs in terms of language and culture, both at the individual level (e.g., adjusted speed of English speaking by teachers, tutors and staff) and the departmental/university level (e.g., design of special courses to teach independent and critical thinking skills and the employment of staff who are expected to have overseas living experiences). However, international students also help to improve campus diversity and provide staff and other students with the opportunity to engage in multicultural dialogue (Scottish Government, 2018a; Yan & Cardinal, 2013a; Zhou & Todman, 2008).

In addition to socio-cultural and economic benefits, international students can also bring reputational advantages to British HE institutions, as well as opportunities for international partnerships (Bell, 2016; Yu et al., 2018). The impact in these areas is harder to quantify. However, there is broad consensus among HE stakeholders in the UK that exposure to a multicultural academic environment benefits not only students' learning experience, cultural competence and global outlook, but also of the university teachers and staff supporting them (Mikhaylov, 2014; Zhou & Todman, 2008). Cultural competence is a form of human capital that allows individuals and organisations to respond appropriately to other cultures (Deardorff, 2009; Mikhaylov, 2014). This competence is increasingly recognised as an important skill in our globalised society.

Chinese students will remain one of the largest international student groups in the UK for the foreseeable future (HESA, 2022). Between 2019 and 2021, the increase of Chinese students in the UK slowed down due to issues linked to the COVID-19 pandemic, such as travel restrictions and concerns over personal safety. However, in 2020–2021, the number of Chinese students reached 140,000, which was followed by about 85,000 Indian students (HESA, 2022). Remaining competitive in this international student market will thus improve the prospects of UK HEIs. For Chinese and many other international students, an overseas education may bring multiple benefits, such as improved language abilities, independence, critical thinking and cultural competence (Gbadamosi, 2018; Gu et al., 2010; Mian & Duan, 2020). British HEIs also need to understand and support international students' acculturation to the new environment to help ensure the quality of courses and educational outcomes (He & Huston, 2018; Mian & Duan, 2020). This aspect will be elaborated on below.

1.3.2 Chinese Students' Acculturation Experiences

Section 1.3.2 will critically discuss Chinese international students' overseas acculturation experiences and health and well-being by reviewing the relevant literature. When moving to study in a different cultural environment, Chinese international students may experience several challenges as well as opportunities (Cao et al., 2017; He & Huston, 2018; Mian & Duan, 2020). Moreover, compared to domestic students, they tend to face more challenges in adapting to a one-year PGT course in a research-intensive HE institution (e.g., due to language barriers). If they are unable to acculturate effectively to the one-year PGT course, they may struggle to complete their studies and may have poor outcomes. (These potential challenges and opportunities are discussed in detail in Chapters 3 and 4.)

Specifically, a growing body of research has noted that many Chinese students in the UK may face significant academic challenges (e.g., language difficulties in understanding lectures or completing assignments; Cao et al., 2017; McMahon, 2011) and social challenges (e.g., limited

interaction with others, including home students and local residents; Farbenblum & Berg, 2020; Song et al., 2021). These challenges can increase the risk of developing both physical and psychological health problems, such as difficulty sleeping, stress, and feelings of loneliness and isolation (Lesser & Nienhuis, 2020; Ma & Miller, 2021; Weinberg & Gould, 2014). The present study will focus on the psychological aspect of acculturation experiences. It intends to contribute to the literature in cross-cultural psychology by focusing on individual changes in behaviour and health that result from intercultural contact (Berry, 2010, 2019).

For example, Yu and Moskal (2018) conducted 15 qualitative semi-structured interviews in a UK university to study the acculturation experiences of Chinese international Master's students (as part of a larger mixed-method study of Chinese international students' church participation in the UK, which had over 500 participants). One of their findings suggests that Chinese students experienced heightened stress, depression and anxiety due to academic pressures, which put their health and well-being at risk. The majority of Chinese students in this study expressed expectations of academic excellence, which included aspirations to improve their English-speaking skills and academic performance. Some of them had set specific personal goals for their academic achievement, such as obtaining the most credits or the highest grades in their cohort. A mismatch between these academic hopes and reality made the acculturative experience problematic as it undermined Chinese students' confidence in their new environment and increased their academic stress. The majority of Chinese participants in Yu and Moskal's (2018) study emphasised these issues and felt disappointed with their studies and language ability. To a certain extent, this study offers an important point of reference for the current PhD study (Study One). However, the majority of Yu and Moskal's respondents (11 of 15) came from the university's Business School, which reduces the findings' transferability to a wider range of Chinese students. The Business School in question had a significantly large number of Chinese students, who thus often used Chinese for discussion in class. The participants, therefore, found it hard to improve their English and academic skills. Some of them even commented that their international education experience seemed not to be much different

from studying in China. This current PhD study aims to recruit participants from different academic subjects.

Many previous studies have tended to focus on the stressful events in Chinese students' overseas journey (Kwon, 2013; Lu et al., 2022). However, there is evidence to support that students have many opportunities to facilitate a healthy acculturation experience (e.g., Cahill & Stavrianeas, 2013; Mian & Duan, 2020; Snape & Rienties, 2016). These protective factors for acculturation, which include pre-entry language training courses and organised exercise events and activities, can assist many Chinese international students with socio-cultural acculturation thereby increasing their psychological well-being and resilience (Li & Zizzi, 2017; Yan et al., 2015). However, such potential benefits embodied in recreational and informal settings, such as exercise participation in the university gym, which go beyond study, work and home environments, have largely been overlooked, as argued by Elliot, Baumfield, Reid, and Makara (2016), and Elliot, Baumfield, and Reid (2016).

These informal activities, in particular 'third spaces', can help with a smooth acculturation to a new culture (Li & Zizzi, 2017; Yu & Moskal, 2018). Usually, 'third space' refers to an environment used for relaxation and recreation outside students' academic, work and home contexts. By frequenting these spaces, students can foster personal learning, enjoyment and development (Bhabha, 1994; Elliot, Baumfield, Reid, & Makara, 2016; Montgomery, 2010) (please see Section 2.4 of Chapter 2 for the specific definition of third space used in this thesis). Examples of popular third space activities include exercising and going to coffee shops and bars (Elliot, Baumfield, & Reid, 2016; Li & Zizzi, 2017).

For instance, Li and Zizzi (2017) interviewed nine first-year international postgraduate students in the United States, including one from China. They suggested that exercise activities helped students acculturate to a new social environment. The regular exercise benefited international students' acculturation by creating social opportunities, facilitating intercultural communication and

addressing negative psychological feelings (e.g., loneliness). For example, a participant commented that if she/he was sad, the exercise peers in the team would try to make her/him happy. They would ask about the reasons for the negative feelings and help "unload the sadness", which helped in overcoming the challenges. This experience was different from "sitting alone at home or at the bar". These findings suggest that thanks to the socialisation that accompanied physical activity, some international students could build meaningful social networks that became a resource for emotional support. However, a limitation of Li and Zizzi's (2017) study is that their participants were only at the beginning of their postgraduate journey (postgraduate studies, including postgraduate Master's study, in the United States normally last two to three years). This study does not offer a full representation of their cross-cultural acculturation. However, it shows what overseas life may look like in a new, Western culture for many international students during their initial phase of acculturation. To this extent, it provides a reference for the current PhD study.

Furthermore, the UK Council for International Student Affairs (UKCISA) (2022) has recently launched a student charter for international students to keep developing a world-class student experience and support international students' desire to thrive. UKCISA (2022) intends to enhance the international student experience in the UK by guiding academic principles, institutional policy and practice. A significant component of this agenda is physical and psychological well-being support services, which are intended to meet the needs of international student communities of different cultures and modes of study within and beyond the university. The UKCISA charter states that HEIs across the UK should now consider the distinct challenges faced by different international students and offer accessible well-being support services to them (e.g., considering different communication and engagement strategies in offering well-being services). The goals of this PhD study broadly match those of UKCISA. This thesis may thus contribute to future educational practices that support Chinese international students' health and well-being.

Although this thesis will focus on Chinese PGT students' first-hand experiences of the stress and opportunities linked to their international education in Scotland, the responsibilities of institutions in meeting these students' acculturation needs should not be neglected. As indicated by UKCISA (2022), international students' psychological struggles should not be seen as individual deficiencies but as a product of the lack of appropriate support from HEIs and the host government. Furthermore, as discussed above, previous academics have highlighted international students' challenges when living abroad. However, reifying these students as a vulnerable group may downplay their agency in achieving a meaningful international education (Aikman et al., 2016; Deuchar, 2022). The existing literature indicates that HEIs and Chinese international postgraduate students should consider all available well-being opportunities, including those outside formal education, as this might be beneficial for a smoother and healthier acculturation (Elliot, Baumfield, & Reid, 2016; Li & Zizzi, 2017). An overseas study experience is intended to aid Chinese students with an international career or further academic studies. This PhD study will focus on exploring Chinese international students' overseas experiences in relation to third space activities and psychological well-being.

For over 30 years, scholars have been interested in studying the psychological well-being of international students, particularly Asian international students (including Chinese ones), in Western societies (see Brunsting et al., 2018; Li et al., 2014; Zhang & Goodson, 2011). Furthermore, many academics have highlighted the importance of understanding the acculturation of international students, particularly by going beyond their campus life and a 'deficit-thinking model' (Aikman et al., 2016; Deuchar, 2022). This reframing of research attention is expected to bring new insights to our understanding of how students' general acculturation can be enriched and make a qualitative difference to their health and well-being.

For example, Brunsting et al. (2018) critically reviewed 30 studies published since 2009 regarding international students' psychosocial acculturation in the United States. Factors such as

English language skills, acculturative stress, social belonging, depression and anxiety were the most common outcomes. In particular, this review suggested that meaningful communication and interaction with others, such as other university students and faculty, may help many international students feel a sense of belonging and improve their psychosocial and academic outcomes. Brunsting et al. (2018) also called for the need to use different theories to understand the relationships between international students' characteristics (e.g., Chinese nationality), their experiences in the host culture (e.g., Scotland) and their acculturation outcomes while attending global universities. Specifically, students' social networks, such as their weekly social interactions and the number of social events they attend, continue to need further research. Evidence is needed to help international students beyond the focus on their campus life or academic support.

Li et al. (2014) and Zhang and Goodson (2011) conducted two reviews of existing research. The former looked at 18 quantitative studies from 2000 to 2011, while the latter examined 64 studies published between 1990 and 2009. In this literature, students from Asia, in particular China, amounted to the majority of the sampled populations. In both reviews, issues such as target language proficiency, social support and acculturation stress were highlighted as important components of international students' psychological acculturation. Li et al. (2014) and Zhang and Goodson (2011) also discussed possible research directions for the promotion of international students' health, arguing that more attention may need to be paid to potential coping resources (e.g., social support networks). The authors also noted that psychological well-being research is strongly skewed towards the challenges of international students.

Over the past few decades, several studies have highlighted the hardships international students face. They have pictured these students (in particular Asian ones) as a vulnerable group in a Western culture, thus failing to move beyond the boundaries of deficit thinking (Aikman et al., 2016; Deuchar, 2022). These studies often view international students as a passive group that needs to 'catch up' and is 'hard to reach'; there is also an emphasis on their (alleged) lack of 'skills, attributes

and resources' during their overseas study. Heng (2020) recently conducted a systematic review of 43 qualitative studies on Chinese international students worldwide published between 2005 and 2017. This review suggested that Chinese students still tend to be framed as passive or deficient and that most studies (60%) foreground their hardships (e.g., social isolation, discrimination and mental health issues; see also Khanal & Gaulee, 2019; Lomer & Mittelmeier, 2021). These studies tend to focus on how students survive in a new culture rather than on how they can actively navigate overseas higher education to thrive.

Therefore, many researchers, HEIs and students tend to concentrate on understanding the 'struggles involved' in overseas education (Aikman et al., 2016; Deuchar, 2022). On the one hand, this perspective has helped to promote an impression of international students as disadvantaged, which can help to draw public attention. On the other hand, it has downplayed their agency, which can be understood as their capacity to make meaning in or even change their overseas study environment, and led to the misrepresentation of international students as a passive group. In turn, this has led university policies to focus only on these students' problems and struggles (Aikman et al., 2016).

We should be aware that many international students have bravely left behind their families and friends, taken difficult language tests, successfully applied for visas and competed with students from all over the world. They have done this to fight for a brighter future for themselves, and it is hard to tell what these unique experiences mean for their confidence, resilience and growth (Berry, 2005, 2019; Gbadamosi, 2018; Gu et al., 2010). Furthermore, as discussed, several studies have demonstrated that students could use their agency and take advantage of opportunities in a new culture (e.g., generate social support in a third space) to have a thriving educational experience, even during the COVID-19 pandemic (Li & Zizzi, 2017; Mian & Duan, 2020; Snape & Rienties, 2016). Therefore, the image of international students as 'vulnerable' should be reframed to view them as capable and competent agents with the capacity to thrive. Warning students about potential

challenges could help them to smoothly acculturate to a new culture. However, at the same time, we can expect that most international students have the skills and knowledge to overcome stress, learn from failure, and use their agency to achieve a productive overseas education outcome (Aikman et al., 2016; Deuchar, 2022). Moreover, without embracing the positive sides of international students' overseas study, some institutions and policymakers may not be able to offer comprehensive and effective support for students' acculturation and well-being. Therefore, in this doctoral study, I will focus both on how students respond to challenges and on how they actively explore a new culture.

The current study will respond to the call by Brunsting et al. (2018), Li et al. (2014), and Zhang and Goodson (2011) to focus on a specific student group – Chinese international PGT students in Scotland – and explore both the challenges and opportunities in acculturation and their relationship with psychological well-being. Moreover, this study will use psychological well-being theories to understand Chinese students in a third space environment, thus going beyond their academic life, which students and university offices traditionally focus on. The study will investigate how Chinese students' involvement in such an environment (e.g., their interactions with other people) may influence their acculturation, health and well-being. This is a largely overlooked topic in the vast area of research on Chinese overseas students' psychological acculturation and well-being (Brunsting et al., 2018; Elliot, Baumfield, Reid, & Makara, 2016). However, it may contribute to improving their academic outcomes.

Before I joined the PhD programme (second half of 2018), a significant amount of research had already been conducted on Chinese international students' academic performance, language improvement and overall acculturation, with approximately 100,000 papers present in databases such as ScienceDirect and EBSCOhost. However, fewer than 20 peer-reviewed articles investigated specifically Chinese students' psychological health and well-being during their education in the UK (none of these explored this topic in Scottish HEIs). Fewer than 10 examined informal settings

outside the university, the workplace and the home. No study could be found on Chinese PGT students' acculturation, psychological well-being and third space experiences at Scottish HEIs (up until 2022). Some academics (e.g., Berry, 2005; Snape & Rienties, 2016) have called for this kind of research, in particular when students find themselves in different cultural environments. The present study is intended as a contribution to this broad area of research.

1.4 Research Rationale and Aims

International Chinese PGT students in Scotland have only one year to acculturate to a new environment; their acculturation journey, therefore, may involve significant psychological stress (He & Huston, 2018; Wilczewski et al., 2021). Although a considerable amount of research has been conducted on this phenomenon in several Western contexts, there seems to be a limited understanding of Chinese students' experiences of acculturation and well-being in informal and creative settings in Scotland (e.g., acculturation opportunities in a third space). While many of these students' primary aim is to obtain a postgraduate degree, their health and well-being should not be overlooked. Investigating how they can truly benefit from studying and living abroad is thus paramount.

Researching the topic in question could also benefit the HE sector in Scotland. Implementing institutional policies and practices that help Chinese students in the country may give the Scottish HE sector an advantage in the student market, which may in turn contribute to the nation's economic growth and cultural diversity (Bell, 2016; Mikhaylov, 2014; Yu et al., 2018). Today, many universities across the UK already have settlement programmes, such as language training courses and organised tours of the campus or the surrounding areas. However, what seems to be missing is culturally sensitive support for each target student group and support that goes beyond the academic domain (this is perhaps one of the main reasons why UKCISA is eager to promote the student charter programme discussed above). Therefore, it would be beneficial if universities understood international students' specific needs and offered appropriate support, which would

allow students to achieve their full potential and benefit the most from an overseas education. Encouraging international students to creatively explore the host culture beyond the campus may also foster improved communication and mutual understanding between residents and international students, which may, in turn, positively contribute to students' acculturation.

As discussed, previous academics have suggested that even though hosting Chinese international students in the UK has its limitations, doing so could create opportunities for multicultural communication and future partnerships. This PhD study, therefore, can be useful both to many future Chinese international PGT students and Scottish HEIs. Overall, the study aims to understand the following aspects: 1) Chinese students' ways of acculturating to a new academic and living environment in Scotland, 2) their acculturation experiences in third spaces, and 3) the role of third spaces in their psychological well-being. These topics lead to specific research questions, which are outlined in Chapters 3 and 4.

This project is divided into two studies. Study One explores Chinese students' overseas experience of, and acculturation to, a Scottish HE institution (i.e. the University of Glasgow). In Study One, participants identified their most beneficial activity in terms of psychological well-being during their acculturation. The findings of Study One then informed Study Two, which explores in detail these most significant third space activities and their impact on students' well-being.

Studies One and Two are expected to illuminate critical factors that influence Chinese PGT students' psychological health. Furthermore, taking part in the research may also have offered an opportunity for participants to reflect on their experiences and what they have learnt from them. This is particularly the case concerning the importance of their journey of living and studying abroad for future study, work and well-being. Such a journey may have provided transferable skills to overcome the obstacles they are likely to encounter in the future. The benefits of conducting this PhD research project gained by the PhD candidate will be discussed in the last chapter of the thesis.

1.5 Structure of the Thesis

This thesis consists of five chapters. Chapter 1 (this chapter) discusses the PhD project's context and rationale. Chapter 2 reviews relevant literature in-depth and in detail regarding international students' acculturation and health and well-being, highlighting key gaps in recent academic studies. Chapter 3 presents the research design and analysis for Study One, while Chapter 4 does the same for Study Two. Each of these two chapters contains its own introduction/overview, methods section, findings, discussion and conclusion. Chapter 5 discusses the insights of Studies One and Two as a whole and highlights the project's overall contributions to knowledge and limitations. This chapter also includes the implications for action and future research avenues. Finally, it offers the candidate's reflections on the doctoral journey.

Chapter 2 Literature Review for Studies One and Two

2.1 Chapter Overview

As discussed in the Introduction, Chinese students are the largest international student group in Scotland. As such, they have significantly contributed to local economic growth and cultural diversity over the past decade (HESA, 2022; Scottish Government, 2018a). In a Western culture, they are confronted with different languages and social norms. Several studies have highlighted the hardships Chinese international students face globally. This body of work pictures them as passive or deficient rather than focusing on how they can actively navigate overseas higher education to thrive (Aikman et al., 2016; Deuchar, 2022; Heng, 2020). At the time of writing, there is limited research that offers a comprehensive understanding of Chinese students' acculturation, health and well-being in Scottish HEIs.

The literature on other Chinese student groups in similar contexts may provide some insight into Chinese PGT students' life in Scotland; however, their specific acculturation needs remain to be studied. Many developed Western nations, including the UK, are multicultural societies where people from all backgrounds and ethnicities contribute to local diversity (e.g., thanks to travel and migration) (Berry, 2019; Snape & Rienties, 2016). Cosmopolitan Scotland is embracing international students, immigrants and travellers from all over the world. In this context, which aspects of life in Scotland (e.g., weather, food and local customs) may create difficulties for Chinese student sojourners, if at all, remains unclear. Which aspects of Scottish life require significant attention for Chinese students' acculturation and which acculturation experiences could be transferred across similar contexts also need to be further explored to help those struggling learners. Furthermore, Scotland adopted different anti-COVID-19 regulations compared to many other Western nations, including England, the United States (US) and Australia (e.g., whether and for how long students had to take online courses and whether they were allowed to meet in person). Therefore, Chinese

students living in Scotland may go through a different overseas acculturation experience and may have different needs as a result (Ingram et al., 2020; Ingram et al., 2022; Scottish Government, 2020, 2021) (see the following sections for details).

According to the China engagement strategy laid out in Scotland's International Framework (Scottish Government, 2018b) and the Memorandum of Understanding (Scottish Government, 2016) between the two nations, the Scottish government is working collaboratively with China to strengthen mutual benefits. This partnership is expected to be particularly significant in the areas of education and culture. The two nations' teaching and research strengths are to be enhanced and their cultural values shared (e.g., in the field of creative education and the development of exceptional individual talent). Scotland's global reputation for high-quality education is successful in raising awareness of the nation and attracting increasing numbers of Chinese international students (HESA, 2022; Scottish Government, 2018b). In 2017, education was ranked as the number one Scottish export to China, which suggests that Chinese international students can play a significant role in many areas of cooperation, including business, higher education and cultural diversity (see also the Introduction) (Scottish Government, 2018a, 2018b, 2019).

Compared to many other popular study destinations for Chinese international students, such as England and the US, Scotland has only received little attention from academics. (This includes the topic of these students' health and well-being.) For example, over 100 articles on Chinese students' acculturation in England and the US can be found in the databases of Web of Science, EBSCOhost, ScienceDirect, ResearchGate and Wiley Online Library for the period 2008–2022, while fewer than 10 deal with Scotland. This may limit our capacity to effectively support this group of students, which, in turn, may negatively influence the academic reputation of Scottish HEIs and the nation's partnerships with China regarding culture, business and education (Scottish Government, 2016, 2018b, 2019).

Overall, as discussed, Chinese international students may play an important role in the relationship between China and Scotland (Scottish Government, 2016, 2018a, 2019). However, the

limited understanding of their overseas life in Scotland may impede the provision of culturally sensitive and effective help to those in need. For example, the COVID-19 pandemic, as well as similar public health crises, may create more challenges for some Chinese students (see Farbenblum & Berg, 2020; Ingram et al., 2020; Mian & Duan, 2020). This PhD study may thus provide knowledge to support this group of students, who live in a distinctive cultural context, and potentially raise awareness of the importance of the topic.

This literature review aims to provide an overview of the issues raised in earlier research and highlight pertinent gaps that require improved academic understanding. The review consists of four parts. After this introductory section, the approach of the literature search and criteria for Studies One and Two are set out. Section 2.3 discusses relevant studies regarding international students' acculturation experiences and their potential impact on learners' life, health and well-being. The COVID-19 pandemic is examined in this section as a special acculturation context. Section 2.4 explores the positive psychological effects and the limitations associated with students' participation in third spaces before and during the pandemic. Section 2.5 summarises the main gaps in the literature and the research directions that ensue from these gaps.

Study One was conducted before the COVID-19 pandemic (2018–2019), while Study Two, which is informed by the findings of Study One, is situated in the age of COVID-19 (2020–2022). Accordingly, the literature search refers to two different contexts: before and during the pandemic. (The literature review for Study Two was conducted only after the analysis of Study One was completed.)

The review of the literature shows that Chinese international PGT students' health and well-being during acculturation in Scotland, including their involvement in third spaces, are worth greater attention from academics, students and host HEIs.

2.2 Literature Search Approach and Criteria for Studies One and Two

The Introduction discussed the importance of supporting Chinese PGT students in Scotland. However, several elements of their acculturation, including the interplay between the involvement in third spaces and health and well-being, remain unclear. The current review focuses on literature in cross-cultural psychology that informs the investigation conducted in this PhD study, particularly concerning a smooth acculturation process, improved third space participation and Chinese students' psychological health and well-being. The studies carried out before the pandemic are reviewed mainly to explain the design of Study One, while the COVID-19-related literature is mostly linked to Study Two. This body of knowledge may potentially apply to the post-pandemic era if students are exposed to similar acculturation situations.

Five academic databases were searched for relevant studies between 2008 and 2022 (I started my PhD journey in the year 2018 and completed my writing in the year 2022): Web of Science, EBSCOhost, ScienceDirect, ResearchGate and Wiley Online Library. The search focused on three main elements to describe the phenomenon of interest: a) Chinese international students' acculturation, b) student third spaces and c) student psychological health and well-being. The search yielded results concerning international students' (Chinese or other) involvement in any type of third space during acculturation, such as exercising and music societies, as well as students' psychological well-being, including factors such as stress, self-confidence, resilience, quality of life and social relationships.

The key search terms were "Chinese international students," "acculturation," "third space," and "psychological well-being." For each database, the following three searches were made: 1) "Chinese international students acculturation" OR "international students or foreign students or overseas students or exchange students acculturation" OR "international students transition" OR "international students adjustment" OR "international students adaptation" OR "international students acculturation and psychological well-being" OR "international students acculturation during the COVID-19 pandemic" (mainly for Study Two) OR "international students acculturation and

psychological well-being during the COVID-19 pandemic" (primarily for Study Two); 2) "international students third space (e.g., including sport/exercise/music)" OR "third space and international students acculturation" OR "third space and international students psychological well-being" OR "third space and the COVID-19 pandemic" (mainly for Study Two) OR "third space and international students psychological well-being during the COVID-19 pandemic" (largely for Study Two); and 3) "international students psychological well-being (including wellbeing/well being)/wellness/mental health/health/health and well-being" OR "international students psychological well-being and the COVID-19 pandemic" (mainly for Study Two).

To identify high-quality references, the following criteria were adopted: a) peer-reviewed studies; b) university or college students aged over 18 as participants (preferably international PGT students); and c) participants studying in the West or other developed countries; d) student samples in culturally similar regions were excluded from the references (e.g., Scottish students studying in other parts of the UK); e) studies targeting only sensitive samples were also excluded, including those focusing on individuals with severe physical or psychological health problems (it was anticipated that studies not exploring participants' clinical history might include individuals with mild or moderate symptoms).

Over 100,000 articles were identified (including possible duplicates) that were relevant to Chinese international students' acculturation as well as health and well-being issues in the period 2008–2022. In contrast, only 15 studies exploring students' third spaces were found; of these, three were excluded for not meeting the criteria (the remaining ones were examined in full). Additional relevant studies were identified by reading the reference lists of these studies. Overall, this literature search identified many interesting studies and highlighted the importance of the topic in question, which requires significant attention from the PhD candidate and other academics.

2.3 Understanding Acculturation for Chinese International Students

Academics studying international students' acculturation experiences often explore how individuals acculturate to a new academic and social environment by overcoming difficulties such as culture shock, language barriers and learning challenges (Wei et al., 2012; Yu & Moskal, 2018). Kwon (2013), for instance, interviewed nine Chinese graduate students at three universities in Seoul in 2009. Kwon highlighted that the students experienced a significant sense of cultural distance. In Korea, many students often unconditionally respect their professors and seniors by obeying their decisions without question. Kwon's (2013) participants became quickly aware of the differences in the socio-cultural systems of the two countries, believing that they should get used to Korean culture. This realisation allowed them to acculturate to their new academic environment. Kwon's (2013) study suggests that when a student moves to a different country, even one as geographically close to China as Korea, cultural differences can influence their behaviour and interaction with others. To acculturate to the host country, many students often need to make changes.

Other studies have suggested that when international students move to a new culture, they do not necessarily seek to become more like the locals (Berry, 2005; Yu & Moskal, 2018). For example, Cao et al. (2017) used an online survey to examine the acculturation of 183 Chinese students in Belgium, suggesting that few of the students' cultural values were modified or abandoned. The majority of the study participants were eager to maintain their Chinese culture and tried to interact with other Chinese students during their time in Belgium. This evidence suggests that international students may have different ideas about how they need to acculturate to a different culture based on their needs and preferences. Therefore, it would be simplistic to understand the acculturation process as a process of assimilation.

The term "acculturation" refers to the process of transition experienced by a person who is exposed to a new socio-cultural environment (Berry, 2005; Ozer, 2013). Many academics convey the view that many international students' acculturation journey is not unidimensional; in other words, it is not a choice between maintaining one's heritage and accepting new values (Berry, 2005; Ozer,

2013). For example, Berry (1992, 1997, 2005) identifies four acculturation strategies derived from the two basic issues facing international students. According to him, when individuals prefer not to reinforce their cultural identity and instead seek daily interactions with people from other cultures, an assimilation strategy is adopted. In contrast, when international students seek to maintain their original cultural values and, at the same time, tend to avoid cross-cultural communication, a separation strategy is in place. When there is the same level of interest in maintaining one's heritage and having daily interactions with other cultural groups, integration is chosen. Finally, when there is little interest in either maintaining one's heritage or in cross-cultural interaction, marginalisation occurs.

Academics sometimes use the terms "transition," "adaptation," "adjustment" and "acculturation" interchangeably in the context of international education (Baba & Hosoda, 2014; Li & Zizzi, 2017; Sapranaviciute et al., 2012). However, the literature suggests that these terms indicate a process of change that applies to everyone on many different occasions, such as adaptation to ageing (e.g., how individuals adjust to the physical and psychological changes of increasing age) or the transition from school to work, rather than specifically indicating the result of being exposed to a new culture (see Bazrafshan et al., 2022; Lindsay & Ahmed, 2022; Pimmer et al., 2021). In addition, terms such as "transition," "adjustment" and "adaptation" may describe a student's process of change at any stage of their education (e.g., the change of behaviour and attitudes from primary school to secondary school or from middle school to high school) rather than referring exclusively to the move to international education (see Kontostoli et al., 2021; Shull et al., 2020). To avoid confusion, these terms will not be used interchangeably with "acculturation" to describe Chinese international PGT students' changes in health and well-being as a result of their overseas stay in a Western nation. In this thesis, the term "acculturation" is used to refer to the transformation that happens after students have been exposed to a different culture; it does not imply a single direction of change.

When international students move to another country, in addition, they can also change the lives of the locals (Berry, 2005; Yan & Cardinal, 2013a; Zhou & Todman, 2008). However, this thesis does not analyse the cross-cultural experiences of members of the host community who interact with intentional students; it concentrates on exploring the acculturation journey of Chinese international PGT students in Scotland.

The study of acculturation was developed in the early 20th century by anthropologists who had come into contact with indigenous peoples (Graves, 1967; Redfield et al., 1936; Schwartz et al., 2010). This work was often biased by the idea that "primitive" societies became more "civilised" thanks to their exposure to the West. In the past three decades, following an upsurge in international education, the acculturation issues of overseas students have received increasing academic attention (Ozer, 2013). Academics have become aware that there is not a single – right or wrong – pattern of acculturation; individual students have different acculturation needs and experiences (Berry, 2005; Cao et al., 2017).

Different methods have been used to investigate international students' acculturation experiences, including case studies, observations, questionnaires, scales, interviews and creative art-based methods such as photo-elicitation interviews (Elliot, Baumfield, Reid, & Makara, 2016; Kara, 2015; Ozer, 2013; Yu & Moskal, 2018). The field still lacks an explicit consensus regarding the different ways in which an individual acculturates in domains such as work, study, language, health and well-being. So far, there is no universally accepted measure of students' acculturation experiences. Academics usually design their assessment instruments based on different samples across several life domains (Allen & Lyons, 2019; Ozer, 2013). In view of this, pilot studies are very important to help ensure that participants understand the research and give appropriate answers (see the methodology sections for further details).

2.3.1 Acculturation Challenges and Opportunities

This section provides an overview of previous studies of Chinese international students' acculturation challenges and opportunities at a time when there were no pandemics, lockdowns or social distancing measures – the conditions of Study One. Section 2.3.2 will review the literature concerning students' acculturation during the COVID-19 pandemic to indicate how this situation may influence Chinese international students' learning and life in a Western culture – the research context of Study Two. Based on the literature, it seems that the acculturation of this group of students in Scotland requires more attention as many of them may need health and well-being support (Gbadamosi, 2018; Hsu & Wu, 2015; Ingram et al., 2020). This is true both before and during a pandemic. The author also noted that there is limited understanding of this issue.

As explained above, acculturation refers to the process of adaptation to a new academic and social environment experienced by international sojourners, including students (Berry, 2005; Ozer, 2013). During this process, students can face several challenges that cause distress (Baba & Hosoda, 2014; Liao & Wei, 2014). The stress induced by this adaptive process is sometimes referred to as "acculturative stress" (Han et al., 2013; Hsu & Wu, 2015). This phenomenon has been linked to numerous negative psychological and physical outcomes, including low confidence, anxiety, depression, and sleeping and eating disorders (Cahill & Stavrianeas, 2013; Wei et al., 2012). In the case of Chinese international students, common sources of stress include language barriers, academic challenges, lack of friendships with domestic students and perceived discrimination (Wei et al., 2012; Yu & Moskal, 2018; Zhou & Todman, 2008). Existing research also suggests that Chinese students may experience different levels of stress in different cultural environments (see Berry, 2005; Snape & Rienties, 2016).

In a US-based study, He and Huston (2018) reported that poor English language proficiency was a major barrier for all 61 participants. Two major concerns were mentioned: engaging in daily conversation and meeting academic writing expectations. Participants viewed English proficiency as

a major factor in cross-cultural communication and academic acculturation. He and Huston's (2018) interview study focused on first-year undergraduate Chinese students. Even though undergraduates and postgraduates have different language skills and requirements, it is reasonable to suppose that language proficiency is a key element in the successful acculturation of many Chinese students both inside and outside academia.

Academic challenges are also a major concern for many international Chinese students (Han et al., 2013; Hsu & Wu, 2015; Yu & Moskal, 2018). Having language barriers and being unfamiliar with the new education system are both causes of stress for such students; an excessive emphasis on achievement is also problematic. Zhou and Todman (2008), for example, used questionnaires and focus groups to research educational expectations among Chinese postgraduate students (N = 148) and Scottish staff (N = 33) at the universities of Dundee and Abertay. They highlighted that, in the module they examined, the Chinese students were required to apply their knowledge to a specifically Western business context, which they were unfamiliar with. The students did, however, have considerable knowledge of the business context in China, which the Scottish staff admitted they lacked. This mismatch generated stress on both sides. Considering the time that has passed since Zhou and Todman's (2008) study and the increasing number of Chinese students enrolling at Scottish HEIs (HESA, 2022), the degree of mutual knowledge of the two parties might have changed considerably.

In their study, Yu and Moskal (2018), as discussed in the Introduction chapter (see Section 1.3.2, Chapter 1), interviewed 15 Chinese Master's students at a British university. They highlighted that academic pressures, language difficulties and poor academic performance led to feelings of depression and anxiety. Some Chinese students at research-intensive universities such as the University of Glasgow, which has strict academic requirements (Top Universities, 2019; University of Glasgow, 2019), may also be prone to health risks as a result of academic stress. In particular, even though UK international study could offer Chinese PGT students a chance to obtain an

internationally recognised degree within just one year, these PGT Master's students have less time to acculturate to a new socio-cultural environment compared to PhD and undergraduate students and they may need to acculturate very quickly, which may generate considerable stress (Yu & Moskal, 2018; Zhou & Todman, 2008). The top universities have stringent language and academic requirements for international PGT students, but whether higher test scores guarantee less problematic acculturation remains unknown.

In addition, while many researchers have helped understand the multiple stressors that Chinese international students could face during their acculturation in the UK, poor language skills and academic performance should not be viewed only as individuals' deficiencies. Many host universities across the country offer language and academic training courses to international students (e.g., the Learning Enhancement and Academic Development Service of the University of Glasgow; https://www.gla.ac.uk/myglasgow/leads/). A reasonable assumption is that HEIs in the UK still lack adequate support for students of different cultures, who are used to different modes of study, as indicated by UKCISA (2022) (see also Section 1.3.2 in Chapter 1). The above-mentioned stressful issues have significantly influenced many Chinese students' acculturation and psychological well-being (Hsu & Wu, 2015; Yu & Moskal, 2018).

Previous studies have suggested that moving to live and study in a qualitatively different cultural environment can significantly challenge many Chinese international students' health and well-being (Hsu & Wu, 2015; Yu & Moskal, 2018). As discussed, supporting international students' psychological well-being is vital in fostering a better overseas education experience and ensuring students can thrive in academia and personal life (UKCISA, 2022). According to the World Health Organization (WHO) (2022a, see https://www.who.int/data/gho/data/major-themes/health-and-well-being), the term "well-being" is used to describe "a positive state experienced by individuals and societies, encompassing quality of life and the ability to contribute to the world with a sense of meaning and purpose". Moreover, the WHO (2022a) defines mental health as a state of well-being.

This important aspect of one's overall health is more than an "absence of disease or infirmity". Psychological well-being allows individuals to make full use of their personal abilities, cope with life's stresses and function well so that they are able to make a meaningful contribution to the wider community (WHO, 2022a).

Academics across disciplines have stated that there are multiple dimensions and core elements of well-being (Grant et al., 2007; WHO, 2022a). Usually, general well-being involves physical, psychological and social aspects. The psychological aspects include the subjective experience of hedonic feelings (sense of pleasure, enjoyment and balance) and eudaimonic feelings (sense of meaning and purpose). The physical dimensions include objective physiological measures and subjective experiences of bodily health and functioning. The social aspects of well-being consist of one's relationships and interactions with other people and communities. Academics (e.g., Michelini, 2014; Weinberg & Gould, 2014) have also suggested that physical, psychological and social well-being are closely interconnected, so that if one component is influenced, the others may also be affected. As such, to help foster international students' psychological well-being, their physical and social well-being should not be neglected. Accordingly, investigating Chinese international PGT students' psychological well-being in Scotland should also involve exploring their involvement in physical and social domains (e.g., physical practice such as daily travel and exercise, relationships and communications with classmates, university staff and supervisors).

This thesis views Chinese students' psychological well-being as "a state more than the absence of a mental disorder; it is the ability to think, learn, emote, and interact with others as functioning individuals". This view is promoted by the WHO (2022a) and is widely accepted by academics. For Chinese students, broad psychological well-being may ensure the quality of their overseas education experience, during which they are expected to achieve their potential, cope with stress, and make contributions with meaning and purpose (UKCISA, 2022; WHO, 2022a). The main reason behind this doctoral project is to better appreciate this issue for acculturating Chinese international students.

(The choice of the appropriate theoretical frameworks for understanding Chinese students'

psychological well-being in Scotland will be discussed in other parts of the thesis.)

Acculturation, however, is not all about psychological stress; its positive sides also need to be

recognised (Gbadamosi, 2018; Hsu & Wu, 2015). For example, successful acculturation can bring

about a strong sense of accomplishment (Gbadamosi, 2018). There is also growing evidence that

students have many dispositions and opportunities to enable a smoother acculturation to a new

social environment (Cahill & Stavrianeas, 2013; Gbadamosi, 2018; Yu et al., 2018). Some are inherent

to each individual, such as a positive personality and personal adaptability, while others require

exploration during one's acculturation in the host society, such as occasions for obtaining the

required language skills or an understanding of the host culture in a third space environment (Elliot,

Baumfield, Reid, & Makara, 2016; Li & Zizzi, 2017; Yan et al., 2015). Zhang et al. (2010), for example,

surveyed 139 Chinese international students in Munich using the Big Five Inventory (John et al.,

2008) and the Vancouver Index of Acculturation (Ryder et al., 2000). Their findings indicate that

students' inherent personality traits have a significant role in their acculturation experiences. For

instance, those who enjoyed human interactions and were open-minded were better acculturated

and reported higher self-evaluations and life satisfaction. This study may suggest that when some

Chinese students move to the UK, their personality traits could predict their experiences as well as

their psychological well-being. An effective strategy for taking advantage of these opportunities

could help many international students meet their acculturation needs. Academics may thus

consider exploring the development of these strategies, which can enable students to achieve a

more meaningful educational experience. However, the potential acculturation opportunities

involved in the third space environment will be discussed later in the Section 2.4.

Additionally, in this thesis, the term "acculturation stress" does not refer only to the negative

consequences of studying overseas; it indicates the challenges inherent to students' acculturation

process. Academics suggest that stress is a natural by-product of all human activities (Jackson, 2013).

As a specific phenomenon shaped by personal and cultural factors, psychological stress comprises both harmful feelings (distress) and beneficial ones (eustress) (Seyle, 1974; see also Lazarus, 1966). Distress and eustress are not defined by the type of stressor but by the individual's perception of the stressor. Eustress means "good stress" (*eu* meaning "good" in ancient Greek). Selye (1974) conveyed the view that some stress is needed to create motivation, encourage people to improve the quality of their lives, and prevent them from feeling bored. However, too much stress ruins one's quality of life. Individuals, therefore, need to manage the amount of stress in their lives based on their needs and adaptive capacities. This is what determines whether stress is a positive challenge or a threat to one's health and well-being (Jackson, 2013).

Chua et al. (2018) used the Distress Scale, the Eustress Scale, and the Psychological Capital Questionnaire to examine the levels of stress of Malaysian university students (183 second-year undergraduate psychology students, 139 of whom were Chinese Malaysians). The authors highlighted a high level of exposure to academic pressure and diverse perceptions of the phenomenon. Participants' experiences were both positive (e.g., "I often deal successfully with academic challenges") and negative (e.g., "I generally view myself as being stressed during the academic year"). Findings suggest that the students who had developed mechanisms to cope with pressure perceived eustress and had a higher academic performance. Chua et al.'s (2018) study demonstrates that the experience and outcomes of stress are not necessarily negative for students; when the necessary coping abilities are in place, academic pressure can be beneficial. The positive aspects of stress have seldom been reported in the literature on international students' acculturation (Berry, 2019; Schwartz et al., 2010), while many academics tend to view the stress as wholly negative (see Han et al., 2013; Lu et al., 2022; Sapranaviciute et al., 2012). A critical view is thus required when investigating the acculturation of Study One's participants, in particular concerning their perceptions of stress in academic life and beyond.

A significant amount of research has been conducted on Chinese overseas students' academic and life experiences. On the databases of ScienceDirect and EBSCOhost, approximately 100,000 papers deal with this group of students (at the time when Study One was conducted, i.e. the second half of 2019). However, only fewer than 20 peer-reviewed articles investigate specifically Chinese students' psychological health and well-being during their stay in the UK, and none of these explores this topic in Scottish HEIs (up until 2022). One possible explanation for this apparent lack of interest is that students from collectivist cultures may prefer to conceal personal problems due to the stigma associated with showing weakness in their countries of origin. In places like China, group interests are seen as more important, and people are often cautious about bringing personal issues to the group's attention (Misra & Castillo, 2004; Tang et al., 2012). However, studies conducted in other settings and with different student samples can, to a certain extent, provide a useful source of comparison for Study One.

Overall, previous studies have suggested that when Chinese international students move to study in a Western nation, some of them may face significant cultural unfamiliarity (e.g., the language difference), which may generate stress and disrupt their psychological well-being (Han et al., 2013; Hsu & Wu, 2015; Yu & Moskal, 2018). Some students may not obtain adequate and sensitive support from host HEIs (UKCISA, 2022). To achieve their potential and make the most of their international education journey, these students need to take advantage of multiple acculturation opportunities, including those offered by third spaces (see also Section 2.4). Doing so will help them to maintain their stress at an appropriate level (Chua et al., 2018; Gbadamosi, 2018; Yu et al., 2018).

2.3.2 Acculturation Challenges and Opportunities during the COVID-19 Pandemic

This section discusses relevant studies carried out during the COVID-19 pandemic, which is seen as a special acculturation context for international students. This discussion supports Study Two of this doctoral research. This section will review both the psychological challenges and the

facilitators of international students' acculturation during the pandemic, suggesting that the psychological well-being of many Chinese PGT students in Scotland may need to be better understood and supported in this context.

The Corona Virus, originally discovered in Wuhan (China) in December 2019, has spread rapidly across the world (Mahdy, 2020). Early studies have highlighted that the pandemic has generated not only fear of infection and death but also negative psychological effects such as anxiety and depression due to isolation (Khan, 2021; Lu et al., 2022; Spatafora et al., 2022). To control the spread of the virus, governments around the world have had to temporarily close educational institutions, with significant consequences for students (Feng et al., 2021; Khan, 2021; Ma & Miller, 2021). In the case of Chinese international students, the fact that the virus was initially identified in China has led to discrimination and isolation in many countries, as this cohort was sometimes erroneously suspected of being COVID-19 carriers (see Farbenblum & Berg, 2020; Mian & Duan, 2020). This group of students, therefore, have been at risk of both infection and racially motivated hatred. This complex situation has led to mental health problems during their stays abroad (Feng et al., 2021; Song et al., 2021). Taken together, the complexity of the situation made it even more urgent to understand and address the well-being needs of Chinese international students.

Farbenblum and Berg (2020), for example, examined the human rights of international students living in Australia during the first year of the pandemic through the use of a large-scale online survey. Of the 5,049 students who responded, 23% were from China. Among all the temporary visa holders who replied to the survey, Asian international students reported the highest incidence of "hurtful" race-based discrimination and treatment as infection-spreaders due to their appearance. More than half of Chinese students said they had experienced "verbal abuse" or "instances of avoidance due to their appearance," which led to further isolation and loneliness following the lockdown. These respondents described negative experiences of living in Australia, including being avoided and shouted at and getting "strange looks" as they wore a mask. One

Chinese Master's student said they had been harassed by local teenagers who had eggs thrown at them on their way home from university. This study suggests that some Asian and Chinese students can receive racial abuse in Western cultures due to their alleged connection to the geographical origin of the virus. However, experiences of discrimination also depend on the host country. Local attitudes and politics, and the behaviour of students, all influence the relationships between different ethnic groups. Before Study Two was conducted (first half of 2021), no published academic study (to the best of my knowledge) investigated this issue among Chinese international students living in the UK.

During the COVID-19 pandemic, basically all HE students (regardless of nationality) have also had to face significant challenges in their studies, particularly the shift from traditional to online teaching (Alghamdi, 2021; Wilczewski et al., 2021). Mahdy (2020), for example, used a cross-sectional study to analyse the impact of COVID-19 lockdown on the academic performance of veterinary medical students and academics, who were invited to answer an online questionnaire (12 closed-ended and six open-ended questions). Approximately 1,400 individuals from 92 countries (including the UK and China) replied. The results suggest that the COVID-19 pandemic affected the academic performance of the majority of participants (96.7%) to varying degrees. According to the majority of participants, although online education provided an opportunity for self-study, the main challenge in veterinary medical science was how to deliver practical lessons. Participants said that it was difficult for them to acquire the necessary veterinary competencies only through an online education system. Specific problems included lack of access to the clinical setting, lack of online information about veterinary anatomy, and lack of contact with animals. This study thus indicated that online teaching may have a profoundly negative effect on students who need to conduct experiments or physically interact with subjects, possibly leading to a reduction in their progress and academic success. Although this study did not specifically look at the experiences of Chinese PGT students in Scotland, it offers a point of reference for those enrolled on similar courses in HEIs. Virtual resources, such as videos and 3D animation, can complement laboratory work to teach

practical lessons, but they still cannot replace the traditional way of teaching and doing research in a face-to-face/lab setting.

Furthermore, the stressful events caused by the COVID-19 pandemic challenged not only university students but also their host institutions (Cao et al., 2020; Feng et al., 2021; Khan, 2021). However, during the pandemic, many universities have often shown little understanding of the acculturation needs of students from different cultures, who are used to different modes of study (e.g., how students wanted to address the risks of COVID-19 and the appropriate ways to achieve a meaningful HE experience [UKCISA, 2022]). For instance, no relevant studies on Chinese international students' needs in Scottish HEIs conducted before this PhD study were found in mainstream research databases. However, the majority of HEIs have made considerable efforts to help ensure the quality of education and maintain students' safety and well-being (e.g., the University of Glasgow's advice on COVID-19; https://www.gla.ac.uk/myglasgow/coronavirus/). This doctoral thesis aims to contribute to this area of research.

Despite the many negative effects of the COVID-19 pandemic on HE students, several studies have also uncovered positive consequences, including improved self-evaluation, stronger connection to family, and higher appreciation of a healthy life (Alghamdi, 2021; Krajewski et al., 2021). Mian and Duan (2020), for example, conducted an online survey to understand how Chinese international students coped with the COVID-19 crisis, looking at levels of stress, stress-coping strategies, positive experiences, negative emotions and the need for psychological support. A total of 230 Chinese students from around the world (including the UK) replied to an online survey. The answers regarding positive experiences were recorded using a seven-point Likert scale ranging from "not at all" (1) to "very much" (7), with the higher scores referring to higher levels of positive experience. Twelve items were covered, including being more able to understand others, caring about others more, loving life more, feeling lucky and having more respect for life. The mean score was above 6.00, which suggests that the majority of Chinese students in this study learnt profoundly

positive lessons during this difficult period. As suggested by Mian and Duan (2020), the participants may have become more willing to help others who were struggling and live life with more appreciation. However, the study used self-developed questionnaires, which can be prone to the research team's biases. Furthermore, the study's quantitative research design does not allow us to appreciate why and how international students learnt positive lessons during the pandemic. A qualitative approach is needed to understand this.

The existing literature, therefore, suggests that many Chinese students have faced significant challenges during the COVID-19 pandemic, contributing to poor psychological well-being. The primary factors have been the switch to online learning and discrimination, which have caused multiple levels of isolation in difficult times. However, the positive effects, such as the re-evaluation of one's life, should not be neglected, as they may contribute to students' sense of resilience and growth. This finding echoes the concept of "eustress" (Jackson, 2013; Selye, 1974). Still, the health and well-being needs of Chinese international students living in Scotland during the pandemic have remained largely unexplored despite this being the largest international student group in the country (HESA, 2022). As different nations have implemented different policies and social distancing measures, student experiences may have varied widely (e.g., regarding online education). Moreover, in addition to the existing quantitative works, qualitative studies are needed to offer a deeper understanding of the issue and possibly more effective help (e.g., by host HEIs) to HE students in difficult contexts.

Overall, Section 2.3 has suggested that Chinese international students may experience both challenges and opportunities during their overseas studies, both before and during the COVID-19 pandemic, with the pandemic adding a layer of complexity to their acculturation in a Western nation (e.g., adapting to online teaching and a largely isolated lifestyle) (Farbenblum & Berg, 2020; Mian & Duan, 2020). International education can be a challenge for some Chinese PGT students and host HEIs in Scotland, and more research is needed to understand the potential sources of stress

involved, as well as the opportunities to achieve a healthy and meaningful overseas education experience. This doctoral study intends to contribute to the body of knowledge that can help these students achieve better acculturation and psychological well-being. The next section will examine the existing studies that have investigated how the largely ignored third space environment (Elliot, Baumfield, Reid, & Makara, 2016) could influence international students' overseas experience.

2.4 Understanding Third Space for Chinese International Students

As Montgomery (2010, pp. 98–100) noted, applying the concept of third space to the international education context is a complex matter. In Bhabha's (1994) understanding, the concept is used to describe the process of (re)construction of cultural identity in a postcolonial setting. Bhabha noted that a third culture is formed by the interaction of two different cultures. This third space is where existing differences can be respected and people can accommodate each other rather than live in conflict. This idea echoes Berry's (1992, 1997, 2005) model of acculturation, in which international sojourners have the freedom to acculturate according to their needs rather than being forced to assimilate into or live separately from the host culture. For many Chinese international PGT students in Scotland, then, a third space is a place where they can seek to balance their intensive studies and their personal life. It is a place where they can meaningfully interact with both Chinese students and students from other backgrounds based on their preferences (Berry, 2019; Brunette et al., 2011; Yan & Cardinal, 2013b). This kind of space may eventually contribute to improved acculturation in a new study and living environment (Li & Zizzi, 2017; Yu & Moskal, 2018).

Montgomery (2010, pp. 98–100) also argued that a third culture develops through a process of change when individuals move to a new sociolinguistic context where interaction with others and a sense of cultural competence are enabled. According to Montgomery, a new language and identity are important for students' views of themselves as being 'international'. Language is closely associated with the cultural identities that allow a person to express themselves, communicate with others, and eventually reflect on who they are (see also Byram & Fleming, 1998; Kramsch, 2006, as

cited in Montgomery, 2010). Montgomery's approach is relevant to this study as many Chinese students may experience significant changes as a result of their new cultural and educational experiences in Scotland (He & Huston, 2018; Ozer, 2013). The new environment may help many of these students acquire better foreign language skills and, ultimately, a global outlook. This cultural competence will differentiate them from a student who has only experienced the Chinese educational system (Gbadamosi, 2018; Gu et al., 2010; Mian & Duan, 2020). In cosmopolitan Scotland, the majority of Chinese international students can, arguably, express themselves freely, enjoy knowledge exchange with other people, and become better versions of themselves. A new social 'reality' may be constructed during this process. However, as discussed in previous sections, many Chinese students normally need to overcome language barriers during their studies (He & Huston, 2018; Zhou & Todman, 2008). During this language practice, students may learn the deeper meanings of culturally specific aspects of the language (Montgomery, 2010).

Other approaches to third spaces are relevant in the context of international education. For instance, three decades ago, American urban sociologist Ray Oldenburg (1989) used this term in his influential book *The Great Good Place*. Oldenburg maintained that third spaces are informal but regular meeting places outside people's homes and workplaces (e.g., a coffee shop, a bar) that can help individuals live a thriving life. This kind of space should allow people to enjoy themselves and should be accessible and supportive. For many Chinese international students in Scotland, a third space can be a place where they can pause their daily routines and have fun, such as exercise clubs or arts and music societies (Brunette et al., 2011; Yan & Cardinal, 2013b). However, some one-off extra-curriculum activities and events organised by the host university or government, such as the university's Christmas party or the host city's Christmas market, are not normally regarded as third spaces. These events may help to take a break from studying and allow many international students to enjoy themselves by meeting and talking to other people. However, as they individually are short and occasional events, they cannot be used to achieve meaningful learning, personal development and a profound acculturation.

The present study is mainly inspired by Elliot, Baumfield, Reid, and Makara's (2016) approach to third spaces as an informal space beyond family, work and educational environments that can foster socialised learning, enjoyment and personal development (please also see 2.4.1). However, the above-mentioned early discussions of the concept have contributed to the evolving notion and meaning of the third space and are also partly relevant to this project.

Based on the discussion above, a third space could be an environment (where people can meet each other) for relaxation, recreation and self-reflection that is found outside students' academic, work and home environments. This space usually involves regular activities students proactively pursue to achieve improved acculturation, health and well-being. This is particularly the case with opportunities for meaningful cross-cultural communication, which can foster socialised learning (e.g., language and cultural competence) and contribute to a thriving international education experience.

2.4.1 Third Space and International Students' Health and Well-being

This section will focus on exploring the role of third spaces in international students' psychological well-being during acculturation, discussing its importance for Study One. Section 2.4.2 will examine how a third space may influence students' health and well-being during COVID-19-related lockdowns and social distancing measures, which reflects the context of Study Two. Overall, previous studies have indicated that appropriate third space participation can play a largely positive role in the acculturation journey of many international students, thereby facilitating their psychological well-being both before and during the pandemic (Eöry et al., 2021; Lesser & Nienhuis, 2020; Li & Zizzi, 2017). However, research on international students' third space participation remains scarce.

Elliot, Baumfield, Reid, and Makara's (2016) study used photo-elicitation interviews with 14 participants who were encouraged to reflect on their previous acculturation experiences as PhD students in British universities. In this study, one participant commented that having always played

in a tennis club, he kept practising this sport in the host society as a way of improving his well-being and fitting in with the locals. The participant also stated that tennis represented an important element of his acculturation journey in the UK. What is notable here is that this experience took place outside the domains of formal education, work and the home. Similarly, as discussed in the Introduction (Section 1.3.2, Chapter 1), Li and Zizzi (2017) also suggested that exercise activities helped many international students in finding opportunities for cross-cultural communication and addressing their sense of loneliness.

Another participant in Elliot, Baumfield, Reid, & Makara's (2016) study commented that going to the pub and talking to residents helped him understand the local culture and develop social relationships, which, in turn, contributed to reducing his stress about the English language. This study strengthens the idea that, it would be beneficial for many Chinese students to consider all the available opportunities for acculturation during their time in the host country, including those outside formal educational settings. International PGT students normally stay abroad for shorter periods when compared to PhD students. In general, study experiences should not be limited to formal settings. Students are expected to gain social skills and develop their hobbies as this can help them live a balanced life before entering the employment market.

However, many potential acculturation strategies, such as exercising and going to pub, have been thus far overlooked or studied only from one angle (e.g., their positive side) (see Elliot, Baumfield, Reid, & Makara, 2016; Li & Zizzi, 2017). These strategies, at times, may not be suitable for every student and may have certain limitations associated with them. For example, Brunette et al. (2011) raised that some Chinese international students in Canada experienced discrimination while exercising as a result of language barriers, unfamiliarity with the activities, and ethnic prejudice. This interview study suggests that recreational activities may play different roles (positive or negative) depending on context. In turn, as a researcher, it is important to inform students about what strategies are available, how they can use hidden spaces appropriately, what potential benefits and

problems are associated with them, and how they can increase the effectiveness of these opportunities during their acculturation. Doing so tends to be vital to help ensure that international students can thrive in new social and academic contexts.

Exercising, participating in church activities and going to the pub all involve so-called third spaces. By frequenting these spaces, many international students may achieve a positive acculturation outcome (Li & Zizzi, 2017; Yu & Moskal, 2018). A third space ''is an informal space that is separate from family, work and educational environments; this kind of space (where people can meet each other) can foster learning, enjoyment and personal development by facilitating friendships and social activities'', as argued by Elliot, Baumfield, and Reid (2016, pp. 1189-1191) and Elliot, Baumfield, Reid, and Makara (2016, pp. 738-742). As already discussed, engagement in third spaces involves creativity and taking the initiative for many international students (as well as the HEIs); doing so may offer many opportunities for social support, intercultural communication and language practice.

Of the articles on Chinese international students' acculturation, fewer than 10 focus on the impact of creative, informal opportunities, such as exercising or going to church (Li & Zizzi, 2017; Yu & Moskal, 2018). In the latter group of papers, approximately five are specifically concerned with exercising and its impact on well-being. During 2014–2019, fewer than five articles explore Chinese students' overseas experiences in relation to third space activities in British HEIs. No study specifically investigates Chinese PGT students' acculturation, health and well-being within creative settings in Scottish HEIs. Therefore, Study One aims to contribute to a better appreciation of this topic.

Overall, previous studies have suggested that a third space environment (e.g., exercising or going to the pub) may contribute to the psychological well-being of many international students by fostering meaningful engagement, friendships and socialised learning (Elliot, Baumfield, Reid, & Makara, 2016; Li & Zizzi, 2017; Yu & Moskal, 2018). It remains to be seen if and how this type of

environment can play a positive role in Chinese international PGT students' acculturation journey in Scotland as there is still limited research in this area. It seems that academics have paid scant attention to the value of third spaces before the COVID-19 pandemic. However, knowledge of this issue might be a vital step towards making international students thrive in a new culture. The next section will review the literature to understand if and how a third space can impact international students' psychological well-being during the COVID-19 pandemic.

2.4.2 Third Space and Health and Well-Being in the Age of COVID-19

This section will examine recent studies regarding the interplay between international students' psychological well-being and their participation in a third space environment during the COVID-19 pandemic. This part of the review uses exercise participation as an example as this is one of the most popular third space activities among international students in many countries (Elliot, Baumfield, Reid, & Makara, 2016; Li & Zizzi, 2017; see also Section 2.4.1 above). At the same time, exercising was among the few third space activities allowed and strongly recommended during the periods of lockdown and social distancing in Scotland and other parts of the UK (some other third space activities, such as group dining within a group of six socially distanced people, continued during many stages of lockdown) (Scottish Government, 2020, 2021). Moreover, as already discussed, the findings of Study One informed Study Two, and exercising was highlighted as the most popular and beneficial third space activity by the majority of Study One participants (see Chapter 3). To understand the specific impacts of this activity, Chinese international PGT students in Scotland who exercised during the pandemic were chosen as the participants of Study Two. The studies reviewed here suggest that the role of third spaces, in particular of exercise participation (including online participation), should not be neglected when helping HE students, including Chinese PGT ones in Scotland, to effectively cope with the pandemic and improve their psychological well-being (e.g., by staying active and socially connected) (Cronshaw, 2022; Eöry et al., 2021; Lesser & Nienhuis, 2020).

There is a need to define what is meant specifically by "exercise" in this thesis. Several different understandings of the meaning and components of exercise exist. The World Health Organization (WHO) (2022b, see https://www.afro.who.int/health-topics/physical-activity) has defined it as "a subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective." Exercise is a part of physical activity that includes other actions, such as playing and working. It includes moderate activities (e.g., brisk walking, cycling, hiking), rigorous activities (e.g., jogging or running, fast cycling, skipping rope, aerobics and gymnastics) and very vigorous activities (e.g., weight lifting, circuit training and interval running) (WHO, 2022b; NHS, 2021).

As suggested by the WHO (2022) and the UK's National Health Service (NHS, 2021), adults aged above 18 should try to do at least 150 minutes of moderate-intensity exercise every week; this time requirement can be reduced if the exercise is mixed with vigorous activities. Academics have widely documented the health benefits of regular exercise for the general population (Chastin et al., 2021; Kruk, 2009; Reiner et al., 2013). For example, Chastin et al. (2021) conducted a systematic review and meta-analysis by screening over 14,000 studies and reviewing over 600 full texts of articles. They suggested that regular exercise (moderate to vigorous) is associated with a reduced risk of community-acquired infectious diseases, enhances the immune system, and increases the potency of vaccination, which is recommended to help combat COVID-19. In Study Two, 150 minutes of exercise per week was adopted as the recruitment criterion.

Notably, games such as international chess, Chinese chess, and computer programming have also recently been viewed as sports and exercises (Santos & Alonso, 2014). However, in these games, the mental component is more significant when compared to the physical one. They are thus very different from the exercise explored in the present study. Furthermore, some academics use the term "exercise" when referring to public physical activities carried out for health reasons and

"sport" for professional competitive settings (Moran, 2004), while others use physical activity, exercise and sport interchangeably (Allen & Lyons, 2019; Li & Zizzi, 2017; Smith et al., 2019). In this thesis, "exercise" is not used interchangeably with "sport." (However, terms such as 'exercise', 'exercise activities' and 'exercise participation' are used interchangeably in this thesis to increase readability.)

The importance of exercising has been well documented (Stoddart, 2008; Smith et al., 2019). In many ways, exercising can influence a society's economy (e.g., its healthcare services), as well as each person's well-being. The importance of exercising for health has been recognised since the times of Hippocrates (460–370 BC), Plato (429–347 BC), Aristotle (384–322 BC) and Galen (129–200 AD) (Ivy, 2007). Today, there is an overwhelming amount of evidence on the benefits of regular exercise for a healthy lifestyle (Brehm, 2014; Lesser & Nienhuis, 2020; Sallis et al., 2021).

The positive effects of exercising regularly are evident in each person's physical level (Michelini, 2014). Exercising is linked to improved muscle power and a reduced risk of various illnesses, including cardiovascular disease, high blood pressure and cholesterol, stroke, some cancers and even deaths from COVID-19 (Michelini, 2014, Sallis et al., 2021). Psychologically, exercising boosts self-esteem (e.g., by improving body shape/image) and may act as a form of therapy for psychological disorders such as depression, anxiety, neurodevelopmental syndromes, personality disorders, and stressor-related illnesses (Eöry et al., 2021; Lesser & Nienhuis, 2020; Weinberg & Gould, 2014). However, the mechanisms behind the impact of exercise on psychological well-being have not been clearly identified (Morgan, 2013; Stoddart, 2008). Biochemical and physiological mechanisms, including an increase in endorphin production following exercise and the positive effects of exercising on neurotransmitters, may partly explain the documented benefits. (Study Two, therefore, aims to only investigate and explore Chinese students' subjective experience of psychological health and well-being following exercise participation in Scotland.)

Exercising comes also with its downsides, in particular injuries (Anshel et al., 2019; DeJong et al., 2021; MacAuley, 2012). Individuals of all ages face an inherent risk of injury when participating in exercise activities. Adults tend to be less resilient and heal significantly more slowly than children and adolescents. Inappropriate and excessive exercising can cause injuries to both muscles and bones. These injuries may lead to significant pain, stress and complications in everyday life. A hasty return to exercising may result in repeated damage, chronic pain and dysfunction, as well as increased time away from physical activity. However, many practices exist to help people exercise appropriately and reduce the possibility of injury, such as warming up (Anshel et al., 2019; Bahr & Mahlum, 2004; MacAuley, 2012). In the end, there is a wide agreement in the scientific community that the positive aspects of (appropriate) exercise far outweigh its potential negative effects (Morgan, 2013).

People who live a sedentary life (i.e. less than 150 minutes of moderate exercise per week) risk endangering their health (Moran, 20024; NHS, 2021). With little or no exercise, the human body deteriorates (Backhouse et al., 2007; MacAuley, 2012). A lack of physical activity may become self-perpetuating, contributing to psychological issues such as stress and associated depression and anxiety (Michelini, 2014; Sallis et al., 2021; Teixeira et al., 2012). Individuals facing these issues could lose the habit of sustaining efforts; furthermore, as the effort becomes painful, they tend to be even less inclined to exert themselves (Backhouse et al., 2007; Teixeira et al., 2012). Several studies have suggested that even among "inactive participants," those who spent more time engaged in exercise during the COVID-19 pandemic had lower anxiety and depression levels when compared to those who spent less time exercising (Lesser & Nienhuis, 2020; Sallis et al., 2021). Given the health risks associated with physical inactivity, individuals should consider finding ways to exercise appropriately and sufficiently. Some academics have argued that focusing only on the positive aspects of exercising could lead to problems such as excessive exercise, injuries, and even exercise addiction (see Anshel et al., 2019; Cockerill, 2002; MacAuley, 2012). This thesis, therefore, suggests that it is important to help international Chinese students understand how to become sufficiently and

meaningfully active in the age of COVID-19. Study Two aims to offer an understanding of the specific role (both positive and negative) that exercise played in Chinese students' well-being.

Many recent studies have highlighted the beneficial role of exercise participation during the pandemic (Eöry et al., 2021; Lesser & Nienhuis, 2020; Zhang et al., 2020). Sallis et al. (2021), for example, tracked the exercise history of about 50,000 adults with a positive COVID-19 diagnosis in the US from 1 January 2020 to 21 October 2020. They suggested that sedentary patients had a greater risk of hospitalisation, admission to the ICU and death due to COVID-19 when compared to those who were consistently meeting official physical activity requirements. Inactive patients also had greater risks when compared to those who exercised inconsistently. This study, therefore, indicates that exercise may reduce the risk of severe COVID-19 outcomes. The study's sample contained patients from a wide range of demographics, including more than 2,000 Asians and adults over 80 years old, and with diverse health profiles. Even though the study targeted a different population from Study Two, it indicates that many physically active Chinese students may have a better chance of surviving the pandemic and avoiding the most dangerous consequences of infection.

Regarding psychological impact, many studies have highlighted the positive role exercising played during the pandemic for people's well-being (Eöry et al., 2021; Lesser & Nienhuis, 2020). For example, Zhang et al. (2020) conducted a longitudinal survey of 66 Chinese college students to assess the adverse impact of the outbreak on their mental health and explore feasible mitigation strategies. The authors used a structured questionnaire to collect information on demographic characteristics, exercise activity, negative emotions (e.g., stress, anxiety, depression), sleep quality, and aggressiveness levels. The results indicate that the severity of the COVID-19 outbreak had an indirect effect on negative emotions by affecting sleep quality and that exercise directly alleviated negative emotions. For the study's participants, exercising seemed to act as a protective factor during the pandemic. However, this study was based on a relatively small group of Chinese students

situated in China; its findings, therefore, may not be representative of the overall mental well-being

pattern of Chinese students who are based in other countries. The survey also lacked detailed,

qualitative information regarding the interconnection between exercise participation and students'

well-being. These results may then not be directly relevant to many Chinese PGT students in

Scotland, who tended not to be able to obtain effective support from many close family members

and friends. Exercise participation may play a different role depending on the context students find

themselves in (e.g., whether exercise helps them improve their understanding of local culture,

including language and customs).

The studies of Ingram et al. (2020) and Ingram et al. (2022) have depicted the impact of the

COVID-19 pandemic on the health and well-being of Scotland's residents. Specifically, Ingram,

Maciejewski and Hand (2020) used a survey questionnaire to examine the changes in their

participants' health behaviours (N = 399 completed the survey), including alcohol consumption, diet,

sleep quality and physical activity level, as well as their relationships with negative mood during

COVID-19-related lockdowns. A 5-point scale ranging from *a lot more* to *a lot less* was used for the

health behaviours, while negative mood was measured using the abbreviated version of Grove and

Prapavessis's (1992) Profile of Mood State scale. The results of this study suggested that lockdowns

and social distancing measures in Scotland were associated with higher negative mood. Being less

physically active (e.g., exercise-wise) was correlated to higher negative mood, and participants

studying full-time saw a greater reduction in their physical activity levels. In particular, those who

were a lot less active or a little less active had significantly higher negative mood than those whose

active levels stayed the same or improved a little or a lot.

In another study by Ingram, Maciejewski, Hand, and Hijikata, 2022, which was done in

collaboration with an academic from Japan (Yuko Hijikata), the health behaviours of the Scottish

participants (N = 138) were characterised by greater changes compared to those of the Japanese

participants (N = 139). Ingram et al. assumed that a possible reason for this was the less restrictive

nature of the lockdowns in Japan. As was the case with the previously mentioned study, the

participants in this study were asked to rate changes in their alcohol consumption, diet, sleep

quality, and physical activity level during COVID-19 lockdowns using a 5-point scale, while negative

mood was measured using the abbreviated version of Grove and Prapavessis's (1992) Profile of

Mood State scale. Once again, an association was found between psychological well-being and

physical activity levels, with negative changes to physical activity linked to poorer well-being. The

majority of participants who reported being more active during lockdown were based in Scotland.

This suggests that although Scotland tended to have stricter COVID-19 lockdowns and social

distancing measures, people could still find opportunities to live a healthy life and improve their

psychological well-being (Leyton-Román et al., 2021; Petersen et al., 2021; Spence et al., 2020).

These two studies suggest that many of Scotland's residents, including full-time HE students,

tended to experience significant changes in their health and well-being during COVID-19 lockdowns.

However, in both studies, all the participants in Scotland were Scottish nationals. International

students' patterns of change in health behaviours might differ as this group of students tend to have

different health beliefs, as well as different plans and access to health and well-being information

(e.g., via the university websites). Moreover, the detailed interplay between students' psychological

well-being and changes in health behaviours remains unclear (e.g., causal relationships). This aspect,

therefore, requires further investigation (e.g., how the COVID-19-induced psychological challenges

specifically influenced different students' physical exercise participation and/or how this

participation affected their psychological well-being). This PhD study is a contribution to this effort.

Furthermore, as discussed, a third space may be an environment for relaxation, recreation

and self-reflection that is found outside students' academic, work and home environments (e.g., a

coffee shop, gym or music hall) (see Elliot, Baumfield, & Reid, 2016; Elliot, Baumfield, Reid, &

Makara, 2016). A third space may also provide opportunities for meaningful cross-cultural

communication, which can foster socialised learning (e.g., language and cultural competence) and

contribute to a thriving international education experience (Li & Zizzi, 2017; Yu & Moskal, 2018).

Before the COVID-19 pandemic, traditional face-to-face communication was enabled by third space

environments (see section 2.4.1 regarding theories and examples of popular third spaces among

international students, including exercise participation). This interpersonal interaction could provide

powerful health benefits for international students' psychological well-being during their

acculturation (Brunette et al., 2011; Yan & Fitzpatrick, 2016). During this time, physical contact in

third spaces was always available and important.

The initial lockdowns, both in Scotland and around the world, caused the mass closing of

public spaces, such as gyms and theatres, as well as significant challenges in public health and well-

being (Feng et al., 2021; Scottish Government, 2020). However, interestingly, these periods allowed

some virtual third space contents (e.g., online exercises and concerts) to become more popular

thanks to their lack of physical contact (Menhas et al., 2022; Petersen et al., 2021; Yang &

Koenigstorfer, 2020). Many people have adapted their need for entertainment and recreation to the

new social reality where digital and remote participation options, including live streaming, social

media apps, and virtual reality (some of these not built to promote health behaviour change), have

replaced traditional face-to-face meetings (some traditional third space activities, such as group

exercise in a park and group dining within a group of six socially distanced people, were still allowed

in Scotland during many stages of lockdown). Online third spaces, therefore, allow safe meetings

where communal and social learning can take place (Cronshaw, 2022; Tong et al., 2022).

Cronshaw (2022) investigated the impact of joining online exercise and other relevant

communities on health and well-being during lockdown in the UK by using a survey and observation

tool. The participants were recruited through a Facebook post and the researcher's personal page.

They were asked to respond to a questionnaire with open-ended questions that explored their

motivation for using online exercise spaces and their impact on feelings (overall, 90 participants

filled out the survey). The researcher also joined a Facebook group dedicated to sports and

exercising in an observational role (there was no interaction between the researcher and the group members). The group had over 30,000 members in the UK. The notes from this online observation and the results of the survey demonstrated that, apart from the need to use digital exercise platforms to maintain participants' fitness levels, online exercise groups significantly helped to improve their motivation to exercise, social networks and psychological well-being.

Cronshaw (2022) highlighted that many respondents in the Facebook group appreciated the sense of community generated by online exercise and enjoyed the feeling of togetherness as well as the chance to interact with one another (e.g., "It's a form of socialising during lockdown" and "It makes me feel part of a community"). For instance, a participant who lacked the motivation to exercise on their own found that online sessions enabled a feeling of being with other members in a gym; it was this feeling that kept this participant going. The digital exercise platforms provided opportunities to support the health and well-being of many participants. These individuals explained their positive participation experiences by mentioning a sense of "bonding" and of being part of a "community," which stopped the "feeling of isolation." All the respondents in Cronshaw's study believed that this form of exercise positively impacted their psychological health, with many of them saying that exercising made them happier and less stressed.

Cronshaw's (2022) study provides insight into the role of digital third spaces and their impact on health and well-being during the COVID-19 pandemic in the UK. However, a key limitation of this study is the limited control over the participant selection process. For instance, the Facebook group observation relied on a self-selected sample; little is known regarding the demographic information of those who joined the online discussions. Therefore, it is possible that those who were physically active decided to participate in the survey and leave comments online, which may not be representative of the overall UK population. Therefore, it is necessary to consider the role of digital third spaces for a specific group by, for example, exploring whether online exercise is accessible to

and welcomed by Chinese PGT students in Scotland, as well as if and how online exercising can play

a positive role in their quest for health and well-being during lockdown.

Several other studies conducted in other contexts have also highlighted the influence of

modern technologies (e.g., fitness apps) on people's health behaviours, including improving exercise

motivation, activity levels, health and well-being (Menhas et al., 2022; Petersen et al., 2021; Yang &

Koenigstorfer, 2020). For example, Tong et al.'s (2022) survey explored the health behaviours of

participants from 32 countries (including the UK), such as their use of technologies during the

pandemic. This survey had over 500 participants, 60% of whom reported using a mobile app for

health purposes. As in Cronshaw's (2022) study, participants in this survey also discussed how

modern devices (e.g., mobile apps and fitness trackers) allowed them to maintain a sense of social

connection with their family and friends and gave them the motivation to exercise, which addressed

some emotional stress ("This [a running app that allows people to train together] has helped us [the

family] stay in touch and kept us motivated"). This survey obtained information on participants'

views in detail and from a global perspective. However, its representativeness might be limited as

the sample contained a large number of highly educated individuals (65% had completed a

postgraduate degree), who might have been more health conscious. At the same time, this suggests

that many Chinese international PGT students in Scottish HEIs may also be inclined to use modern

technologies to benefit their health and well-being during the pandemic.

As discussed, much recent literature indicates that the lack of in-person meetings has paved

the way for virtual third space environments. Accordingly, the notion of third space may be

changing, and the theorisation of this notion may shift towards the virtual world during lockdown

and social distancing. Under such situations, many people were able to find online participation

opportunities that improved their understanding of how to maintain a healthy lifestyle. Modern

technology may have significantly shifted the contents of third spaces, and more research is needed

to explore the potential health and well-being benefits of this phenomenon (Cronshaw, 2022;

Menhas et al., 2022; Tong et al., 2022). This PhD study is a step in that direction. An objective of Study Two was to explore if and how Chinese PGT students in Scotland have adapted to a virtual third space environment.

The paucity of research on how third spaces (e.g., exercising, including online exercise communities) have affected Chinese international students' well-being during the COVID-19 pandemic means that the Scottish government and HEIs are unable to provide tailored strategies to address the concerns of these students. Even though previous studies may provide some guidance on this phenomenon, different needs and contexts require ad-hoc investigations. Whether and how third space participation has a positive effect on the outcomes of Chinese students' overseas education during the pandemic remains to be seen. Study Two aims to explore this issue.

All in all, previous studies have suggested that third space participation comes in different types and forms (e.g., face-to-face vs online meetings); international students can join third space communities based on their needs and preferences (Cronshaw, 2022; Li & Zizzi, 2017; Tong et al., 2022). If appropriately used, these largely overlooked environments may contribute to students' health and well-being as part of their acculturation both before and during the COVID-19 pandemic (Elliot, Baumfield, Reid, & Makara, 2016; Eöry et al., 2021; Lesser & Nienhuis, 2020). However, there is a limited understanding of third spaces' influences on Chinese international PGT students in Scotland. This topic requires significant attention from academics to assist these students in achieving a better overseas study experience.

2.5 General Research Aims for Studies One and Two

This review has explored the issues linked to international students' psychological well-being during their acculturation, including during their involvement in a third space environment, which is a topic that has been largely overlooked by previous academics.

The literature suggests that the acculturation journey in a Western society of many Chinese international students may affect their lives and health and well-being conditions (Farbenblum & Berg, 2020; Wei et al., 2012; Yu & Moskal, 2018). The potential psychological challenges include language barriers, academic stress, public health concerns due to COVID-19 (e.g., physical inactivity and isolation), as well as the lack of sensitive and adequate support from host institutions (e.g., as discussed, previous research has highlighted the hardships international students face and adopted a deficit-thinking model that misrepresents international students as a passive group; this has led universities' policies to centre on problems and struggles rather than solutions and agency [Aikman et al., 2016; Deuchar, 2022; UKCISA, 2022]). Many academics suggest that to maximise Chinese students' chances of having a healthy overseas acculturation experience, both students and HEIs should consider using all the available opportunities, including those connected to third spaces (Li & Zizzi, 2017; Yan & FitzPatrick, 2016).

Recent studies have indicated that even at the height of the COVID-19 pandemic, when many international students were living under very difficult conditions (e.g., isolation), there were multiple opportunities to improve their acculturation experiences and health (Cronshaw, 2022; Eöry et al., 2021; Zhang et al., 2020). Despite certain limitations (e.g., discrimination), many third space activities could be explored and used during students' acculturation journey – beyond the pandemic – to help with psychological well-being, such as exercise participation and church participation (Brunette et al., 2011; Menhas et al., 2022; Yu & Moskal, 2018). For instance, if properly conducted, exercise participation (including online exercising) may help students obtain social support and reduce the psychological burden caused by COVID-19 while improving well-being (Cronshaw, 2022, Sallis et al., 2021; Zhang et al., 2020). Understanding how Chinese international PGT students in Scotland manage their acculturation journey may aid future students in similar contexts.

The psychological well-being and third space participation experiences of Chinese students enrolled in Scottish HEIs have received little scholarly attention. We thus do not know what their acculturation journey looks like. This may limit our capacity to effectively support this group of students. In turn, this could negatively influence the reputation of Scottish HEIs and the cultural, economic and educational partnerships between China and Scotland (Scottish Government, 2016, 2018b, 2019).

The relevant literature published before and during the COVID-19 pandemic points to the importance of exploring Chinese international students' psychological well-being in Scotland. It also highlights the potential contribution of third space participation to the well-being of these students across different acculturation contexts. Therefore, to gather data that could effectively support students in need regardless of the pandemic, this PhD study investigates two main issues: 1) students' detailed acculturation experiences and associated psychological well-being conditions before and during the pandemic and 2) the specific impact of third space participation on students' well-being before and during the pandemic. The following chapters explain the specific designs of Studies One and Two, including their aims, research questions, methods and analysis.

Chapter 3 Study One

1-1 Chapter Overview and Research Aims of Study One

This chapter outlines the research design and analysis of Study One, which is situated in the context before the COVID-19 pandemic. It consists of four sections. Section 1 reviews significance and purpose of this study. Section 2 explains Study One's research design, methodology, sample, instruments, procedure and trustworthiness. Section 3 discusses the findings of Study One, while Section 4 examines their contribution to knowledge.

1.1 Research Gaps and Research Questions of Study One

The existing literature suggests that, as discussed in the Introduction and Literature Review chapters, international students' experiences include both positive aspects (e.g., improving language skills, increasing cultural competence) and negative ones (e.g., distressing events, academic pressure) (Gbadamosi, 2018; Hsu & Wu, 2015; Yu & Moskal, 2018). For example, Gbadamosi (2018) used focus groups and interviews to study the acculturation of 38 overseas university students (including two Chinese) in London. The author documented multiple challenges, such as language barriers, academic stress, discrimination and limited opportunities for socialisation. Despite these difficulties, the majority of the respondents cherished the quality of the education they received as they believed it increased their expertise and would give them an advantage over their peers.

Whether an international student feels a strong sense of accomplishment after graduating depends on how they manage the stressful but potentially profitable overseas journey (Han et al., 2013; Hsu & Wu, 2015; Yu & Moskal, 2018). Academics suggest that to maximise their chances of having a healthy overseas experience, students and HEIs need to consider using all the coping methods available to keep their acculturation stress at manageable levels, including those linked to third spaces (Li & Zizzi, 2017; Yan & FitzPatrick, 2016). Understanding how Chinese international

students in Scotland manage their acculturation journey may help future students in similar contexts to have a more positive experience.

As previously discussed, Chinese students' well-being in Scottish HEIs has received little scholarly attention. This may limit our capacity to effectively support this group of students, which, in turn, may negatively influence the academic reputation of Scottish HEIs and the nation's partnerships with China in the domains of culture, business and education (Scottish Government, 2016, 2018b, 2019). More research is thus required to inform the provision of effective support to this group of students (Han et al., 2013; Hsu & Wu, 2015; Yu & Moskal, 2018). Study One of this doctoral project, therefore, will ask the following research questions:

1. What are the main acculturation experiences of Chinese international PGT students at a Scottish HEI?

2. What is the role of the third space in Chinese international PGT students' psychological well-being at a Scottish HEI?

The next section will set out the theoretical framework adopted in Study One.

1.2 PERMA Theory as Study One's Theoretical Framework

In Study One, Seligman's (2011) PERMA model will be used to interpret Chinese students' third spaces participation and psychological well-being.

The PERMA model was developed by Martin Seligman, a respected positive psychologist, in his influential 2011 book *Flourish: A Visionary New Understanding of Happiness and Well-Being*. Seligman (2011, pp. 32–80) argues that happiness consists of five building blocks: positive emotion (P), engagement (E), positive relationships (R), meaning (M) and accomplishment (A). Positive emotion refers to feelings of happiness, pleasure, warmth and comfort. Engagement indicates the concentrated attention that is involved in thought and feeling; it also refers to being absorbed in an activity, which helps people remain present. Engagement is a type of intensive involvement that

requires passion for and concentration on the task at hand. Positive relationships signal meaningful connections and interactions with others who can offer support. Having a sense of meaning indicates belonging to or serving something that is believed to be more important than the task at hand (Seligman, 2011). Finally, accomplishment refers to a person's ambition to achieve their goals. According to Seligman (2011), these five elements are often related, and each of them contributes independently to an individual's well-being. In other words, people may focus on one element to help them achieve improved psychological well-being and eventually "flourish" (Butler & Kern, 2016; Lambert & Pasha-Zaidi, 2016; Seligman, 2011).

When Seligman was president of the American Psychological Association in 1998, one of his main initiatives was the building of a new field called "positive psychology". This action reflected a wider trend in psychology involving an emphasis on people's desire to thrive rather than simply survive mental health issues (Seligman, 2008; Seligman & Csikszentmihalyi, 2000). According to Seligman (2002, 2011), well-being is just as important as illness. Positive psychology is thus the scientific study of the factors that enable individuals and communities to become happier.

Seligman (2008, 2011) reports that it is natural for individuals to continuously seek out what makes them happy and allows them to cultivate the best version of themselves. This search allows people to flourish regardless of their age, orientation and status. For Seligman, well-being is not simply the lack of negative psychological states; it is something more (Seligman & Csikszentmihalyi, 2000). He conveys the view that the PERMA model comprises the conditions that make life worth living, enabling people to achieve fulfilment. As such, PERMA gives people the starting point for living a great life that is characterised by moving beyond a lack of mental distress or illness.

Like all theories, the PERMA model contains both strengths and weaknesses (Arcidiacono & Di Martino, 2016; Becker & Marecek, 2008). Seligman's theory has been used in a variety of settings and social contexts, and thousands of research papers on it exist in the EBSCOhost and ScienceDirect

databases. The PERMA model is normally used to measure people's well-being and understand their mental health needs (Abiola et al., 2017; Butler & Kern, 2016; Lambert & Pasha-Zaidi, 2016).

For instance, Kovich et al. (2022) conducted a study to examine whether all five PERMA elements of well-being could be applied to undergraduate students in the US. Their data were collected at a university in the US Midwest; over 5,000 students participated in the survey, including international ones (approximately 10%). All undergraduate students at the university were invited by email to complete the survey. The aim of this study was to verify whether the PERMA elements could be constructed from the items of the 2018 Student Experience at a Research University (SERU) survey. The SERU survey was developed at the University of California Berkeley to measure student engagement, and it offers many variables that can be used to assess student well-being. The survey, which is periodically reviewed, has been used by many research institutions across the US and the world (Chatman, 2009, 2011). Based on Seligman's (2011) definitions of PERMA and a review of the literature, Kovich et al. (2022) identified and selected relevant items of well-being in the SERU survey that could represent the latent variables of Positive Emotion, Engagement, Relationships, Meaning and Accomplishment.

The results of the confirmatory factor analysis suggested that Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment were supported as dimensions of well-being in the sample and demonstrated significant associations with well-being. While the students examined in this thesis may exhibit different characteristics from the participants of Kovich et al.'s (2022) study, these results indicate that Seligman's PERMA themes can be applied to the Western higher education context. However, Kovich et al. used secondary data to understand student well-being, and the PERMA constructs were created using available survey items. Other studies, such as the current one, should consider including primary data to understand the applicability of Seligman's (2011) theory and address student well-being, thus improving the reliability of the results.

One of the key reasons for adopting the PERMA model in Study One is that it looks at well-being from a multilevel perspective. Positive emotion, engagement and achievement focus on the individual level, while positive relationships focus on the social level; meaning cuts across the two levels (Arcidiacono & Di Martino, 2016; Seligman, 2002). For many Chinese international students, the most basic need is a healthy state of mind (positive emotions) to concentrate on their studies, which will allow them to obtain their academic qualifications (Baba & Hosoda, 2014; Gbadamosi, 2018; Liao & Wei, 2014). However, as discussed in Chapter 2, the literature suggests that having 'positive relationships' (e.g., in third spaces) can significantly facilitate many international students' acculturation overseas (e.g., by helping them with loneliness) (Elliot, Baumfield, Reid, & Makara, 2016; Li & Zizzi, 2017).

Furthermore, many international students are also expected to achieve more than just academic success. They are meant to gain experience in cross-cultural communication and participate in knowledge exchange, which often requires engagement in third space groups. In short, they are expected to maximise their opportunities overseas to achieve a more 'meaningful experience', rather than simply completing an academic programme (Brunette et al., 2011; Li & Zizzi, 2017). As already mentioned, Li and Zizzi (2017) highlighted (see Section 1.3.2, Chapter 1) that by participating in exercise activities with domestic students, some Chinese international students improved their experiences of acculturation in the US and increased their chances of intercultural communication. Attending meaningful activities outside the academic environment also suggests that they desired to thrive in the host country.

The PERMA model, therefore, is well-suited in providing a theoretical lens for understanding Chinese international PGT students' personal expectations of having healthier acculturation experiences and their social expectations regarding interaction with others. The model is also useful in understanding higher goals such as intercultural dialogue, which may ultimately benefit both the students and society (Chang et al., 2012; Mikhaylov, 2014; Yan & Cardinal, 2013a). However, by

searching multiple academic databases (e.g., ScienceDirect and EBSCOhost), I could find no peer-reviewed study published that used Seligman's theory to understand Chinese international students' life in the UK (including Scotland) (up until 2022). This doctoral study, therefore, will explore the applicability of the PERMA model to this case.

In addition to Seligman's theory, I explored numerous other approaches that could be used to understand Chinese international students' experiences in relation to one's health and well-being, including the Positive Activity Model (Lyubomirsky & Layous, 2013) and Existential Positive Psychology (Wong, 2010). Each has its strengths and weaknesses, and I ultimately decided to use the PERMA model as the main theoretical framework for this study.

Regarding the Positive Activity Model, Sonjia Lyubomirsky et al. (2005) have indicated that individuals can become happier by engaging in activities that change their life in a significantly positive way, such as a health intervention programme and third space activities. Three factors contribute to an individual's chronic happiness level: the set point (i.e. people's basic personality dispositions, such as extraversion or introversion), life circumstances (e.g., gender, ethnicity) and intentional activities (e.g., engaging in exercise) (Lyubomirsky et al., 2005). The Positive Activity Model identifies specific moderating and mediating factors that underlie the pursuit of happiness. The moderators include the activity itself (e.g., how frequently it is practised), the individuals performing it (e.g., how much effort they put in), and the intersection between these two factors (i.e. the person–activity fit).

The Positive Activity Model also identifies why and how particular activities deliver well-being. A person's positive practices are hypothesised to produce well-being via increases in positive emotions, thoughts and behaviours (Lyubomirsky & Layous, 2013). The model addresses activity features and person features that influence the success of positive activities as people perform them; this aspect is its distinct strength. The model, therefore, could offer a valid approach for studying Chinese PGT students' psychological well-being.

However, there is little evidence to support the application of the Positive Activity Model. When I conducted the literature review (second half of 2019), no empirical study could be identified to validate the moderators in this model, except for the research conducted by its proponents (Sheldon & Lyubomirsky, 2019). Moreover, the model does not match the research context of this PhD project as it is more suitable for large quantitative studies, such as health intervention programmes (Lyubomirsky et al., 2005; Lyubomirsky & Layous, 2013; Sheldon & Lyubomirsky, 2019). The model emphasises the influence of demographic variables on individuals' pursuit of happiness; it is thus unsuitable for a project with a small sample that relies largely on qualitative methods.

Concerning Existential Positive Psychology (EPP), Paul Wong (2010) has argued that six types of anxieties are essential for students' well-being: freedom anxiety, isolation anxiety, meaninglessness anxiety, death anxiety, identity crisis and discontent crisis. Wong's EPP emphasises that it is only through struggle and pain that students can grow psychologically. As discussed previously, the way students fight against challenges in life plays an important role in their psychological health, particularly when they are living in a new environment (Cao et al., 2017; He & Huston, 2018). Furthermore, Wong's (2010) six types of anxiety seem highly relevant for students experiencing difficult times (Han et al., 2013; Hsu & Wu, 2015; Kwon, 2013).

EPP may be seen as an opposite version of Seligman's (2011) notion of flourishing as it emphasises the acculturation from negative to positive experiences (Ivtzan et al., 2015; Wong, 2011, 2015). EPP highlights life's painful aspects, which according to Wong (2010) are largely overlooked by Western society and Seligman. Many positive psychology theories (including the PERMA model) have been criticised for their attachment to Western notions of happiness (Arcidiacono & Di Martino, 2016; Becker & Marecek, 2008; Wong, 2011). However, when Chinese students move to a Western country, it is reasonable to expect that they may change the way they behave. The elements of the PERMA model may thus be more relevant to becoming a healthy HE student. This Study One doctoral project explores whether the PERMA elements apply to Chinese international

PGT students during their time spent at a Scottish HEI and whether conflicts exist between Chinese and Western perceptions of happiness.

Wong (2011, 2015) has also argued that positive psychology without existential insights is lacking in depth. Existential psychology may thus help focus on Chinese international students' struggle for happiness in the midst of suffering during their overseas journey. By confronting existential crises, students can ultimately grow and become more resilient.

Some academics report that Wong's EPP represents the second wave of positive psychology that corrects the limitations of Seligman's PERMA model (e.g., a lack of emphasis on the negative side of human existence) (Ivtzan et al., 2015). Despite this, I believe that it is not entirely suitable for my research context as it offers too extreme an interpretation of Chinese international PGT students' psychological condition. EPP suggests that international education can lead to a meaningless life, unhappiness and identity crisis (even threats to one's life). However, in most cases, getting a degree abroad is a positive experience for students, who are able to explore a new culture, socialise and become more culturally competent (e.g., including third space participation). Many international students are not constantly confronted with existential issues, such as suffering and death (Chua et al., 2018; Jackson, 2013). Even though students may go through difficult times, they are usually able to experience eustress (Gbadamosi, 2018; Jackson, 2013; Selye, 1974). They are not constantly struggling to survive in a new environment; rather, they grow as individuals through intensive study. EPP emphasises day-to-day suffering and assumes that all human beings are going through this suffering. This view can apply only to some international students. Many Chinese students do not usually 'suffer' during their experiences abroad. They do not usually improve their psychological well-being as a result of extreme psychological crises; they do so to achieve better educational outcomes. Although Wong's EPP covers both the positive and the negative sides of international education, its emphasis on extreme distress and anxiety is somewhat misplaced in the context of the present research.

Both the Positive Activity Model and EPP may contribute to the understanding of how Chinese PGT students manage to thrive. However, Seligman's (2011) theory is, arguably, more suitable for the context of Study One. The PERMA model strengthens this study by connecting it to the literature in the fields of psychology and health and well-being (Adom et al., 2018; Grant & Osanloo, 2014). The model also allows the researcher to focus on specific well-being issues and define the viewpoints that are relevant to Chinese PGT students.

The next section discusses the methods used in Study One.

1-2 Methodology for Study One

The methodology and design of this study are guided by the research paradigm, and the paradigm provides a basis for how Study One is conducted and which data collection and analytical methods are used (Hathcoat et al., 2019; Kivunja & Kuyini, 2017). The ontological and epistemological positionality of the researcher, therefore, must first be explained.

An ontological position refers to one's views of the nature and forms of the social world (Hathcoat et al., 2019; Kivunja & Kuyini, 2017; Scott & Morrison, 2007). Study One rests on the assumption that there are multiple social realities, not a single one. Specifically, the researcher does not believe that all Chinese students experienced overseas study in the same way, faced the same challenges in a new culture, and used the same strategies to cope. As already discussed, previous studies have noted that many Chinese international students' acculturation experiences are linked to institutional support as well as individual factors, such as personality traits and language skills, which may show great differences (Cao et al., 2017; He & Huston, 2018; Zhang et al., 2010). For example, Chinese students with poor language abilities may experience considerable language-related acculturation stress, such as academic writing challenges and limited interaction with domestic students. However, (some of) those with good language skills (e.g., those who had many communication opportunities in a third space environment) are unlikely to experience these difficulties (at the same level). Therefore, this study is based on the assumption that there are

variations in Chinese students' overseas acculturation experiences as well as in their health and well-being in Scotland. The researcher tries to find commonalities and patterns (i.e., themes) in this variation.

An epistemological position refers to what is assumed to exist between the researcher and the object of the inquiry (Gray, 2009; Hathcoat et al., 2019; Kivunja & Kuyini, 2017). In this study, the researcher and the respondents are linked as the former obtains information concerning the latter's overseas study experiences (e.g., via interviews). Therefore, it is arguably impossible for the researcher to be entirely objective and compartmentalise their background and knowledge during data collection and analysis (Mertens, 2014; Willis, 2007). (Several steps were taken to mitigate these influences as feasible as possible and improve the study's reliability, as explained in later sections.) Eliminating personal values is not a standard the researcher strove for in this study (Mertens, 2014). During data collection, the researcher did not follow a rule of pure objectivity, which is what a positivist researcher would have done; neither did he stay intentionally detached from participants. The researcher's subjectivity (e.g., previous overseas PGT study experiences, as discussed in the Introduction) was treated as a resource for knowledge production, which inevitably shaped the knowledge produced, rather than as a threat to credibility that had to be contained (Guba, 1981; Ryan, 2018). The researcher also tried to maintain a friendly professionalism during the interactions to build rapport with the participants and encourage them to talk about their overseas experiences and well-being (see the following sections for a discussion of the research procedures).

As the researcher accepts the coexistence of different voices and sees data as something interpreted by individuals (subjectivity) rather than governed by the laws of nature (objectivity), this study does not follow the positivist scientific paradigm (Mack, 2010). In this study, knowledge is seen as constructed from participants' personal experiences, and it is interpreted by the researcher, who has the relevant research experience and interest to investigate the topic. Furthermore, since this research aims to examine in detail Chinese students' overseas journeys, a qualitative design (e.g.,

interviews) was seen as the appropriate choice as they allow the researcher to listen to different voices and aptly manage this rich information (Balushi, 2018; Forsey, 2012; Johnson, 2001). The constructivist/interpretivist paradigm is commonly associated with the use of qualitative methods (Ryan, 2018; Willis, 2007).

One should also note that a quantitative design (e.g., questionnaires) might allow the researcher to obtain findings that can be generalised and projected onto the wider Chinese international PGT student population (Roller & Lavrakas, 2015; Watkins & Gioia, 2015; Willig, 2013). However, quantitative methods cannot provide in-depth information on participants' overseas acculturation and third space participation. For this reason, they do not fit the purpose of this doctoral study (see also the thesis's introduction). Furthermore, mixed methods may provide a complete picture of Chinese students' acculturation experiences and improve the depth and richness of this research (Mertens, 2014; Watkins & Gioia, 2015). However, they do not fit the purpose of this study. In addition, due to the nature of this project (the need to conduct two studies in three years, with Study One informing Study Two), a mixed methods approach would have demanded significantly more time, which was not practical (this approach can be adopted in future studies; please see Chapter 5 for details).

Overall, Study One adopts a qualitative research design and is based on the constructivist/interpretivist approach. The participants in this qualitative study are not meant to represent the general population; it is the quality of the theoretical inferences that is important (Bryman, 2016).

As discussed, this current PhD project is divided into two studies, and this section explains the methods used for data collection and analysis in Study One. This study explored Chinese international PGT students' general acculturation experiences in a Scottish Higher Education institution (HEI) (i.e. the University of Glasgow), as well as the general impact of third spaces on their psychological well-being. This section introduces the research process for collecting and analysing

the empirical research data with academic justification provided for all the methodological choices made. This section will introduce the research design, research participants and instruments, followed by a description of the pilot study conducted and the research procedure that was followed for this study. Details of research activities and refinements made as the research progressed were included in this section.

2.1 The Research Design for Study One

The methods utilised during the research practise were based on the overall purpose and research questions of the study. This qualitative study used semi-structured interviews to investigate Chinese international PGT students' experiences of acculturation and well-being at the University of Glasgow (as the sample) in Scotland. Participants' recruitment, the pilot studies and the formal interviews only started after the University of Glasgow College of Social Science Research Ethics Committee had considered and approved this study. Rather than being viewed as an afterthought or a burden, ethics is an integral part of both research planning and implementation (Mertens, 2014). (The supervisors met with the researcher monthly to help ensure the study was being conducted as approved.) The researcher focused on the development of respect and beneficence toward the participants and on the avoidance of poor practices and maleficence (Iphofen, 2020; Jackson, 2014; Panicker & Stanley, 2021). Overall, the research questions to be addressed by Study One are:

1. What are the main acculturation experiences of Chinese international PGT students at a Scottish HEI?

2. What is the role of the third space in Chinese international PGT students' psychological well-being at a Scottish HEI?

2.1.1 Semi-structured Interviews for Study One.

The method for this study is based on one-to-one audio-recorded semi-structured interviews with the participants using Zoom (a cloud platform for online meetings and interviews that is GDPR compliant).

Interpretivist/constructivist research usually generates qualitative data based on qualitative methods, such as ethnography, interviewing and documentary analysis, which focus on verbal and textual data (Balushi, 2018). This is because interpretive researchers try to gain in-depth data on participants' perspectives and make sense of their lived experiences. Semi-structured interviews are commonly used in qualitative research in general and interpretivist/constructivist research in particular (Balushi, 2018; Forsey, 2012; Johnson, 2001). This research project explored participants' stories and understandings of acculturation in Scotland as Chinese international PGT students. By interacting with them through the interviews, I was seeking to achieve the same level of understanding of this issue as the participants.

Using interviews is one of the most common ways of exploring people's lifeworlds in interpretivist/constructivist studies (Balushi, 2018; Willis, 2007). In this context, the interviewer is an active sense-maker and interpreter of the stories they hear (Johnson, 2001). Some academics (e.g., Balushi, 2018; Forsey, 2012) have argued that this method provides an opportunity to capture insights of considerable depth and focus; for this reason, it can effectively generate richer data compared to other methods, such as surveys or observational studies. For instance, semi-structured interviewing (Johnson, 2001) usually begins with participants' common-sense perceptions and understandings of some specific, lived cultural experience. This allows researchers to explore the contextual boundaries of that experience and uncover what is usually hidden from ordinary activities, thus promoting a more reflective understanding of the nature of that experience. These boundaries are difficult to know using other forms of data collection. Semi-structured interviews are often used in interpretive/constructive studies as this form of research attempts to understand the themes of the everyday world from the participants' perspective (Balushi, 2018; Garrick, 1999). In the current study, when interviewing and listening to participants, I actively interpreted their stories with the goal of constructing meaning from these experiences (Laverty, 2003; Mack, 2010). In Study One, this happened by asking participants to explain their stories of acculturation in Scotland. I also asked many follow-up questions to understand these stories and their responses to my questions.

In this study, the semi-structured interview was employed as it would allow the researcher to probe for answers concerning participants' acculturation experiences in both a flexible and structured way (Roller & Lavrakas, 2015; Willig, 2013). Fully structured interviews were not used in this study due to their inflexibility. Unstructured interviews were also disregarded as they would entail a lack of focus. In Study One, the semi-structured interviews were close to casual conversations, though they had a defined purpose. Using semi-structured interviews also means that the researcher must listen and understand the interviewee's essential points and be able to think quickly in order to probe further (i.e., ask follow-up questions) (Legard et al., 2003; Myers & Newman, 2007). As already mentioned, I had experience of conducting similar interviews during my PGT studies; I also received relevant skills training in PGT and PGR courses at the University of Glasgow. Pilot studies were also conducted (see section 2.4.1 in this chapter), which offered me the opportunity to practise interviewing and familiarise myself with the interview guide. Overall, semi-structured interviews were an effective tool to interpret the lived acculturation experiences of Study One's participants and reach the essential meanings of their stories.

Moreover, in investigating the participants' main acculturation experiences in Scotland in depth, this interview method was strengthened by a creative research technique. Specifically, the researcher had asked the individual participants to draw a line diagram, on a blank piece of paper, in order to indicate their general acculturation experiences across the timeline at the beginning of the interview (Kara, 2015). Interviews are a common technique for gathering data and are useful in many types of academic research. Modern academics have creatively enhanced interviewing processes by basing interviews around other methods of data gathering, such as visual methods or artefacts (e.g., photo-elicitation and drawing tasks) (Bagnoli, 2009; Copeland & Agosto, 2012; Kara, 2015). The line diagram drawing task used in this study enabled participants to express their views and opinions about their overseas journeys on their own terms. In other words, this task enabled participants to discuss their acculturation experiences in Scotland more freely, which helps to naturally reveal the memories and emotions attached to their acculturation processes. Another

added value of this drawing task was that it generated a triangulated answer that allowed the researcher to compare participants' diagrams with their verbal stories (i.e., to examine if participants reported a similar acculturation experience/process as they did on the diagram and ask follow-up questions if necessary) (Bagnoli, 2009; Kara, 2015). In turn, this strengthened the participants' interview answers and increased the study's trustworthiness.

These diagrams were also intended to stimulate participants' recollections of their experiences (i.e. their previous one-year experiences of studying and living in the University of Glasgow as PGT students) and to highlight any meaningful acculturation experiences they had with a view to eliciting higher quality interview data (i.e. insightful and detailed information) (Bagnoli, 2009; Banks, 2001; Copeland & Agosto, 2012). The participants were asked to indicate how well they felt they acculturated to studying and living in Scotland by drawing and labelling dots on the line to represent any critical events that significantly influenced their acculturation in either a positive or negative way.

In this study, as the researcher's initial purpose was to obtain detailed, in-depth information in relation to participants' acculturation experiences in Scotland through verbal communication with respondents, the interview technique was adopted as the main method of inquiry. The researcher, moreover, decided to conduct single interviews with individual participants rather than using the focus group interview technique. This was for many reasons. First, single in-depth interviews were more manageable and controllable for the interviewer as there is the only researcher in this study, and these could leave more opportunities for the researcher to follow up and probe for specific information regarding the participants' overseas acculturation experiences (Roller & Lavrakas, 2015; Willig, 2013). Although one-to-one interviews are more time-consuming, they had allowed the researcher to explore the individual participants' acculturation experiences in a clear and detailed way (Alshenqeeti, 2014; Watkins & Gioia, 2015). In group interviews, the research has limited space

to explore each individual participant's acculturation experiences in depth; individual interviews are therefore better suited for the purpose of this study.

In comparison, focus groups can be more time-efficient and provide a broader range of information when participants are active in the discussion (Dilshad & Latif, 2013). However, Chinese participants may not be completely transparent when talking about their negative experiences in a group. This may include significant academic or emotional challenges and poor psychological health and well-being. The possible reason for this lack of transparency is their distinctive cultural background, in which showing weakness to the group usually leads to stigma (Misra & Castillo, 2004; Tang et al., 2012). Group interviews was not to be used also as it would be difficult to select an appropriate time that is suitable, in particular given some participants might be busy looking for employment opportunities after they had completed their PGT studies.

Moreover, the participants were given the choice between being interviewed in either Chinese (preferably) to enable them to express themselves with ease, or English, which was possible as the researcher had prepared the necessary translation of the questions. The advantage of allowing the participants to use Chinese was not only that it might encourage involvement among people uncomfortable or unwilling to be interviewed at length in their second language, but also that it could influence the data itself. Using Chinese could enable participants to express more details regarding their overseas experience, health and well-being: it could also remove the language barrier in communication and translation, thus allowing the researcher to obtain clear, accurate answers (Cortazzi et al., 2011; King et al., 2019; van Nes et al., 2010). An audio-recording device (a digital voice recorder) was used to assist transcription, which was followed by coding and verification. Notes was also taken during the interviews to record interesting conversations and surprising issues that occurred, as well as general observations on the interview environments, and participants' non-verbal language (King & Horrocks, 2010, pp. 47-48). The notes taken during the

interviews indicated that the researcher had covered all the questions in in-depth during all interviews, and these interview processes were generally smooth and uninterrupted.

In addition, during the study design stage, since it was highly likely that a number of potential participants in Study One who studied for one-year PGT courses in 2018-2019 had already gone back to China after the researcher obtained permission from the Ethics Committee to proceed (the researcher stayed in Glasgow during the course of research), all participants had been invited for a video interview online through Zoom. Zoom is a cloud platform for online meetings and interviews that is GDPR compliant. In order to avoid unnecessary stress, Zoom had been tested during the study design stage, and no issue was found with the researcher's device and the internet settings.

Although Zoom was employed to carry out the interviews, the video-recording function was not used to avoid reducing participants' willingness to share their personal details and experiences. Even though video recording interviews allows researchers to retain the data with basically no loss of richness (as it keeps all the interview interaction in front of a camera), participants may feel there is more risk to confidentiality when the recordings can be viewed by multiple people over time (Asan & Montague, 2014; Coleman, 2000). One potential threat is hacking. As already explained, many students from collectivist cultures, including China, may prefer to conceal personal problems due to the stigma and discomfort associated with showing weakness as well as the reluctance of bringing private issues to the group's attention (Misra & Castillo, 2004; Tang et al., 2012). In the current study, video-recorded interviews may have led to some participants behaving differently and discussing only their positive acculturation experiences for the potential fear that their responses might be observed/reviewed by others (Asan & Montague, 2014). As a result, what was explored in the interviews may not have represented a "normal" experience, which would have threatened the trustworthiness of the research. To put participants at ease and improve their cooperation, I thus only audio-recorded the interviews.

2.1.2 Thematic Analysis for the Interview Data of Study One.

All the interviews was transcribed verbatim. This Study One used a thematic analysis approach for data analysis and used NVivo to assist the coding process. Several screenshots for NVivo data analysis conducted in this PhD project was included in Appendix (see Appendix E). According to Braun and Clarke (2012, p.58), thematic analysis is a ''method for systematically identifying, organising, and offering insight into patterns of meaning (themes) across a dataset''. Coding is a way of relating the interview data to the researcher's ideas about these data (Braun & Clarke, 2006). Thematic analysis is a process of systematic coding, aiming to clearly identify the 'themes', which are the patterns that could be explored in the participants' answers, which are used to describe and organise the researcher's observations.

On the one hand, compared to other qualitative data analysis methods, including grounded theory and interpretative phenomenological analysis, this method may suffer from a lack of substantial literature on the best way to conduct a rigorous data analysis (Nowell et al., 2017). However, the researcher in this study had chosen to use thematic analysis as it can provide a highly flexible approach that could be modified for the needs of this study, providing a rich and detailed account of data regarding respondents' overseas acculturation experiences in Scotland (Braun & Clarke, 2006, 2012; King, 2004). It is a useful method for examining the experiences of different research participants, highlighting similarities and differences, and generating unanticipated insights (King, 2004). In addition, thematic analysis is useful for summarising key features from the entire dataset, helping to produce a clear and organised final report. The thematic analysis approach is also suitable for student projects as well as for studies conducted by experienced academics. Furthermore, in order to analyse the interview data systematically and rigorously, the researcher had followed the Six Steps of Thematic Analysis, as recommended by Braun and Clarke (2012). Greater detail is given in Section 2.4.3 The Interview Data Analysis Procedure for Study One.

In this qualitative study, coding categories was derived directly from the data using an inductive approach to analysis, which were then categorised into the main and sub-themes, which are the sub-components of a theme (Braun & Clarke, 2006; Roller & Lavrakas, 2015; Willig, 2013). This involved grouping codes that seem to share some unifying characteristics so that they reflect and describe a coherent and meaningful pattern in the data. (For example, the Study One research participants' answers regarding ''Linguistic Challenges'' and ''Intensive Course Assignments'' were all categorised under the main theme 'Main Academic and Non-Academic Challenges'. For details, see Section 3.1, Chapter 3).

However, as noted by Braun and Clarke (2021), 'thematic analysis' is not a term that defines a fixed, single analytical approach; this form of analysis can differ significantly in terms of its underlying methodological assumptions. Therefore, it is important to acknowledge which version of thematic analysis was used in Study One. Given the purpose of this study, reflexive thematic analysis was used. As discussed, Study One, as an interpretivist piece of research, viewed Chinese students' acculturation in Scotland as constructed by their experiences and interpreted by the researcher interested in exploring this topic. This study adopted a flexible approach to students' experiences and supported the subjective skills the researcher brings to the analytical process (Balushi, 2018; Braun & Clarke, 2021; Roller & Lavrakas, 2015).

The coding reliability and codebook approaches to thematic analysis were not used in this study. These approaches are often based on themes developed prior to the analysis and employ a structured and fixed codebook or coding frame. Thus, they did not fit the purpose of the current study. Also, as discussed in the literature review, there is limited scholarly work that can be used for the codebook (Braun & Clarke, 2019). Demonstrating coding reliability and the avoidance of subjectivity was not a goal (Braun & Clarke, 2021). In Study One, the researcher's subjectivity was conceptualised as a resource for knowledge production, which inevitably shaped the knowledge produced, rather than a threat to credibility that had to be contained (Guba, 1981; Mertens, 2014).

In Study One, the coding quality was largely based on the researcher's personal experience and skill in utilising subjectivity appropriately to approach the data. My previous PGT academic experience at the University of Glasgow and the intensive research training I received there (see the Introduction) have contributed to my understanding of the topic and my ability to capture both the overt and the latent meanings of interview data.

The use of multiple coders working independently with a codebook or coding frame, the measurement of between-coder agreement (or inter-rater reliability) and the determination of the final coding through consensus were thus not necessary nor desired in Study One (Braun & Clarke, 2021). Reflexive thematic analysis allowed the researcher to examine Chinese PGT students' overseas experiences in-depth openly and flexibly. As part of this process, interpretation was a creative and active process rather than simply a summative one. The study involved a reflexive engagement with theory, data and interpretation, and the analytical process included spending time reflecting, questioning, imagining and wondering (Braun & Clarke, 2019, 2021). The candidate's supervisors were invited to view the coded text as well as the codes and themes developed (with a sample of transcripts). This sense-checking process allowed them to verify whether the interpretation was biased by the candidate's personal experiences, which ensured the trustworthiness of the coding procedure (Nowell et al., 2017; Shenton, 2004) (please also see section 2.4.4).

2.1.3 The Use of NVivo to Assist Data Analysis for Study One.

NVivo 12 was used in this study as the data management tool to assist systematic data analysis. The researcher's supervisors have many years of experience in using this software and have been very helpful to the researcher. NVivo 12, admittedly, has certain limitations - for instance, opening or closing projects could take a long time for large projects (QSR International, 2018) - but basically, these limitations do not apply to a PhD-level project. Moreover, compared to coding manually, using NVivo could be less time-consuming and more convenient for data management,

enabling the researcher, who was trained to use this software, to effectively search and group interview data, and to facilitate a more systematic and thorough analysis process.

2.2 Research Participants in Study One

2.2.1 Access to Participants for Study One.

The researcher contacted several organisations at the University of Glasgow, including the Chinese students' organisation and the Glasgow University Sports Association, to explore access to potential study participants. The university's Researcher Development Manager and the Sports Development Manager, who actively promote the mental health and well-being of students, helped the researcher post the invitation for Study One on the university's social media accounts and blog. The researcher's contact details were shared on social media. To a certain extent, this recruitment strategy might have influenced the data and the findings as some participants may have had positive views concerning exercise as a third space. However, as the university's sports and exercise organisations have over 100,000 followers, including Chinese students, this approach was helpful in disseminating the research invitation. These followers, and their peers who were alerted to the study by them, may not have been exercise participants but simply individuals who were interested in the university's sports events. Therefore, many of the students who expressed an interest in participating in Study One were not necessarily people who exercised.

A non-probability sampling method (e.g., snowball sampling based on referrals from social media followers) is often used in qualitative exploratory research. This method allowed the researcher to select participants who would provide in-depth information about the research topic and the target population (Given, 2008; Wolf et al., 2016). This type of sampling was cost-effective and time-effective compared to probability sampling, particularly when time and resources were limited during the PhD project (Gill, 2020; Given, 2008). However, as the sample was purposively selected, it is possible that a proportion of the Chinese PGT student population was not included in

the study. Therefore, the sample is not representative of said population (Gill, 2020; Wolf et al., 2016). This aspect will also be discussed in Chapter 5, section 5.4.

Overall, when a participant contacted the researcher and expressed interest in participating in the study, the researcher had emailed back to further explain the research details, attaching the Plain Language Statement (see Appendix A), and Consent Form (see Appendix B). The interview appointment was made only if the participant meets the eligibility criteria and agrees to participate.

2.2.2 Participants' Eligibility Criteria and Demographic Information for Study One.

In Study One, overall 12 eligible participants were recruited and interviewed. With an in-depth approach to research, the researcher and supervisors believed that twelve participants could provide rich and sufficient information for the Study One of this PhD study. Academics have often debated how many interviews are enough for a qualitative study (e.g., Boddy, 2016). Study One adopted a constructivist/interpretivist approach to gain a detailed understanding of specifically Chinese international PGT students' overseas experiences in Scotland. Among the few researchers who have commented on sample size in qualitative research, Sandelowski (1995) and Guest et al. (2006) have suggested that a sample of 30 may be too large to permit a deep, case-oriented analysis, while data saturation may start to become evident at 12 in-depth interviews (in a single country or relatively homogeneous population). Regarding this PhD project, given the need to conduct two studies within three years, 12 interviews were conducted, which generated great insight.

Moreover, eligibility criteria for the participants in this study included: 1) adult Chinese (either male or female who are over 18 years old and of Chinese nationality); 2) any Chinese alumni who carried out a PGT programme from any School or College from the University of Glasgow during 2018-2019 academic year; 3) Chinese alumni who had gone back to China after having completed one-year PGT programmes. The following table (Table 1), which has been edited to remove personal references by using pseudonyms to protect participants' confidentiality, indicates the basic demographic information of these participants. In this study, common Chinese names, which may

help preserve their cultural identities, were chosen randomly as pseudonyms and had no

relationship to participants' characteristics (Allen & Wiles, 2015). Please also note that as of the

limited number of Chinese international students in certain disciplines, in order to protect the

participants' confidentiality, this study will only report their college rather than their specific subject

of study.

Table 1

Demographic Characteristics of Participants in Study One (N = 12)

Participant pseudonym	Age	Gender	College	Total time spent in Scotland	Total time spent in the UK
Shangguan	25	Male	College of Social Science	18 months	18 months
Xiahou	23	Male	College of Social Science	12 months	24 months
Sima	24	Male	College of Social Science	18 months	18 months
Zhuge	23	Male	College of Science and Engineering	12 months	20 months
Wenren	23	Female	College of Social Science	12 months	20-21 months
Nangong	23	Female	College of Social Science	12 months	24 months
Ximen	24	Female	College of Science and Engineering	12 months	12 months
Liangqiu	24	Male	College of Social Science	12 months	26 months
Zuoqu	24	Female	College of Medical, Veterinary and Life Sciences	14 months	14 months
Ziche	24	Male	College of Social Science	16 months	28 months
Baili	23	Female	College of Social Science	12 months	24 months
Gongyang	24	Female	College of Social Science	12 months	24 months

Note. The age of the participants indicated in Table 1 was their age at the time when they were

interviewed by the researcher at the end (December) of 2019.

Coming from wide-ranging disciplines and geographical regions in mainland China, six male and

six female participants who were mostly in their early twenties were interviewed. The average time

they had spent in Scotland was 13.5 months, ranging from 12 to 18 months, and, on average, the

total time they stayed in the United Kingdom (UK) was approximately 21 months. In this study, nine

participants had studied at an overseas University study for about a year before commencing their

PGT study in the University of Glasgow; eight participants studied in England while one female

(Ximen) participant went to Japan for her undergraduate study. The remaining three participants

enrolled in the language training course at the University of Glasgow before they entered the formal

Master's programme, and as of this, they generally stayed longer in Scotland when compared to

other participants. The previous overseas experience and language training classes had impacted

many participants' overall acculturation process, and this will be explained later in Section 3:

Analysis of Study One Findings (see theme 3.2.2)**.**

2.3 Research Instruments for Study One

As discussed above, Study One's research instrument consisted of one-to-one, audio-recorded

semi-structured online interviews. These were strengthened by a creative research technique, the

line diagram elicitation task (Bagnoli, 2009; Copeland & Agosto, 2012; Kara, 2015). Please see

Section 2.1 in this chapter for details regarding the justification of the choice of instrument, and

Appendices C and D for details of the interview questions and instructions for the line diagram

elicitation task, respectively.

2.4 The Research Procedure for Study One

2.4.1 The Pilot Studies for Study One.

Before the formal interviews were to be conducted with these participants, pilot studies

took place after ethical approval was obtained (on 20th November 2019) in order to make sure the

interview questions (see Appendix C), as well as the instructions for the diagrammatic elicitation task

(see Appendix D), were clear to participants (Ismail et al., 2018; Majid et al., 2017; Salmons, 2015).

These pilot studies were conducted with three adult (two females and one male) Chinese people

from the researcher's own social network who had PGT study experience in Scotland (they were not

the participants in the formal interviews). The intention was to identify any areas (e.g., the structure

of the interview and the words/terms used to ask questions) that needed to be changed, if necessary.

Participants for pilot studies were contacted by the researcher following conversations on social media, and these studies were conducted based on a face-to-face format. A pre-interview conversation was carried out in order to allow participants to select a suitable time for meeting, and to understand the aim of the pilot study as well as to understand what they were required to do. The existing interview guide and the instruction sheet of the line diagram drawing task were sent to these participants two to three days before the pilot study by email, allowing them time to consider and prepare for the interview questions and the drawing task.

All participants were interviewed within the main campus of the University of Glasgow during working hours. At the start of these studies, the questions in the existing interview guide were followed sequentially (questions had already been arranged based on the logical connections between them, and supervisors had also already reviewed these questions), and participants were asked to indicate how they would like to answer each question (in Chinese and/or English) in general. For instance, participants were asked to indicate what types of acculturation experiences they would like to discuss in detail when the interview aimed to investigate the general acculturation experiences that students had (e.g., could *you tell me in your own words about your own experiences of adjustment and adaptation during that time?).* The pilot study were designed to examine whether participants understood the questions clearly (construct validity), and to provide and expand answers about overseas living and studying experiences. In addition, participants were also asked to try out the line drawing task, on a clean piece of paper, in order to examine whether they fully understood the instructions.

During the pilot study, the researcher also asked several specific questions to each participant, including:

How do you feel about these interview questions in general? Do they make sense to you?

Does the order of the questions in the interview help you to clarify your ideas about the topic?

Are there any vague and unclear questions or terms?

Are there any questions you would have preferred not to be asked?

Are there any questions that you think we may have missed out about this topic? – Please tell us what these questions are.

Is the instructions for the drawing task clear enough? If not, what needs to be added?

Any other comments?

Overall, the researcher asked participants to freely express their impressions on both the interview questions and the drawing instructions, and these pilot studies lasted between 12 to 29 minutes. Participants, in addition, spent two to six minutes on the drawing task, as expected. The researcher, additionally, took notes to record any recommendations for changes made by these participants. The notes as well as the line diagram drawn by participants are all stored in a locked cabinet in the researcher's own residence.

All three participants in the pilot study claimed that they could understand the meaning of the interview questions (in both Chinese and English), and they reported that the structure of the interview questions was logical. Participants were able to provide and expand answers about overseas lived and studying experiences. For these participants, there were no unclear or vague terms in the questions, no questions they preferred not to be asked, and no questions missed out that were relevant to their acculturation experiences and health and well-being. The instructions for the diagrammatic drawing task was also clear enough for them to understand.

However, participants did pick up some points that need to be changed following these pilot studies, for the purpose of further clarification (see the following table: Table 2). Specifically, all three participants thought that using the term 'place' was strange (even though they could understand the question) to investigate how they spent time using 'third space' during their

overseas PGT study period. (*Can you think of places where you enjoyed spending time to have a break from study, work and home?*) The participants thought the word 'activity' was more natural in both Chinese and English. Furthermore, all participants recommended that the researcher should specify (when asking relevant questions in both Chinese and English) that this study investigated Chinese students' comprehensive experiences of acculturation to a new study and living environment in Scotland, otherwise they tended to answer the questions only relevant to their academic acculturation experiences.

Table 2

The Interview Guide and Instruction for Diagrammatic Elicitation Changed Following the Pilot Study

Previous questions	Amended as
Can you think of places where you enjoyed spending time to have a break from study, work, and home?	Can you think of activities which you enjoyed spending time to have a break from study, work, and home?
Why were these places important?	Why were these activities important?
Can you tell me in your own words about your own experiences of adjustment and adaptation during that time?	Can you tell me in your own words about your own experiences of adjustment and adaptation to a new study and living environment in Scotland during that time?
Can you highlight any key moments or experiences which influenced your adaptation during this time (as indicated on the diagram)?	Can you highlight any key moments or experiences which influenced your adaptation to a new study and living environment in Scotland during this time?
On a scale of 1 to 10, from easy to difficult, please tell me how did you feel about adaptation in Scotland.	On a scale of 1 to 10, from easy to difficult, please tell me how did you feel about adaptation to a new study and living environment in Scotland.
There is no right or wrong way to draw this diagram. We simply want you to think about the time when you arrived in Scotland and reflect on how well you feel you adapted and adjusted to life here. (from the drawing instruction sheet)	There is no right or wrong way to draw this diagram. We simply want you to think about the time when you arrived in Scotland and reflect on how well you feel you adapted and adjusted to a new study and living life here.

In addition, two participants also thought that the example of the diagram indicated in the drawing instructions somehow led them to draw the diagram in a similar way (for example, drawing

the line with an overall upward trend that was similar to what the example indicated), as such the researcher needed to re-emphasise that participants could draw the task according to their personal overseas experiences and preference at the end of the instructions. Accordingly, the instructions mentioned again that there is no right or wrong way to draw this diagram, and participants could draw the diagram according to their own preference.

2.4.2 The Interview Procedure for Study One.

The research data collection and analysis process for Study One took place over a four-month period, from December 2019 to April 2020. The researcher started recruiting participants on social media at the beginning of December 2019, and over 20 people contacted the researcher to express their interest in participating. Six male and six female participants were eventually selected to be interviewed. All 12 interviews had been conducted by the end of December 2019 (just before the COVID-19 pandemic broke out and the lockdown started). After participants had returned the consent forms (for a sample consent form, see Appendix B) indicating that they agreed to participate in the interviews, the researcher set up a time for an interview meeting with the individual participants.

In this study, as potential participants were unable to meet with the researcher physically (target participants were Chinese students who had gone back to China after having completed one-year PGT programmes), electronic signatures were acceptable on the Consent Forms. The signed Consent Forms were all returned to the researcher by email. At the beginning of the Zoom interview, the researcher had also confirmed with the participants that they have read and understood all the information on the Plain Language Statement and Consent Forms, that they have provided their electronic signatures and sent the signed Consent Forms to the researcher by email (King et al., 2019; Salmons, 2015). This process was (audio) recorded as well.

After individual participants had agreed to the specific time for an interview, a reminder email, with the instruction sheet attached for the diagrammatic elicitation task, was sent to the

participant one to two days prior to the appointment. During the interview, the guide (see Appendix C) to the interview questions which were designed to address the research questions and protocols was followed. The interview always begins with the researcher introducing himself formally to respondents and recapping what the study is about and why it is important. At the same time, the researcher also had an opportunity, in the introduction, to confirm with the participants whether they preferred to use Chinese or English for conversation (Overall, all 12 participants chose to be interviewed in Chinese), and whether they have read and understood the information on Plain Language Statement, Consent Form, and the instruction sheet for the line diagram drawing task, and if they agreed to be recorded. Each interview began only after the interviewer had asked whether the respondent has any questions about Study One research project.

From the beginning of the interview, the interviewer had tried to build a rapport with participants by, for instance, keeping eye-contact and demonstrating interest through verbal and non-verbal language such as using respectful wording and smiling (without leading the interviews) (Gubrium et al., 2012; King et al., 2019; Rubin & Rubin, 2005). The interviewer had tried to build a professional but friendly and relaxed environment to encourage participants to express their ideas freely. The participants were believed to be more willing to talk honestly in such an environment, arguably, compared to a stressful and unfriendly interview environment.

During the formal interview, the guide (see the Interview Guide in Appendix C) to the interview questions which were designed to address the research questions (formal interview questions had been amended following the pilot study) and protocols was followed. However, as the interviews were designed in a semi-structured way, and participants were given the freedom to express their ideas flexibly, the real interview process at times did not follow the above structure exactly. The researcher had put the participants' communication styles and needs first, and all the participants were encouraged to answer the questions in the way they preferred (Roller & Lavrakas, 2015; Willig, 2013).

In addition, the researcher closed the interview only after every question in a topic section had been addressed. The final questions had allowed respondents to provide any other information they want to add and to confirm they had no other questions about this study. Finally, at the end of the Zoom conversations, the researcher also spent time thanking the respondent, letting the respondent know how useful the interview had been and how much his or her participation was appreciated. Immediately after the interview, the researcher verified if the recorder had worked during the interview. The researcher also wrote down any observations made during the interview; for example, where did the interview occur and when, and were there any surprises during the interview. Notes taken during the interview were reviewed immediately to clarify any scribblings and fill out any notes that did not make sense (King et al., 2019; King & Horrocks, 2010).

All in all, during the interview, by actively listening to participants, the researcher could also actively follow up and probe where there were interesting answers, incomplete, unanticipated topics in participants' stories, and the researcher also actively took notes without interrupting the interview process (King & Horrocks, 2010; Salmons, 2015). The researcher also avoided asking ambiguous, assumptive, double-barrelled, and leading questions in the interviews. At the same time, the researcher was mind to their verbal and non-verbal behaviour, which should never lead the respondents to believe there were right or wrong answers (King et al., 2019; Salmons, 2015). Zoom conversations had all taken place at the researcher's residence (in Glasgow) for both privacy and convenience. These 12 interviews, overall, lasted between 31 and 73 minutes.

2.4.3 The Interview Data Analysis Procedure for Study One.

As has been explained, all interviews was transcribed verbatim (Gubrium et al., 2012; King et al., 2019; Rubin & Rubin, 2005), and a thematic analysis approach was used for the data analysis, with NVivo used to assist the coding process (Braun & Clarke, 2012; Nowell et al., 2017). Furthermore, in order to analyse the interview data systematically and rigorously, the researcher followed the Six Steps of Thematic Analysis recommended by Braun and Clarke (2012).

Specifically, in the first step, the researcher became more familiar with the interview data by listening to the recordings and reading over the transcripts for three to five times. In the next step, the researcher generated initial codes relevant to the research questions. This was done until the data on each transcript were fully coded, and the data relevant to each code had been collated. Following this, the researcher reviewed the coded data to identify areas of similarity and overlap between codes. This was the basic process of generating themes and sub-themes as recommended by Braun and Clarke (2012). The fourth step was to review the themes in relation to the entire dataset. Revision at this stage involved creating additional themes or modifying and adjusting or discarding existing themes. The last two steps involved clearly defining and naming themes, as well as producing the report by providing a compelling 'story' about the entire dataset, based on analysis of the interrelation among the themes. Finally, the researcher synthesised the participant's experiences of studying and living in Scotland, aiming at clearly describing some of the main challenges that might be encountered by Chinese international PGT students in Scottish HEIs, some of the benefits involved in the overseas studies, and some of the opportunities used to facilitate the acculturation process, as well as students' psychological health and well-being issues during acculturation (see these findings in Section 3, Chapter 3).

In addition, during the thematic coding process, the researcher also followed Krueger and Casey's method (2000, pp. 130-137) for the selection of themes. In deciding which themes would be included in the final report, researcher looked at several factors: ''Frequency'' (how many times something was said by participants, while most frequently discussed events may not be the most important as a lot of nodes may come from one person only); ''Specificity'' (researcher tended to give more emphasis to the specific comments that provided details regarding participants' study and living experiences in Scotland); ''Emotion'' (researcher tended to give more weight to comments in which participants indicate strong emotion, enthusiasm, passion or intensity of their answers); ''Extensiveness'' (how many different participants said something).

Overall, the data analysis process took about two months, including transcribing and writing the report, lasting from the middle of February 2020 to April 2020. In this study, thematic coding was employed to analyse these transcripts systematically (Braun & Clarke, 2006, 2012). Coding was based on the inductive approach, and codes were categorised into the main and sub-themes. As has been discussed (see Section 1.2 of Chapter 3), Seligman's PERMA theory of well-being (Seligman, 2011) was used as a conceptual basis to contextualise and interpret Study One findings regarding study participants' third space participation experiences and psychological well-being. Moreover, this has enabled a scholarly discussion of the findings (Adom et al., 2018; Grant & Osanloo, 2014). (Please see Section 4 of Chapter 3: Discussion and Conclusion of Study One, for details.)

In addition, the researcher had also compared individual cases, looking for both similarities and differences in the data. (For instance, the researcher compared the acculturation experiences between male and female participants and examined how and what possibly made their acculturation process similar or differed).

The researcher used NVivo 12 to help with mapping the pattern of key concepts, grouping keywords, themes and sub-themes, organising the thematic presentation of the data, and the cross-case comparisons. The researcher was aware that the data analysis stage in this study could be more of a circular process rather than a linear process (Braun & Clarke, 2012). Therefore, it was necessary to constantly compare each transcript and coding list until each case was fully described using the existing codes and themes. During the course of this research, the supervisors were also invited to review the coded text, the codes and the themes developed by the researcher in order to help ensure the trustworthiness of the coding procedures employed and the reliability of the codes and themes (Nowell et al., 2017). The participants' real identities had been replaced by pseudonyms before this process in order to help ensure confidentiality and avoid revealing personal information to the supervisors. Overall, this coding process highlighted interesting findings, which will be presented in Section 3.

2.4.4 Methods Utilised to Ensure the Trustworthiness of Study One.

Normally, discussions about reliability and validity are vital aspects of quantitative-oriented research studies, but these essential elements of determining the quality of a research study often receive less attention and scrutiny in modern qualitative studies (Forero et al., 2018; Korstjens & Moser, 2018, Moon et al., 2016). In a qualitative study, validity and reliability are normally recognised as determining the study's 'trustworthiness', which is discussed in terms of the credibility, transferability, dependability, and confirmability of the study's research design, conduct and results and analysis (Guba, 1981; Lincoln & Guba, 1985). Lincoln and Guba (1985) propose these four criteria for judging the soundness of a qualitative study and explicitly offer them as an alternative to more traditionally quantitatively-oriented criteria. Nowadays, these four criteria are believed to better reflect the underlying assumptions involved in much qualitative research (Forero et al., 2018; Korstjens & Moser, 2018; Shenton, 2004). Here, the current PhD project researcher has sought to satisfy above four criteria in order to help ensure the soundness of this largely qualitative research study (Study One). Trustworthiness refers to the truth value of a piece of research (Guba, 1981; Lincoln & Guba, 1985). Qualitative research is trustworthy when it reflects the reality and the ideas of the participants as closely as possible.

Credibility refers to how one could establish confidence in the "truth" of the findings of a particular study as it relates to the respondents and context in which the study was carried out (Guba, 1981). This means establishing that the results of the qualitative research are credible from the perspective of the participants (Guba, 1981; Lincoln & Guba, 1985). In the context of this study, one of the key goals for Study One is to indicate that the research findings accurately reflect the participants' own experiences as closely as possible. To this end, the researcher utilised several ways to improve the credibility of the research findings, aiming to reflect the participants' experiences of their one-year study and living experiences in Scotland as Chinese international PGT students, as accurate as possible.

For example, before the formal interviews took place, the researcher had conducted the pilot study to help ensure that the interview questions were clear to potential formal interview participants and that they could provide relevant answers (Forero et al., 2018). During the formal interviews, the researcher maintained a friendly and professional attitude to build trust with the participants, which could allow them to share their overseas experiences in a more relaxed and open way (Korstjens & Moser, 2018). The researcher also tried to cover all the interview questions in detail and push beyond descriptive prompts by asking many follow-up questions (e.g., "What do you mean by this?" or "Can you be more specific, please?"). This required participants to provide clear answers and address incomplete, ambiguous or non-specific ones (Forero et al., 2018; Shenton, 2004). As a result, the researcher obtained rich information from participants. The researcher was involved intensely in the interviews with the participants over a considerable amount of time in order to help ensure that he obtained in-depth and detailed overseas education experiences from the participants, and some interviews even lasted longer than one hour. During the data analysis process, all the cases were analysed in depth (see also Section 3: Study One Findings for details) and the researcher also shared coded interview data (with steps to help ensure confidentiality) with his supervisors to see whether they arrived at similar interpretations (Shenton, 2004)**.** This strengthened the data's credibility.

Transferability refers to the degree to which the results of qualitative research could be generalised or transferred to other subjects, contexts or settings (Guba, 1981; Lincoln & Guba, 1985). In other words, transferability means one could determine the degree to which the findings of Study One may have applicability in other contexts or to other respondents (Guba, 1981). The qualitative researcher could enhance transferability by doing a thorough job (thick description) of describing the research context, process and the assumptions that are central to the research (Moon et al., 2016; Shenton, 2004). To allow transferability, the PhD candidate has provided sufficient details about the participants' profiles and the context of the fieldwork for the reader of this thesis

to be able to decide whether the prevailing environment is similar to another situation and whether the findings could justifiably be applied elsewhere.

In addition, the researcher in this PhD project has typically provided details on transferability, including detailed outlines of his methodological, epistemological and ontological positions, how researcher accessed and chose potential participants (participant recruitment criteria and demographic information), and the data collection and analysis techniques. These have all been included in this thesis to increase readers' ability to judge the transferability of this research.

However, readers wishing to transfer these results should also note that this research was conducted with Chinese international PGT students in Scotland, whose overseas study and life experiences are somewhat distinct. For instance, these students may have encountered many challenges that are specifically related to the local Scottish education system (e.g., the Scottish accent of teachers and university staff) and sociocultural environments (e.g., a generally welcoming environment for immigrants). To a certain extent, therefore, these elements may limit the transferability of this study to a different group of subjects or a different socio-cultural context.

Dependability is related to whether the findings of Study One would be consistently repeated if the inquiry were replicated with similar respondents (e.g., other Chinese international PGT students) in similar contexts (e.g., HEIs in other Western cultures) (Guba, 1981). The traditional view of reliability from a quantitative perspective is based on the assumption of replicability or repeatability (Guba, 1981; Lincoln & Guba, 1985). Similarly, dependability in Study One is essentially concerned with whether other academics would obtain the same (or similar) findings/results if they were to observe similar events (Chinese international PGT students' overseas experiences regarding acculturation and psychological well-being in another English-speaking Western culture) twice.

In this study, the provision of an in-depth and in detail methodological description allows the study to be repeated, and researcher has transparently described the research steps taken from the research project design to the development and reporting of the findings (Forero et al., 2018;

Shenton, 2004). To assist with this, records regarding the research path – including diagrams drawn by the participants during the interviews (Appendix F), and several screenshots of the NVivo data analysis process (Appendix E) – were kept throughout the study and could be found in the Appendix (Korstjens & Moser, 2018).

Confirmability refers to the degree to which the findings of a study are shaped by the respondents and not the researcher's bias, motivation or interest (Guba, 1981). The concept of confirmability (the equivalent of objectivity in a quantitative study) means that the findings are the result of the research and not an outcome of the 'biases' of the researcher. Before Study One was conducted, the researcher had been trained in Scotland for over two years to learn the essential skills of conducting social science research, and holds a Master's degree in the field of Education Studies from the University of Glasgow (this has been discussed in the Introduction chapter as well). During the interviews, the researcher also stayed friendly and neutral without asking any leading questions and was consistently mind to their verbal and nonverbal behaviour so as to never lead the respondent to believe there were right or wrong answers (King & Horrocks, 2010; Salmons, 2015). The researcher also listened patiently to the participants' answers. These measures allowed the participants to freely share their stories as feasibly as possible.

After all the interview data had been collected, the researcher was aware that his personal background, race and education experience could impact the interpretation to a certain extent (and researcher subjectivity is conceptualised as a resource for knowledge production in the study which ultimately influenced knowledge produced) (Shenton, 2004). With this in mind, the researcher invited his supervisors to review the NVivo project, including the codes and themes developed, to help ensure (as much as possible) that the interpretation was not influenced by (biased towards) personal circumstances. The above methods utilised had helped the researcher to migrate the researcher influences as feasibly as possible, which improved this study's confirmability. In addition, several screenshots of NVivo are included, as discussed, in the Appendix, which gives readers the

opportunity to obtain a basic understanding of the confirmability of the data collection and analysis processes (Lincoln & Guba, 1985).

Overall, the researcher has strictly followed the University of Glasgow's ethics guidelines to conduct the study and has tried his best to help ensure the soundness of the findings by paying attention to the study's credibility, transferability, dependability and confirmability (please see also the Plain Language Statement and Consent Form in Appendix A and B for the steps taken to address the potential ethical risks of this study). The previous personal research training experiences and efforts (including those of the researcher's supervisors) made in conducting Study One all contributed to the quality of this qualitative study. Ultimately, Study One highlighted multiple interesting findings and informed Study Two; please see the following sections for details.

1-3 Analysis of Study One Findings

This section will present findings from this Study One research. The findings of thematic analysis for Study One are presented in the form of verbatim quotes that represent participants' voice and outlook – framed by a narrative by the researcher as analyst and structured by themes based on two Research Questions. This section will present the result of thematic analysis with an inductive approach according to the order of themes shown in Table 3, including themes and sub-themes, which are the sub-components of a theme which share some unifying characteristics so that they reflect and describe the coherent data (Braun & Clarke, 2006; King & Horrocks, 2010; Willig, 2013).

This section will firstly discuss the stress that participants faced in their academic study and personal life during their acculturation in Scotland (Theme 1), and then it will discuss how the positive sides of acculturation stress 'pushed' participants to acculturate to the new environment, as well as the main opportunities involved that facilitated their acculturation (Theme 2). Afterwards, this section will discuss the meaning and outcome of this overseas study and living experience for participants, including what they have achieved through this process and how this overseas

experience influences their future. The final part of this section will discuss the impact of the third space environment on Chinese international PGT students' psychological well-being (Theme 3), including both the positive impact and negative impact, before moving to the next section.

Table 3

Result of Thematic Analysis in Study One

Theme and Sub-theme in Study One
Theme 1: Main Academic and Non-academic Challenges in Acculturation
Sub-theme 1.1 Linguistic Challenges
Sub-theme 1.2 Intensive Course Assignments
Sub-theme 1.3 Unpredictable Scottish Weather
Theme 2: Growth, Development and Life Transformation
Sub-theme 2.1 Resilience and Growth
Sub-theme 2.2 Crucial Factors Facilitating Acculturation
Sub-theme 2.3 Life Transformation
Theme 3: Third Spaces and Chinese Students' Psychological Well-being
Sub-theme 3.1 Psychological Benefits of Third Spaces
Sub-theme 3.2 The Negative Impact of Third Spaces

In the interviews, in order to investigate comprehensively Study One participants' study and lived experiences in Scotland, they were, first asked to explain their specific reasons for studying in the UK and, specifically, the University of Glasgow. The most frequent reason (10 out of 12 participants) was the ''shorter time needed,'' as the Master's programme in the UK only required one year of study. The shorter time of study not only could help these participants to save time, but also would allow them to ''step into the employment market faster'' (e.g., Ximen). The main reasons for studying specific subjects at the University of Glasgow included the ''ranking'' (10 out of 12 participants) and ''fame'' (six out of 12 participants) of the university itself, or participants' specific subjects of study. For instance, Baili had found that her subject was ''ranked as top in the UK,'' and as such, she would like to ''come and try it.'' Many (six out of 12) participants also considered

whether their specific study fit into their career goals, and if the study could help them with ''future employment''.

Overall, study participants had considered carefully not only what they could learn from their PGT education but also what studies could offer them in future. A famous and high-ranking university in the Scottish higher education system, like the University of Glasgow, was expected to give these participants a well-recognised qualification as well as the academic skills and knowledge needed to make them stand out in the employment market. Ultimately, they all successfully entered their programmes of study in the University of Glasgow, which is a competitive and research-intensive university. This choice of universities affected their study and lived experiences in a new culture. Choosing to study in this university with one-year only PGT programmes also meant being exposed to an intensive academic study environment which could generate huge stress, as will be discussed in a subsequent part of this section (see Theme 1).

According to the diagrams drawn by the participants during the interview, all of these former Chinese international PGT students' levels of acculturation showed an overall upward trend over time despite with fluctuations (see Figure 1 and Figure 2 as the example). Figure 1 and Figure 2 contain two example diagrams provided by Zhuge and Ziche, respectively (see all participants' diagrams in Appendix F). Taking Zhuge's diagram as an example, it can be seen that the X-axis is divided into 12 parts representing the 12 months he stayed in Scotland, from September 2018 to the end of August 2019, while the Y-axis represents his overall level of acculturation in Scotland.

Figure 1
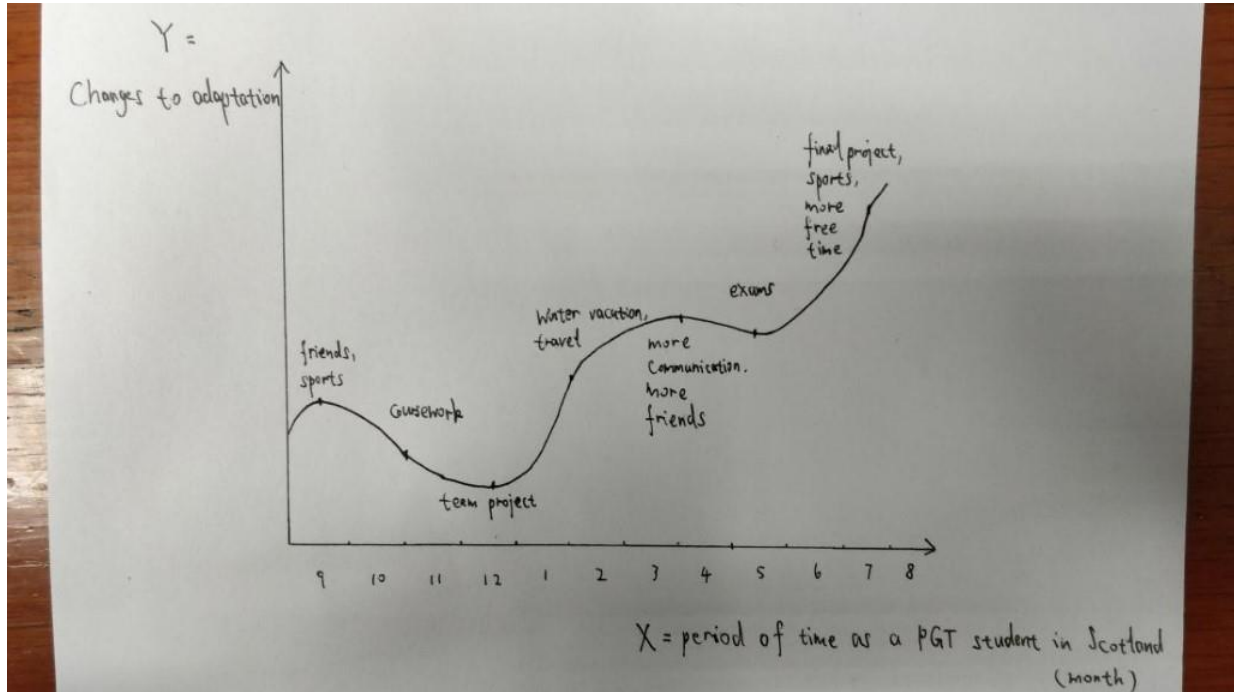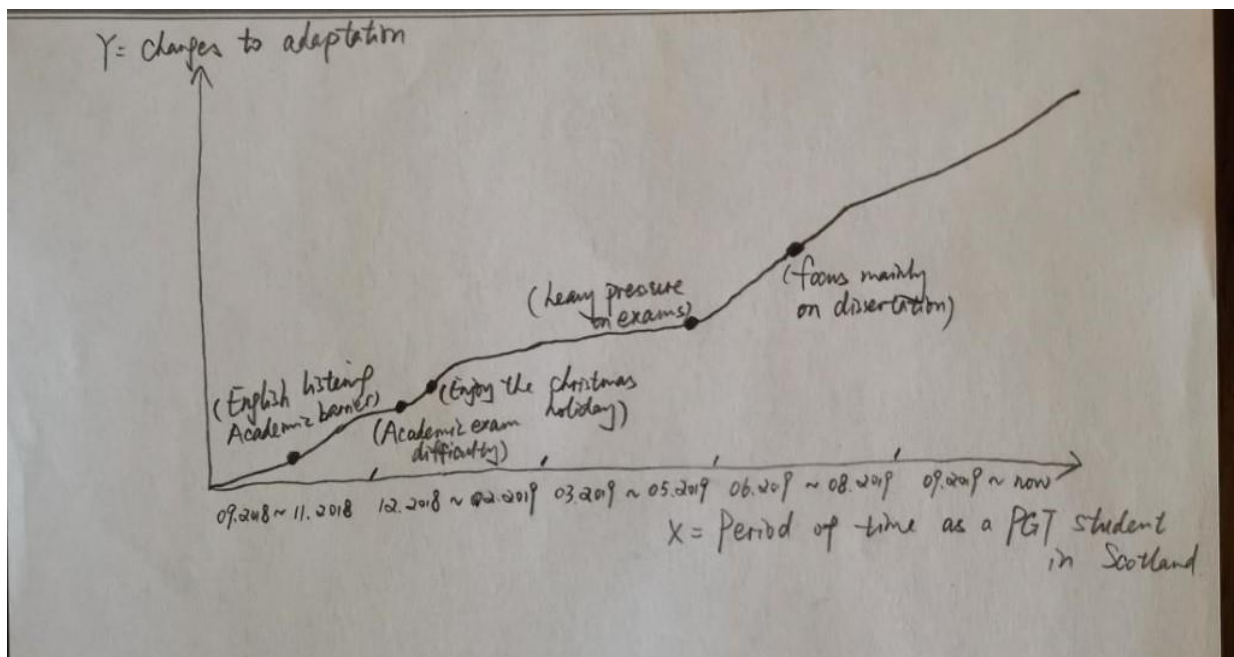
Diagram Produced by Participant Zhuge

Figure 2

Diagram Produced by Participant Ziche

According to Zhuge, at the very beginning of his period of study, he ''luckily'' found the ''right place and right time'' to enjoy his hobby – exercising in university's gym – and he managed to make friends who provided a lot of help when he first arrived in Scotland. This made him feel that his acculturation was very smooth in the first couple of weeks, and he highlighted ''friends and sports'' as the first point in his diagram. Afterwards, his overall acculturation level dropped gradually since he struggled to complete his intense load of coursework (September 2018 to November 2018), including a ''team project'' (December 2018). Due to the significant stress associated with this difficult ''team project'', his acculturation level dropped to the bottom in the middle of December, as is reflected on his diagram. After this task was finished, he ''felt better''.

Then the Christmas break began, which he recorded by writing ''winter vacation and travel'' in the diagram. During Christmas break, he had a lot of time to travel around, which helped him to get more familiar with the local environment and local culture, and his acculturation level in this period increased dramatically. Afterwards, the second semester began. Around March and April 2019, his overall acculturation level increased, since he had more Chinese and local friends, including the ''staff in the university'', which meant he had many sources of information to help with his acculturation to study and life in Scotland. Accordingly, he highlighted ''more communication more friends'', indicating the significance of the support he obtained from having a wider social network.

Towards the middle of May, it can be seen from the diagram there was a little drop in his overall acculturation level due to the stress from ''exams.'' After he passed this ''examination month'', he was at much greater ease, and in the remaining time he just concentrated on his final project and dissertation. With low pressure from his academic work, his acculturation level increased significantly again, as is indicated by his diagram. The last point in his diagram is ''final project, sports and more free time'', which indicates a period of enjoying his life in Scotland before he moved back to China.

Overall, it can be seen from Zhuge's diagram that despite fluctuations in his overall acculturation process, he was becoming increasingly acculturated to the new study and living

environment over time. This upward tendency, indicating the progress – regardless of speed – in participants' acculturation, is even more evident in the diagrams of Ziche and some other participants (see Appendix F).

3.1 Theme 1: Main Academic and Non-academic Challenges in Acculturation

Yet, despite the fact that these participants' overall acculturation experiences increased gradually over time, none of their acculturation experiences was exempt from the challenges and stresses. All twelve participants reported that there were significant challenges in their process of acculturation in Scotland. This section will demonstrate how these challenges had brought different influences on participants in their academic studies and other aspects of life.

In addition to the need to address language concerns (see Sub-theme 1.1), living in Scotland required acculturating to a new way of study, such as the different 'course requirements (see Sub-theme 1.2)', as well as a new way of living, which included acculturating to local 'weather conditions (see Sub-theme 1.3).' Notably, as discussed in the Literature Review chapter, a lack of research like the current PhD study (see the Literature Review chapter) might have resulted in a limited understanding of what is required in a new cultural environment and little institutional support Chinese international PGT students could use to achieve effective acculturation (e.g., via participating in third space environments to achieve improved social connections) and a truly thriving overseas experience in Scotland. Experiencing the new culture and challenging themselves by coming to the University of Glasgow for the one-year intensive and competitively taught Master's programmes were also part of the main reasons for many participants choosing to study overseas. These challenges will be introduced respectively as follows.

3.1.1 Sub-theme 1.1: Linguistic Challenges.

None of the 12 participants in Study One spoke English as their first language as they all came from mainland China. The University of Glasgow requires specific scores in language tests such as IELTS to admit international PGT students. Still, the majority of participants (six) in this study

discussed how the language barrier, in particular the Scottish accent, had created stress in both their academic and personal life. This issue may not refer to any particular Scottish accent, such as the Shetland dialect, Borders Scots and Scottish Gaelic; also, research has suggested that the variation in Scottish dialects is related to factors such as place of residence and social class (see Abrams & Hogg, 1987; Lawson et al., 2011; Stuart-Smith et al., 2007). Furthermore, many Chinese international students were unlikely to understand the specific differences in Scottish dialects or even the variation in Glaswegian accents during their one-year PGT stay at the University of Glasgow.

For instance, as discussed, eleven out of the twelve participants in Study One either had stayed in England for about a year or had enrolled in the English language training courses in the University of Glasgow before commencing their formal Master's courses. Despite this, there were still six out of twelve participants (including Liangqiu, Zuoqu, Ziche, Baili, Gongyang and Xiahou), who struggled in understanding the distinct ''accents'' in Scotland, which was the most regularly mentioned language barrier in this study.

According to Zuoqu, who enrolled in the language training course in Scotland (she had even met the language requirement of her course relevant to medical studies), she did not face any English language barriers other than the broad Scottish accent issue: ''*The English language itself did not make any obstacle to me, but the Scottish accent indeed brought some troubles.*'' At the very beginning, when she came to Scotland, the special Scottish accent brought certain difficulties for her, particularly when she tried to communicate with local people. Her classmates, who were local Scottish people, were very considerate, as they ''tried to speak clearly'' to her, but when she tried to communicate with other local people in her private life beyond the university settings, she experienced certain stresses in understanding them as ''they just spoke as usual'' with not much consideration unlike her classmates. For Zuoqu, the broad Scottish accent had impacted her cross-cultural communication beyond academic settings, and this impact had undermined her acculturation into the local culture. Even though her ''considerate'' classmates allowed Zuoqu to

face fewer difficulties in communication in the university, she still needed to make significant efforts to understand local people, and this suggests that study participants' acculturation journey in Scotland was not limited to the academic environment, but was also apparent in their personal life.

Furthermore, Liangqiu, who had studied in England for a year, said he had found the Scottish accent as ''strange'', when he first arrived in Scotland. In his diagram (see Figure 3), he indicated that he was unable to acculturate to this accent, and accordingly, his acculturation level in the first month of his PGT study hardly saw any improvement. In addition, notably, three participants, including Ziche, Baili and Gongyang, indicated the teachers' strong Scottish accent, in their diagrams (see Appendix F), as the main barrier which significantly influenced their listening and understanding of classes. As such, they found it hard to acculturate to the new study environment in Scotland.

Figure 3

Diagram Produced by Participant Liangqiu
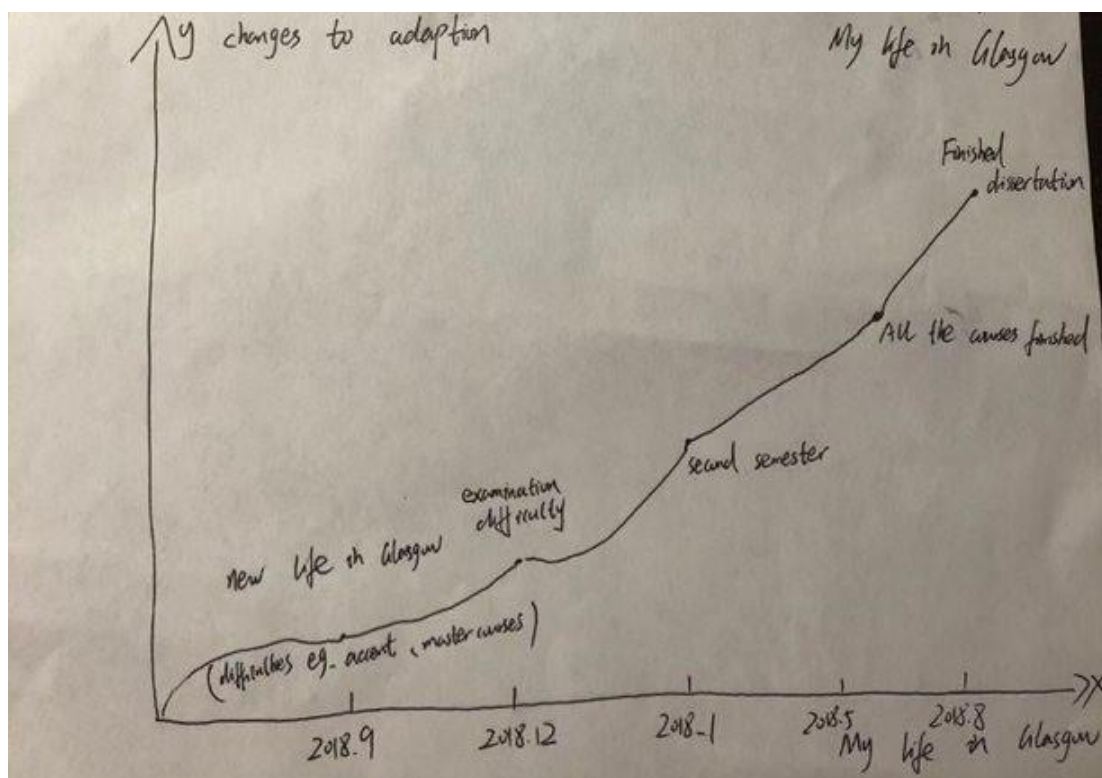
Note. In this diagram, the X-axis represents the timeline of his stay in Scotland, while the Y-axis shows perceived changes in acculturation. The first dot indicates Liangqiu's "new life in Glasgow with difficulties of Scottish accent and Master's courses".

These Study One participants' difficulties with the Scottish accent may be viewed as an extra barrier rather than a 'limitation' of their English ability. As they probably had little opportunity to actually learn this accent before commencing their PGT studies in Scotland. They, therefore, required some time to acculturate to this accent (HEIs seldom provide support on this type of issue as well). Moreover, it is worth mentioning participants Ziche, Baili and Gongyang had all lived and studied in England for about a year, but they still stressed how the broad accents of Scottish teachers had affected their acculturation, which suggested that different English listening skills are

needed in a different linguistic environment. In addition, actually, the six participants who reported difficulties in understanding the Scottish accent may only refer to some specific accents, e.g., Glaswegian, as they did their studies in the University of Glasgow (and they stayed around Glasgow). They were unlikely to have an opportunity to listen to and acculturate to all the different accents in Scotland just in their one-year stay in Scotland. Compared to many Scottish students, they tended to face more challenges as they communicated less effectively with local staff and peers.

3.1.2 Sub-theme 1.2: Intensive Course Assignments.

According to all the participants, the main academic challenge was the course requirements of their Master's, which differed from their Chinese experience. By its very nature, the Master's programme differed from their undergraduate studies in terms of intensity (even though various institutional academic support is normally offered to all PGT students). Furthermore, the programme in Scotland presented extra challenges, including linguistic ones. As a result, all participants reported significant amounts of stress.

Zhuge discussed how his ''body and mind'' being challenged (his health and well-being were challenged due to the stress related) by the intensive course requirements as, sometimes, he cannot get to sleep, cannot have the food as he did not have time to cook, and he did not even have time to do exercise. It is clear that the unexpectedly intense workload in his course, which was a major source of stress, left him very limited time to rest, cook and exercise. He found it hard to follow a normal and healthy life pattern due to the intense stress he was facing. As discussed, it can be seen from his diagram (see Figure 1) that he found it very hard to acculturate to this unexpected stress, in particular during the time of the ''team project''. In turn, his overall acculturation was significantly lowered.

Furthermore, the two participants who came from the College of Science and Engineering also indicated that time constraints in completing their difficult projects had brought significant stress in their life, and Ximen described it as a ''rough time'', while Zhuge regarded it as ''really

stressful'. They also highlighted in their respective diagrams (see Appendix F) that this challenge had

caused their overall acculturation level to reach its lowest point in the whole year, which indicates

that the intensive course assignment was a typical acculturation challenge for Zhuge and Ximen. It is

not surprising that in being exposed to a competitive education environment, the students in this

research-intensive Scottish university were not only expected to successfully complete a large

amount of intensive course assignments with good quality but also within a limited timeframe. It

seems that one-year PGT study in Scotland is two-faceted for Study One participants: on the one

hand, it allowed them to finish their studies in a shorter period of time, while on the other hand, it

means that students had to acculturate to a different and competitive education system as quickly

as possible, which could create huge stress.

Study One participants, moreover, had to study hard to meet their courses' requirements;

otherwise, they could not pass their final exams or complete their dissertations. If they failed these,

in addition to frustration, they faced having to spend more money on visas and accommodation

while waiting for the second sit and not obtaining the degree. Therefore, the pressures from

meeting the intense course requirements and from the exams and dissertations are significant and

closely interconnected. Therefore, it is not surprising that some participants who reported stress in

adapting to the course and coursework, such as Ximen and Liangqiu, also experienced exam stress

and stress in completing dissertations (see Appendix F).

3.1.3 Sub-theme 1.3: Unpredictable Scottish Weather.

This section will discuss the additional daily challenge of Scottish weather that was

mentioned by four of the 12 participants. Compared to many Scottish and other British students

who are more used to the local weather, some Chinese students struggled with this element of their

overseas experience during winter (from about November to March in Scotland). However, weather

and climate varied significantly across Scotland while participants may refer to the harsh weather in

their living areas (e.g., in Glasgow city centre). This frozen season may cause seasonal affective

disorder, which requires some people to adapt, both physically and psychologically, as they experience low mood and a loss of pleasure (NHS, 2022). Studies have suggested that the loss of sunlight may disrupt the release of hormones in the brain and the body's internal clock, although the exact cause of this disorder is not yet fully understood (Anderson et al., 2009; Roecklein et al., 2013). This condition may partially explain the struggle of some university students during this period of the year. Therefore, outdoor activities are important and recommended during wintertime.

During winter, furthermore, students' travel and outdoor activities were significantly impacted due to constrictions of weather (e.g., regular snow and rain). In particular, during the Christmas Break (from mid-December to early January), many Chinese international students lacked the possibility to communicate and interact with their classmates and university staff who were able to return home and enjoy the Christmas holidays. As a result, the participants often stayed alone in their confined accommodations, which at times generated feelings of isolation and ultimately psychological distress. The Scottish natural environment, therefore, may create acculturation difficulties.

In her diagram (in Appendix F), Wenren indicated that her level of acculturation started to "drop significantly" at the beginning of the winter vacation, since she enjoyed basically no recreational activities during this period:

> … [It] was the unique climate in Scotland, especially in the wintertime with short daylight hours, heavy rain and fog, and low air pressure. This affected our [my] mood significantly, and I felt somewhat depressed … I barely went out for fun and I barely hung out with my friends, and I lived in the dark accommodation every day in that time … (Wenren)

Gongyang reinforced the point that the harsh weather in Scotland during the winter could significantly limit outdoor social connections and thus undermine her psychological well-being and acculturation:

... The weather in Scotland was really bad ... I did not want to go out on the rainy and windy

days, and it was inconvenient for me to go out, so I chose to stay in the small

accommodation. I felt so depressed while staying in my accommodation. This had a negative

impact on my mood. (Gongyang)

For Gongyang and Wenren, staying alone in confined student accommodation with few

recreational activities on days with bad weather was a significant challenge to their psychological

well-being and they were at higher risk of developing low mood particularly during winter Christmas

Break in Scotland. With very little sunshine and warmth, the different and harsh weather conditions

in Scotland required some participants to acculturate physically and psychologically; and with few

outdoor physical and social activities, some students' moods and overall acculturation were

significantly undermined. In addition to the subjective feelings regarding the unpredictable Scottish

weather, which might be due to geographical differences and 'Seasonal Affective Disorder', a

possible explanation for Chinese international students' poor psychological condition in this case

was that they did not move back home to enjoy the holidays (including the Chinese New Year) with

their family and friends. This may have generated frustration and intensified the negative emotional

impact of dark and cold days and loneliness during winter.

Nevertheless, being cut off from the outside world and living in isolation is a dangerous

situation that participants faced while they were studying in overseas, as it was social connections

that would help these study participants, who lived away from their parents and old friends, get

much-needed support (see also sub-theme 3.1) (Li & Zizzi, 2017; Zhang et al., 2010). Without

appropriate social interactions and communications, students' overall overseas experiences became

incomplete and problematic. Living in isolation also made an overseas study in Scotland lose its

essential meaning (e.g., cross-cultural communication among students).

Having a recreational activity in groups that could allow those 'isolated' participants to step

out of their home and isolation seemed to be vital for them to maintain and improve their

psychological well-being as well as acculturation experience, particularly during the Christmas Break. Many participants, including Gongyang and Wenren themselves, also managed to take advantage of the Christmas Break to travel with friends as a recreational activity in order to socialise, to address isolation, to become more adapted and achieve better psychological well-being (see Sub-theme 2.2). Therefore, the wintertime in Scotland could both benefit as well as undermine a participant's acculturation and psychological well-being. This also suggests that opportunities and challenges tended to co-exist in study participants' acculturation processes. Usually, it was their responsibility to proactively find and explore opportunities to achieve a better acculturation experience. However, HEIs' responsibility to support international students' acculturation needs should not be neglected (e.g., offering accessible and inclusive third space group participation opportunities; see Theme 3, Study One). This also reinforces the idea that different students may have different acculturation experiences (Brunette et al., 2011; Wei et al., 2012; Yu & Moskal, 2018), as what seemed like a significant challenge for some people could also be a good acculturation opportunity for others.

3.2 Theme 2: Growth, Development and Life Transformation

This section will discuss the participants' positive experiences during the acculturation journey. These include the lessons they learnt through acculturation challenges (Sub-theme 2.1) and the opportunities they benefited from to live a better acculturation (Sub-theme 2.2). These positive experiences helped them to grow stronger, acculturate faster, and become better versions of themselves (Sub-theme 2.3).

3.2.1 Sub-theme 2.1: Resilience and Growth.

Despite the above difficulties that the participants faced while they were studying and living in Scotland (see Theme 1), some of the participants also indicated that they actually appreciated the stress they experienced during their year studying overseas. Specifically, five of the 12 participants in Study One discussed that the challenges they faced had actually helped with their overall

acculturation process in Scotland as these challenges had pushed them to acculturate and become stronger.

Zuoqu had struggled in managing her final project and writing up her dissertation, but she stressed that despite significant challenges experienced in this process, she could still ''sum up the experiences'' she had while conducting her final project and ''learn many lessons'' from this. She also conveyed the view that this difficult process would give her advantages in her future overseas PhD study, as compared to people who had ''only stayed in China''. She was more experienced in doing experiments and writing reports in the Western academic context. Ultimately, she thought all the efforts she had made ''paid off,'' and she appreciated that her lab-based one-year intensive PGT study in Scotland involved so much ''necessary'' stress:

> *It was as it [my studies] had a certain level of difficulty. I won't do things with no difficulty. It won't happen. Otherwise, it means I cannot improve. I could feel its challenges and stresses, and after I overcame these, I think it means I improved and progressed. No stress means no difficulty, and no difficulty means no improvement. (Zuoqu)*

Similarly, Zhuge, who had faced significant stress in completing his course assignments and exams, stated, ''*I think the more stresses we face in our studies, the better we could become for sure, even though we need to deal with so much stress.*'' The stresses faced in their academic studies enabled Zuoqu and Zhuge to grow stronger, and it seems that they came to view these acculturation stresses, as a holistic part of studying in a competitive and research-intensive Scottish university. In their views, academic stresses should not be viewed simply as barriers, but also as a necessary factor on the way to success. They should overcome these barriers to improve themselves. These 'positive' views would contribute to positive coping mechanisms against challenges in their acculturation process.

Baili, additionally, who highlighted in her diagram the English language barrier – in particular, the broad Scottish accent – as the main source of acculturation stress, discussed how damage to her car influenced her acculturation to the accent ''significantly'':

… I had to contact local people, including [car] insurers and the repair centre, which pushed me to acculturate to the Scottish accent. In classes, I normally only listened [to English with the Scottish accent], but this required me to speak up as well as to listen. … communicating with local people enriched my experience … Yes, it helped me in a positive way. I am happy with that. (Baili)

Dealing with unexpected car damage gave Baili additional opportunities to talk to and listen to local Scottish people, which helped her improve her overall understanding of the local accent and in turn facilitated her acculturation to a new linguistic environment. However, this type of accident does not occur for every Chinese international PGT student in Scotland, and arguably, not everyone who endures such accidents finds the opportunity to grow up and adopt a positive view on these extra stresses; people tend to have different levels of resilience (Chua et al., 2018; Jackson,2013; Selye, 1974).

Overall, many participants conveyed that the 'negative' events they encountered in Scotland helped them develop their own strengths. The above participants saw the positive sides of the challenges to their acculturation process, and ultimately, they managed to overcome these challenges and successfully complete their studies in the University of Glasgow. In their opinions, these stresses facilitated their acculturation and helped them grow stronger, contributing to a more enjoyable and meaningful overseas study experience. Their stories also suggest that acculturation stress cannot be viewed as a purely negative element for participants, sometimes, and that a certain level of stress could be helpful to enable students to enrich their experiences. However, it was also important that students themselves find ways to keep the stress at a manageable level, to boost the positive sides of stress, according to each individual's needs and coping abilities. Otherwise,

excessive stress could very possibly undermine students' acculturation experiences as well as their health and well-being.

3.2.2 Sub-theme 2.2: Crucial Factors Facilitating Acculturation.

As has been discussed, the challenges involved in Study One participants' intensive overseas PGT study processes generated stress and caused their acculturation processes to fluctuate (one of the main reasons leading to this issue was probably the lack of appropriate and adequate understanding and support from the host HEIs [Aikman et al., 2016; Deuchar, 2022; UKCISA, 2022]), even though some participants were motivated by the stress they faced to acculturate and grow. Nevertheless, the participants in Study One also emphasised the multiple dispositions and opportunities they took advantage of, which facilitated their successful acculturation. Some were linked to participants' personal life experiences. These comprised their "special personality and character" (six participants), which helped them to cope with stress, and their "(pre-PGT) previous overseas study experience" (11 participants), which provided a solid foundation and prepared them to acculturate to a new environment. Other opportunities that were identified as being supportive of participants' acculturation were linked to the effort that each individual put into them, such as exploring Western culture by "travelling" across Europe (six participants). What really mattered was that participants could discover and use them appropriately according to their needs. Since Study One's participants were those who successfully completed their PGT studies, a holistic and in-depth understanding of their lived experiences regarding both the stress they faced as well as the opportunities they were exposed to during acculturation is expected to effectively help many future Chinese international students pave their own ways to an improved experience in Scottish HEIs.

Six of the 12 participants raised in the interviews about how their inbuilt personalities and characters helped smooth their overall acculturation process to the new environment. For instance, Xiahou described himself as a person with a ''sociable'', ''active'' and ''positive'' personality type, and he thought acculturation partly depended on people's personalities:

… Some people are unsociable as [part] of their personality … So, for these people, they may need to take more responsibility and stress [for acculturation] on their own. But for the people with active and positive personalities …. I mean those who like to exercise and travelling …. people like them [including myself] more easily acculturate to …. even a brand new and somehow strange environment. (Xiahou)

Xiahou compared himself with others who had an opposite personality type, and he appreciated that he has a type of personality that made him more inclined than others to experience successful acculturation in Scotland. His personality allowed him to face and perceive challenges in a positive way, and allowed him to be socially connected and not have to deal with stress by himself. Even though there is no scientific test that could provide solid evidence that Xiahou adapted better psychologically to the acculturation stress when compared to other people, it can be seen from his words that at least he adopted a positive mindset and perception of his life and studies in a new environment, which helped him manage the stress effectively during acculturation. Therefore, it is not surprising that at the end of the interview, he stated, ''*I think my studying and living in Scotland are fine and under my control.*''

Likewise, participants including Nangong (optimistic and positive), Liangqiu (confident and adaptable), Zuoqu (adaptable) and Shangguan (proactive and sociable) also indicated that they adapted well partially as they were not afraid to face the challenges in a new environment, and therefore these challenges had a less significant impact on their acculturation. Overall, Xiahou and these participants' inbuilt personality traits, which may relate to their previous life experiences and genetics, contributed to their adaptability, facilitated their acculturation process and made their lives less problematic. Their personal characteristics, which determined their perception and behaviour across a variety of situations in Scotland, motivated them to keep moving forward and respond appropriately to the stress faced.

As has been discussed, eight of the 12 participants in Study One had studied in England for about a year before commencing their PGT studies at the University of Glasgow, three participants had participated in the language training course, and one had studied in Japan for a year of undergraduate programme. These previous study and life experiences significantly helped 11 of the 12 participants build up a solid foundation and helped them to effectively prepare for the challenge of adapting in Scotland. The previous study experiences paved the way for these study participants to acculturate successfully.

As an example, according to Wenren, as she had studied for her undergraduate degree in the UK for a year, she basically understood the local education system and culture. As such, she did not face "too many" challenges in acculturating to her new study and life, and she felt studying in Scotland was just "another way" for her to experience the British culture:

Acculturation in Scotland was not too difficult for me, mainly as I had obtained a basis to build upon in the previous year [undergraduate study] ... After being through some challenges and realising that I could acculturate to significant unfamiliarity [in the previous year in the UK], I adapted life in Scotland more calmly and faster ... There were just small differences [between England and Scotland] regarding the local customs, while the culture was the same in general. (Wenren)

It can be seen that Wenren had encountered some problems, such as her unfamiliarity with British culture during her first year of study in the UK. However, after a year of acculturation in England, she became calmer when facing many challenges in Scotland and felt her acculturation in Scotland was not too difficult. This previous study experience, in a culturally similar place, provided a solid basis for her to acculturate faster in the new environment in Scotland. It seems that her year of study in England was like an intensive training process for her to acculturate to the specific challenges of British culture, and this training process not only provided her with experience addressing challenges, but also helped build her confidence to face the new challenges involved in

moving to Scotland. Therefore, she acculturated to her new life in Scotland ''more calmly and faster''.

Like Wenren, other participants discussed how their previous overseas study experiences had provided them with useful knowledge for a smooth acculturation in Scotland, such as how to write a dissertation (e.g., Ziche) and use English to communicate and learn (Nangong). Overall, these participants' experiences indicate that they gained plenty of relevant knowledge and confidence before their acculturation in Scotland. These experiences, moreover, could make a difference and contribute to better acculturation in the later stages of their overseas journey in Scotland, even though this was not a guarantee that no subsequent difficulties would be faced. The acculturative stress, as a result, could have a less significant impact on their acculturation in Scotland as these students had gotten used to the relevant stress and could respond to it more appropriately based on their previous coping experiences. Previous overseas and language training study experiences continued to help students 'prepare' for the later stages of their studies, and as such, they tended to face fewer stress and maintain a healthier state of mind. The intensive academic experience in Scotland can also allow the participants to thrive in later life.

Six of 12 participants in Study One suggested that their acculturation experiences improved after travelling around the UK and to other European countries, in particular during the Christmas break. Travelling, as a third space activity, for these study participants, was not only a means of moving around and engaging in physical activity, but also a meaningful way in which they could leave their old daily routines and see and explore different cultures. These participants attributed part of their successful acculturation experience in Scotland to the travels they had taken.

For instance, according to Ziche's description of his diagram (see Figure 2) provided during the interview, he thought his ''unforgettable'' and ''eye-opening'' travelling experience in the UK and Europe during Christmas Break at the end of 2018 allowed him the opportunity to experience the holiday atmosphere and explore Western people's ''lifestyle, habits and customs'', and his overall

level of acculturation increased significantly during this period. Like Ziche, some other participants, including Baili, Zhuge, Gongyang and Wenren also used their spare time to travel. As is indicated in their diagrams, this helped them to acculturate to Western culture and find relief from the stresses they encountered during their acculturation processes in Scotland:

… I used the Christmas break to learn the local culture [through travel with friends across the UK]. I felt less stressed in that period, and I felt I became more adapted as I was learning the local culture in a relaxed way. The acculturation level increased gradually in this period. (Baili)

… As it was the Christmas break, I had a lot of time to travel around. The acculturation level in this period increased dramatically …. I think this free time allowed me to increase my understanding of this city [Glasgow] … Then, it was the whole country; I travelled to four to five cities in the UK as well. So …. I mean, I became more familiar with the local [British] habits and customs. I can understand these things better [through travelling across the UK] than by only staying in the university. (Zhuge)

It can be seen from above participants' experiences that a trip in the UK or in another European country gave many participants an opportunity to explore more comprehensively and gain a deeper understanding of Western cultures. It allowed them to take a break and feel less stressed. In addition, Gongyang and Ximen specifically raised how they used their travelling opportunities to address some of the acculturation challenges they were facing.

For instance, Gongyang managed to take a car trip with friends to travel in both England and Scotland at the end of 2018. Gongyang reported that this trip was a necessary outdoor activity which allowed her to spend time with friends, which helped her to address her isolation and emerge from her poor mental health (see Theme 1.3). Ximen, who said that language barriers impeded her acculturation in Scotland, travelled to three European countries with friends during the Christmas break of 2018–2019. This experience gave her the opportunity to "practise English" (e.g., with her

travel companions and during shopping and sightseeing) and achieve better language acculturation. This trip was meaningful for her and made her "happy."

The above two participants demonstrated that by travelling with friends, they became socially connected and could take advantage of the opportunity to improve their mood, address isolation and practise their English communication skills. Overall, a UK-wide or international trip in Europe proved to be a good opportunity, in particular during the long Christmas Break, to address or relieve the stress many participants were facing during their acculturation, and a good opportunity to immerse themselves in Western culture, increasing their understanding about what is distinct and what is required when it comes to studying and living in British culture. Even though there are certain differences between the UK and continental Europe, being exposed to countries with similarities as well as differences may have increased these participants' understandings of the cultural practises and expressions in the UK. In turn, these participants became more adapted in Scotland as they had developed a clearer understanding in terms of local culture and experienced fewer problems and stress.

As well as being the main acculturation facilitator, travelling was also a popular third space activity for many Study One participants, helping them improve their psychological well-being significantly (see Sub-theme 3.1). On the other hand, as a recreational activity, travelling also created certain stress for some participants, as it could detract significant time from their academic studies, an issue that will be discussed in Sub-theme 3.2. Overall, it seemed to be important for the study participants to spend appropriate amounts of time travelling in the UK or Europe in order to achieve a better acculturation experience and psychological well-being in Scotland, and the long Christmas Break seemed to be a good choice for the participants to travel without detracting from their competitive PGT studies in the University of Glasgow.

3.2.3 Sub-theme 2.3: Life Transformation.

In the interviews, Study One participants indicated that on a scale of one to 10, from easy to difficult, their average level of difficulty of acculturation in Scotland was just around five (Mean = 4.9), with the majority giving a score from four to six, and most saying the difficulty level was somewhere in the middle (as shown on Figure 4). This suggests that acculturating to studying and living in a new environment for these study participants required certain efforts but was not extremely difficult that anyone was defeated.

Figure 4

The Average Level of Difficulty of Acculturation among Study One's Participants (N = 12)
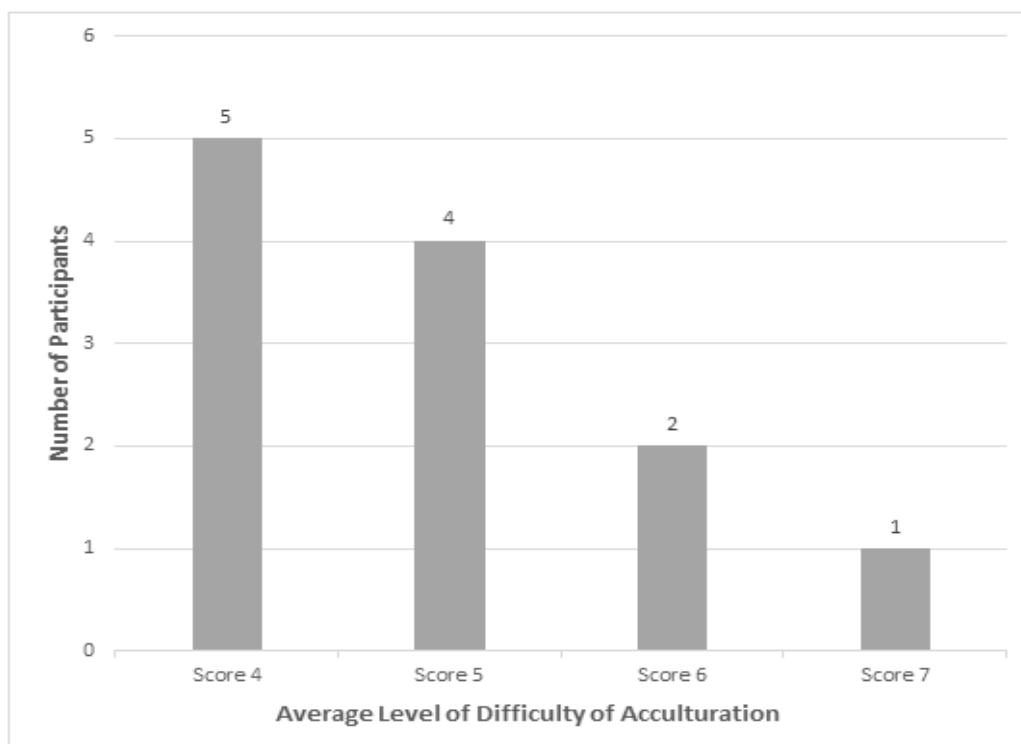
Note. A score of 1 indicates the lowest level of difficulty of acculturation, while a score of 10 indicates the highest level of difficulty.

In the interviews, the researcher also encouraged the participants to discuss and comment on the meaning and outcome of their whole year of overseas experiences in Scotland. Surprisingly, all the participants discussed the positive results of how they managed to acculturate, while no one reflected on their negative experiences. This suggests that their acculturation experiences in Scotland were predominately positive and beneficial. The study participants' comments also supported their diagrams (see Appendix F), which indicated an overall upward trend despite fluctuations. An explanation for this is that the participants had all successfully completed their studies in Scotland, as such their overseas acculturation experiences could be positive in general. However, for those who did not complete their studies successfully, their overall overseas experiences arguably may be full of miseries and their negative experiences could outweigh the positives, but these students are not the focus of the current PhD study.

All in all, despite there being many challenges and stresses encountered in the Study One participants' acculturation journeys, they reported that they had managed to control the stresses, making progress and adapting well; and this meaningful overseas experience had helped them become stronger and would give them a brighter future. For instance, six of the 12 participants reported how their overseas acculturation processes had enriched their experiences and broadened their horizons. As an example, Xiahou commented that:

> … studying overseas is not only about … studying in another country. … [It] is to broaden my horizons … [that] there are different cultures ... they adopt different political systems .... allow[ing] me to communicate with different people, and [seeing] different ways of thinking and living habits, which in turn helped me to grow .... (Xiahou)

It can be seen that as a result of choosing to study in the cosmopolitan UK, participants like Xiahou were exposed to opportunities to communicate with people from other cultures, and this opportunity, in turn, helped these participants explore and experience cultural differences and helped with these participants' personal development.

In addition, five participants in this study discussed that their overseas study experience had helped them to build up their independence. For example, Zhuge said he had become more ''independent'' and stronger as he had learnt how to address different problems and challenges in life by himself during his acculturation. As such, he has become ''calmer'' when facing problems in his life. He argued that studying in Scotland is ''the good training for people'' to practise independence. Other benefits of their overseas study experiences that the participants discussed include obtaining ''better employment opportunities'' (Ximen, Sima and Liangqiu), ''self-confidence'' (Zuoqu, Shangguan and Baili), ''broadening social networks'' (Gongyang and Wenren), improving ''knowledge'' (Ziche and Baili) and ''critical thinking skills'' (Liangqiu and Shangguan).

Overall, the participants in Study One conveyed that studying and living in Scotland required students to face certain stress and make efforts, as well as to pay attention to the opportunities not just in their academic studies, but also in other aspects of life, such as the opportunities for cross-cultural communication and socialisation, in order to build a brighter future. As an important life stage for these young adults, studying and living in Scotland brought many benefits to them. These benefits were actually their achievements through successfully overcoming multiple unfamiliarities by appropriately using opportunities within their acculturation processes. Leaving their family and old friends and moving to a new culture to pursue higher education was the first step that these participants made in stepping out of their comfort zones. These benefits for international education may not have been gained if they had stayed in the same place in China, without being exposed to extra stress and challenges.

3.3 Theme 3: Third Spaces and Chinese Students' Psychological Well-Being

The second research question focuses on investigating the third spaces that the study participants used, as well as the influences that those third space environments had on their personal psychological conditions. As has been explained, a third space is an informal environment beyond Chinese international students' study, work and family lives; they are physical environments

students could use to regularly and creatively foster personal learning, enjoyment and development (Bhabha,1994; Elliot, Baumfield, Reid, & Makara, 2016; Montgomery, 2010). This section will discuss the roles – both positive (Sub-theme 3.1) and negative (Sub-theme 3.2) – that third space activities played in study participants' psychological well-being during their acculturation in Scotland.

Table 4 presents a breakdown of the third spaces utilised by the participants in Study One. It can be seen that different participants used different ways to take breaks from their study, work and home issues. The most commonly used space for all 12 participants was ''Exercise,'' followed by ''Travel.'' This indicated that physical activities were predominantly important for those participants, even though the physical movement associated with active exercise and travel varied according to purposes, frequencies and lengths. All in all, each of the 12 participants actively and successfully found their own third spaces, and these third space activities impacted their psychological well-being in various ways, which will be illustrated in the following sections.

Table 4

Study One Participants' Third Spaces (N = 12)

Participant pseudonym	Personal third space
Shangguan	● Group Dining (eating and sharing food with other people); Exercise; Travel; Shopping
Xiahou	● Attending Local Events (theme events organised by local people); Exercise
Sima	● Travel; Food Hunting (for gastronomy experience); Exercise
Zhuge	● Group Dining; Travel; Exercise; Going to Bars; Digital Entertainment (e.g., watching YouTube and playing computer games)
Wenren	● Festival Celebration (celebrating the important Chinese festivals to maintain a sense of ceremony); Exercise
Nangong	● Attending Parties and Events
Ximen	● Group Dining; Playing Poker; Travel; Shopping
Liangqiu	● Travel; Exercise
Zuoqu	● Going to Bars; Travel; Shopping
Ziche	● Exercise
Baili	● Exercise; Watching Movies; Travel
Gongyang	● Group Dining; Exercise; Travel

3.3.1 Sub-theme 3.1: Psychological Benefits of Third Spaces.

All the participants in Study One found pleasure in third space environments. This positive feeling included improved emotions (11 of 12 participants), a sense of achievement (three participants), improved social networks (eight participants) and reduced stress (nine participants).

Of the 12 participants, eleven explained that third spaces increased their positive emotions and improved their state of mind. Specifically, these spaces helped them become relaxed and joyful;

they also improved their mood and facilitated the acculturation to a new academic and everyday context. These positive emotions are in sharp contrast to those experienced during stressful situations (see Theme 1).

For instance, during the interviews, many participants noted that there was a positive and direct link between their psychological well-being and their engagement with third space environments, which made them feel happy or joyful:

Regarding my psychological well-being, it [exercise] helped me to become joyful. It was as doing exercise allowed me to make friends with people who come from different countries. By doing exercise, I understood their cultures. More specifically, like their styles of playing, their ways of talking … (Sima)

Sima indicated that exercise participation, as his preferred third space environment, allowed him to expand his social network and in turn boost cross-cultural communication, improving his understanding of other cultures, which he greatly valued and appreciated. He felt ''joyful'' since exercise participation allowed him to experience multiculturalism and improve his knowledge of cosmopolitan Scotland. As well as exercise, he also reported that ''travelling'' and ''food hunting'' made him feel joyful, both of which are also associated with cross-cultural experiences. However, as happiness is a subjective feeling, perhaps the study participants found it hard to explain the complex underlying causes and brain mechanisms they experienced (the researcher did not expect participants to explain this as well). On the other hand, the study participants indeed expressed their personal experience of happiness associated with third spaces in as much detail as possible, providing rich and useful qualitative data for the current study.

Notably, when Ximen tried to explain the impact of the third space environment on her psychological well-being, she also conveyed that she simultaneously had a happy feeling and a ''bad time''. While enjoying the third space, she was aware that she could not ''study hard'' at the same time. Ximen expressed a complex emotional condition, feeling ''happy and guilty'' at the same time,

as she was happy to have fun and enjoy her third spaces (e.g., travelling around the UK and to other European countries), but she also realised that this could detract valuable time from her studies. It seemed that the key to improving the participants' psychological well-being was to commit the appropriate amount of time to enjoying their third spaces; otherwise, students could face the risk of being carried away by their third spaces, which were full of enjoyment and pleasure. This complex feeling of cognitive dissonance, in which happiness and guilt co-exist, could undermine the benefits of a third space environment for a student's psychological well-being to a certain extent, and this potential limitation will be discussed in more detail in Sub-theme 3.2.

As Zuoqu, Liangqiu and Ziche reflected, in the course of their intensive overseas PGT studies, they discovered activities they enjoyed participating in that allowed them to take a break. These discoveries added a sense of satisfaction to the students' lives that allowed them to feel more content and fulfilled. By seeking to enjoy their overseas experiences from every possible angle, these participants found that satisfaction was attainable by engaging in their third spaces. This sense of satisfaction and fulfilment contributed to a higher level of psychological well-being to these participants.

As a person who is enthusiastic about sports and exercise, Liangqiu regularly went travelling to different European countries, such as Spain and Italy, in order to attend professional mainstream football games. Every time he went to watch the football, he felt very ''excited'' and ''did not want to go back home''. After the games had finished, he felt that he had obtained a sense of ''satisfaction'' by watching them. Notably, he also conveyed the view that this sense of satisfaction somehow affected his attitudes towards his life and studies during his acculturation in Scotland. As he obtained satisfaction from watching football, he also tried to obtain more satisfaction from his studies and life by trying to ''keep challenging himself''. Liangqiu's story demonstrated that the psychological benefits of engaging in a third space environment may go beyond the positive feeling

or positive emotion associated with the activity itself; it may improve one's overall study and life experiences overseas, which in turn could optimise these psychological benefits.

Ziche, who also explained that he was obsessed with sports and exercise, discussed that he was good at and enjoyed doing exercise as his hobby during his time in Scotland. He reported that exercise, as his only third space activity, allowed him to find self-worth, which in turn contributed to a feeling of satisfaction. Ziche's individual perception and evaluation of himself improved through his participation in exercise. As such, his life satisfaction improved as he was able to participate in an activity unrelated to his study, work and home, that he can perform with confidence.

Overall, Liangqiu and Ziche achieved better psychological conditions by regularly taking part in sports and exercise events that they obsessed over and were satisfied with. A thirst and willingness to accept and thrive at their hobbies in a new environment seemed to be the key to keeping a consistent flow of satisfaction for these two participants. However, the passion and obsession associated with one's hobbies were not without problems, as both Liangqiu and Ziche also explained the negative impact that their third spaces had on their psychological well-being, such as obsession issues (Liangqiu); this will be explained in detail in Sub-theme 3.2.

In addition, nine of the 12 participants pointed out that their third spaces acted as buffers between them and stressful events, allowing them to cope more effectively and maintain their mental health. Half of the participants discussed these positive impact of third space environments specifically on their academic stress management, as the following examples indicate.

Notably, Ziche and Sima both reported that when they were engaged in third space activities, their perception of time was distorted and their feelings of academic stress changed. For example, Ziche said:

As I was doing this every week, it made me feel as if the whole year passed very quickly ...

Even though I was stressed about my studies, I felt that my academic experience was mixed

> *with my good memories of doing exercise ... I believed in doing it continuously. Exercising*
>
> *helped me disconnect from the academic stress and made time fly. (Ziche)*

In contrast, Sima explained that third spaces made him feel as if life was more "slow-paced." He felt that the Master's degree was very intensive. Faced with such stress, doing third space activities made him feel "relieved physically and psychologically". He thus "slowly enjoyed" the "quality time of life in Scotland."

Ziche felt that regular exercise allowed him to distance himself from his accumulating academic stress. Feeling less stressed, the one-year degree study passed quickly and with few difficulties; many good memories were associated with his exercise routine. Like Ziche, Sima's third space activities (e.g., travelling, food hunting, exercising) were also largely linked to physical movement. By participating in these activities, the negative impact of intense academic stress was diminished. In third spaces, he was able to "slow down" and spend time enjoying life overseas.

No matter whether they felt that time moved slower or faster, the above two participants felt more enjoyment and less academic stress by engaging with a third space environment in their one-year intensive PGT studies in the University of Glasgow. All in all, participants regularly made time for third space activities, which allowed them to be in a better place to handle acculturation stressors. In turn, the third space environment contributed to their psychological well-being and allowed them to recover from the negative effects of stress more effectively, which meant they were able to concentrate on their studies again. It seemed that the ultimate goal for study participants was a balanced life, with time for academic study as well as recreational activities (third spaces), and the sense of resilience to hold up under pressure and meet challenges posed by their acculturation journeys.

In their interviews, all the participants also pointed out that they did not always engage in third space activities alone, and they had gotten to know someone over a period of time through their participation in third space activities. A third space is a distinct environment as it exists beyond

academic, work and home settings, making it possible to meet people who share the same interest or hobby, and to connect with them. Eight of the 12 participants further indicated that a meaningful interaction was achieved when they had built friendships with people who shared the same interests, and in turn, these friendships contributed to their better psychological well-being.

Exercise activities, for instance, established a platform for Wenren to meet other female participants, and this environment enabled her to ''make them good friends faster''. This was as this environment created a relaxed platform which allowed them to start a conversation ''easily'' and to find many commonalities, often based on ''very small things'' like ''nails'' and ''makeup''. By participating in exercise as one of her third spaces, Wenren became socially connected. She said, ''*I felt like I could gradually improve my relationships, for sure, with these friends easily by playing table tennis together with them, as we shared the same hobby.*'' Interestingly, sometimes, even when she lost a game, she did not feel ''unhappy'', but instead ''very much enjoyed losing'' as she, at least, had fun with her exercise friends who could play ''very well''.

For Wenren, playing with friends and improving their relationships seemed to be more important than the result of the game itself; and as exercise as a platform allowed Wenren to enjoy improved social interactions and quality time with other people, her psychological well-being was boosted.

Four of the 12 participants specifically reported that their third space environments helped them become socially connected, addressing their isolation during their acculturation in Scotland (see also themes 1.3 and 2.2). As an example, Gongyang, who reported the isolation and associated poor mental health as her main acculturation challenges (see Sub-theme 1.3), thought the main reason the third space environment was important to her was that it helped her to ''maintain the necessary socialisation''. When she went out for exercise, group dining and to travel with friends, they were able to communicate with each other, and she was able to ''pour out'' her thoughts and

feelings about the difficult time she was having, and her friends always gave her useful advice. As such, she gradually overcame the difficulties and problems in her study and personal life.

Overall, establishing authentic social connections in "real life" during the current age of technology could be a challenge. The study participants indicated that traditional face-to-face communication was enabled by third space environments, and this personal contact provided some of the 'most powerful' (e.g., for Gongyang) health benefits for their psychological well-being. The benefits of forming meaningful relationships were possibly not only limited to the participants themselves but tended to be mutual. In other words, the people who offered help to these participants also tended to receive help in return (e.g., addressing isolation). Arguably, all the students involved could gain benefits through meaningful interactions, and interacting with others could help a student acculturate more effectively to the new academic and living environment than addressing the questions on their own.

Furthermore, as discussed in Theme 1, during particularly difficult periods such as winter Christmas Break, some participants tended to be more prone to isolation, as such the importance of having a third space environment for recreational and socialisation purposes was particularly vital for students (e.g., Wenren and Gongyang). Additionally, as discussed, forming social connections with others is very important for study participants starting from the very beginning of their overseas studies (e.g., for Zhuge, see Figure 1); the third space environment allowed participants to develop relationships with people other than their classmates and roommates, contributing to the formation of useful social bounds. It is important not to discount the social interactions that take place in everyday and seemingly unimportant places – places which are not related to the university campus, workplace and home – as all of these interactions could contribute to the study participants' psychological well-being.

3.3.2 Sub-theme 3.2: The Negative Impact of Third Spaces.

As the participants indicated, third spaces could be sources of positive emotions, social support and stress management, all of which could contribute to their ability to think more positively and deal with the challenges life thrown at them. On the other side, this environment could also be a battleground for a range of negative feelings. The majority of the participants (10 of 12) indicated that they sometimes developed negative feelings when they were participating in third space activities, and these negative feelings added an extra burden to their psychological well-being, bringing about unnecessary challenges in their short but already intensive PGT studies in an unfamiliar environment in Scotland.

As has been discussed previously, a third space environment is a place in which participants could have a break from their studies, work and home issues. Finding a balance between the formal tasks involved in their overseas PGT studies and participating in recreational activities in a third space environment proved to be a hard choice for many participants. Those 10 participants stated the main reason a third space environment played a negative role in their psychological well-being was that they found it hard to give an appropriate amount of time to their third space activities, which took significant time.

For example, as discussed above (theme 3.1), Ximen reported that she felt ''guilty'' as her third space took a significant amount of time. She felt that she should ''study as soon as possible'' even though she ''really enjoyed'' staying in this ''relaxed'' environment. On the one hand, a third space contributed to Ximen's acculturation and psychological well-being; but on the other hand, the same space could also lead to feelings of ''guilt'', an unpleasant emotion which undermined her psychological well-being when the third space demanded greater time away from her studies. This indicates that a third space environment might have a multifaceted impact on psychological well-being, and the responsibility to manage the negative impact is normally down to students

themselves (While not neglecting institutions' responsibility to support international students' acculturation needs).

Compared to Ximen, Liangqiu tended to spend much more inappropriate time on his third space activity as he admitted that he sometimes had an ''addiction'' to it, and he knew he did the ''wrong'' thing. However, he was sometimes unable to control himself: he would prioritise travelling to football games over his studies, and even when the game had finished, he was unable to stop thinking about travelling and football games. This kind of obsession at times made it hard for him to concentrate on his studies, which was the main task of his time overseas. Therefore, spending an inappropriate amount of time on a third space means that its benefits (e.g., motivating Liangqiu to work hard on his studies) may be undermined by drawbacks.

However, during the interviews, the participants largely discussed the contribution of having a third space environment to their psychological well-being, while spending very little time reflecting on the negative impact. When the researcher asked about the impact of a third space environment on their psychological conditions or feelings, all the participants except Zhuge only discussed the positive impact, without mentioning any negatives. They only started to reflect on and discuss their negative experiences when the researcher probed with specific questions. This suggests that in their memories, the negative impact of their third spaces was probably less significant when compared to the contributions.

In addition, when discussing the negative impact, the participants chose their words cautiously, such as saying ''sometimes'' and ''not strong'' to describe situations, which suggests that the impact of negative feelings was rather minimal. The above indicates that the positive impact of having a third space environment outweighed the negative impact on the study participants' psychological well-being in general. In addition, the researcher did not ask participants directly to express whether the positive or negative impact was stronger; this was a deliberate interviewing

tactic in order to prevent the participants from making an effort to formulate answers they thought would be desirable.

Furthermore, the generation of an unpleasant or unhappy feeling in third spaces could undermine participants' psychological well-being and general acculturation. However, feeling unbalanced in life could be a signal that something needs to change, in turn, this may not be an entirely negative element for participants. If the study participants spent too much time dwelling on negative feelings, it would further damage their psychological well-being. Therefore, what seemed more important for them was heeding warnings and understanding when and why negative emotions might arise, then developing positive behaviours to address them. Many study participants realised that they needed to make changes by discussing their sense of "guilt" for making mistakes in a third space (e.g., Ximen). These unpleasant feelings warned them and pushed them to make changes to manage potential problems. They thus boosted the positive aspects of third space participation.

Additionally, as was discussed, the main purpose of conducting the interviews with the participants was to allow them to reflect on what they had been through in their one-year intensive PGT studies in a competitive Scottish university. As many participants discussed that their third spaces were actually their ''lifelong hobbies'', they were highly likely to continue participating in these activities after moving back home. When they begin to further explore and understand the cause behind each positive or negative feeling, they may develop ways to respond, which may support a sense of well-being in their future careers and lives.

Additionally, as has been discussed, the most commonly used third space for all 12 participants was 'exercise'. At the end of the interviews, the participants were also asked to identify the most influential third spaces that had a positive impact on their psychological well-being in Scotland. Eight of the 12 participants named 'exercise' as the most influential activity for their psychological well-being, including one participant who used 'exercise' exclusively as his third space

(Ziche). In addition, two participants raked 'group travel', one participant selected 'going to bars' and one chose 'group dining' as their most influential third space.

Exercise was the most influential third space identified by both the male (five out of six) and female (three out of six) participants, and this indicates that the importance of 'exercise' for a Chinese international PGT student's psychological well-being could be overwhelmingly important compared to other third spaces. (However, the recruitment strategy of Study One, to a certain extent, might be biased towards the exercise group. Please see Section 2.2.1 Access to Participants for Study One for details.) In addition to the significant health benefits it brings, several reasons may explain why recreational exercise participation was deemed the most popular third space by the participants. For instance, recreational exercise normally tends to be freely accessible (e.g., supported by HEIs) and has few rules and requirements that are difficult to understand, particularly if students have experiences of it in China. It also has few language barriers (in many cases, just a few words are enough during a game). Furthermore, exercising creates many opportunities for social connection, which tend to match many Chinese students' by-and-large collectivist cultural values.

3.4 Study One Research Findings Summary

Study One aims to investigate Chinese international PGT students' acculturation experiences (Research Question 1) in Scottish HEIs as well as how a third space environment affects students' psychological well-being during their acculturation (Research Question 2). The study has contributed to the limited literature regarding this student group's acculturation experience, third space participation experience and improved psychological well-being. The findings of Study One demonstrated that study participants' overseas experiences in Scotland could be 'life-transforming', and this experience is dependent on how students acculturate to their new study and living environment, as well as how they manage to thrive in the environment beyond the academic setting, their workplaces and homes. Overall, all the things the study participants experienced – no matter whether it was in their daily academic studies or their third spaces – may ultimately change

their lives (e.g., become more independent). 'Life Transformation (Theme 2.3)' was essential in the participants' pursuit of their overseas education.

More specifically, the participants experienced many 'Main Academic and Non-academic Challenges (Theme 1)' in their 'Main Acculturation Experience' (RQ1), which generated considerable stress. Unlike home students, many participants needed to address language concerns (accent issue for six participants) and cope with the harsh Scottish weather (four participants). However, all study participants still managed to find their own ways to address these challenges. In addition, many (five) participants can probably appreciate the stress they experienced in their one-year studies and life in Scotland, which motivated them to acculturate and helped them become stronger adults. The stresses they encountered during their acculturation in Scotland could turn out to be positive in the end, as it could help them develop their sense of 'Resilience and Growth (Theme 2.1)'. A female participant in this current PhD study, Zuoqu, even commented that, ''*I won't do things with no difficulty. It won't happen. Otherwise, it means I cannot improve*.'' Furthermore, Study One participants could also find and explore multiple 'Crucial Factors Facilitating Acculturation (Theme 2.2)' (e.g., travel for Ziche) that they could take advantage of for achieving their successful acculturation from the old to the new environment.

Study One participants' acculturation process and their psychological condition seem to be 'positively' interrelated as well, as these challenges and opportunities in acculturation could all impact on their subjective feelings and emotions. The co-existence of challenges, as well as the opportunities in this overseas journey, significantly impacted participants' psychological well-being. Participants may cycle rapidly between moods in their short one-year PGT study journey, ranging from, for example, unhappy and stressed when they experienced significant difficulties (e.g., isolation), to happiness and self-confidence when they find ways to facilitate acculturation (e.g., a trip around the UK and Europe); and this variance could cause their psychological conditions to be unstable.

A 'Third Space' (RQ 2) environment can potentially help participants to manage their 'Psychological Well-being' and could contribute to more stable and healthier overseas acculturation experiences. Specifically, a third space can contribute to (see Sub-theme 3.1 Psychological Benefits of Third Spaces), for instance, great ''positive emotions'' and ''social support'' for participants to maintain and improve their positive psychological condition. A healthy psychological condition could, in turn, help them to prevent themselves from ruminating on negativity and protect them from psychological crisis. It could help foster a positive perception of the stress experienced and contribute to effective coping and recovery, in turn, contributing to a better acculturation experience. On the other hand, this environment could also create unpleasant feelings occasionally (see Sub-theme 3.2 The Negative Impact of Third Spaces), and these negative feelings (e.g., obsession issues [which could lead to excessive time consumption and associated stress]) could add an extra burden to the participants' psychological well-being, bringing unnecessary challenges to their short but already intensive PGT studies in a new environment in Scotland. Therefore, it is important for Chinese students to understand when and why negative emotions might arise and develop positive behaviours to address them.

Ultimately, a meaningful overseas study experience could allow study participants to obtain many potential benefits beyond an overseas degree or qualification that international students traditionally seek to. It includes the opportunity to ''enrich their experiences and open their eyes'' and to obtain better ''future employment opportunities'', which would also match many participants' motivations to come to study in the UK, with a historically strong education system and a welcoming and open cultural environment. Participants were willing to make constant efforts, and they overcame the stresses and developed positive coping mechanisms, ultimately becoming healthier and more acculturated, thus maximising their time and achieving a more productive overseas journey.

What can be seen from the analysis of the research findings is that overseas education in Scotland could be a process of positive growth and life transformation, and a key factor in 'success' during participants' 'growing up' is to maintain a healthy psychological condition, as it is at any stage of life. Not surprisingly, 'growing up' is not painless, but proactive participants were capable of finding ways to live a healthy life, acculturating faster, and even turning the challenges into motivation to action. They also proactively searched for opportunities via a third space environment to maximise their time in order to achieve a more meaningful and healthier education experience during this critical stage of life. Better acculturated students seemed to be able to live a happier life and could spend relatively more time on third space activities to further improve their psychological condition, and this positive cycle could contribute to a thriving overseas experience. More importantly, future students could learn from their experiences that acculturation in Scotland could be intensive but manageable, and even enjoyable and rewarding to an extent; and the role of third spaces should not be neglected, but instead, be appropriately utilised. For HEIs in Scotland, a better appreciation of such an issue would help develop culturally-sensitive strategies and responsibilities to effectively support Chinese PGT students' acculturation and psychological well-being (UKCISA, 2022).

The next section will discuss all of these interesting findings from Study One and argue that these findings can make significant contributions to academic knowledge.

1-4 Discussion and Conclusion of Study One

The main aim of Study One was to understand the acculturation experiences of Chinese international PGT students in relation to a) studying at Scottish HEIs and b) the use of third space environments as a way of nurturing psychological well-being. Study One sought to contribute to the academic literature by answering two research questions:

1. What are the main acculturation experiences of Chinese international PGT students at a Scottish HEI?

2. What is the role of the third space in Chinese international PGT students' psychological well-being at a Scottish HEI?

This section will provide a summary of the key findings from this research and their connections with the previous literature and theory that were critically presented in the previous sections (see also Chapter 2). A synthesised discussion of the key themes of Study One will be offered by exploring the connections amongst those themes (Section 4.1). The theoretical contributions of Study One will then be discussed (Section 4.2). The relevant findings will be discussed from the perspective of Seligman's PERMA theory (2011). The final chapter of this thesis will contain a comprehensive discussion of the overall contributions to knowledge of this current PhD study project, for both Study One and Two, as well as recommendations for future actions based on the findings.

4.1 Empirical Contributions of Study One

This section will compare and contrast the findings of Study One with those of previous relevant studies, highlighting similarities and differences as well as the insightful findings gained. By doing so, it offers a deeper understanding of the acculturative experience of many Chinese international PGT students in Scotland. Using thematic analysis, three main themes were highlighted from Study One, including '*Main Academic and Non-academic Challenges in Acculturation (Theme 1)'; 'Growth, Development and Life Transformation (Theme 2)';* and *'Third Spaces and Chinese Students' Psychological Well-being (Theme 3)*'. (Themes 1 and 2 addressed the first research question in Study One, while Theme 3 addressed another question.) Moreover, I will argue that the most significant empirical findings of Study One was that it highlighted and demonstrated the importance of third space participation in satisfying many Chinese international PGT students' acculturation and psychological needs in Scotland. This finding was of relevance to both Chinese students and academics.

4.1.1 Theme 1: Main Challenges in Acculturation.

The first key theme concerned the participants' challenges encountered in their new study and living life in Scotland. Specifically, many Chinese international PGT students' acculturation could be a multi-factorial, multi-dimensional and altogether complex construct (Ozer, 2013; Snape & Rienties, 2016), and the previous literature on Chinese students' experiences consistently pointed to acculturation as important and continuous parts of their experience (He & Huston, 2018; Yu & Moskal, 2018) regardless of each individual student's demographic or educational background. There were no exceptions among the Chinese PGT students who participated in Study One when it came to the acculturation challenges and stresses they had to contend with during their short but intensive year in Scotland. In addition, as discussed, issues such as feeling stressed and having a low mood should not be seen as students' deficiencies. A lack of relevant research and responsibility may lead British HEIs to fail to offer sensible well-being support and services, and this may be among the causes of the students' problems (Aikman et al., 2016; Deuchar, 2022; UKCISA, 2022; see also section 1.3.2 in Chapter 1). Theme 1 in Study One suggested that participants experienced many '*Main Academic and Non-academic Challenges in Acculturation*' in their 'Main Acculturation Experience' (RQ1), which generated considerable stress (Cao et al., 2017; He & Huston, 2018; Hsu & Wu, 2015). In addition to *'Intensive Course Assignments* (Sub-theme 1.2)'*, many participants needed to address *'Linguistic Challenges'* (e.g., accent issue for six participants, see Sub-theme 1.1) and cope with *'Unpredictable Scottish Weather'* (four participants, see Sub-theme 1.3) to achieve satisfactory acculturation. These elements had the potential to make their university experience stressful, unhealthy and largely different from that of home students.

Theme 1 echoed many existing studies in its finding that when a Chinese international student moved to study and live in overseas, a country with a qualitatively different social culture and academic environment than China's, their psychological well-being could be under pressure as they tended to experience stress in every aspect of their life due to the significant unfamiliarity of the new environment (Cao et al., 2017; Han et al., 2013; He & Huston, 2018). According to Theme 1,

this stress may cause many Chinese students to suffer considerably. For example, Sub-theme 1.3 demonstrated that during the winter Christmas Break, the 'Unpredictable Scottish Weather' in their living areas forced Gongyang and Wenren, who reported feelings of low mood, to stop pursuing outdoor recreational activities and stay alone in accommodations. In order to survive their studies and facilitate well-being, the most basic task for many Chinese students seemed to be finding ways to address and manage the sources of distress.

In addition, in line with previous studies conducted by Yu and Moskal (2018), and He and Huston (2018), Theme 1 indicated that many Chinese international PGT students in Scotland tended to suffer from ''language challenges'', which could result in communication barriers that affect their academic studies and personal lives. Language proficiency seemed to be an important element of successful acculturation within and outwith academic settings for many Chinese international university students, and many other international students, in many countries. However, the specific difficulties associated with understanding some local Glaswegian accents could be viewed as a unique experience that these Chinese students (for six of 12 participants in Study One) needed to contend with, and this particular type of challenge was seldom reported in other studies. Indeed, previous academic research implied that international Chinese students may experience different challenges and levels of stress in different cultural environments (see Brunette et al., 2011; Wei et al., 2012; Yu & Moskal, 2018). Therefore, the cultural challenges that many Chinese international PGT students experienced in Glasgow (e.g., local accents, harsh weather; see 3.1) created certain barriers that do not apply to other contexts. For example, some Chinese students may not encounter strong accents in certain areas of central London where many people use 'standard' English, which is not significantly different from what they were taught in China. However, some Chinese international students might experience strong accents and harsh weather in many other parts of the UK.

4.1.2 Theme 2: Growth, Development and Life Transformation.

Theme 2 suggested that despite multiple sources of stress, many Chinese PGT students managed to find ways to cope during their stay in Scotland (Gbadamosi, 2018; Yu et al., 2018). The participants in Study One explored multiple *'Main Opportunities Facilitating Acculturation'* (e.g., travel in the UK to learn the local culture; Sub-theme 2.2). Five participants suggested that they appreciated the stress they experienced as it contributed to their sense of *'Resilience and Growth'* (Sub-theme 2.1). All the participants were willing to make efforts to overcome their stress and develop positive coping mechanisms to become healthier and better acculturated. These efforts allowed participants to obtain many benefits, including eye-opening experiences during travel in the UK. They thus maximised their time and obtained a *'Life-Transforming'* overseas education (Sub-theme 2.3).

Specifically, Sub-theme 2.1 suggested that proactively adopting a positive and appreciative view to interpret acculturation stress as eustress (which, as previously discussed, means 'good stress') (Jackson,2013; Selye, 1974) rather than distress and paying attention to what they could learn from any challenges and stresses, could help many Chinese international PGT students improve their acculturation experience (e.g., to be more enjoyable), maintain and improve their psychological well-being, and help them grow stronger during their time in Scotland (Chua et al., 2018; Jackson,2013). This coincided with Lazarus' (1966) idea that psychological stress is a specific phenomenon shaped by personal and cultural factors/values, as well as with Seyle's (1974) theory of 'eustress'.

Five of the 12 participants in Study One drew a clear line between the negative and beneficial effects of their acculturation stress. Furthermore, Sub-theme 2.1 was also in line with the students' experience from Chua et al. (2018)'s study that certain stresses could be beneficial and helpful in achieving better education experiences, depending on the students' personal perceptions and coping abilities. This theme suggested that some eustress was probably needed to add

excitement, stimulation and colour to these five Study One participants' studies and lives in Scotland, encouraging them to flourish and thrive (Chua et al., 2018; Jackson,2013; Selye, 1974). With this in mind, these stresses may not necessarily be sources of problems that must lead to psychological crisis or must be completely avoided, but could become valuable opportunities for many of the Chinese students to improve and enjoy themselves during their acculturation.

Overall, according to Theme 2.1, positively interpreting the stress that Chinese students experienced could allow many of them to develop positive coping mechanisms and maintain a positive attitude when facing challenges, and this could help these Chinese students discover the 'Meaning' behind stress (e.g., facilitating acculturation and improving psychological condition), eventually cultivating a sense of 'Accomplishment', as Zhuge (a participant in Study One) described: ''*I think the more stresses we face in our studies, the better we could become for sure, even though we need to deal with so much stress.*'' However, eustress (Jackson, 2013; Selye, 1974) has seldom been reported in international students' acculturation in the cross-cultural psychology literature, whereas there are many relevant studies in other fields, such as workplace psychology (for example, how eustress may promote work performance [Gulzar et al., 2022; Mende et al., 2017; Pavithra & Sivakumar, 2020]). This knowledge, therefore, could be critical to comprehensively understanding international students' stress-coping behaviours and psychological well-being during acculturation.

The main acculturation experience for study participants was not all about challenges and stress; its positive elements also need to be highlighted (Cahill & Stavrianeas, 2013; Gbadamosi, 2018). Sub-theme 2.2 indicated that some potential opportunities could actually help many Chinese students facilitate their acculturation in Scotland. Proactively searching for these 'acculturation facilitators', reflecting Chinese students' intentions to thrive in their new environment, could help these Chinese students improve their acculturation experiences and psychological well-being.

In line with multiple previous studies, Study One participants' 'personalities' (e.g., optimistic and positive personality traits) and 'knowledge of local culture' could all influence their acculturation

in Scotland (see Theme 2.2) (Zhang et al., 2010; Zhou & Todman, 2008). This indicated, generally, that international students' acculturation journeys can probably begin even before they have moved to the host country, or at least they may be expected to make appropriate preparations for their new studies and lives in a different environment, as they were probably expected to have the positive attitudes, and basic knowledge/cultural competence for a smooth acculturation. These preconditions allowed many Chinese students to have more freedom to flourish in HEIs. The participants invested less time in struggling to survive or completing their degrees and more in looking for opportunities to have a better educational experience. These opportunities included cross-cultural communication during third space activities with others, such as exercising and travelling across Europe (Snape & Rienties, 2016; Yan et al., 2015).

Beyond, Theme 2.2 additionally suggested that travelling around Europe could be viewed as a powerful way of facilitating study participants' acculturation in Scotland, whereas limited studies have investigated the impact of 'travel' on international students' acculturation journeys. By moving overseas to study, many Chinese international students were normally exposed to opportunities to engage in local sightseeing rather than just staying in their universities or homes, as suggested by the six participants in Study One (see Theme 2.2). Perhaps participants in other studies did not highlight travelling as an important acculturation strategy/facilitator; it has received very limited attention from previous academics. However, half of the participants in Study One reported that their overseas acculturation experiences and psychological well-being were significantly improved after travelling around the UK and to other European countries as it was a meaningful way in which they could leave their daily routines and explore different (Western) cultures.

This finding indicated that the importance of Chinese PGT students proactively seeking opportunities to travel around Europe should not be overlooked by academics who intend to understand their journeys in Scottish HEIs. It also suggested that, as a specific third space contributing to many Chinese students' acculturation and psychological well-being, the impact of

'travel' for Chinese students and perhaps, many other international students' 'overseas journey'
tended to be understudied, just like many other third space activities (see Elliot, Baumfield, & Reid,
2016; Elliot, Baumfield, Reid, & Makara, 2016).

Overall, Theme 2 from Study One supported many research studies that cross-culture
acculturation for Chinese international students was not all about challenges and stress, while
successful acculturation could provide many valuable benefits, such as bringing a sense of
satisfaction and achievement to students) (see Sub-theme 2.3) (Gbadamosi, 2018; Li & Zizzi, 2017).
Whilst the current study (Theme 2 specifically) might not add a significant amount of new
information regarding the essential values that overseas experience could bring this population, it
was able to strengthen the evidence justifying the benefits of the challenging yet rewarding journey
of undergoing education in overseas contexts; and it was reassuring to find that challenges and
benefits could co-exist in many Chinese students' overseas studies over the acculturation period and
that proactive students themselves could be able to explore the positive sides of international
education in Scotland.

4.1.3 Theme 3: Third Spaces and Psychological Well-Being.

Theme 3 in Study One also suggested that part of the meaningful overseas experience could
happen in the third space environment, which was consistent with many other academics' findings
(Brunette et al., 2011; Elliot, Baumfield, Reid, & Makara, 2016; Yu & Moskal, 2018). Regarding
participants' involvement with third spaces (Research Question 2), the '*Psychological Benefits of
Third Spaces*' (Sub-theme 3.1) contributed to more stable and healthier overseas experiences by, for
instance, improving emotions. However, third spaces also brought with them the potential for
'Negative Impact' (Sub-theme 3.2), including obsession issues, which could lead to excessive time
consumption and difficulties in completing academic coursework on time. These negative aspects
tended to be less significant when compared to the positive ones, according to the stories shared by
the participants.

As demonstrated in the previous literature, investigations of overseas students' sojourns required looking beyond their formal academic, work and home contexts to address their needs in a holistic way (Han et al., 2013; Hsu & Wu, 2015; Li & Zizzi, 2017). To enable a more enjoyable and meaningful overseas journey, the role of third space environments should be considered; this was also arguably a vital step towards many international students thriving in a new environment, such as the UK.

Study participants in Study One utilised several recreational activities to give themselves breaks from their study, work and home lives, such as exercise participation, travel and group dining. Among these, exercise was highlighted in Study One (eight of 12 participants) as the most beneficial third space activity for well-being, and it has frequently been cited by other academics as well (Brunette et al., 2011; Elliot, Baumfield, Reid, & Makara, 2016; Yan & Fitzpatrick, 2016). This suggested that exercise activities could play a significant role in many Chinese international students' overseas experience in relation to acculturation and health and well-being. However, as previously discussed, the recruitment strategy of Study One might have somewhat influenced this data as it partly took place through a sports and exercise organisation. The significant number of followers of the social media accounts of the University of Glasgow's sports and exercise organisation helped disseminate the research invitation. However, future population-based studies could explore if exercise participation can play a significant role in a wider student community. Future researchers may also consider recruiting students through other channels (e.g., student travel organisations) depending on feasibility (e.g., the openness of access and the number of group members). These aspects were beyond the scope of this doctoral study.

Moreover, according to Theme 3.1, third space activities in general, could contribute to Chinese international PGT students' 'positive emotions', 'social support', 'sense of satisfaction', and 'stress management', which in turn could help many Chinese students maintain and improve their psychological well-being, thus contributing to a better acculturation experience. This result is in line

with the limited available literature, which suggests that third spaces can boost many international students' opportunities of having a meaningful overseas experience (Brunette et al., 2011; Li & Zizzi, 2017).

However, Study One focused on the changes and acculturation Chinese international PGT students undergone psychologically, as a result of engaging in third space environments, while other relevant studies' main foci tended to be the relationships between third spaces and students' overall overseas acculturation outcomes (see Elliot, Baumfield, Reid, & Makara, 2016; Yan & Fitzpatrick, 2016). Therefore, it was difficult to make a systematic comparison between the Theme 3 findings of Study One and those of the previous literature. Furthermore, it was hard to make a meaningful comparison with the previous literature as there was so little of it to be identified (see Chapter 2), and most studies tended to deal with diverse groups of participants from significantly different cultural backgrounds. This was significant as, unsurprisingly, third space environments tend to play very different roles for students in different contexts (e.g., they may help many Chinese students socialise and achieve English language acculturation in the UK, whereas they may not have this effect on Australian international students in the UK).

Nevertheless, both Theme 3.1 and many relevant studies (see Brunette et al., 2011; Yan & Fitzpatrick, 2016) highlighted the particular 'social benefits' of embracing a third space environment (eight of 12 participants in Study One), such as obtaining social support and improving intercultural communication, both of which facilitated acculturation. This suggested that obtaining extra socialisation opportunities beyond one's study, work, and home settings could be viewed as a major benefit of pursuing third space activities for many international students. Many Chinese international students tended to expect to achieve improved relationships with others as a way of flourishing and thriving (Brunette et al., 2011; Yan & Fitzpatrick, 2016), which was probably an influence of their by-and-large collectivist cultural values as well (Hsu & Wu, 2015; Kim et al., 2008).

On the other hand, as suggested by Theme 3.2, third space environments could also create negative feelings occasionally (e.g., leading to excessive time consumption), and these unpleasant feelings could add extra burdens to some Chinese students' psychological well-being and general acculturation processes. In order to achieve better psychological well-being and more meaningful overseas experiences in the third space environment, these negative feelings should be addressed, and when possible, even avoided. Efforts made in managing the negative aspects of third spaces could possibly boost their benefits and allow many international students to better flourish and thrive. The practical recommendations for HE students who expect to achieve a better acculturation experience in a third space (e.g., use a timer to monitor the time spent on third space activities or ask peers to monitor each other's participation) will be put forward in Chapter 5, Section 5.3: Practical Implications of the Research Findings.

Overall, many previous academics have thus far overlooked to investigate the role of third space environment for international students' overseas journeys in any depth, and even fewer academics have paid attention to explore and report limitations/drawbacks associated with third space environment (see Elliot, Baumfield, Reid, & Makara, 2016). Theme 3.2 provided further evidence that third spaces, which were often viewed as largely positive, may still have certain limitations, just as acculturation stress may not always be an entirely negative factor (e.g., eustress [Jackson, 2013; Selye, 1974]), as discussed above. As the saying goes, every coin has two sides.

4.1.4 Synthesis of Key Themes of Study One.

As discussed, key themes 1 and 2 addressed Research Question 1, whereas key finding 3 addressed Research Question 2. In this section, I will explain how these closely connected themes offered important insights for Chinese students achieving improved overseas experiences.

Study One findings (see Section 3) tended to largely support many previous research studies that acculturation could undermine many Chinese students' psychological well-being (see Theme 1, Study One), while there were co-existing opportunities to facilitate Chinese students' acculturation

process overseas, such as a third space environment (Cao et al., 2017; He & Huston, 2018; Yan & FitzPatrick, 2016). These opportunities could allow many Chinese students to maximise their time and efforts to achieve a healthier and more meaningful overseas study experience. The outcome of Chinese students' overseas study tended to largely depend on how students themselves manage the acculturation stress and take advantage of multiple opportunities (see Themes 2 and 3, Study One) (Chua et al., 2018; Gbadamosi, 2018) (While not neglecting institutions' responsibility to support international students' acculturation needs). Other studies suggest that many Chinese students became increasingly acculturated to their new academic and everyday environment over time (He & Huston, 2018; Snape & Rienties, 2016). This conclusion is also supported by the participants' diagrams, which show an overall upward trend in their acculturation level (see Appendix F). It seems that as long as these Chinese students made constant efforts during their acculturation, studying and living in a Western environment was unlikely to defeat them. On a scale of 1 (easy) to 10 (difficult), the participants also indicated that their difficulty in adapting in Scotland was somewhere in the middle.

Study One also advocated proactively adopting a positive view to interpret acculturation stress as eustress (Jackson,2013; Selye, 1974) rather than distress (Sub-theme 2.1), paying attention to the value of travelling opportunities (e.g., to improve English language skills and embrace an outdoor life), which was an interesting additional finding (Sub-theme 2.2). Theme 3 in Study One also highlighted the need of addressing the negative feelings associated with third space activities to help some Chinese international PGT students improve their acculturation experience and psychological well-being during their time in Scotland (Brunette et al., 2011). The role of third spaces, particularly for improving these Chinese students' overall psychological well-being, should not be neglected (e.g., travelling with friends in the UK to achieve better language acculturation and address isolation during winter days).

Overall, the empirical findings of Study One contribute to the understanding of how some Chinese PGT students can possibly maximise their time in Scotland (and perhaps of how other international students can do so in similar contexts). Study One explored what factors may influence the outcome of international students' overseas education. While not neglecting institutions' responsibility to support international students' acculturation needs, the findings of Study One represented a valuable illustration of the need for students to take responsibility for achieving a more meaningful overseas experience. This entails going beyond the pursuit of an academic degree to include the proactive exploration of third spaces, such as travelling in Europe to achieve cultural competence.

4.2 Challenging Seligman's PERMA Theory

This section will discuss the theoretical contributions of Study One. As has been discussed (Section 1, Chapter 3), Study One used an inductive approach to data analysis. The PERMA model (Positive Emotion, Engagement, Positive Relationships, Meaning and Accomplishment) (Seligman, 2011) was selected to interpret the findings (i.e. Theme 3) and understand how third space participation contributed to the participants' sense of well-being. Study One has therefore contributed to an academic understanding of the applicability of PERMA theory to many Chinese international PGT students' psychological well-being in Scotland, as no published study has been identified that has used PERMA theory as a lens to understand Chinese international students' lives, studies and health and well-being in a Western country.

4.2.1 Findings Collaborating with the Original PERMA Themes.

PERMA theory, as has been discussed in Section 1 of Chapter 3, was a suitable framework for Study One; it fitted the context since many Chinese international PGT students often must confront different needs to enhance the quality of their overseas experience, beyond focusing on struggling to survive in a new environment (Gbadamosi, 2018; Li & Zizzi, 2017; Seligman, 2011).

From the perspective of PERMA theory (Seligman, 2008, 2011; Seligman & Csikszentmihalyi, 2000), which was rooted in the field of positive psychology, international education involved opportunities that international students could take advantage of to seek happiness and to flourish, thrive and become better versions of themselves rather than merely completing an intensive degree study programme without developing mental illness as a result of exposure to significant amounts of stress in a new culture, or focusing on how to address psychological crises that could have been better avoided altogether. (The findings concerning the stressful aspect of international education will thus not be discussed in detail as they pertain to the field of pathology in Seligman's understanding). According to Seligman (2011), by focusing on each or all of the five PERMA elements (as the core of psychological well-being), people could flourish in life and find the ultimate happiness they pursued. In general, data obtained regarding study participants' experiences were largely in line with PERMA theory, suggesting that individual Chinese students expected to achieve these main PERMA themes (P, E, R, M and A) via third space participation to flourish and thrive in a new study and living environment in Scotland.

Specifically, 'Positive Emotion' referred to generally pleasurable feelings such as happiness, joy and hope (Seligman, 2011). Theme 3.1 in Study One was consistent with this important individual dimension, demonstrating that 11 of 12 Study participants could achieve positive emotions through engaging in third space activities during acculturation (see 3.3.1). The third space helped these study participants become *relaxed, happy or joyful*. For example, Sima stated that exercise participation, as his preferred third space environment, allowed him to expand his social network and in turn boosted his cross-cultural communication, improving his understanding of other cultures, which he greatly appreciated. He felt ''joyful'' since exercise participation allowed him to experience multiculturalism and improve his knowledge of the Western culture. As well as exercise, he also reported that ''travelling'' and ''food hunting'' made him feel ''joyful'', reflecting his motivation to enjoy benefits of his overseas education beyond just getting an academic qualification.

According to Theme 3.1, 'Engagement', the second element in PERMA theory, which referred to concentrated attention and a sense of full engagement in the activity at hand (Seligman, 2011), seemed explaining participants' ideas of ultimate happiness in Scotland as well. Two study participants' perception of time was altered by *engaging* in third space activities, and this was a sign that they were absorbed by this environment and focused exclusively on what they were doing. For example, Ziche said that as he was highly concentrated on his exercise activities, he felt the time flew very fast. According to Ziche, regular exercise participation with a twisted perception of time continuously allowed him to obtain happy memories. It made him feel like the whole year of his intensive PGT course ''passed very quickly''. Sima also stated that in his third spaces, he was able to ''slow down'' and spend time experiencing and enjoying quality time in Scotland. Overall, engaging in the third space was an important way they could manage their psychological well-being and achieve happy overseas experiences.

Similarly, Theme 3.1 also corroborated the importance of 'Positive Relationships', which were about meaningful connections with other people who can offer well-being support to us (Seligman, 2011), by indicating that many Chinese international PGT students' third space environments could help them become socially connected, offering social support for students. Exercise activities, for instance, established a relaxed and friendly platform for Wenren to meet other female students, and this environment enabled her to ''make them good friends faster''. For Wenren, playing with friends and improving her relationships seemed to be more important than the result of the game itself (''I actually very much enjoyed losing''). Exercising allowed Wenren to enjoy meaningful social interactions with other people rather than stay alone in the confined space of her student accommodation. When she had fun with her exercise friends, therefore, her psychological well-being improved. Therefore, this finding also supported the importance of thriving in Scotland for Study One participants at not only the personal level (e.g., positive emotions), but also the social level (Arcidiacono & Di Martino, 2016; Seligman, 2002).

'Meaning' in PERMA theory referred to achieving 'something' that was believed to be bigger than the event itself (Seligman, 2011). A sense of meaning and purpose could be derived from belonging to and serving 'something' more important. It was an intrinsic human quality to search for meaning and to need events to have a sense of value and worth beyond the event itself. Themes 2.2 and 3.1 suggested that for study participants in Study One, a third space environment tended to create a sense of belonging and build life purpose by allowing them to get involved in activities that mattered to them.

For example, according to Theme 2.2 in Study One, Ximen took advantage of the opportunity at Christmas Break (2018-2019) to travel to other European countries with friends. This "happy" trip allowed her to practise English, which enabled her to improve her communication skills and achieve better acculturation in Scotland. This change was particularly important as the ability to speak English is fundamental in achieving satisfactory academic performance for, arguably, the majority of international students (Cao et al., 2017; He & Huston, 2018; McMahon, 2011). This finding also suggested that the potential value of travelling, as a third space, should not be neglected, particularly by international students who come from a non-English-speaking environment. Theme 3.1 also demonstrated that Liangqiu regularly went travelling to different European countries to watch football games, which gave him a sense of ''satisfaction'' (see 3.3.1). His overall overseas acculturation journey was positively influenced by his travelling experiences, as he also tried to obtain more satisfaction from his studies and life by trying to ''keep challenging himself''. Days away from Liangqiu's study environment in Scotland provided him with opportunities to entertain himself, but more importantly, the positive frame of mind derived from this travelling and football fandom ultimately gave a purpose and motivation to his international student life, allowing him to boost his self-esteem and improve his acculturation and psychological well-being. All of the benefits associated with 'travel' tended to go beyond the recreational purpose that third spaces initially serve.

Similarly, Ziche thought his ''unforgettable'' and ''eye-opening'' international travelling experience allowed him to learn about Western ''lifestyle, habits and customs'' and acculturate more to Western culture, as can be seen in Theme 2.2. As a result, his overall level of acculturation and psychological well-being increased significantly during this time. This finding also suggested that a third space activity could allow many Chinese students to find the meaning behind international education – that was 'culture exploration and exchange' in this case – which could ultimately allow these Chinese students to live happier lives in Scotland (Li & Zizzi, 2017; Yan et al., 2015). Similar to Ximen and Liangqiu's experiences, these were bigger meanings hidden within Ziche's European trips.

Overall, a main contribution of having a third space in life was to help these individual study participants focus on what was really important during their international education. These important elements were their academic studies, their cultural competence, and their health and well-being (Kwon, 2013; Wei et al., 2012; Yu & Moskal, 2018). As discussed above, they tended to understand that there was much more to life than just taking a break from stressful overseas studies or having fun in third space environments. Without such a third space, these Chinese students may, arguably, find it hard to live a balanced life overseas, which requires them to keep improving their academic performance while at the same time bravely exploring a new cultural environment (Gbadamosi, 2018; Li & Zizzi, 2017). Above all, Themes 2.2 and 3.1 in Study One suggested that many Chinese students were eager to embrace a third space as it could keep people happy and persistent, as well as enhance the *meaning* students find in their overseas lives (Cao et al., 2017; Li & Zizzi, 2017; Yan et al., 2015). Therefore, these findings were consistent with 'Meaning' as an important dimension of PERMA theory, indicating that this theme could be applicable when looking at how these Chinese international PGT students flourish and thrive in Scotland.

The final element, 'Accomplishment', could also be explained by the findings Theme 3.1. Specifically, three participants indicated that third space activities added a sense of ''achievement'' to their lives that allowed them to feel more ''content'' and ''fulfilled'' (see 3.3.1, Chapter 3). This

sense of satisfaction and fulfilment contributed to a higher level of psychological well-being for these participants. For instance, Ziche, conveyed the view that exercise participation allowed him to find ''self-worth'', which in turn contributed to a feeling of achievement. Ziche's sense of achievement improved as he was able to participate in an activity that he could perform well and confidently. He reported he was good at and enjoyed doing exercise. Accordingly, this finding of Study One also suggested that 'Accomplishment', as a PERMA dimension, could explain the context of psychological well-being of many Chinese international PGT students studying in Scottish HEIs.

Overall, this section has argued that Seligman's (2011) PERMA themes are well-suited in providing a theoretical lens for understanding many Chinese international PGT students' third space participation and psychological well-being in Scotland. The participants tended to interpret the ideas of happiness and flourishing in similar ways to those of the dominant Western culture (Arcidiacono & Di Martino, 2016; Becker & Marecek, 2008; Seligman, 2011). Third space participation could contribute to many Chinese students' 'ultimate happiness' (P/E/R/M/A) during acculturation. These are the important insights that the PhD candidate gained as a result of interpreting the findings of Study One using the PERMA model. (The insights gained in this study will be elaborated on in Chapter 5: General Discussion and Conclusion.)

4.2.2 Summary of the Key Theoretical Contributions of Study One.

Using PERMA (Seligman, 2011) as a lens helped to elucidate the very complex issues that Study One participants had been facing. By focusing on the positive aspects of overseas education rather than the pathological effects of stress in acculturation, this Study One research (see Theme 3) probed beyond participants' psychological distress by exploring factors (psychological contributions of third spaces) that could contribute to their effective acculturation and improved psychological well-being during their short PGT stays. By adopting a (positive) psychological lens, Study One critically considered each original theme in PERMA's theoretical framework, applying it in a new

context which have not been encountered in the literature in light of Chinese PGT students' first-hand experiences in Scotland.

In general, to return to my original, overarching research questions in Study One, the findings from this research altogether provided a bigger picture indicating that many Chinese PGT students' experience was normally challenging and stressful (see Theme 1). However, it could also be manageable, healthy, and even rewarding to an extent, if they were able to achieve or even boost each or preferably all the PERMA elements in their third spaces (see Themes 2 and 3). The research findings endorsed the value of developing a positive attitude towards the acculturation journey, and third space activities as being an important element (e.g., for enabling positive thoughts, meaningful social connections and pastimes) in many Chinese students' acculturation, empowerment and psychological condition. The PERMA theory can probably also be used as a model by Scottish universities, educators and academics to understand better the journey in terms of distinct health needs and factors informing many Chinese international PGT students' international education journey.

Overall, Theme 3.1 in Study One suggested that this PERMA theoretical framework (Seligman, 2011) may provide a means of conceptualising and integrating a happier overseas journey within the context of many Chinese international PGT students' new lives in a Western country by highlighting the importance of understanding the components of the theory and their implications for Chinese students' psychological well-being. Focusing on 'wellness' rather than 'illness' is crucial in shifting the portrayal of Chinese international PGT students and encouraging support measures (e.g., promoting third space participation). Doing so may increase many of these students' chances of becoming successful (e.g., gaining cultural competence) and happy in Scotland (and perhaps those of other students in similar [Western] contexts) (Seligman, 2008; 2011; Seligman & Csikszentmihalyi, 2000).

The next chapter will explain the design and analysis of Study Two of this PhD project.

Chapter 4 Study Two

2-1 Chapter Overview and Research Aims of Study Two

This chapter outlines Study Two research design and analysis. As with Chapter 3, which deals with Study One, this chapter also consists of four sections. The first one (1.1) explains the significance and purpose of Study Two. Section 1.2 discusses the study's research design, participants, instruments, procedure and trustworthiness. Section 1.3 details the findings of Study Two, while Section 1.4 examines their importance and highlights the study's empirical and theoretical contributions.

As previously explained, Study One informed Study Two. The results of Study One suggest that third space participation could be a crucial component for many Chinese international PGT students flourishing in Scotland (see also Brunette et al., 2011; Li & Zizzi, 2017). Study Two, therefore, investigated in detail the role of the most influential third space activities in the health and well-being of this group of students. In Study One, exercise participation was identified as one of the most effective recreational activities by participants (by eight participants) to stay physically and psychologically healthy while acculturating to their new life in Scotland. Originally, the participants of Study Two, who differed from those of Study One, were meant to discuss their experiences of exercising. However, since the study took place during the COVID-19 pandemic, it also investigated the disruption to exercise participation resulting from the early months of the UK-wide outbreak and the ensuing lockdown in 2020 (the UK's regulations were largely similar to those found in Scotland), as well as the impact of exercising on the students' perceived psychological health and well-being following the lockdown.

The literature on the impact of the COVID-19 pandemic on people's exercise participation shows mixed results (DeJong et al., 2021; Maugeri et al., 2020; Mutz & Gerke, 2021). A common-sense expectation would be that the lockdown and social distancing measures reduced people's

exercise levels. While this might be true, COVID-19-related restrictions may also have represented an opportunity (e.g., more free time) for exercising. Whether a person had an active lifestyle during the pandemic seems to have been largely dependent on multiple conditions, such as if the person has (immediate) access to exercise facilities during the pandemic. For example, a UK-based survey (Spence et al., 2020) conducted with over 1,500 adults during the initial stages of lockdown suggested that the majority of respondents (57%) had either maintained or increased their levels of exercise, even though the proportion meeting the minimum suggested requirement (i.e. 150 minutes per week) remained low (around 30%). The academics also measured motivation and suggested that when individuals were driven and had access to exercise facilities, they were likely to stay active or even become more active during the lockdown.

The study (Spence et al., 2020) included a representative sample (e.g., different genders, residential areas and ethnic groups) and a survey that measured perceived capability, opportunity and motivation to exercise using a 6-item scale adapted from Keyworth, Epton, Goldthorpe, Calam, and Armitage (2020). However, the study was conducted at the beginning of June 2020, thus missing many critical phases of the pandemic in the UK in terms of self-isolation requirements and restrictions on both indoor and outdoor activities. Furthermore, although the sample is representative of the UK adult population, it may not adequately capture the specific challenges of Chinese PGT students, such as accessing equipment and exercising in student accommodations. When Study Two was conducted (first half of 2021), little, if any, literature existed on the health and well-being needs (e.g., needs for living an active lifestyle) of international Chinese PGT students in the UK (including Scotland) during the COVID-19 pandemic.

In a study conducted in India, Kaur et al. (2020) adopted a qualitative approach to gain a rich understanding of people's efforts to maintain a healthy lifestyle during the lockdown. Twenty-two participants who regularly went to the gym before the pandemic were selected for telephone interviews. The study suggested that, at the beginning of lockdown, participants lacked the

motivation to keep exercising due to the absence of gym partners and the gym environment. The exercise companions who created a source of healthy competition (e.g., for body appearance) and thus motivation were no longer present. Relevant studies conducted in other contexts have demonstrated that the social motivation to exercise may come also from family and coaches (Barrett et al., 2021; Humphreys et al., 2021). In the case of the Chinese, social support from others seems of vital importance given their by-and-large collectivist cultural values (Hsu & Wu, 2015; Kim et al., 2008).

Kaur et al. (2020) also suggested that there was a gradual increase in positive self-perception and motivation to overcome dependence on the gym. The participants started to shift their exercise routines to other available places, including the home, and use alternatives to gym equipment. Despite many difficulties, the participants kept exercising thanks to the internet, social media they actively used (e.g., information related to home exercise) and home equipment (e.g., buckets and skipping ropes). Eventually, these changes greatly helped them to improve both their fitness and psychological well-being. Kaur et al.'s (2020) study, therefore, suggests how the proactive person with high self-efficacy can find ways to adjust to a lockdown by developing new exercise routines rather than staying inactive (Leyton-Román et al., 2021; Petersen et al., 2021).

It is reasonable to suggest that factors such as a formal gym environment, an exercise partner and self-motivation affect a person's adoption of an active lifestyle. Limited research exists (by the first half of 2021) on Chinese international students' exercise participation during the COVID-19 pandemic. Whether the pandemic increased or decreased their physical activity, and whether and how they were motivated to re-adopt an active lifestyle in Scotland, remains unknown. Identifying specific barriers and facilitating factors using a qualitative research design may help to develop sensitive strategies to increase exercise levels during difficult periods, which is critical for health and well-being, not only during the pandemic but in the future should (any) mandatory isolation takes place again.

Study Two, overall, aims to locate the experiences of Chinese international PGT students studying in Scotland in the context of the COVID-19 pandemic. According to databases such as EBSCOhost, ScienceDirect, Web of Science, ResearchGate and Wiley Online Library, there has been little peer-reviewed research on the impact of social distancing measures on HE international students' needs for exercise participation and health and well-being in the UK (fewer than 10 relevant research papers could be found when Study Two was conducted in the first half of 2021/ up until 2022). However, several studies (as discussed in the Introduction and Literature Review chapters) have already highlighted the negative effect of the pandemic on people's health and well-being, particularly in terms of causing or exacerbating mental health issues such as stress, anxiety and depression (Lu et al., 2022; Spatafora et al., 2022; Torales et al., 2020). Furthermore, before the pandemic, many studies had already documented the positive influence that exercising has on people's well-being, including combating depression and improving people's moods (Hibbert, 2016; Li & Zizzi, 2017). During the early stages of the lockdown in the UK, including Scotland, exercise was one of the few activities where face-to-face meetings – albeit outdoors and with social distancing – were not forbidden (Scottish Government, 2020, 2021). This was done to help people stay healthy and regain a sense of community despite social distancing measures (Ingram et al., 2020; Ingram et al., 2022).

Existing research has suggested that some international students' health and well-being may be compromised by living in a qualitatively different cultural environment (e.g., Han et al., 2013; Hsu & Wu, 2015; Yu & Moskal, 2018). Study One (see Chapter 3) supported this work by highlighting the potential sources of distress for many Chinese international PGT students, including academic challenges and isolation. (However, as discussed, these distressed parts of acculturation experiences should not be viewed as the individual deficiencies, but at times, the lack of adequate understanding of such issues and appropriate support by the host HEIs (UKCISA, 2022). Several studies have highlighted the hardships international students face and adopted a deficit-thinking model, which has led to the misunderstanding of these students as a passive group. This has also meant that

university policy is usually centred on their struggles rather than their agency [Aikman et al., 2016; Deuchar, 2022].) Against this backdrop, the restrictions necessitated by COVID-19 have possibly added another layer of pressure. During these difficult times, exercising may be an effective way to maintain physical health, social connections and psychological well-being (see Lesser & Nienhuis, 2020; Sallis et al., 2021). This topic, therefore, warrants further investigation. The importance of exercising during the COVID-19 pandemic is worthy of greater attention from many Chinese students, Scottish universities and academics.

1.1 Research Gaps and Research Questions of Study Two

The existing, relevant literature implicates that, as discussed in the Introduction and Literature Review chapters, COVID-19-related lockdown and social distancing measures may have significantly affected the lives of different groups of international students in Scottish HEIs (see Cao et al., 2020; Feng et al., 2021; Khan, 2021). The potential effects include psychological issues and health concerns such as physical inactivity, isolation, depression and anxiety (Feng et al., 2021; Kaur et al., 2020; Ma & Miller, 2021), as well as the lack of sensitive and adequate support from host universities (Aikman et al., 2016; Deuchar, 2022; UKCISA, 2022). The literature also indicates that during the pandemic, some students faced strong barriers to exercising due to a lack of support from family, peers and coaches and had to increase their own autonomy to develop new exercise routines (Kaur et al., 2020; Leyton-Román et al., 2021; Spence et al., 2020). Moreover, exercise participation (if properly conducted) may help students reduce the psychological burden caused by COVID-19 and improve their well-being (Sallis et al., 2021; Zhang et al., 2020). For some students, the pandemic may also be a source of "eustress" (Jackson, 2013; Selye, 1974) and generate life-wisdom through self-reflection (Alghamdi, 2021; Krajewski et al., 2021).

When this study was conducted (first half of 2021), little, if any, literature existed on the health and well-being needs of international Chinese PGT students in the UK (including Scotland) during the COVID-19 pandemic. We thus do not know whether this group can learn from the

pandemic and become more resilient and whether it is motivated to overcome barriers and adopt an

active lifestyle to improve its psychological well-being. This may limit our capacity to effectively

support this group of students, which, in turn, may negatively influence the academic reputation of

Scottish HEIs and the nation's partnerships with China with regard to culture, business and

education (Scottish Government, 2016, 2018b, 2019). More research, particularly of the qualitative

kind, is required to understand these issues by students and their host institutions. This knowledge

may then inform the provision of effective support.

To contribute to the identified issues, Study Two asks the following research questions:

1. How has the COVID-19 pandemic and associated social distancing measures affected

   Chinese international PGT students' psychological well-being in Scotland?

2. How did exercise participation impact the psychological well-being of Chinese international

   PGT students during the COVID-19 pandemic in Scotland?

The next section will set out the theoretical framework adopted in Study Two.

1.2 Modified PERMA Theory as Study Two's Theoretical Framework

As already explained, Studies One and Two took place in significantly different research

contexts (before and during the COVID-19 outbreak, respectively). This led to a re-evaluation of the

most appropriate theory for understanding the psychological well-being of Study Two's participants.

Instead of using Seligman's (2011) original PERMA theory, Study Two is based on Paul Wong's (2021;

Wong et al., 2021) modification of the PERMA themes in the so-called Self-Transcendence Model

(see also Frankl, 1966).

The fundamental difference between Seligman's and Wong's approaches is that Wong

reports that the purely positive view of happiness in the original PERMA model may not be

appropriate during the pandemic, when most people are struggling with lockdown and social

distancing measures in their everyday life (Wong, 2021; Wong et al., 2021). Wong proposes a new

interpretation of basic human needs and psychological well-being in the age of COVID-19 based on

Viktor Frankl's (1966) theory of self-transcendence, which argues that the discovery of deeper

meaning and satisfaction is possible even in the worst moments of life. Frankl was an inspiration and

mentor for many modern academics, including Wong. In his seminal book *Man's Search for Meaning*

(1959), he described his survival in the concentration camps of World War II and reflected on the

meaning of human existence and purpose in life. Based on his experiences, he believed that people

can always choose their attitudes towards even the worst of circumstances (e.g., hunger, cold and

death threats). In the camps, Frankl kept thinking about his loved ones and how he could contribute

to the world, such as by writing a book. In his opinion, challenging the meaning of life is the ultimate

goal of being human. He states that there are three ways of making the best of any situation:

creating meaning in life, including creating a work; loving someone or appreciating something; and

choosing to practise freedom during suffering. Frankl saw even human suffering as a positive

circumstance in which people could find hope and purpose beyond fame and wealth, eventually

proposing his theory of self-transcendence (Frankl, 1966).

According to Wong, human existence involves people living amid tensions created by the

clash between positivity and negativity. Mature happiness, therefore, entails living with life's

conflicts via self-transcendence. Wong reports that he has managed to address the potential

limitations of Seligman's (2011) theory, in particular its "failure" to address existential suffering. For

Wong, this failure may undermine people's best efforts to flourish during the COVID-19 pandemic,

when everyday life is remarkably different from normality. This is where the Self-Transcendence

Model acquires relevance.

Self-transcendence is a process of seeking out "love, hope and faith" in life through "frailty,

suffering, and the human struggle" to achieve happiness and a more "meaningful" existence, as

argued by Wong (2021, see http://www.drpaulwong.com/what-is-existential-positive-psychology-

why-is-it-necessary-for-mental-health-during-the-pandemic/). Compared to Seligman's and many

other positive psychology theories, Wong's (2020a, 2020b) Self-Transcendence Model involves the

radically different assumption that flourishing is achieved through suffering or "battling" in life

(Wong calls this view "Positive Psychology 2.0"). Wong (2021) assumes that the good in life is always

interconnected to the bad, as such it is hard to achieve mature happiness without going through

suffering. Wong (2021) also argues that he has incorporated both Western notions of happiness

(e.g., pure happiness is achievable) and Eastern ones (e.g., reaching happiness requires transcending

suffering). He thus focuses on balance and harmony as the key to well-being. Therefore, Wong has

modified the PERMA themes by incorporating into them the realism of transcending challenges in

life, as shown in Table 5.

Table 5

The Elements of Happiness based on the Original and Modified PERMA Themes

Original PERMA themes (Seligman, 2011)	Modified PERMA themes (Wong, 2021; Wong et al., 2021; see also Frankl, 1966)
Positive emotion: generally pleasurable feelings (e.g., happiness, joy, hope)	Positive emotion: both pleasurable feelings and the courage to embrace negative emotions to maintain inner peace
Engagement: concentrated attention and a sense of full engagement in the activity at hand	Engagement: the responsibility of doing the right thing despite limitations or difficult routines
Positive relationships: meaningful connections and interactions with other people in society who can offer social support	Positive relationships: genuine connections to other people who have the same limitations and weaknesses as we do
Meaning: achieving something that is believed to be bigger than the thing itself	Meaning: transcending obstacles and pursuing something that is believed to be good for life
Accomplishment: one's ambition to achieve their goals	Accomplishment: becoming a decent person through failures or sacrifices instead of just achieving success in terms of fame and wealth

Arguably, Wong's model is a more suitable framework for Study Two as previous literature has suggested that HE students in general, including Chinese international students, may have to confront transcending challenges to live a happy life, as discussed previously (e.g., see Farbenblum & Berg, 2020; Khan, 2021; Spatafora et al., 2022). During the pandemic, the need to cope with COVID-19 and the desire to improve one's psychological well-being have tended to be closely connected. An approach that requires HE students to proactively embrace the inevitable dark side of life during the pandemic offers a better chance of transforming suffering into 'success'. In Wong's model, for example, positive emotion is no longer a purely positive feeling of happiness, but the courage to

embrace both positive and negative emotions to find inner peace during a challenging period. For many international Chinese PGT students in Scotland, this might entail accepting a sense of loneliness due to the limited interaction with peers and classmates following the lockdown, while trying their best to use their spare time to achieve a new healthy lifestyle and a re-evaluation of the self (Alghamdi, 2021; Farbenblum & Berg, 2020; Krajewski et al., 2021).

Not all international Chinese PGT students in Scotland might have concerns regarding existential threats (e.g., death). However, they might still need to adapt to the fundamental changes brought about by COVID-19 (e.g., isolation and reduced opportunities for entertainment, socialisation and cross-cultural communication), which may create significant stress (Farbenblum & Berg, 2020; Feng et al., 2021; Ma & Miller, 2021). In this context, Chinese students should consider integrating positive and negative emotions to meet their mental health needs. Thinking only in terms of pure happiness, in addition, can be inappropriate for someone who is grieving the death of a loved one due to COVID-19 or worrying about dying from the virus. Furthermore, as already discussed, one of the main reasons that people embraced exercise was to protect themselves against the pandemic and the negative effects of lockdown (Eöry et al., 2021; Lesser & Nienhuis, 2020). Wong's approach can thus help students and academics to go beyond the pursuit of pure happiness (via exercise participation) without negative emotions in day-to-day life, which seems impossible in the situation of pandemic.

By incorporating both the positive and negative aspects of life, Wong's modified PERMA themes can contribute to a better appreciation of the complex experiences of Study Two's potential participants. Wong's theory approaches existential meaning as a lived phenomenological experience. Wong (2021) has indicated that Chinese international students in Scotland need faith, hope and love to combat challenges and live a healthy and fulfilled life during the pandemic.

Wong and his colleagues have developed the Self-Transcendence Model for more than five years (2016–2021). The psychometric properties of the model include statements such as "My life is

meaningful because I live for something greater than myself" and "My suffering is more bearable when I believe that it is for my family, friends, and/or for a higher purpose", which are measured on a scale from 0 (not at all) to 4 (a great deal). The academics have tested a moderated mediation model based on this scale to explore whether self-transcendence served as a buffer against the negative experiences of the pandemic. The sample included 183 adults aged between 20 and 84 years; 62% were female and 38% were male. The results suggested that coronavirus suffering was a significant predictor of participants' life satisfaction and that self-transcendence helped them in attaining psychological adjustment. Wong et al. (2021) thus conveyed the view that self-transcendence is "indeed significantly" connected to mature happiness in the age of COVID-19.

However, Wong's model has received little attention in other studies, possibly as it is a relatively new approach (by when the Study Two was conducted). Study Two, therefore, seeks to explore whether the modified PERMA themes apply to international Chinese PGT students' overseas experiences regarding exercising and well-being during the COVID-19 pandemic in Scotland. The study aims to understand better Chinese students' exercise participation, psychological well-being in a Western society, and the workings of Wong's framework.

The next section discusses the methods used in Study Two.

2-2 Methodology for Study Two

The current PhD project is divided into two studies. This section explains the methods used in Study Two, which was informed by the findings from Study One. This section introduces the research process for collecting and analysing the empirical data, with academic justification provided for the methodological choices made. Similar to the layout of Methodology for Study One (see Chapter 3), this section will begin by introducing the research design, and then will provide a description of the ways in which the research participants were accessed, the research instruments and the research procedure. Details of research activities and refinements made as Study Two progressed are also included in this section.

As previously explained (see Chapter 3: Section 2.2.1), the recruitment strategy of Study One might have somewhat influenced the findings of that study as some participants may have held positive views towards exercise as a third space. This is due to the fact that the recruitment took place in part through a sports and exercise organisation (see section 2.2.1 in Chapter 3 for details). Unfortunately, the COVID-19 pandemic struck in the middle of my PhD journey, which meant that I was unable to explore (many) other popular third spaces, such as group travelling around Europe and going to bars. These activities were forbidden or not recommended during the initial lockdowns in Scotland (Scottish Government, 2020). However, the government recommended that most residents exercising both indoors and outdoors (in small groups of six people max). Therefore, Study Two focused on exploring exercise as a third space for Chinese PGT students in Scotland.

The lockdowns and social distancing measures implemented by the Scottish government might also have influenced, to a certain extent, the research process of Study Two. Specifically, as one of the few entertainment activities allowed and strongly recommended by the government during the pandemic (Scottish Government, 2020), exercise participation may have played a significant role in many residents' everyday life. On the one hand, this agenda may have helped promote an active lifestyle, thus motivating many people to stay healthy. On the other hand, it may have strengthened the value and positive image of exercise participation. For this reason, some of the participants of Study Two may have had a biased perception of the psychological contribution of exercise. However, I adopted a critical view to investigate in detail both the positive and negative roles of exercise in participants' psychological well-being (as I did in Study One). Therefore, this study may contribute to the knowledge necessary for better dealing with similar lockdowns and social distancing measures during future pandemics.

The COVID-19 lockdown and social-distancing measures also restricted my research design choices. I was unable to recruit participants and discuss my studies with them face-to-face (even using posters around campus was not practical as many university buildings were shut). However,

the internet offered a non-contact and 'safe' environment to access potential participants and collect data from them (e.g., via online interviews) while adhering to the Scottish government's COVID-19 regulations. I have also realised that conducting research online may have allowed me to effectively reach a large number of target participants (e.g., social media can help disseminate the research invitation); it also reduced the need for travel and allowed me to organise meetings with a high level of flexibility (King & Horrocks, 2010; Salmons, 2015). (Both the strengths and the limitations of carrying out studies online will be discussed in detail in the following sections.) I also acquired relevant research experience of recruiting participants and interviewing them online during Study One, which facilitated data collection for Study Two. Please see the following sections for the specific research design and procedure of Study Two.

2.1 The Research Design for Study Two

Study Two aims to examine in depth Chinese international PGT students' overseas journeys, exercise participation, and psychological well-being during the pandemic. A qualitative design is thus the best choice as it allows the researcher to explore different voices and collect rich information (Mertens, 2014; Watkins & Gioia, 2015). The constructivist/interpretivist scientific paradigm suggests the use of qualitative methods for data collection and analysis (Kivunja & Kuyini, 2017; Ryan, 2018; Willis, 2007).

The methods used during the research practice were based on the study's overall purpose and research questions. Overall, the methods were similar to those used in Study One; a largely similar research design was chosen as it could facilitate meaningful comparisons between Chinese students' experiences in Study One (before the pandemic) and Study Two (during the pandemic) (see Chapter 5: General Discussion and Conclusion for details). Like Study One, by adopting a qualitative research design, Study Two used one-to-one semi-structured interviews to investigate Chinese international PGT students' exercise participation experiences and psychological well-being. Participant recruitment, pilot studies and formal interviews only started after the University of

Glasgow College of Social Science Research Ethics Committee had granted its approval. The research questions to be addressed by Study Two are:

1. How has the COVID-19 pandemic and associated social distancing measures affected Chinese international PGT students' psychological well-being in Scotland?

2. How did exercise participation impact the psychological well-being of Chinese international PGT students during the COVID-19 pandemic in Scotland?

2.1.1 Semi-structured Interviews for Study Two.

In largely Similar to the design of Study One research (see 2.1, Chapter 3), the method for this Study Two was based on one-to-one audio-recorded semi-structured interviews with the participants using Zoom (a cloud platform for online meetings and interviews that is GDPR compliant). In the Study Two, as the researcher's initial purpose was to obtain detailed, in-depth information in relation to participants' living, study as well as exercise participation experiences during the COVID-19 period as international PGT students through verbal communications, the interview technique was adopted as the main method of inquiry. Utilising semi-structured interviews is one of the most common ways of exploring people's lived phenomenon in interpretivist/constructivist studies (Balushi, 2018; Forsey, 2012; Johnson, 2001). In Study Two, the interviewer was an active sense-maker and interpreter of the heard stories regarding participants' lived acculturation experiences in Scotland, and accordingly obtained essential meanings from their stories (Johnson, 2001). Additionally, in this study, semi-structured interviews would allow the researcher to probe for useful answers concerning participants' overseas experiences in both a flexible and structured way (Roller & Lavrakas, 2015; Willig, 2013).

Compared to group interviews, single in-depth interviews facilitate a manageable and controllable interview process for the interviewer and provide more opportunities for the researcher to follow up and probe for specific information, leading to the clear and detailed interview data (Alshenqeeti, 2014; Roller & Lavrakas, 2015; Watkins & Gioia, 2015). In comparison, focus groups

can be more time-efficient and provide a broader range of information when participants are active

in the conversation (Dilshad & Latif, 2013). However, this method was not chosen as participants

may not be transparent when talking to a group of people about their negative experiences, such as

the distress they experienced during the pandemic. The possible reason for this lack of transparency

is their by-and-large collectivist cultural background, in which showing weakness to the group

usually leads to stigma (Misra & Castillo, 2004; Tang et al., 2012).

Moreover, also similar to Study One, the participants were given the choice between being

interviewed in either Chinese (preferably) to enable them to express themselves with ease and

enable participants to express more details regarding their experiences, removing the language

barrier for communication and translation, which in turn, allowing the researcher to obtain clear

answers with higher accuracy (Cortazzi et al., 2011; King et al., 2019; van Nes et al., 2010); or English,

which was possible as the researcher had prepared the necessary translation of the questions. The

same audio-recording device (a digital voice recorder) in Study One was used to assist transcription,

which was followed by coding and verification. Notes was also taken during the interviews to record

interesting conversations and surprising issues that occurred, as well as general observations on the

interview environments, and participants' non-verbal language (King & Horrocks, 2010, pp. 47-48).

The notes taken during the interviews showed that the researcher had covered all the questions in

depth during all interviews (see participants' demographic information in 2.2, Chapter 4), and these

interview processes were generally smooth and uninterrupted.

In addition, during the study design stage, since it was highly likely that COVID-19 lockdown

regulations and compulsory social-distancing measures, as well as the potential fears of infection,

still existed after the researcher obtained permission from the Ethics Committee to proceed, all

participants had been invited for a video interview online through Zoom, rather than meeting with

the researcher face-to-face (the researcher stayed in Glasgow during the course of research). In

addition, although Zoom was employed in undertaking the interview, video recording may lead to

some potential Chinese participants' stigma to discuss their negative acculturation experiences (Asan & Montague, 2014; Misra & Castillo, 2004; Tang et al., 2012), and was therefore not implemented in this study.

2.1.2 Thematic Analysis for the Interview Data of Study Two.

All interviews was transcribed verbatim. Study Two, as a constructivist/interpretivist research, also used a Reflexive Thematic Analysis approach for data analysis and used NVivo to assist the coding process. Similar to Study One, the coding quality in Study Two was ensured by the researcher's personal overseas experience as well as research skills and intensive training (in the University of Glasgow) of utilising personal 'subjectivity' appropriately as the analytical recourse to approach the data (also see section 2.1.2, Chapter 3: Thematic Analysis for the Interview Data of Study One) (Braun & Clarke, 2019, 2021). Several screenshots for NVivo data analysis conducted in this PhD project was included in Appendix (see Appendix J). Furthermore, in order to analyse the interview data systematically and rigorously, the researcher had followed the Six Steps of Thematic Analysis, as recommended by Braun and Clarke (2012). Greater detail is given in 2.4.3 (Chapter 4) regarding the data analysis procedure in Study Two. In this qualitative study, the coding categories were derived directly from the data and were then categorised into the main themes and sub-themes. The themes were derived directly from the data using an inductive approach.

2.1.3 The Use of NVivo to Assist Data Analysis for Study Two.

Similar to Study One, NVivo 12 was used in Study Two as the data management tool to assist data analysis, enabling the researcher who had become familiar with this software in Study One, to effectively search and group interview data, and to facilitate a systematic and thorough analysis process.

2.2 Research Participants in Study Two

2.2.1 Access to Participants for Study Two.

The researcher had contacted the staff from the University of Glasgow Sport, who are interested in, and who actively promote, the physical and mental health and well-being of the University of Glasgow students in general, to help (on behalf of) the researcher to send research invitation via the University of Glasgow Sport's official email account to all the Chinese postgraduate gym participants. This type of non-probability (purposive) sampling was cost-effectiveness and time-effectiveness which was suitable for this qualitative exploratory PhD research study (Gill, 2020; Wolf et al., 2016). The researcher's contact details had been shared on the research invitation email. When a participant contacted the researcher and expressed interest in participating in the study, the researcher had emailed back to further explain the research details, attaching the Plain Language Statement (see Appendix G), and Consent Form (see Appendix H) (for Study Two). The interview appointment was made only if the participant meets the eligibility criteria (see 2.2.2, Chapter 4) and agrees to participate.

2.2.2 Participants' Eligibility Criteria and Demographic Information for Study Two.

In Study Two, similar to Study One, overall 12 Chinese international PGT students were recruited and interviewed. With an in-depth approach to research, the researcher and supervisors believed that twelve participants could provide rich and sufficient information for this constructivist/interpretivist qualitative study (Boddy, 2016; Guest et al., 2006; Sandelowski, 1995). Moreover, eligibility criteria for the participants in this study included: 1) adult Chinese (either male or female who are over 18 years old and of Chinese nationality); 2) any Chinese international postgraduate participants who were studying in any School or any College at the University of Glasgow during the 2019-2020 academic year; 3) Chinese students who participated in exercise activities regularly (around 150 minutes a week) during the COVID-19 outbreak and lockdown period in Scotland (before they completed their tasks of studies in 2019-2020 academic year).

At the beginning of designing Study Two, the PhD candidate and his supervisors anticipated certain barriers to recruiting participants due to the COVID-19 pandemic, as there could be very few students who were still participating in regular exercise when the indoor sports and exercise facilities were shut down in keeping with government guidelines. As such, the research, initially, was designed to recruit 12 PhD and PGT students altogether (as the postgraduate students' overseas experiences in relation to acculturation and health and well-being, were believed to be similar), preferably six males and six females, and make comparisons regarding their overseas experiences with those of the 12 participants in Study One. Therefore, in the Plain Language Statement for Study Two, the participants' eligibility criteria were stated as anyone who was a postgraduate student in the University of Glasgow, regardless of whether they were PhD or PGT students. However, during the course of the data collection, plenty of qualified volunteer Chinese participants (over 20) contacted the PhD candidate and expressed their interest in participating in the interviews, and the researcher managed to successfully recruit and conduct Zoom interviews with 12 of them who were 'Chinese PGT students'. This enabled the study to make more meaningful contributions to the Chinese international PGT students' cohort. The following table, Table 6, which has been edited to remove personal references to protect participants' confidentiality by using pseudonyms, shows the basic demographic information of these participants. In this study, common Chinese names, which may help preserve their cultural identities, were chosen randomly as pseudonyms and had no relationship to participants' characteristics (Allen & Wiles, 2015).

Table 6

Demographic Characteristics of Participants in Study Two (N = 12)

Participant pseudonym	Age	Gender	College	Total time spent in Scotland	Time left Scotland
Lezheng	23	Female	College of MVLS (Medical, Veterinary and Life Sciences)	12 months	September 2020
Huangpu	24	Male	College of MVLS	12 months	September 2020
Taishi	25	Female	College of MVLS	12 months	October 2020
Dongfang	25	Male	College of Science and Engineering	13 months	September 2020
Murong	25	Female	College of Social Science	12 months	September 2020
Zhangsun	24	Female	College of MVLS	12 months	August 2020
Yuwen	30	Male	College of Social Science	13 months	October 2020
Gongliang	26	Male	College of MVLS	15 months	September 2020
Dongguo	24	Female	College of Science and Engineering	14 months	November 2020
Nanmen	29	Female	College of Social Science	14 months	August 2020
Zishu	24	Male	College of Science and Engineering	12 months	July 2020
Shentu	24	Male	College of Social Science	12 months	September 2020

Note. The age of the participants indicated in Table 2 was their age at the time when they were interviewed by the researcher at the beginning (February) of 2021.

Overall, the participants in Study Two were Chinese alumni of the University of Glasgow in 2019-2020 and were regular exercisers during the COVID-19 pandemic and lockdown. Coming from wide-ranging disciplines and geographical regions in Mainland China, six male and six female participants who were mostly in their early twenties were interviewed. The average time they had spent in Scotland was about 13 months, ranging from 12 to 15 months. In addition, the information regarding these participants' fitness profiles, including for example, the types of exercise activities they participated in and the overall length of time spent in exercise during their time overseas will be presented in Table 9 in Section 3, Chapter 4: Analysis of Study Two Findings.

2.3 Research Instruments for Study Two

As discussed above, the research instrument for Study Two was one-to-one, audio-recorded semi-structured online interviews (please see Section 2.1 of this chapter for a justification of this instrument and Appendix I for details regarding the interview questions and instructions).

2.4 The Research Procedure for Study Two

2.4.1 The Pilot Studies for Study Two.

Before the formal interviews were to be conducted with these participants, pilot studies took place after ethical approval was obtained (the PhD candidate had obtained the ethics approval on 20th October 2020) in order to make sure the interview questions (see Appendix I) were clear to participants (Ismail et al., 2018; Majid et al., 2017; Salmons, 2015). These pilot studies were conducted with two adult (two male) Chinese people from the researcher's own social network who had postgraduate study experience and exercise participation experience in Scotland during the COVID-19 pandemic (they were not the participants for the formal interviews). The intention was to identify any areas (e.g., the structure of the interview and the words/terms used to ask questions) that needed to be changed, if necessary.

Participants for pilot studies were contacted by the researcher following conversations on social media; and these studies were conducted based on Zoom in order to address potential fears of infection. A pre-interview conversation was carried out in order to allow participants to select a suitable time for the meeting, and to understand the aim of the pilot study as well as to understand what they were required to do. The existing interview guide was sent to these participants two days before the pilot study by email, allowing them time to consider and prepare for the interview questions.

At the start of these Zoom pilot interview studies, similar to the Study One pilot interview studies (see 2.4.1, Chapter 3), the questions in the existing interview guide were followed sequentially (questions had already been arranged based on the logical connections between them

and supervisors had also already reviewed these questions) and participants were asked to indicate how they would like to answer each question (in Chinese and/or English) in general (Roller & Lavrakas, 2015; Willig, 2013). In addition, similar to Study One pilot interviews, during the Study Two pilot studies, the researcher also asked the following specific questions to each participant, including:

How do you feel about these interview questions in general? Do they make sense to you?

Does the order of the questions in the interview help you to clarify your ideas about the topic?

Are there any vague and unclear questions or terms?

Are there any questions you would have preferred not to be asked?

Are there any questions that you think we may have missed out about this topic? – Please tell us what these questions are.

Any other comments?

Overall, the researcher asked participants to freely express their impressions on the interview questions designed by the PhD candidate and supervisors, and these pilot studies lasted between 18 to 35 minutes. The researcher tried to, additionally, actively take notes to record any recommendations for changes made by these participants. However, following the pilot study, no change was necessary.

2.4.2 The Interview Procedure for Study Two.

The research data collection and analysis process for Study Two took place over a three-month period, from February 2021 to May 2021. The researcher started recruiting participants at the beginning of February 2021, and all 12 interviews had been finished by the end of February 2021.

During the interview, the guide (see Appendix I) to the interview questions which were designed to address the research questions (formal interview questions had not been amended following the pilot study) and protocols was followed. The overall procedure in Study Two interviews were largely similar to the interviews conducted in Study One (see 2.4.2, Chapter 3). Briefly, the interview always begins with the researcher introducing himself and confirming with the participants whether they preferred to use Chinese or English for conversation (Overall, all 12 participants chose to be interviewed in Chinese), and whether they have read and understood the information on Plain Language Statement, Consent Form, and if they agreed to be audio-recorded. Each interview began only after the interviewer had asked whether the respondent has any questions about Study Two research.

In addition, the interviewer had tried, from the beginning of the interview, to build a professional but friendly and relaxed environment to encourage participants to express their ideas freely (Gubrium et al., 2012; King et al., 2019). During the formal interview, the participants was initially required to provide demographic and background information, and what they were studying in the University of Glasgow, as well as the length of time they stayed in Scotland (see also Table 6). The interview then began to investigate participants' experiences of living, studying and exercising during the COVID-19 pandemic in Scotland, including the changes in their exercise patterns following COVID-19 lockdown and associated social distancing measures. Afterwards, the interview moved to the next main topic by asking about how did exercise participation influence their psychological well-being before and during the COVID-19 pandemic.

However, as the interviews were designed in a semi-structured way, and participants were given the freedom to express their ideas flexibly, the real interview process at times did not follow the above structure exactly. The researcher had put the participants' communication styles and needs first, and all the participants were encouraged to answer the questions in the way they preferred (Roller & Lavrakas, 2015; Willig, 2013). In addition, the researcher closed the interview

only after every question in a topic section had been addressed. The final questions had allowed respondents to provide any other information they want to add and to confirm they had no other questions about this study.

Finally, at the end of the Zoom conversations, the researcher also spent time thanking the respondent, and the researcher verified if the recorder had worked during the interview. The interview notes were also reviewed immediately to clarify any scribblings and fill out any notes that did not make sense (King et al., 2019; King & Horrocks, 2010). Similar to the Study One research, Zoom conversations in this Study Two had all taken place at the researcher's residence (in Glasgow: a private student accommodation which has smartcard access control and CCTV) for both privacy and convenience. These 12 interviews, overall, lasted between 27 and 104 minutes.

2.4.3 The Interview Data Analysis Procedure for Study Two.

As has been explained, similar to Study One data analysis (see 2.4.3, Chapter 3), all interviews in Study Two was transcribed verbatim (King et al., 2019; Rubin & Rubin, 2005), and a thematic analysis approach was used for the data analysis, with NVivo used to assist the coding process (Braun & Clarke, 2012; Nowell et al., 2017). Furthermore, in order to analyse the interview data systematically and rigorously, the researcher also followed the Six Steps of Thematic Analysis recommended by Braun and Clarke (2012). In addition, during the thematic coding process, the researcher also followed Krueger and Casey's method (2000, pp. 130-137) for the selection of themes.

In Study Two, thematic coding was employed to analyse the transcripts systematically (Braun & Clarke, 2006, 2012). The coding was based on the inductive approach, and codes were categorised into main and sub-themes. As has been discussed (see Section 1 of Chapter 4), the Self-Transcendence Model with five modified PERMA themes proposed by Wong (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021) was used as a conceptual basis to contextualise and interpret Study Two findings regarding study participants' exercise participation experiences and

psychological well-being. Moreover, this has enabled a scholarly discussion of the findings (Adom et al., 2018; Grant & Osanloo, 2014). (Please see Section 4 of Chapter 4: Discussion and Conclusion of Study Two, for details.)

In addition, the researcher had also compared individual cases, looking for both similarities and differences in the data. (For instance, the researcher compared the exercise experiences between male and female participants and examined how and what possibly made their exercise participation experiences similar or different).

During the course of this research, the supervisors were also invited to review the codes and the themes developed by the researcher, in the same way as what the researcher did in Study One, in order to help ensure the trustworthiness of the coding procedures employed and the reliability of the codes and themes (Nowell et al., 2017; Shenton, 2004). The participants' real identities had been replaced by pseudonyms before this process in order to help ensure confidentiality and avoid revealing personal information to the supervisors. Overall, this coding process highlighted interesting findings, which will be presented in Section 3.

2.4.4 Methods Utilised to Ensure the Trustworthiness of Study Two.

Trustworthiness refers to the truth value of a piece of qualitative research (Guba, 1981; Lincoln & Guba, 1985). In Study Two, the PhD candidate has sought to satisfy the criterion of trustworthiness, as suggested by Lincoln and Guba (1985), in order to help ensure the soundness of this study. See Table 7 for details of how the researcher has managed to improve Study Two's Credibility, Transferability, Dependability and Confirmability (Forero et al., 2018; Korstjens & Moser, 2018, Moon et al., 2016). Basically, these methods used in this Study Two were the same as those used in Study One (please see Section 2.4.4 of Chapter 3).

Table 7

Methods to Satisfy Trustworthiness Criteria in Study Two

Trustworthiness criteria	Methods used
Credibility	• Conducting pilot studies (Forero et al., 2018); • Maintaining a friendly and professional attitude to build trust with the participants during interviews (King et al., 2019; Korstjens & Moser, 2018); • Involving intensely (e.g., by asking many detailed follow-up questions) in the interviews with the participants over a considerable amount of time (Forero et al., 2018; Korstjens & Moser, 2018)
Transferability	• Providing sufficient details about the participants' profiles and the context of the fieldwork (Forero et al., 2018; Moon et al., 2016)
Dependability	• Providing in-depth methodological description (Forero et al., 2018; Shenton, 2004); • Records regarding the research path – including several screenshots of the NVivo data analysis process (Appendix J) – were kept throughout the study (Korstjens & Moser, 2018)
Confirmability	• During the interviews, staying friendly and professional without leading the respondent to provide answers, and listening patiently to the participants' answers (King & Horrocks, 2010; King et al., 2019; Salmons, 2015); • Inviting supervisors to review the codes and themes (Nowell et al., 2017); • Several screenshots of NVivo data are included, as discussed, in the Appendix J (Korstjens & Moser, 2018)

Overall, the researcher has strictly followed the University of Glasgow's ethical guidelines to conduct the study and has tried his best to ensure the soundness of the findings by paying attention to the study's credibility, transferability, dependability and confirmability (please see also the Plain Language Statement and Consent Form in Appendix G and H for the steps taken in addressing the study's potential ethical risks). The previous personal research training experiences and efforts (including those of the researcher's supervisors) made in conducting Study Two all contributed to

the quality of this study. Ultimately, Study Two highlighted multiple interesting findings; please see the following sections for details.

2-3 Analysis of Study Two Findings

Study One investigated Chinese international PGT students' acculturation, third space participation and psychological well-being in Scotland before the pandemic. It suggested that exercise was one of the most important third space activities to obtain a healthy lifestyle and a meaningful overseas education for this group of students. Building on this result, Study Two investigated the role of exercise in well-being. Moreover, since Study Two took place during the COVID-19 pandemic, it also explored the impact of this event on Chinese students' well-being, particularly the disruption of exercise routines resulting from social distancing measures. This investigation contributed to a greater understanding of many Chinese international students' psychological needs and exercise participation during the pandemic. This knowledge may help future students improve their well-being and have happier acculturation experiences in Scotland.

Six male and six female students from different disciplines, who exercised regularly during their overseas journey, were interviewed concerning their COVID-related experiences in the academic year 2020–2021 (between March 2020 and September 2020). The findings of the inductive thematic analysis are presented in the form of verbatim quotes that represent participants' views. These quotes are narratively framed by the researcher and structured according to themes based on two Research Questions.

This section will present the findings according to the order of the themes and sub-themes shown in Table 8. It will first discuss the impact of the COVID-19 pandemic on participants' academic studies and personal life, including the impact on their psychological well-being (Theme 1). It will then discuss how the pandemic 'pushed' participants to rethink their routine for an active lifestyle (Theme 2). The final part of the section will discuss the impact (both positive and negative) of exercise participation on participants' psychological well-being during lockdown (Theme 3).

Table 8

Result of Thematic Analysis in Study Two

Theme and Sub-theme in Study Two
Theme 1: Unprecedented International Student Life
Sub-theme 1.1 Fear of Contact with Local Residents
Sub-theme 1.2 Unexpected Challenges in Completing Dissertations
Sub-theme 1.3 Lockdown and Lockup
Theme 2: Active Lifestyle Readaptation
Sub-theme 2.1 Motivation to Exercise
Sub-theme 2.2 Challenges in Exercise Participation
Theme 3: Exercise Activities and Chinese Students' Psychological Well-being
Sub-theme 3.1 Psychological Benefits of Exercise
Sub-theme 3.2 The Negative Impact of Exercising

3.1 Theme 1: Unprecedented International Student Life

The first research question for Study Two focused on investigating the impact of the COVID-19 pandemic on the participants' overseas study experience. During the COVID-19 outbreak and subsequent lockdown, Study Two participants' daily academic studies (e.g., dissertation tasks [5 out of 12 participants]), personal lives (e.g., socialisation with local residents [3 out of 12] and outdoor entertainment [10 out of 12]), were all significantly interrupted, which resulted in poor psychological well-being, as the following examples show.

3.1.1 Sub-theme 1.1: Fear of Contact with Local Residents.

During the interviews, three out of 12 study participants (including Huangpu, Zhangsun and Murong) expressed their worries about having close physical contact with many local residents living around their accommodations. Their experiences of seeing many residents not adhering to the government's rules for controlling the virus made them significantly worried about their health:

I felt insecure when I was exercising in an outdoor public place and when I was shopping in a

supermarket. Every time I saw local residents, I had this feeling … I was afraid of living in

Scotland [Glasgow] … The Scottish had a different opinion of wearing mask, and they may

feel this cannot make a difference for protecting oneself from the COVID virus. However, the

news and record from the Chinese Government had already told us face coverings can indeed

make a difference. (Huangpu)

Participant Huangpu was "scared" and "worried" about coming in contact with 'locals' ('Locals' in participant's words may not be just citizens in Glasgow but many other residents, such as European immigrants, in surrounding areas) in public places. Here was an impression that some residents in Glasgow did not adhere to the government's social distancing measures and refused to wear face coverings in public places (e.g., supermarkets and parks). Murong even commented that some citizens in Scotland were ''blind to the virus'' from the "top [government] down [lay people]" and that the "easy" measures in place were hard to enforce, which led to worries about the control of the infection. For Huangpu, Zhangsun and Murong, the sense of insecurity from living in such an environment led to a heightened experience of fear.

Study Two findings also suggest that these study participants could find it hard to understand democratic policies in Scotland where individualism and free-choice sat in contrast to heavy government control and regulation that was required during the pandemic. Like Huangpu and Murong, Zhangsun said*: "At the beginning, the Scottish government should have adopted more serious regulations regarding face coverings and travel, as we already knew this virus was very dangerous… The Chinese government did a good job with this"* (see also AlTakarli, 2020). On one hand, democratic law seemed to reduce people's fear of the virus. On the other hand, these Study Two participants probably thought that relying on people's free choices seemed inefficient at times when seeing some people did not adhere the government's guidance. Those three participants

mentioned above were extremely cautious and even "refused face-to-face contact with local residents" as they thought that many of them were at higher risk of infection.

Normally, meaningful face-to-face communication and interaction with residents are regarded as a crucial part of overseas education in cosmopolitan Scotland, due to their potential value for cultural exchange, which may benefit both parties, and to the language acculturation opportunities they offer international students (Cao et al., 2017; He & Huston, 2018; Yan & Cardinal, 2013a). However, following the pandemic, this type of communication was viewed as too risky by participants Huangpu, Zhangsun and Murong. Therefore, avoiding interaction with local residents possibly undermined these study participants' overseas study experiences as they were losing valuable opportunities to obtain social support from residents and achieve language acculturation and cultural exchange, which could make a complex environment more familiar.

During the lockdown, many Chinese students were unable to return home and meet close family members and friends due to stricter international travel restrictions (when compared to domestic cases for local students). They probably were unable to harness many informal, familial networks of proximate emotional support to cope with the COVID-19 outbreak. For instance, Zhangsun said: "*I was really afraid of getting sick in here, and I was afraid of seeing doctors, because I was so far away from my family*." As these words demonstrate, Zhangsun lacked the confidence to face the virus without the support of her family. Furthermore, with meaningful interaction with domestic residents unavailable to these Chinese students, they probably were further isolated and at higher risk of psychological stress (see also theme 1.3).

In contrast, exercise participation was regarded by all study participants as a way to improve physical and psychological health, providing a sense of confidence regarding personal well-being. It also served as a platform for socialising with other people face-to-face (albeit outdoors and with social distancing) and providing emotional support (e.g., bringing some company and fun to what

turned out to be participants' dull study and life), which reduced participants' fear of living in the local environment. This aspect will be discussed in later parts of this section (see Theme 3).

3.1.2 Sub-theme 1.2: Unexpected Challenges in Completing Dissertations.

The majority of Chinese PGT students' academic performance is driven by the need to obtain a master's degree. Moreover, compared to local students, many Chinese international students often need to cope with a variety of challenges during their acculturation, such as language difficulties and a different educational system, as seen in Study One. For the participants of Study Two, the COVID-19 outbreak took place at the end of term (March 2020), as they had all begun their programmes in September 2019. The ensuing lockdown and social distancing measures, therefore, influenced the design of their dissertation—the last and, arguably most important part of their PGT degree. If they failed the dissertation, they risked not obtaining the degree.

Almost half of the participants in this study (including Huangpu, Taishi, Murong, Zhangsun and Yuwen) stressed that they were significantly challenged as they had to change their original research plans for their dissertations following the pandemic, as traditional face-to-face research (e.g., medical experiments with human subjects for veterinary medical students) was no longer allowed following changes to the ethical codes for conducting empirical studies:

> *Due to the pandemic, research involving face-to-face interviews was not allowed in my field of study, so I was forced to conduct a study with a research technique [systematic review] that I cannot do at all. I just felt like, all of a sudden, every good thing had turned bad. I felt very depressed and very anxious. Yes, I was in a bad mood at that time ... I did not even have the stomach for food. (Murong)*

Conducting a research study using secondary data for her Master's dissertation significantly challenged Murong (in the College of Social Science) as she lacked the relevant research background and research skills. This ''sudden'' change to her plan and lack of confidence and knowledge in conducting a systematic review led to significant physical as well as psychological stress concerning

her academic performance. Similarly, the situation in question also seemed to be particularly ''unacceptable'' for two participants who were studying in the College of Medical, Veterinary and Life Sciences at the University of Glasgow, as they were unable to carry out physical 'lab-based' experiments in the lab (Huangpu) and hospital (Zhangsun) and were also told to conduct a literature review by using secondary data, which they were ''particularly unfamiliar'' with as well. Zhangsun, for instance, said that she was "upset" about this unexpected change in her dissertation design and further commented that overseas study in this special time seemed to be a wrong choice for her as she may not achieve an ''outstanding'' result in her dissertation.

Overall, theme 1.2 suggests some participants had to learn a new research skill for the dissertation following the COVID pandemic as soon as possible which added a huge pressure. These participants possibly did not have enough relevant training using secondary data in China and in the University of Glasgow during their PGT study, as such the sudden change following the pandemic not only significantly undermined their opportunities of academic success but also somehow added fear of getting a poor final grade. (It should also be noted that not all PGT students were asked to conduct literature reviews by using secondary data, depending on the subjects of study and proposed dissertation research projects [e.g., online interviews were allowed for some studies]). Furthermore, as all the residents in Scotland had fewer opportunities of entertainment and socialisation during the pandemic, the study participants had fewer ways to relieve the academic stress that possibly intensified their struggles (see also Section 3.3 of Chapter 3: Third Spaces and Chinese Students' Psychological Well-being). In contrast, some participants reported that exercise participation allowed them to control their academic stress well (e.g., by offering an opportunity to have a break from intensive academic studies for participant Zizhu), as will be discussed in later sections (see Theme 3.1).

3.1.3 Sub-theme 1.3: Lockdown and Lockup.

Following the lockdown and social distancing measures, 10 out of 12 participants in Study Two reported that they were unexpectedly ''locked up'' with limited space (i.e. confined student accommodations) to move. Even though they were allowed to go out for essential reasons, such as shopping and exercising, constantly living in the same place without anything to do led to a ''repression'' of their emotions. In addition, due to the closing down of public spaces for socialising and entertainment, such as gyms and bars, this led to emotionally-challenging situations. Due to such an isolated lifestyle, some participants lived a lonely life, sometimes referring to a decline in their ''mental health'' (Lezheng, Taishi, Dongfang, Zizhu, Yuwen and Shentu). For instance:

I have to say that sometimes my life was really boring at this time. I just wanted to go out! Sometimes, staying at my small accommodation made me feel trapped, so I wanted to go out to run and go out for air. (Yuwen)

*Because I was unable to meet with friends and lived in a small accommodation on my own for a long time, my stress levels increased dramatically. Furthermore, as I was unable to go out and entertain myself as on normal days, there were few ways that I could reduce this stress. Gradually, I just felt extremely lonely and depressed ... Eventually, I even felt that my sleeping pattern was being disrupted by this kind of lifestyle, as I felt that my body and mind were disconnected—my mind felt foggy while my body told me to carry on with physical activities as on normal days. (*Taishi*)*

Yuwen and Taishi's stories suggest that some Study Two participants were unable to adjust well to the drastic life changes following lockdown. The main challenge for them was the deprivation of their freedom to go out with friends and enjoy themselves in public places, which made their life lonely, "boring" (as Yuwen said), and rather limited. This type of isolated, stressful and inactive lifestyle also influenced these participants' physical health, resulting in issues such as insomnia (e.g.,

for Taishi), which strengthens the notion that physical and psychological health are interconnected (Stoddart, 2008; Weinberg & Gould, 2014).

The accommodations that many Chinese international students tend to select in Scotland are normally purpose-built, modern and small. Constantly living in this kind of environment on their own and with a socially inactive lifestyle could turn the feeling of spatial oppression/confinement into distress and ultimately feelings of low mood and other health concerns. Unlike many local Scottish students, Lezheng, Taishi, Dongfang, Zizhu, Yuwen and Sun were unable to return home to physically socialise with many close family members and friends, due to travel constraints, and had to keep living in the rather small confined spaces. Furthermore, many third space activities popular with many Chinese students, such as group tours across Europe (see Theme 3, Study One), were abandoned following the Scottish Government's and wider UK guidance. This led to fewer opportunities for outdoor entertainment and socialisation. This type of largely isolated lifestyle is, arguably, not significantly different from a prisoner's life, which could lead to huge stress and serious psychological conditions. Based on this evidence, it seems that these participants tended to live in a more difficult situation and were at higher risk to their psychological well-being when compared to many local home students.

However, participants were still able to exercise (in small groups), as one of the few activities allowed during the many lockdown for outdoor meetings (while some of the exercise activities were organised online by the university of Glasgow) (albeit with social distancing) (Scottish Government, 2020). This helped participants to leave their rooms, stay healthy and reintroduce the sense of social community they lost as a result of social distancing (the specific psychological contributions of exercise activities for Study Two participants during the pandemic will be discussed in Theme 3.1).

Moreover, even though the unexpected COVID-19 pandemic seemed to have predominantly negative effects on the study participants' studies and life, as discussed above, it also offered an

opportunity to reflect on the importance of having a healthy lifestyle. Overcoming obstacles and successfully engaging in regular exercise during this particularly challenging time significantly altered many participants' perceptions of the purpose of life, and allowed them to realise that it was their healthy mind and body that gave them the confidence to face significant challenges (e.g., taking a daily walk saved Dongguo from feelings of significant anxiety). This chance for self-re-evaluation and appreciation of a healthy lifestyle may also contribute to their sense of resilience and growth, as well as future exercise adherence. This positive side of the pandemic will be discussed in sub-theme 3.1

However, as discussed in the next section (Theme 2), all study participants still needed to make significant efforts (e.g., asking for support from exercise peers) to adapt to a new exercise environment following the pandemic, where there was often a lack of a formal exercise environment (e.g., university's gym) and organised group exercise opportunities within the university (e.g., university's group fitness classes).

While the majority of researchers have helped picture stressful events many international students would face during their acculturation during the pandemic (Alghamdi, 2021; Cao et al., 2020; Wilczewski et al., 2021), HEIs need to understand the potential challenges and opportunities altogether (e.g., how to access a third space environment) to help build well-rounded adult Chinese students and keep offering world-class education in Scotland. However, a lack of research like the current PhD study (also see the Literature Review chapter) has resulted in the limited understanding of what is required in the pandemic and little information international students could use to achieve effective acculturation (e.g., via participating in third space environments to achieve the improved mood, see Theme 3 of Study Two) during the pandemic.

3.2 Theme 2: Active Lifestyle Readaptation

The lockdown and social distancing rules often led to the disruption and ultimately suspension of formal, public, indoor and outdoor gym-based group exercise activities in Scotland (in 2020). During this challenging time, gyms were always closed and the social contact obtained

through gym attendance was lost. Accordingly, all the participants had to re-think and adapt opportunities for exercising that complied with the lockdown and social distancing measures. The unpredictable COVID-19 pandemic forced participants to decide how and whether they could maintain an active lifestyle (see Sub-themes 2.1-2.2).

Table 9 below shows the changes in participants' exercise frequency, intensity, type and duration following the COVID-19 outbreak (see also Table 6 in the Methodology Section for the demographic characteristics of participants in Study Two). Generally, the participants in this study exercised regularly before and during the pandemic while in Scotland. These proactive Chinese students adapted to different types of indoor and outdoor exercise activities following the pandemic that generally could be easily performed and were less demanding in terms of skills, power, and equipment, such as Yoga (Nanmen) and cycling (Zizhu). In addition, participants' exercise routines did not show any fixed pattern of change during the pandemic in terms of frequency, time, type and duration, compared to before the outbreak. For example, Huangpu's exercise frequency dropped from 4-8 times per week to 2-4 times; his exercise time decreased by 5-10 hours per week. In contrast, Dongfang's exercise frequency increased fourfold and his exercise time added by over half an hour per week. This suggests that the COVID-19 pandemic is both a barrier to and an opportunity for exercise. Study Two participants did not have to stay inactive during the lockdown despite all the limitations that were placed on exercise participation. It would seem that whether a participant became more or less active following the pandemic depended mostly on their personal choices and efforts.

Table 9

Changes in the Exercise and Fitness Profiles of Participants in Study Two (N = 12)

Participant pseudonym	Exercise Frequency per week (pre-pandemic	Exercise Frequency per week (during pandemic)	Exercise Intensity (pre-pandemic)	Exercise Intensity (during pandemic)	Exercise Time per week (pre-pandemic)	Exercise Time per week (during pandemic)	Exercise Type (pre-pandemic)	Exercise Type (during pandemic)
Lezheng (Female, 23)	3 times	3 times	Medium	Extremely Low	90-180 minutes	95-150 minutes	Aerobics	Hiking; Aerobics
Huangpu (Male, 24)	4-8 times	2-4 times	Upper Middle	Low	600-900 minutes	300 minutes	Badminton; Aerobics	Aerobics
Taishi (Female, 25)	3 times	2-3 times	High	Low	270 minutes	400-600 minutes	Badminton; Rock-Climbing	Hiking; Aerobics
Dongfang (Male, 25)	2 times	8 times	Medium	Low	180 minutes	215 minutes	Aerobics; Cycling	Aerobics
Murong (Female, 25)	7-9 times	3 times	Upper Medium	Extremely Low	600-720 minutes	240-300 minutes	Aerobics	Aerobics
Zhangsun (Female, 24)	4 times	2 times	Low	Extremely Low	180 minutes	120-240 minutes	Aerobics	Aerobics; Hiking
Yuwen (Male, 30)	6-8 times	3-4 times	Medium	Low	550-900 minutes	100-180 minutes	Aerobics; Badminton; Volleyball	Aerobics
Gongliang (Male, 26)	4 times	6 times	Low	Extremely Low	210 minutes	315 minutes	Squash; Aerobics	Aerobics; Table Tennis
Dongguo (Female, 24)	2 times	3-5 times	High	Low	150 minutes	155 minutes	Aerobics	Aerobics
Nanmen (Female, 29)	1-3 times	3-4 times	Lower Medium	Extremely Low	120-240 minutes	360-720 minutes	Badminton	Yoga
Zizhu (Male, 24)	7 times	3-4 times	High	Low	600 minutes	120-150 minutes	Volleyball; Aerobics	Aerobics; Cycling
Shentu (Male, 24)	1 time	2-3 times	Medium	Lower Medium	120-180 minutes	240-360 minutes	Basketball	Aerobics

The socialisation element of exercise was not lost as well, as all study participants said that they had regained opportunities to physically contact and communicate with others, mainly their old exercise peers, whom they "trusted to be free of COVID-19." All participants refused to conduct exercise activities when outdoor spaces seemed crowded. This suggests that study participants were willing to seize certain social benefits (i.e. meeting new people) of exercise participation while still prioritising safety and security during the pandemic. Despite being limited, the social environment around exercise still contributed to many participants' emotional support networks, please see Theme 3.1 for the detailed discussion.

3.2.1 Sub-theme 2.1: Motivation to Exercise.

The experiences shared by study participants in interviews suggest that during the pandemic, they were still in control of their exercise routines despite the negative feelings and the drastic life changes. In doing so, they were taking advantage of their high self-efficacy (e.g., setting/using the alarm as a reminder to exercise every morning [Zizhu]) (12 out of 12), as well as actively finding opportunities to obtain support from exercise peers (Nanmen, Taishi, Murong, Zhangsun).

For instance, to avoid waking up late and missing his regular exercise plan, Zizhu used the "alarm as a reminder" early every morning during the pandemic. Other participants did not use special ways to remind themselves of exercise time, but took action based on their belief and experience that regular exercise can make a difference to their health and well-being:

Exercise promotes metabolism. I was more energetic after exercising, and more concentrated [on studies]. If I did not exercise all day, I would feel tired or bored. So, exercising regularly can make me feel that I am in a better health condition. Besides … I am afraid of getting sick, and I thought exercise could reduce the probability of that ... (Yuwen)

As can be seen, Yuwen was motivated by his knowledge of the benefits of exercise and by happy personal experiences of exercise participation before the pandemic. Moreover, it would seem

that although the pandemic caused Yuwen many psychological issues, such as boredom and fear of infection, it also boosted his self-efficacy to exercise and reinforced in him the perception that regular exercise can improve his well-being. The majority of Study Two participants knew their old daily routine was good to stay healthy and cope with the pandemic; hence, they did not intend to abandon this positive lifestyle. (Setting up an alarm every early morning to remind oneself to exercise also reflects student's strong motivation to maintain an active lifestyle and strong self-efficacy to keep up exercise plans.)

In contrast, some participants (Nanmen, Taishi, Murong and Zhangsun) possibly did not have enough motivation to readapt to regular exercise alone but needed support from their peers:

The first thing I did was to set up a plan with exercise peers … As we needed to exercise together, we could supervise each other. In addition, I knew that after the plan was set, it should not be changed or cancelled. (Taishi)

Taishi said that peer support provided effective motivation to exercise regularly. Exercise friends supported her plans and made sure tasks were completed, which made her exercising more structured and organised. This may also reflect Chinese by-and-large collectivist cultural values in which group goals and values are emphasised (Hsu & Wu, 2015; Kim et al., 2008). Mutual social support, overall, helped these participants (Nanmen, Taishi, Murong and Zhangsun) and their peers to effectively adapt to a new exercise environment following the pandemic.

Interestingly, Nanmen also explained that she adapted to the pandemic by often doing online yoga with her friends (before the outbreak of COVID-19, she was a badminton enthusiast). They watched each other on their phones while in different places. They might even do different poses/types of yoga, but they needed to make sure that "everyone was doing yoga at the same time." For example, they may turn on the mobile phone and have a group video call to check that no one was "being lazy," while using their computer exercise apps to watch yoga lessons. During the video calls, they also often discussed how tired they were, read the seconds together and tried to

compete to see who could hold longer a position such as the plank and glute bridge. Nanmen also explained that she found it difficult to keep exercising when her mates "sometimes gave up and did not want to do yoga." When her friends said they would not join, she felt that her motivation was weak ("I might have been lazy that day"). She was eager to try different forms of yoga and "finish the exercises together" with her mates. Nanmen's story demonstrates that exercise participation and even exercise motivation may be connected to a virtual setting during the COVID-19 pandemic. Modern technologies such as smartphones and laptops allowed the participants to communicate and exercise together when they were in different places, constantly checking on each other to increase their motivation. This type of meeting eliminated the risk of infection compared to a traditional, face-to-face exercise environment.

Huangpu, Murong and Lezheng also discussed how they used technology, including generic social media apps and online exercise apps, to access an exercise environment and communicate with their exercise mates. During lockdown, this type of communication contributed to maintaining a healthy lifestyle. For instance, Lezheng said she was motivated by running and talking to her exercise mates on the phone as she felt that they had "a common language/topic" to communicate with; this type of conversation made her feel relaxed and less worried about life's challenges during the pandemic. Similarly, Huangpu took advantage of the opportunity to keep in touch with old exercise mates via her smartphone; they talked about "changes in weight, body shape and power" as well as the lessons learnt after each exercise programme. This was a good way for her to socialise and address isolation during lockdown and social distancing. The specific health and well-being contribution of exercise participation for Study Two's participants will be discussed in Theme 3.

3.2.2 Sub-theme 2.2: Challenges in Exercise Participation.

During the pandemic, all participants' inertia seemed to be particularly strong when they tried to readapt to an active lifestyle. There were two main reasons for this: "lack of appropriate exercise equipment" (12 out of 12 participants) and "lack of group exercise leaders" (Dongguo). Even

though all participants in this study had successfully readapted to an active lifestyle, they still needed to keep fighting against these limitations to exercise regularly.

For example, Yuwen said that his exercise during the lockdown mainly took place at home and its efficiency was relatively low as there was "no suitable equipment to use" at home. Yuwen also mentioned that he did not enjoy exercising in his small accommodation—a "claustrophobic and narrow" environment. In addition, Dongguo said she found it hard to keep exercising in her accommodation as there was no group leader to encourage her. Under normal circumstances, exercise leaders encourage individuals to stay together and keep moving by "counting seconds and playing active music," which made it feel "easier" to stay motivated. Following the pandemic, Dongguo was unable to join many organised exercise programmes.

As the above stories suggest, during normal times, a formal exercise environment with the appropriate equipment, structured (group) exercise sessions and professional exercise leaders were the significant drivers for study participants to exercise regularly. However, the COVID-19 pandemic pushed them to adapt to the new and limited exercise environments. In addition, many Study Two participants possibly had less access to appropriate exercise equipment in their small accommodations compared to many local students, who possibly had more equipment at home. They were also unlikely to join outdoor exercise groups with domestic residents due to their fear of infection (see theme 1.1, Study Two) (e.g., for Huangpu, Zhangsun and Murong). Therefore, as they faced more challenges, it seemed that they were more likely to spend little time on exercise and stay inactive. At the same time, as study participants were facing stronger challenges and had fewer third space activities to help with the pandemic, they probably had stronger motivation to participate in exercise activities. The limitations, therefore, may have prompted many participants to become more active (e.g., Dongfang, as discussed above) as a form of self-care and helped them to further realise the importance of exercising (health benefits of exercise are discussed in the following section).

3.3 Theme 3: Exercise Activities and Chinese Students' Psychological Well-being

The second research question for Study Two focused on the influence that exercise activities had on students' psychological conditions during the COVID-19 pandemic. This section discusses the roles – both positive and negative – that exercise activities played for participants' psychological well-being during this special time.

3.3.1 Sub-theme 3.1: Psychological Benefits of Exercise.

As discussed above, many Study Two participants were living under high psychological risks during the pandemic and faced significant challenges in their academic and personal lives in a new and complex environment. (One of the main reasons leading to this issue, as discussed, was the lack of appropriate and adequate understanding and support from the host HEIs [Aikman et al., 2016; Deuchar, 2022; UKCISA, 2022].) Due to their significant efforts in overcoming the barriers to an active lifestyle, they managed to survive and live a healthy life overseas. All the participants in Study Two discussed the positive impact of exercise activities on their psychological well-being. As did participants in Study One, those in Study Two, who possibly faced more challenges due to COVID-19, discussed how exercise participation contributed to improved emotions (five out of 12), improved social networks (eight out of 12), sense of accomplishment (Zizhu), and managing sources of stress (11 out of 12), as the following examples show.

Dongguo, for instance, disclosed that she was aware of the physiological benefits of exercise on the brain and neurological functions, which would ultimately result in positive emotional responses. Her exercises reinforced this knowledge:

> I know exercise can allow the release of dopamine, which can make me feel happy and become more positive. After I exercised, I did feel more comfortable … When we went out hiking, we were close to nature and the sunshine, and we felt happier (than staying in the small accommodation alone). (Dongguo)

Five out of 12 study participants, including Dongguo, found pleasure in exercise participation and discussed that their exercise activities increased their positive emotions, such as comfort, happiness or joyfulness. Outdoor exercise, in particular, can allow these participants to enjoy nature and step away from the feeling of confinement. Dongguo's story also strengthens the notion that the physical and psychological benefits of exercise are closely related (Stoddart, 2008; Weinberg & Gould, 2014). Exercise was at the centre of accounts focused on maintaining positive emotions as well as physical health during the pandemic for these five participants. In addition, the direct psychological benefits of exercise participation not only improved emotions but also helped one participant to achieve a sense of 'accomplishment'.

Zizhu explained that during the pandemic he discovered exercise activities he enjoyed that added a sense of "contentment and fulfilment" to his life. By seeking to enhance his exercise performance, he found that satisfaction was attainable by keeping practising his skills. This sense of satisfaction contributed to a higher level of psychological well-being and made Zizhu "feel good about himself." Overall, a willingness to thrive at hobbies in this challenging time seems to have been served as key to achieving a consistent flow of satisfaction and ultimately self-confidence as well as happiness for this participant.

The health benefits of exercise participation can also be of an interpersonal nature. Eight participants reported that they had gotten to know someone (other Chinese, international and local friends) better through exercising. For instance, Zhangsun said that she had developed close friendships by exercising in small groups during the pandemic. They communicated frequently and found out they shared many values. These close friends supported each other "emotionally." Yuwen gave specific examples of how his close exercise friends supported him "emotionally" in his study and personal life during the pandemic, such as obtaining advice for writing a PhD proposal and bringing some company and fun to each other's "dull study and life."

Building a social network through exercising was viable during the lockdown and exercise friends provided effective academic and daily life support for these eight participants. Establishing authentic and meaningful social connections through exercising seems to have been one of the only few options of third spaces available for many Chinese as well as other international students in Scotland due to social distancing rules. As discussed above, during this particularly difficult period, participants tended to be more prone to isolation and poor health conditions. As such, the importance of having an activity like exercise participation for recreational and meaningful socialisation purposes was vital for them to preserve their psychological well-being and acculturate faster in this challenging environment. Furthermore, given many Chinese students' by-and-large collectivist cultural values, friends could also be the key motivation in adopting and adhering to an exercise plan (Hsu & Wu, 2015; Humphreys et al., 2021) (see also theme 2).

Eleven of the 12 participants pointed out that their exercise activities acted as buffers between them and stressful events during the pandemic, in particular their fear of the virus, academic stress and isolation (see Theme 1), allowing them to cope more effectively and preserve their mental health from distress, as the following examples show:

When I was exercising, I felt I was becoming healthier and stronger … I felt I had fewer diseases. During the pandemic, any disease made me very suspicious and concerned. The exercise participation reduced my panic and fear as I knew I had obtained a stronger immune system via exercise. (Huangpu)

Every time I felt stressed during the [dissertation] research, I chose to go out to exercise and relieve this stress. Every time I exercised, I stopped thinking about what I should learn and how I could polish my resume. I paid attention to the views of the streets and the beautiful blue sky without thinking about my studies. (Zizhu)

Zizhu's story suggests that engaging in exercise activities allowed him to have a 'distraction' from stressful academic work (dissertation tasks) and stop being trapped in a mood of ''anxiety''. In

turn, this allowed him to refresh his mind and concentrate on the studies again. This effect is particularly important as academic performance (in particular, the dissertation tasks-see Sub-theme 1.2) is normally the main concern of international students' overseas journey. In addition, Huangpu's experience suggests that exercising also helped him to address the worries about personal health by building up a stronger body and mind and reducing the fears of the virus. Moreover, the outdoor exercise allowed many participants to stay close to nature (e.g., for Dongguo) and meet in groups with peers to support each other (e.g., for Yuwen), as discussed above, which reduced feelings of loneliness and isolation. As explained above, studying in a competitive environment while facing the challenges of COVID-19 made participants significantly stressed. This situation had the potential to put their entire psychological well-being at risk (Lu et al., 2022; Wilczewski et al.,2021). Therefore, maintaining a manageable level of stress was crucial to maintaining a healthy state of mind and completing participants' PGT studies. Readapting exercise routines was an effective way for participants to leave their accommodations, forget about their intensive studies, meet and talk to people, enjoy the weather and increase their confidence. This helped to reduce accumulated stress and get to know the new challenging environment.

Furthermore, half of the participants (Huangpu, Dongguo, Taishi, Murong, Gongliang and Shentu) claimed that exercising, had become "more important than ever before" during the pandemic. Taking a daily walk during the more severe lockdown stages, for example, saved some of them from "significant psychological crisis" (e.g., Dongguo and Huangpu). The exercise participation was not only a type of recreational activity but also the 'self-prescribed medicine' to cope with the pandemic. For example, Dongguo said that:

Before the pandemic, when the pace of life was not destroyed, exercise was just an extra bonus for me. However, during the pandemic, I gradually realised that this activity seemed to be a must. If I did not exercise at all … my mood could not be stabilised and I would be on the verge of collapse due to extreme anxiety. (Dongguo)

Dongguo conveyed the view that exercising had 'become more important' following the pandemic. It was exercise participation that saved her from feelings of anxiety. On one hand, it would seem that the pandemic had only negative impact on Study Two participants' life (see Theme 1). On the other hand, it allowed participants to reflect on what they had been through and what they had learnt from this challenging time. This suggests that the COVID-19 can be interpreted as a form of distress as well as 'eustress' contributing to personal strength and growth (e.g., improved health beliefs), sometimes (Jackson, 2013; Selye, 1974). Participants Huangpu, Dongguo, Taishi, Murong, Gongliang and Shentu all realised that an active and healthy lifestyle should not be neglected, as it served as key to stepping out of poor mental health and achieving better acculturation and better health during the pandemic.

This clearer understanding of the role of personal health may also encourage these participants to keep exercising and maintain a positive lifestyle in key moments of transition in the future. For example, at the end of the interview, Murong said: *"The most important thing is that exercise makes a person become more optimistic and positive. No matter what is ahead, I can cope with that."* After reflecting on a whole year of positive memories associated with her exercise routine, Murong reported that she had developed an "ability" (i.e. an optimistic and positive life attitude) to face any future challenges. She even stated: ''*I think the pandemic may be a good thing in some ways*". With this positive mindset, Murong conveyed the view that she would keep living an active life after returning home. This suggests that the beliefs gained through exercise participation during the COVID-19 pandemic may even last for a long time and contribute to many Chinese students' enduring health. However, even exercise participation was not completely free from problems, as the following section shows.

3.3.2 Sub-theme 3.2: The Negative Impact of Exercising.

Participants were also asked to reflect on the negative impact of exercise participation during the pandemic, in order to comprehensively investigate the role of exercise participation. Only

Zizhu reported that exercising played a negative role in his overall health and this was only for a very short period, as he sustained an injury to his knees. Afterwards, he felt "pain" and was "a little bit worried" about his mobility. However, for Zizhu and all the other participants, the influence of exercise activities was ''predominantly positive'' and offered a beneficial way to cope with social distancing rules. However, Zizhu's story also suggests that injury, as an inbuilt potential limitation of exercise participation (Anshel et al., 2019; MacAuley, 2012), could create an extra problem for participants during the COVID-19 pandemic. A very serious and unexpected injury, such as a bone fracture or eye injury, may even turn the positive role of exercising upside down, resulting in more isolation in an even more oppressive space (e.g., rest in hospital), loss of confidence about personal health and more challenges in readapting to exercising. This could ultimately result in worse acculturation experiences and health conditions. However, no participant in this study reported serious injury. Still, students should monitor their physical performance and avoid injury as feasible as possible.

3.4 Study Two Research Findings Summary

During the COVID-19 pandemic, many Study Two participants had rather limited interaction with other residents due to their fear of infection, and increased stress as a result of the dissertation study (some participants had to learn hard to use secondary data for their research projects following social distancing rules), and fewer opportunities to go out, remaining locked up in small accommodations in Scotland. The findings suggest that the unexpected pandemic significantly challenged these study participants and had a predominantly negative impact on their studies and personal lives, as well as their health and well-being. Compared to many Scottish students, they tended to have less social and emotional support from close family and friends, which intensified their sense of loneliness and isolation. Overall, participants faced considerable difficulties in achieving a successful acculturation in what was an already demanding overseas PGT education programme. (As discussed, one of the main reasons leading to this issue was the lack of

understanding in terms of what could be the appropriate and adequate support from the host HEIs [Aikman et al., 2016; Deuchar, 2022; UKCISA, 2022].)

However, these proactive participants still managed to overcome barriers and readapt a physically active lifestyle by using their strong self-motivation and peer support from other exercisers, despite a lack of appropriate exercise equipment in their small accommodations and a lack of encouragement from exercise leaders. As an important third space activity, exercise participation turned out to be an effective and beneficial measure to acculturate and cope with the challenges of COVID-19 for all participants in Study Two. It helped participants to preserve and improve their psychological well-being during their acculturation. These psychological benefits included improved emotions, improved social networks, a sense of accomplishment, and stress management. However, students are also advised to pay attention to exercise injuries.

Overall, achieving a stable and healthy psychological condition served as key to Study Two participants' survival and thriving during the pandemic. Half of the participants reported that exercise activities had become "more important than ever before" during this challenging period. The experience of surviving through COVID-19 when few third space activities were available boosted their awareness of the importance of personal health and well-being, as well as of regular exercise participation. It was their healthy mind and body that gave them the confidence to face the challenges of lockdown and social distancing measures. Furthermore, this unprecedented period also somehow contributed to these participants' sense of resilience and growth, and encouraged them to keep exercising and maintaining a positive lifestyle in the future. This can be viewed as the positive side of the pandemic.

Throughout the years, human beings have had many experiences of surviving a variety of viruses, such as SARS and Smallpox. Humans were not defeated by these viruses but instead gained increased life expectancy. Even though we may not face the same type of virus in the future, these successful experiences could allow individuals and governments to make smarter decisions to deal

with each pandemic. Study Two of this PhD study critically explored both the positive and negative roles that exercise participation played in Chinese international PGT students' well-being during the COVID-19 pandemic. If a similar outbreak happens in the future, the knowledge from this study would contribute to more effective support (e.g., by host HEIs) for many Chinese and other international student groups. Compared to many of those Chinese students who failed to adapt or readapt to an active lifestyle, the participants in Study Two arguably had better health conditions and acculturation experiences (Lesser & Nienhuis, 2020; Sallis et al., 2021). Physical benefits alone justify the importance of exercise participation in any environment or stage of transition in life (Acevedo, 2012; Brehm, 2014; Morgan, 2013).

The next section will discuss all the main findings from Study Two and argue that they can make a significant contribution to academic knowledge.

2-4 Discussion and Conclusion of Study Two

Study Two aimed to contribute to an academic understanding regarding the overseas acculturation experiences, psychological well-being and exercise routines of a relatively underexplored population, that was, Chinese international PGT students in Scottish HEIs during the COVID-19 pandemic. Following Study One findings, Study Two sought to contribute to the academic literature by answering the following research questions:

1. How has the COVID-19 pandemic and associated social distancing measures affected Chinese international PGT students' psychological well-being in Scotland?

2. How did exercise participation impact the psychological well-being of Chinese international PGT students during the COVID-19 pandemic in Scotland?

This section will firstly provide a summary of the key findings and their connections to the literature and theory that was critically presented in the previous sections (see Chapter 2). A synthesised discussion of the key themes of Study Two will be offered by exploring the connections among those themes (Section 4.1). The theoretical contributions of Study Two will then be examined

(Section 4.2). The relevant findings will be discussed from the perspective of Wong's modification of the PERMA theory, as discussed (Seligman, 2011; Wong, 2021; Wong et al., 2021). (The final chapter of this thesis will contain a detailed discussion of the overall contributions to knowledge of this current PhD study project, for both Study One and Two, as well as recommendations for future actions based on the findings.)

It is imperative for us to understand the specific exercise experiences and psychological well-being of these Chinese students to offer effective assistance, as their well-being could have been significantly challenged during the pandemic, while exercising may represent a healthy way to cope with it (Eöry et al., 2021; Lesser & Nienhuis, 2020; Zhang et al., 2020).

4.1 Empirical Contributions of Study Two

This section will compare and contrast the empirical findings of Study Two with those of previous relevant studies, highlighting similarities and differences as well as the insightful findings gained. By doing so, it offers a deeper understanding of the distinct acculturative experience of many Chinese international PGT students in Scotland during the pandemic. Moreover, I will argue that the most significant contribution of Study Two was that it highlighted and demonstrated the importance of exercising as an influential third space activity (see 4.1.3) in satisfying many Chinese international PGT students' psychological well-being needs during the pandemic (see 4.1.1). This finding was of relevance to both the Chinese students and academics.

4.1.1 Theme 1: Unprecedented International Student Life.

The first theme concerned how the participants in Study Two were affected by the COVID-19 pandemic (RQ1). It highlighted their life experiences and well-being during the early months of the outbreak and the ensuing lockdown in Scotland (March 2020-September 2020). Specifically, Theme 1 demonstrated that the participants' academic and personal life was significantly disrupted by the pandemic and that they lived a period of *'Unprecedented International Student Life'.* During this challenging time, all the participants lived a rather isolated and stressful life. The pandemic brought

not only the risk of death from infection but also significant psychological pressure. The latter

included *'Fear of Contact with Local Residents'* (Sub-theme 1.1) due to worries of being infected,

'Lockdown and Locked Up' (Sub-theme 1.3) in small accommodations, and academic stress due to

'Unexpected Challenges in Completing Dissertations' (Sub-theme 1.2). This last issue was due to the

change in the Code of Ethics for conducting face-to-face empirical studies that was part of social

distancing rules. Theme 1, overall, suggested that many Chinese PGT students in Scotland faced

considerable difficulties in achieving a successful acculturation in what was an already demanding

overseas education programme in the unexpected age of COVID (Alghamdi, 2021; Mahdy, 2020;

Wilczewski et al., 2021). The fact that there was a limited understanding of relevant issues in

Scotland has also somehow intensified this stress as the host HEIs were unable to provide adequate

and effective well-being support for many Chinese international students (UKCISA, 2022).

Theme 1 was, largely in line with multiple relevant studies in demonstrating how the COVID-

19 outbreak and associated social distancing measures magnified the pressures of international

education (Khan, 2021; Lu et al., 2022). Participants in Study Two also needed to address long-term

isolation and adapt to the shift to online education and research, which resulted in extra mental

health burdens. However, in contrast to studies conducted by Farbenblum and Berg (2020) and Mian

and Duan (2020), Theme 1 demonstrated that 10 out of 12 participants suffered from isolation-

related stress and feelings of oppression as they lived in small accommodations for long periods of

lockdown (Sub-theme 1.3). Moreover, three out of 12 participants deliberately chose to stay away

from local residents in Scotland and they perceived some local residents to be contagious (see Sub-

theme 1.1); rather than as Chinese students were discriminated by the locals as potential COVID-

carriers (Farbenblum & Berg, 2020; Mahdy, 2020; Mian & Duan, 2020).

As previously discussed, Chinese students could experience different challenges and levels of

stress in different cultural environments (Brunette et al., 2011; Yu & Moskal, 2018). This has led to

culture-related challenges during the COVID-19 pandemic, including evidence of discrimination (e.g.,

Farbenblum & Berg, 2020). However, Theme 1 of Study Two suggested that race-based

discriminations were not experienced as strongly by the research participants in the present study.

This may be due to the fact that cosmopolitan Glasgow and the localised area around the University

where many of the participants were based, tended to welcome Chinese international students.

Similarly, many Chinese students in another context (e.g., Australia) may not have had to live in

small accommodations without anything to do due to different social distancing and travel controls.

They may also not have had to avoid contact with other residents if everyone had adhered to the

government's rules. In turn, study participants' more isolated lifestyle in Scotland was more a

personal choice based on the local social reality and social-distancing measures, rather than a

product of conflicts between races. This qualitative study, therefore, has contextualised some of the

Chinese international PGT students' specific living experiences during the pandemic in Scotland,

thereby uncovering specific socio-cultural issues that determined their well-being.

Furthermore, Sub-theme 1.2 suggested that the shift to online learning could add significant

pressure to some Chinese students' individual dissertation projects, who were told to conduct

reviews using secondary data instead of empirical studies with human subjects (this may not be the

compulsory requirement for all PGT students in the University of Glasgow). However, almost half of

the study participants lacked the academic skills and relevant training from the University of

Glasgow to do so. Many previous studies have suggested that HE students face academic pressure as

they need to get used to online communication and could thus struggle to obtain practical

competency during the pandemic (Alghamdi, 2021; Mahdy, 2020; Wilczewski et al.,2021). Study Two

demonstrated that some Chinese PGT students in Scottish HEIs had to learn a research skill following

the pandemic (i.e. how to conduct Systematic Review) that they were particularly unfamiliar with;

this academic acculturation created considerable stress. Some Chinese students possibly usually do

not receive (enough) relevant training using secondary data (e.g., conducting Systematic Reviews or

Rapid Evidence Reviews) in China, or in the University of Glasgow during their PGT stays, as such the

sudden change in dissertation projects significantly undermined their opportunities of academic

success. Other studies conducted with different student groups during different stages of lockdown (i.e. not during dissertation preparation) did not raise these concerns, probably as other students had other competencies and needs for academic acculturation compared to those of the Study Two participants.

In line with several critical studies, Study Two (see Sub-theme 3.1) also suggested that despite the negative impact of COVID-19, its positive sides, such as the opportunity for self-re-evaluation and the appreciation of a healthy lifestyle, should not be overlooked, as they may contribute to Chinese and other HE students' sense of resilience and growth (Alghamdi, 2021; Krajewski et al., 2021). According to Sub-theme 3.1, half of the Study Two participants who claimed that exercise activities had become "more important than ever before" during the pandemic became more willing to exercise and live a healthy life in the future as the pandemic provided them with an opportunity to become aware of the importance of personal well-being. This included recognising the importance of regular exercise in maintaining a strong body and mind to face diverse challenges in life. This finding indicated that when many of the adult Chinese students believed they can transform into better forms of themselves (i.e. become healthier individuals via regular exercise), they were willing to make efforts to become stronger. As such, these study participants may spend more time doing exercise rather than being inactive in the future, which would contribute to their improved health and well-being. This evidence, therefore, may provide a counter-narrative to the common-sense idea that overseas study in the age of COVID-19 had to be an entirely negative experience. Study Two, therefore, also highlighted what positive lessons many Chinese international PGT students could learn during their acculturation in Scotland following the pandemic, which will be discussed in further detail in Section 4.2.1 of Chapter 4.

4.1.2 Theme: Active Lifestyle Readaptation.

Many academics have suggested that the COVID-19 pandemic could significantly influence people's daily life in a (predominantly) negative way (Farbenblum & Berg, 2020; Song et al., 2021).

However, regarding the issue of people's healthy lifestyle, COVID-19 was both a barrier to and an opportunity for exercise participation (DeJong et al., 2021; Maugeri et al., 2020; Mutz & Gerke, 2021). According to Theme 2, the participants in Study Two proactively adapted to a new exercise environment and participated in new types of exercise activities during the pandemic. They did so despite '*Significant Challenges in Exercise Participation'* (Sub-theme 2.2), including the lack of formal exercise equipment and initial support from others (e.g., exercise leaders). Many participants, such as Dongfang, even increased the frequency and the amount of time of their exercises following the pandemic. To overcome significant barriers, their *'Motivation to Exercise'* (Sub-theme 2.1) were their high self-efficacy (e.g., setting the alarm to exercise every morning) and the encouragement from exercise peers.

These findings were largely in line with many other studies that suggested that proactive exercisers did not stay inactive but were able to shift to a new exercise environment during COVID-19 lockdown (DeJong et al., 2021; Maugeri et al., 2020; Mutz & Gerke, 2021). However, as mentioned above, there were limited relevant studies conducted specifically with Chinese international students (See Chapter 2). Theme 2 of Study Two, therefore, offered detailed knowledge that could help understand the specific motivations and barriers to exercise participation in this group of people during the pandemic, thereby informing possibly more effective support for many Chinese students' active lifestyles.

Theme 2.1, in line with many existing studies, also highlighted the key role of social support in adopting an active lifestyle for Study Two participants during the pandemic (Barrett et al., 2021; Humphreys et al., 2021). Studies have suggested that while highly proactive individuals tended to rely more on self-efficacy (Kaur et al., 2020; Leyton-Román et al., 2021; Petersen et al., 2021), others needed forms of social support. Participants in Study Two (including Nanmen, Taishi, Murong and Zhangsun) also explained that they received support from their exercise peers to live an active life, such as obtaining supervision from exercise peers to stick to the plan. In addition, participant

Dongguo said that she found it hard to keep exercising in the absence of a group exercise leader who had encouraged her (see Theme 2.2). According to Theme 2 in Study Two, it seemed that some Chinese students like the company of others and feel connected to each other in an exercise environment. This feeling of connectedness tended to be associated with various psychological constructs such as exercise persistence and motivation; it might also be an influence of their by-and-large collectivist cultural values (Hsu & Wu, 2015; Kim et al., 2008).

Four out of 12 participants in Study Two also readopted an active lifestyle during the COVID-19 pandemic by participating in online exercise activities and communities with the assistance of smartphone/computer applications, which played an essential role in their daily health needs and lessened their spatial limitations. Study Two contributes to a greater understanding of Chinese international PGT students' experiences of online third spaces during the COVID-19 lockdown in the UK, which remains a little-explored phenomenon. This study demonstrated how an online exercise environment can provide peer support for this group of HE students; it also strengthened the literature on the importance of having an active lifestyle (Humphreys et al., 2021; Lesser & Nienhuis, 2020).

For example, Nanmen and her yoga mates often used their computers and mobile phones to exercise together and supervise each other, which significantly increased Nanmen's exercise motivation. Her motivation was enabled by the group video calls and the sense of togetherness with her peers. However, when Nanmen's friends occasionally refused to exercise, she may also be "lazy" and decide not to do yoga. As Tong et al. (2022) and Cronshaw (2022) also suggested, some participants (e.g., Nanmen, Taishi, Murong and Zhangsun) revealed that they used modern technologies, including mobile fitness apps, to recuperate a sense of community, thereby gained improved motivation and eventually well-being from their exercise peers (e.g., feeling connected and less anxious). This finding shows how and why some Chinese PGT students met their health and well-being needs during the pandemic.

Study Two has demonstrated the potential of online exercise in creating social bonds with others without having to meet physically (e.g., due to fear of infection or government-mandated social distancing measures). Digital exercise communities have the potential to change our understanding of third spaces where traditional face-to-face meetings were always available and key before the pandemic (see also the findings of Study One) (Elliot, Baumfield, & Reid, 2016; Li & Zizzi, 2017; Yu & Moskal, 2018). Online third space participation may counteract the pressure of pandemic-related isolation while creating opportunities to live a healthy life (Cronshaw, 2022; Menhas et al., 2022; Tong et al., 2022). The theoretical import of reinvented third spaces based on the social reality of COVID-19 and the development of modern technology will be discussed in Chapter 5.

Overall, the findings of Theme 2 can help strengthen academics' recommendations that to engage in and maintain an active lifestyle during the pandemic, people need self-motivation and a certain level of social support, which may come from an online exercise environment (Farah et al., 2021; Humphreys et al., 2021; Tong et al., 2022). These factors may be the most significant drivers for many Chinese PGT students.

4.1.3 Theme 3: Exercise Activities and Psychological Well-Being.

As explained above (see Theme 1), studying in a new, academically competitive environment while facing the challenges of COVID-19 could put many acculturating Chinese PGT students' psychological well-being at risk (Farbenblum & Berg, 2020; Mian & Duan, 2020; Song et al., 2021). Maintaining a healthy state of mind and completing their studies were thus of crucial importance. Theme 3 of Study Two (which addressed RQ2) provided further evidence that maintaining a regular exercise routine could play a predominantly positive role in physical and mental health during a forced interruption of everyday life like the current coronavirus emergency, as it has been suggested by many other studies (Sallis et al., 2021; Zhang et al., 2020).

As demonstrated by Sub-theme 3.1, exercise participation improved participants' emotions, social networks, sense of accomplishment and stress management, which in turn helped them maintain their well-being during the pandemic. This theme suggested that exercise participation, as one of the few outdoor activities available during the early lockdown, allowed many Chinese as well as other students to become both physically and mentally healthy (Eöry et al., 2021; Lesser & Nienhuis, 2020). With its qualitative approach, Study Two offered detailed knowledge regarding the role of exercise for many Chinese international PGT students during the pandemic (RQ2). This information could thus be used for creating a better overseas study experience.

In keeping with many other academics (Bahr & Mahlum, 2004; DeJong et al., 2021), additionally, Sub-theme 3.2 in Study Two also suggested that injury was the main limitation of exercise participation in general, which could bring extra burdens to a person's life during the pandemic. That is to say, exercise participation could impact the psychological well-being of adult Chinese students in both a positive and negative way (even though the positive tends to outweigh the negative). However, this finding also indicated that exercising appropriately and taking steps to avoid injuries, such as warming up, may be viewed as a necessary way to control risks, thus potentially boosting the positive aspects of exercise (Anshel et al., 2019; Bahr & Mahlum, 2004; MacAuley, 2012).

4.1.4 Synthesis of Key Themes of Study Two.

As mentioned, the first two themes (see Sections 4.1.1 and 4.1.2) addressed Question 1, while the third key finding Theme 3 (Section 4.1.3) addressed Question 2. These themes together represent a valuable way of advancing many Chinese students' recognition of their responsibility in adopting a healthy lifestyle to overcome challenges and achieve meaningful overseas education experience in the age of COVID-19, when the majority of the host HEIs were unprepared for this type of drastic change. In this section, I will explain how these closely connected themes offered

significant insights for many Chinese international PGT students achieving improved psychological well-being.

Theme 1 in Study Two argued that we may need to pay attention to the psychological needs of many Chinese students who were constantly living in small accommodations and avoiding contact with local residents due to the fear of infection, as these individuals may live an isolated lifestyle and enjoy little well-being. This evidence differed from that of related studies (e.g., Farbenblum & Berg, 2020), which have suggested that many Chinese students' loneliness or isolation was caused by racial discrimination. This theme further added to existing studies by demonstrating that part of the academic stress connected to the pandemic for some Chinese students was possibly due to having to learn hard a new research technique to complete dissertation research projects using secondary data. These findings represent an important empirical contribution that can offer many Chinese students knowledge regarding distinct acculturation challenges and how to achieve a healthier overseas experience (e.g., Chinese students who are not confident in using secondary data for essays and dissertations may consider taking extra courses and relevant research training). This contribution may also apply to other international PGT students in similar (Western) contexts.

Furthermore, according to Themes 2 and 3, adopting an active lifestyle appropriately was related not only to self-motivation but peer support, and this active lifestyle (i.e. regular and appropriate exercise participation without injuries) may in turn help many Chinese students to cope with the pandemic and preserve their psychological well-being (Barrett et al., 2021; Humphreys et al., 2021; Lesser & Nienhuis, 2020).

Study Two, overall, suggested that many Chinese PGT students' experiences during the pandemic could be complex—largely stressful but also meaningful. The intertwined elements of participants' overseas experience indicated the complexity of the COVID-19 situation: if one element becomes problematic (e.g., exercise routines), the others may also be challenged (e.g., psychological well-being). A contribution of Study Two was that it used a qualitative approach to investigate the

specific factors that affected Chinese students' exercise routines and psychological well-being; the study also went beyond considering solely the benefits of exercise. The knowledge from Study Two may thus assist governments, HEIs and many Chinese students in better understanding how to design tailored strategies for regular exercise and how to effectively address the challenges of the pandemic. The study, additionally, also highlighted the importance of social support for many Chinese students (See Themes 2 and 3, Study Two) and the risk of living in isolation (See Theme 1). If we are able to help Chinese students appropriately adopt an active lifestyle, many Chinese students may be able to effectively cope with the pandemic and gain a clearer understanding of the importance of exercise which would contribute to future exercise adherence as well as better health conditions (see Theme 3.1, Study Two).

4.2 Challenging modified PERMA Themes in Wong's Self-Transcendence Model

This section will discuss the theoretical contributions of Study Two. As has been discussed (see Section 1, Chapter 4), the Self-Transcendence Model with the five modified PERMA themes proposed by Wong (2021; Wong et al., 2021; see also Frankl, 1966) was chosen to understand how regular exercise affected participants' well-being during the COVID-19 pandemic. To the best of my knowledge, Study Two is the first empirical study that has applied this model to examine the lives (exercise participation) and well-being specifically of Chinese international students during the pandemic. Overall, this research provides a contribution by applying Wong's Self-Transcendence Model particularly for Chinese international students' experiences in a Western society during the pandemic.

In this section, I will argue that Study Two findings (see Theme 3) highlighted and demonstrated the important role that regular exercise played in satisfying many Chinese international PGT students' psychological needs of ultimate happiness during the pandemic, including the five modified PERMA themes proposed by Wong (Frankl, 1966; Wong, 2021; Wong et al., 2021).

4.2.1 Findings Collaborating with the modified PERMA Themes.

As already mentioned (see section 1, Chapter 4), Wong's model was a suitable framework for Study Two as the majority of the participants had to confront transcending challenges (e.g., isolation and heightened risk of psychological crises; see Theme 1) to achieve a meaningful HE experience (Khan, 2021; Lu et al., 2022; Spatafora et al., 2022). Wong modified the PERMA themes by incorporating the realism of the inevitable 'dark side' of life (e.g., isolation as one of the main universal transcending challenges [Farbenblum & Berg, 2020; Mian & Duan, 2020]) in the age of COVID-19 (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021). Accordingly, through the lens of Wong's model, Study Two aimed to understand better what constituted Chinese international PGT students' 'true happiness' in the age of COVID-19, as well as the role exercise played in their psychological well-being (e.g., how it transcended pandemic fatigue and vulnerability and contributed to a balance in participants' overseas life) (Wong, 2021; Wong et al., 2021).

As discussed (see also Table 5), the fundamental difference between Seligman's and Wong's approaches which was that Wong reported that the purely positive view of happiness in the original PERMA themes (e.g., "body full of happiness") may not be achieved during the pandemic. (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021). Theme 3.1 of Study Two findings largely supported Wong's idea by demonstrating that individual study participants expected to achieve these modified PERMA themes ('Positive Emotion', 'Engagement', 'Positive Relationships', 'Meaning' and 'Accomplishment') via exercising during the pandemic.

Specifically, in Wong's view, 'Positive Emotion' refers to both pleasurable feelings (e.g., joy and hope) and the courage to embrace negative emotions to maintain inner peace during the pandemic (Wong, 2021; Wong et al., 2021). Theme 3.1 of Study Two suggested that this important individual dimension could explain many Chinese students' psychological well-being, given that five of them improved their emotions by exercising. Exercising regularly helped these participants feel comfortable, happy and less stressed. For example, Dongguo said that she was aware of the

physiological benefits of exercise on the brain, such as the release of dopamine, which result in positive emotional responses. Her practical experience exercising reinforced this knowledge. After she exercised, she felt better; when she went hiking, she felt happier as she was close to nature and out in the sunshine, instead of 'trapped' in her small accommodation. Dongguo's story suggested that exercise participation was at the centre of positive emotions and health during the pandemic for some Chinese PGT students in Scotland (Sallis et al., 2021; Zhang et al., 2020). This finding also indicated that regular exercise was the main strategy for coping with the negative psychological impact of the pandemic (e.g., isolation in small accommodations). By exercising regularly, the participants could achieve happiness and respond to negative emotions appropriately.

The second modified PERMA element, 'Engagement', referred to the responsibility of doing the right thing despite limitations or painful discipline/difficult routines in Wong's belief (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021). This element was also demonstrated as a relevant theme in accounting for study participants' ideas of true happiness. For example, according to Theme 3.1, participant Zizhu was able to de-stress by *engaging* in regular exercise during the challenging COVID pandemic. Zizhu commented that every time he exercised outdoors, he stopped thinking about his demanding studies and relieved stress by concentrating on the views of the streets and the blue sky. He explained that he made efforts (e.g., using an alarm every early morning as a reminder for his exercise routine) to do 'exclusively' *what he was supposed to do* to refresh his mind. All participants in Study Two, effectively overcame barriers such as the lack of exercise equipment and left their confined accommodations to engage in a regular exercise routine, as can be seen in Theme 2. These efforts helped the participants manage their stress (e.g., being in the present moment) and achieve a better acculturation, as well as psychological well-being, during the challenging pandemic, which was important to restore a balance in their life. This balanced life may allow many Chinese students to better concentrate on '*engaging*' with their academic studies and achieving better performance, arguably a very important task of overseas education and acculturation.

Theme 3.1 in Study Two also corroborated the importance of 'Positive Relationships', that was, according to Wong, authentic and genuine connections to oneself, or god or other people who have the limitations and weaknesses as ourselves (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021). Eight out of 12 Study Two participants' exercise activities helped them become socially connected and offered a form of mutually social support, which reduced feelings of loneliness and isolation during their acculturation. For instance, Zhangsun stated that she had developed close friendships with exercise peers who "supported each other emotionally." Yuwen also discussed how his close exercise friends supported him in his study and personal life during the pandemic by offering advice on a PhD proposal and bringing some company and fun to each other. Building a *genuine social network* through exercising was one of the few possibilities during this period of 'lockdown' by helping with emotional breakdown and boredom for these participants and their peers. Exercise friends could also provide effective academic and daily life support to each other. As a result, these students' acculturation experience and psychological well-being improved. Theme 3.1, therefore, demonstrated the importance of a healthy overseas experience not only of the personal level (positive emotions) but also of the social/mutual one (positive relationships) for study participants.

In Wong's idea, 'Meaning' referred to transcending obstacles and pursuing something that was believed to be good for life (Frankl, 1966; Wong, 2021; Wong et al., 2021). Six participants claimed that regular exercise had become "more important than ever before" for them during the pandemic, as can be seen in Theme 3.1. This evidence highlighted and demonstrated that exercise may not only be a type of recreational third space activity but also 'self-prescribed medicine' that saved many participants from significant distress. For example, Dongguo explained that before the pandemic exercise was just an "extra bonus" for her, whereas the lockdown allowed her to realise that she must exercise regularly to achieve a stable psychological condition and avoid breaking down due to feelings of extreme anxiety. In addition, Murong conveyed the view that she had developed an ability (i.e. an optimistic and positive life attitude) from regular exercise participation to face any

future challenges, and further stated that: ''*I think the pandemic may be a good thing in some ways*''. She also claimed that she would keep exercising in the future.

As already mentioned, even though the pandemic had predominantly negative effects on study participants' psychological well-being (see Theme 1), it also offered an opportunity to reflect on the deeper meaning of regular exercise and a healthy lifestyle. This interesting finding indicated that overcoming obstacles and successfully engaging in regular exercise during a particularly challenging time may significantly alter many Chinese students' perception of the purpose of life. Such an effort made may also influence future lifestyles by making these Chinese students realise that it was their healthy mind and body that gave them the confidence to face significant challenges. The contribution of regular exercise in the age of COVID-19 could thus potentially be far-reaching, stretching from the time one exercised to cope with the pandemic to similar difficult situations in the future.

This finding also suggested that regular exercise could allow many Chinese students to find meaning while studying abroad during the pandemic, by accumulating a positive and active lifestyle. It suggested that making efforts to exercise regularly may be intrinsically *good* for many Chinese international PGT students' life (in Scotland as well as future life) more generally; if Chinese students can discover this value during the pandemic, many of them could maximise their potential and reduce the likelihood of having a risky, sedentary lifestyle (Lesser & Nienhuis, 2020; Sallis et al., 2021). All the benefits associated with regular exercising in the context of COVID-19 tended to go beyond the recreational purpose that exercise initially served.

Overall, the main positive effect of the COVID-19 pandemic was to give study participants an opportunity to focus on what was important in life in the face of significant adversity during critical acculturation—their well-being and a healthy lifestyle. Theme 3.1 also demonstrated that, in this situation, these participants understood that there was much more to exercising than just entertaining themselves or having fun. Without such a '*good thing*', they may find it hard to live a

balanced life overseas in the age of COVID-19 while facing the risks of being demotivated and staying inactive (Sallis et al., 2021; Zhang et al., 2020). Therefore, this finding suggested 'Meaning' (as modified by Wong) as an important dimension could explain psychological well-being and apply to how these Chinese students flourished.

The last modified element, 'Accomplishment', was also in line with the Theme 3.1 of Study Two. 'Accomplishment', in Wong's idea (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021), referred to becoming a more decent person not just success in terms of fame and wealth but also through failures or sacrifices. Zizhu, for example, explained that during the pandemic he discovered aerobics and cycling. By seeking to enhance his performance, he found that a sense of "contentment and fulfilment" was attainable by keeping practising his skills. This sense of satisfaction contributed to a higher level of psychological well-being and made Zizhu feel good about himself. During the interview, Zizhu also discussed how he set/used an alarm clock every morning to remind himself to follow his exercise plan, and even though he sustained an injury to his knees, he did not give up, perceiving exercise as a largely positive activity for his well-being (see Themes 2 and 3). Overall, the considerable efforts to regular exercise made by many active Chinese students in this challenging time seemed to have been the key to achieving improved exercise performance, as well as a consistent flow of satisfaction and psychological well-being. Therefore, Study Two suggested that 'Accomplishment' (as modified by Wong) should be considered an important element to cope with the pandemic context, and flourish and thrive as functional individuals during acculturation.

Overall, the empirical findings (Theme 3.1) of Study Two suggested all the modified PERMA themes proposed by Wong in his Self-Transcendence Model (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021) can explain study participants' exercise participation experiences and psychological well-being. This also reflected the participants' intention to transcend the COVID-19 obstacle and achieve a balance in life. This section has argued that Wong's modified PERMA themes may be applicable particularly for many Chinese international PGT students in Scotland during the

age of COVID, indicating the model tended to be well supported by spiritual traditions in East and West, as claimed by Wong (Wong, 2021; Wong et al., 2021).

The model may also help Chinese as well as other international and local students and practitioners understand better how to creative solutions to cope and create positive and happy lives in times of similar traumatic events (e.g., targeting the five elements to achieve improved well-being via promoting regular exercising, if needed). These were important insights the PhD candidate gained as a result of interpreting the relevant findings using modified PERMA, and it was also the main theoretical knowledge from Study Two that could contribute to knowledge. (The insights gained in this study will be elaborated on in Chapter 5: General Discussion and Conclusion.)

4.2.2 Summary of the Key Theoretical Contributions of Study Two.

The findings of this Study Two research were consistent with a range of front-line studies that have reported the psychological health issues caused by the COVID-19 pandemic and the ensuing lockdown (see Theme 1 in Study Two) (Alghamdi, 2021; Mian & Duan, 2020; Wilczewski et al.,2021). These studies have suggested that, with time, proactive individuals learn to acculturate to new, difficult situations in healthy and positive ways while avoiding the risks of an inactive lifestyle (see also Theme 2 in Study Two). My research suggests that, in this process, exercise activities served as key to individuals' acculturation, empowerment and psychological condition (see also Theme 3 in Study Two).

In the present study, modified PERMA themes in Wong's Self-Transcendence Model helped to unveil the unchartered individual-in-situation as a key to explaining many Chinese students' exercise participation and psychological well-being during the pandemic. The study thus offered a novel way of understanding of challenging events or situations. By incorporating the realism of overcoming challenges and the positive aspects of overseas education in the age of COVID-19, this research has gone beyond Chinese students' pure psychological happiness without negative emotions (Frankl, 1966; Wong, 2021; Wong et al., 2021); it has explored the factors that could strike

a balance to obtain psychological well-being. By adopting an individual-in-situation perspective, knowledge from Study Two could contribute to better future interventions aimed at achieving healthy and positive lifestyles.

In general, to return to the overarching research questions for Study Two, the empirical findings suggested that many physically active Chinese PGT students' experience of COVID-19 in Scotland may be challenging but could also be manageable, and even rewarding to an extent, if they exercised regularly and appropriately, thus achieving a healthy lifestyle despite the challenging circumstances, according to the modified PERMA dimensions (Frankl, 1966; Seligman, 2011; Wong, 2021). These modified PERMA themes could be useful in observing the specific psychological conditions of this student population (and perhaps, other international PGT students in similar contexts). Based on this research, a satisfying and meaningful overseas education during the COVID-19 pandemic required finding every possible way to adopt an active lifestyle as a key step in improving acculturation experiences and personal health (Sallis et al., 2021; Zhang et al., 2020).

However, more research is welcomed to offer more contextualised support in view of the pandemic situation is constantly changing.

The next chapter will discuss the contributions, limitations, and implications of this PhD project by looking at both Study One and Two.

Chapter 5 General Discussion and Conclusion

5.1 Chapter Overview

This chapter contains a detailed discussion of the overall contributions to knowledge of Studies One and Two regarding the understanding of many Chinese international PGT students' acculturative needs in Scotland and many other similar Western societies. It also contains recommendations for future action based on the findings. After this brief overview, Section 5.2 discusses the empirical and theoretical contributions to the literature. Section 5.3 considers the research's practical implications for Chinese PGT students and Western HEIs. Section 5.4 examines the limitations of this PhD project and the future research directions. Finally, Section 5.5 reflects on the project in terms of the researcher's personal development, which included life-transforming experiences, as well as his future goals. (The various contributions and implications of the two individual studies have already been discussed in Chapters 3 and 4. Studies One and Two will be able to contribute in different ways to the knowledge base regarding international students' acculturation and psychological well-being needs.)

5.2 Contributions to International PGT Students' Acculturation and Psychological Well-being

Before highlighting the overall contributions to knowledge arising from this PhD research, I will briefly summarise the research contexts of Studies One and Two, as well as the links between them.

Study One sought to answer the following two research questions with a view to contributing to academic knowledge regarding Chinese PGT students' acculturation, psychological well-being and third space participation experiences in Scotland:

1. What are the main acculturation experiences of Chinese international PGT students at a Scottish HEI?

2. What is the role of the third space in Chinese international PGT students' psychological well-being at a Scottish HEI?

As already discussed, a growing body of research has highlighted that acculturation are important aspects of many Chinese international students' overseas experiences and that they may generate psychological stress. Academics have also noted that third spaces can play a crucial role in a healthy and smooth acculturation journey (Li &Zizzi, 2017; Yan et al., 2015). Third spaces are informal or creative spaces for relaxation, recreation and self-reflection that go beyond formal family, work and academic support systems (e.g., university language classes, psychological counselling services). These spaces, such as exercise and church participation, can foster personal learning, acculturation, health and well-being (Bhabha, 1994; Elliot, Baumfield, Reid, & Makara, 2016; Montgomery, 2010). However, very few studies have investigated how third spaces can facilitate a healthy acculturation journey for Chinese international students in Scotland. This may limit our ability to effectively support this group of students, which, in turn, may negatively impact the academic standing of Scottish HEIs and the nation's partnerships with China in the fields of culture, economy and education (Scottish Government, 2016, 2018b, 2019).

Study One took place in the second half of 2019. Among its findings, which highlighted acculturation stress, acculturation opportunities and third space participation as being critical to many Chinese international PGT students' experience of acculturation to a new setting, it specifically identified exercise as an exemplar of a healthy and effective third space activity that could play a significant role in the acculturating experiences in Scotland (Li & Zizzi, 2017; Yan et al., 2015) (see Theme 3.1 in Study One). For this reason, Study Two was designed to explore further the specific psychological impact of exercise participation among the Chinese international PGT cohort.

Since the second study took place during the early part of the COVID-19 pandemic (i.e. second half of 2020), it also investigated how the pandemic and associated social distancing measures influenced the group of PGT students in question. (The second group were different from

the participants in Study One). There was little understanding of acculturation experiences in relation to international students studying in Scotland during the pandemic (see Chapter 2), while recent literature on people's experiences of COVID-19 consistently pointed to this unexpected period as stressful and depressing (Farbenblum & Berg, 2020; Mian & Duan, 2020; Wilczewski et al., 2021). In particular, many recent empirical studies have highlighted that HE students' daily lives and studies were significantly challenged by the COVID-19 pandemic (e.g., it is difficult to undertake lab work through online education), which may generate huge pressure on their health and well-being (Khan, 2021; Lu et al., 2022; Spatafora et al., 2022). However, regular exercise participation may act as a protective factor and reduce severe COVID related outcomes, including death and long COVID (see Lin et al., 2020; Sallis et al., 2021). Exercise participation may also offer opportunities for living a healthy and positive lifestyle rather than staying sedentary and facing the risks of isolation and self-perpetuating mental health issues (see Michelini, 2014; Sallis et al., 2021; Zhang et al., 2020). Taking this into account, the research questions raised in Study Two were the following:

1. How has the COVID-19 pandemic and associated social distancing measures affected Chinese international PGT students' psychological well-being in Scotland?

2. How did exercise participation impact the psychological well-being of Chinese international PGT students during the COVID-19 pandemic in Scotland?

5.2.1 Empirical Contributions to Potentially Isolated International PGT Students

As can be seen in Table 10 which presents the Thematic Overview of Studies One and Two, Study Two was situated in a more challenging context (e.g., reduced chances of cross-cultural communication following unexpected lockdown and associated social distancing measures [see also Khan, 2021; Lu et al., 2022; Mahdy, 2020]) when compared to Study One. Notably, the findings from both studies presented comparable sources of potential challenges (see Theme 1, both studies) as well as opportunities for supporting many Chinese international PGT students to live a healthy and thriving life in Scotland (see Themes 2 and 3, both studies), both before and during the pandemic.

Despite the well-recognised challenges, both studies indicated that the overseas experience of Chinese international PGT students in a Western society was not all about distress (Alghamdi, 2021; Gbadamosi, 2018; Krajewski et al., 2021). The positive aspects of international education are therefore worth highlighting (e.g., lessons learnt from stressful situations, such as improved appreciation of health and life following the COVID-19 pandemic).

Table 10

Thematic Overview of Studies One and Two

Study One	Study Two
Theme 1: Main Academic and Non-academic Challenges in Acculturation	Theme 1: Unprecedented International Student Life
Sub-theme 1.1 Linguistic Challenges	**Sub-theme 1.1 Fear of Contact with Local Residents**
Sub-theme 1.2 Intensive Course Assignments	Sub-theme 1.2 Unexpected Challenges in Completing Dissertations
Sub-theme 1.3 Unpredictable Scottish Weather	**Sub-theme 1.3 Lockdown and Lockup**
Theme 2: Growth, Development and Life Transformation	Theme 2: Active Lifestyle Readaptation
Sub-theme 2.1 Resilience and Growth	Sub-theme 2.1 Motivation to Exercise
Sub-theme 2.2 Crucial Factors Facilitating Acculturation	Sub-theme 2.2 Challenges in Exercise Participation
Sub-theme 2.3 Life Transformation	
Theme 3: Third Spaces and Chinese Students' Psychological Well-being	Theme 3: Exercise Activities and Chinese Students' Psychological Well-being
Sub-theme 3.1 Psychological Benefits of Third Spaces	**Sub-theme 3.1 Psychological Benefits of Exercise**
Sub-theme 3.2 The Negative Impact of Third Spaces	Sub-theme 3.2 The Negative Impact of Exercising

Specifically, Study One findings suggested that many Chinese PGT students tended to experience a lot of 'Main Academic and Non-academic Challenges' (Theme 1: e.g., feeling the traumatic impact of isolation during the Christmas Break causing distress for participants), which may generate huge stress. At the same time, they tended to find their own ways of addressing these challenges (e.g., using third spaces to address isolation) and finding opportunities for 'Growth, Development and Life Transformation' (Theme 2), such as improving their English and cultural competence by travelling around Europe during their holidays. Study 1 also highlighted and demonstrated that during their acculturation process, a third space environment can potentially help many Chinese students manage their 'Psychological Well-being' (Theme 3) and could contribute to more stable and healthier overseas experiences. For example, according to the study participants, whereas living in Scotland may generate psychological stress, third space participation could facilitate positive feelings, including improved emotions, a sense of achievement, an improved social network and reduced academic stress.

Study Two findings concurred with other studies undertaken during the pandemic that the COVID-19 pandemic exacerbated the already negative impact of acculturation on many Chinese PGT students' health and well-being (Feng et al., 2021; Khan, 2021; Ma & Miller, 2021). During this period, many Chinese and other international students faced a period of 'Unprecedented International Student Life' (Theme 1: e.g., isolation and associated poor mental health issues during the lockdown for participants), suddenly confronted by considerable difficulties living abroad. Yet, the findings suggested that through efforts, they also managed to find ways to overcome barriers and achieve 'Active Lifestyle Re-adaptation' (Theme 2). In this complex situation, exercise participation turned out to be an effective and beneficial measure to cope with the challenges of COVID-19. In turn, it helped these international students preserve and improve their 'Psychological Well-being' (Theme 3) during the pandemic. For example, some study participants suggested that exercising helped them address their worries about their personal health by enabling them to build a stronger body and mind, reducing their fears regarding the virus.

The findings of Studies One and Two suggested that many Chinese students' potentially poor psychological condition was not related only to the usual language and academic acculturation barriers (Cao et al., 2017; He & Huston, 2018; McMahon, 2011). Their isolation was also not a product of racial tension (Farbenblum & Berg, 2020; Kwon, 2013) but of living in small accommodations with little interaction with others during critical times, such as Christmas break and lockdown (see Theme 1.3 in both studies and Theme 1.1 in Study Two). However, third spaces could complement such limited interaction with teachers, classmates and roommates and enable additional opportunities for making social connections (see Theme 3.1, both studies) (Lesser & Nienhuis, 2020; Yan & Cardinal, 2013b; Yan et al., 2015). These empirical findings are outlined and highlighted in bold in Table 10. As will be explained further below, they offer a contribution to academic knowledge.

In addition, even though Studies One and Two have focused on investigating Chinese international PGT students' acculturation in Scotland, their findings point to the kind of life that many other Chinese students may have in similar contexts (i.e., in other Western cultures). Living in a Western nation usually requires that Chinese students travel far from home and acculturate into a significantly different society. As part of these overseas journeys, many students stay away from close family and friends. They also need to proactively search for opportunities to enrich their lives and build social support networks in a new environment (e.g., various third spaces and social clubs, including the exercise clubs offered by host HEIs) (see Elliot, Baumfield, Reid, & Makara, 2016; Li & Zizzi, 2017). Most previous studies have highlighted the significant need for social support, including language and emotional help, among this group of students throughout their acculturation; this is also true of the period of the COVID-19 pandemic (see the literature review; also Barrett et al., 2021; Brunette et al., 2011; Humphreys et al., 2021). Therefore, many Chinese international students living in Western nations may have similar acculturation, health and well-being needs to those of the participants of Studies One and Two.

Initially, the Chinese research participants in both Studies were cut off from their socio-cultural environment of origin and were required to acculturate as soon as possible in a Western society (see Theme 1, both studies). The themes highlighted in Table 10 suggest that coming from cohesive families, many Chinese PGT students are prone to suffering from isolation as a result of the change in their country of residence and, during Study Two, the COVID-19 pandemic. The changes in these students' psychosocial environment prompt a strong need to address isolation and seek social support (Li & Zizzi, 2017; Mahdy, 2020; Mian & Duan, 2020).

For example, as discussed (see Section 4, Chapter 4), Theme 1.1 in Study Two demonstrated that coming from a close-knit social and educational system organised on the basis of the group interest (Hsu & Wu, 2015; Kim et al., 2008), some participants found it hard to understand COVID-19 policies in some Western societies, where individualism and free choice sat alongside government intervention (Scottish Government, 2020). As a result, these participants tended to refuse face-to-face contact with local residents as they thought many of them were at higher risk of infection. In addition, Theme 1.3 in Studies One and Two indicated that some participants struggled during the Christmas break when the cold, the 'unpredictable' rains, the wind and the short daylight undermined their motivation to go out and socialise with others. Likewise, participants also found everyday life difficult during the early COVID-19 lockdown when they (participants in Study Two) were allowed to go out for essential purposes only (Alghamdi, 2021; Scottish Government, 2020; Wilczewski et al.,2021). These critical times even brought about a stronger sense of isolation and stress when students engaged in limited interaction with classmates, roommates, teachers and friends and could only access to limited support from university staff, while choosing to living alone in a small accommodation.

As already discussed, living in small accommodations and staying away from other people may result in a distinct acculturation experience for many Chinese PGT students in a Western society (compared to domestic students who can return home and stay close to family and friends),

contributing to an unhealthy psychological condition. Their situation in the West is in stark contrast

to their prior way of life in China, where they had the support of close family and friends during

challenging times. Many Chinese students had multiple chances to go out with peers even during

winter Christmas Break and the early COVID-19 outbreak and lockdown (e.g., for outdoor exercise)

unlike people living in areas with compulsory isolation policies (e.g., China) (Cao et al., 2020; Scottish

Government, 2020, 2021), but it seemed that the main issue for many of them was the lack of

motivation to step out of their 'comfortable' but confined students' accommodations. Moreover,

this experience was largely different from those reported in many previous research studies, which

have identified discrimination issues as the main factor leading to isolation and ultimately negative

psychological state among many Chinese international students (Farbenblum & Berg, 2020; Kwon,

2013). This also indicated that although the social culture environment in some Western societies

generally welcomes Chinese international students, their living conditions may present greater

difficulties for acculturation. Furthermore, compared to many other HE students (e.g., British and EU

students with Western cultural backgrounds), many Chinese international PGT students in the West

may be much more eager to search for opportunities for social networking, given their by-and-large

collectivist cultural background (Hsu & Wu, 2015; Kim et al., 2008). A largely isolated lifestyle,

arguably, can in turn intensify these Chinese students' desire for social connection and support

during their overseas journey.

Furthermore, as demonstrated by the findings of Studies One and Two, even in the age of

COVID-19, international education can provide many students with valuable opportunities for

development and personal growth (Alghamdi, 2021; Gbadamosi, 2018; Krajewski et al., 2021). As

previously discussed (see the Introduction and literature review chapters), international students'

struggles may be due to the fact that HEIs in the UK often lack a critical understanding of and

effective support mechanisms for students from different cultures and with different modes of

learning (UKCISA, 2022). Even though previous research has rightly highlighted the challenges of

international students living abroad, reifying them as a vulnerable group may downplay their agency

in achieving a meaningful international education while focusing university policies only on problems and struggles (Aikman et al., 2016; Deuchar, 2022). Therefore, it is necessary for both international students and Western HEIs to understand the potential challenges and opportunities of overseas study in order to build well-rounded individuals who can enjoy a truly world-class education. A lack of research on these issues has resulted in a limited understanding of what is required in a new cultural environment and in limited help available for international students to achieve a healthy acculturation and a thriving overseas study experience.

In both Studies, it was further demonstrated that many participants proactively searched for socialisation opportunities via third spaces (in particular, in an exercise participation environment), beyond their academic, home and work environments (see also Table 10). For example, Theme 3.1 in Study One indicated that many Chinese students built friendships (with other Chinese, international and local friends) in third spaces with people who shared their interests, and in turn, these friendships contributed to better psychological well-being by helping them address isolation and associated poor psychological well-being issues, particularly in the winter during Christmas break with a bad weather (from mid-December to mid-January). Similarly, Theme 3.1 in Study Two indicated that many Chinese students made close friends (with other Chinese, international and local friends) by exercising in small groups during the pandemic. These close friends can support each other emotionally. In particular, these exercise friends can be sources of motivation that help these Chinese students step out of their confined living environment (see Theme 2, Study Two), allowing them to enjoy the outdoor environment (e.g., beautiful sky and streets) and improve their emotions significantly. As can be seen in the findings related to Theme 2.1 in Study Two, peer support was an important source of motivation for the study participants to take part in exercise, whereas a lack of exercise leaders tended to de-motivate them.

Study Two participants also suggested that even indoor home exercise (e.g., yoga) in their accommodations could help with their psychological well-being, which indicated that exercising in

general could help many potentially isolated Chinese students improve their psychological well-being (Brehm, 2014; Lesser & Nienhuis, 2020; Sallis et al., 2021). Even though third spaces, including exercise participation, may demand time away from some Chinese students' academic study, which may in turn create psychological burdens occasionally (e.g., see Theme 3.2, Study One), participants reported these third spaces to be particularly significant for psychological well-being during the winter and COVID-19 lockdown when students' main concern was to use their private time in a healthy rather than inactive way.

Overall, third spaces (including regular exercise participation) as a potential social networking platform could contribute to both personal and social well-being for many Chinese students who were eager to search for social support to acculturate to challenging living conditions during difficult times in many Western societies (Brunette et al., 2011; Lesser & Nienhuis, 2020). Many academics have argued that the important role of these informal spaces had been previously overlooked (Elliot, Baumfield, & Reid, 2016; Elliot, Baumfield, Reid, & Makara, 2016). Notably, both Studies demonstrated how third spaces and exercising could contribute to students' motivations to live a positive as well as healthy life. Given many Chinese PGT students' by-and-large collectivist values, the presence of peers was also crucial in adopting and adhering to a third space environment (see also Theme 2, Study Two).

Another insight is worth noting here. In the developed Western society, many Chinese students could access different recreational third space groups and use this social support to meet their health needs. This experience is hard to achieve in the Chinese HE education system (Hsu & Wu, 2015; Kim et al., 2008), where most events/activities (e.g., PE classes) are organised in a compulsory fixed-group format. Participation in recreational third space activities can then be argued as a potential means for many Chinese international students developing or strengthening their independence during their study sojourn in West. Living in a Western culture may have then fostered and promoted their sense of autonomy and their interpersonal skills. Arguably, the

autonomy and interpersonal skills that students gained in this process could benefit their future lives both in China and the West. Overall, the social support obtained in third spaces helped many Chinese PGT students in Studies One and Two have a more meaningful overseas acculturation experience (see Theme 3.1, both studies). According to Theme 3.1 of both studies, as well as enabling them to have fun and establish new social contacts, regularly accessing third spaces helped the participants to gain cultural competence (e.g., a better understanding of Western culture and the English language). It also showed the importance of lifelong healthy lifestyles (e.g., the role of a healthy body and mind during the pandemic). These effects may contribute to building well-rounded individuals.

As previously mentioned, moving to study in a Western culture for many Chinese students comes with barriers to acculturating (e.g., isolation) (Baba & Hosoda, 2014; Liao & Wei, 2014), at least initially. At the same time, this challenge allows these Chinese students to practise autonomy and search for meaningful social interactions, including those situated in third spaces. Studies One and Two suggested that 'every coin has two sides.' As previously discussed, acculturation challenges are arguably not predominantly negative for many Chinese students; instead, they can contribute to a sense of resilience and growth (for example, see Theme 2 of Study One) (Chua et al., 2018; Krajewski et al., 2021). Both studies showed the importance of adopting a positive view of the acculturation journey in a Western society. In other words, viewing it as a type of eustress (Jackson, 2013; Selye, 1974) rather than distress. Their stay in the West may help these Chinese students develop their strengths (e.g., autonomy and independence despite leaving family and friends in China) and enrich their experiences (e.g., intensive cross-cultural communication). The barriers involved in international education, therefore, may be necessary factors for significant growth and success.

Both Study One and Two suggested that acculturation-related stress, its psychological benefits, and social networking opportunities in third spaces are potentially connected, and

therefore warrant further exploration of their interconnection. In this respect, a sound

understanding of the link among these elements may contribute to many Chinese PGT students'

personal development in Scotland and to that of other PGT students in similar (Western) contexts

(Elliot, Baumfield, Reid, & Makara, 2016; Zhang et al., 2020). The overseas journey of many

international PGT students is a complex, multi-dimensional and dynamic process (He & Huston,

2018; Ozer, 2013; Schwartz et al., 2010). Both studies highlighted and demonstrated the benefits of

adapting to difficult situations by engaging with third spaces (particularly outdoor group exercise),

which can create significant positivity (e.g., the motivation to live a healthy life). This aspect has

been largely ignored by previous academics. The socialisation opportunities offered by third spaces

can complement formal support channels (e.g., classmates, roommates and university staff) and

help students leave their potentially isolating and stressful accommodations, thus improving their

psychological well-being (Elliot, Baumfield, & Reid, 2016; Li & Zizzi, 2017; Lin et al., 2020).

The literature has thus far largely focused on the opportunities for academic and language

acculturation that come with participation in third spaces (see Brunette et al., 2011; Li & Zizzi, 2017).

This work has found that students have different needs in different cultures (Ozer, 2013). Studies

One and Two thus offered a greater understanding of the everyday and academic experiences of

many Chinese international PGT students in Scotland. This knowledge may help better comprehend

the specific acculturation needs of many Chinese PGT students in that country and perhaps those of

other students in similar (Western) contexts. Studies One and Two also indicated how the personal

development of international PGT students was strengthened by third spaces during their time

overseas.

The contributions of Studies One and Two may help universities and many future Chinese

international PGT students in the Western societies to better confront potential issues, target

resources and mitigate distress (see Section 5.3). Doing so would help support these international

PGT students' health during difficult times, contributing to more meaningful overseas study experiences.

5.2.2 Theoretical Contributions

The previous section explained how some Chinese PGT students in Scotland (and perhaps other international PGT students in similar [Western] contexts) may experience a distinct acculturation process and how third spaces (particularly outdoor group exercise) may play a key role in students' well-being and personal growth (Lesser & Nienhuis, 2020; Li & Zizzi, 2017; Sallis et al., 2021). This section will explain how these empirical findings may offer novel perspectives of the theories employed in Studies One and Two. The empirical findings of both studies strongly indicate that searching for 'Positive Relationships' or positive connections with other people in society who can offer social support (Frankl, 1966; Seligman; 2011; Wong, 2021; Wong et al., 2021), which was particularly significant in relation to maintaining students' overall psychological well-being during a period of acculturation, highlighting the positive role of third space groups in improving many potentially isolated international PGT students' overseas experiences. This insight could help many future international student groups to understand and navigate their overseas journey.

As discussed in Chapters 3 and 4 (see also Figure 5), the theories of positive psychologists, including Seligman's (2011) PERMA theory (in Study One), and Wong's (2021; Wong et al., 2021; also Frankl, 1966) modification of it (in Study Two), were employed to help explain the complexities of Chinese international PGT students' third space participation, psychological well-being, and idea of happiness before and during the pandemic, respectively. These theories highlighted positive emotions, sense of engagement, positive relationships, meaningful pastimes and sense of accomplishment as key factors influencing a person's happiness ('PERMA') (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021). However, Wong's approaches differ from Seligman's in that Wong reports that the purely positive view of happiness in the original PERMA themes (e.g., "body full of happiness") is not suitable given the context of the challenging pandemic.

Study Two was conducted during the COVID-19 outbreak and ensuing lockdown. Wong's approach (Wong, 2021; Wong et al., 2021; see also Frankl, 1966) was thus preferred over Seligman's (2011) to better reflect the universal, transcending challenges in the age of COVID-19 (e.g., isolation and associated poor mental health; see Cao et al., 2020; Wong et al., 2021). During the pandemic, the day-to-day need to cope with the virus and the desire to improve one's psychological well-being have tended to be closely connected (Khan, 2021; Lu et al., 2022; Spatafora et al., 2022). In Wong's model, for example, 'positive emotion' is no longer a purely positive feeling of enjoyment, but the courage to embrace both positive and negative emotions to find inner peace during a challenging period.

By adopting an individual-in-situation perspective, Studies One and Two aimed to offer a better appreciation of many Chinese PGT students' psychological well-being in Scotland and of the applicability of the theories in question, which have seldom been explored in these contexts. The findings highlighted the value of developing a 'positive attitude' (Frankl, 1966; Seligman, 2011; Wong, 2021; Wong et al., 2021) towards many Chinese students' acculturation, empowerment and psychological conditions. Overall, Seligman's PERMA themes and Wong's modified version of such themes aptly explained different dimensions of the participants' experiences in third spaces and indicated the specific psychological needs that are met by their third space experiences, such as positive thoughts, meaningful social connections and the establishment of pastimes. This is one way in which these theories can facilitate our understanding of this cohort's experiences.

In addition, Figure 5 presents the key findings of Studies One and Two and the critical factors that are likely to influence many international PGT students' acculturative experience before and during the COVID-19 pandemic as well as its arguably parallel implications for the overall (both academic and well-being) experience of many Chinese international PGT students. As the top half of Figure 5 (depicting Study One) shows, before the pandemic, challenges and opportunities co-existed for Chinese international PGT students who came to study in a Western society. For those opting to

explore the third space via group tours, group exercise, etc., their experience had been enriched by the development of new friendships, additional socialised learning experience, and receipt of extra emotional support in the process. In turn, this combined experience strongly contributed to a psychologically healthy and more meaningful educational sojourn. This is arguably particularly more relevant during the specific acculturation challenge (i.e. living alone in small accommodation during the Christmas break) that tended to significantly affect this cohort's personal and social well-being (Emotion, Relationships), and, subsequently, their perceived overall overseas study experience, too, (Meaning and Accomplishment) as interpreted in the light of the PERMA theory (see Study One). While students had other means of improving their overseas academic experience and meeting their health needs (e.g., discussing concerns with supervisors and attending the university's counselling services), an important and perhaps overlooked option was the crucial importance of engaging with third spaces (Elliot, Baumfield, Reid, & Makara, 2016; Li & Zizzi, 2017; Yan et al., 2015).

Figure 5

Parallel Trajectory of Chinese International PGT Students' Experience of 'Third Space' pre and during COVID-19
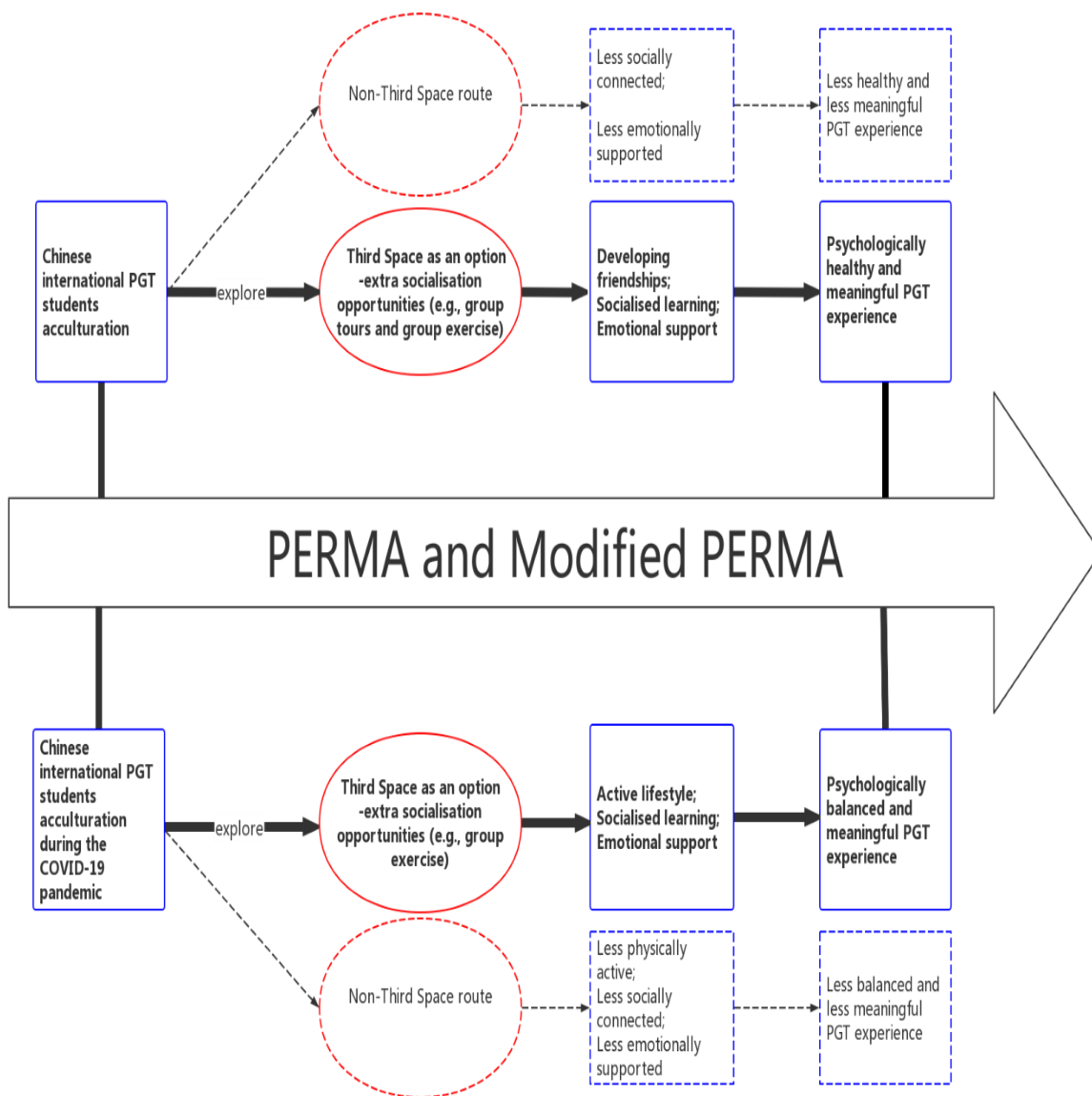
As Study One suggested, many international PGT students who explored and adopted a variety of third spaces (e.g., group tours in Europe and exercise clubs) were able to boost each

PERMA theme (Seligman, 2011) and improve their psychological well-being. By creating extra

socialisation opportunities, they received social support that went beyond their study, work and

home environments. These students, therefore, were provided a better chance of enhancing their

psychological well-being and acculturation experience (Brunette et al., 2011; Li & Zizzi, 2017),

compared to those who did not engage with third spaces ('non-third space route'). Many of those

students who chose not to engage with third spaces, or engaged in a very restrictive way, were likely

to have missed important socialisation and cross-cultural communication opportunities. They thus

tended to be less socially connected and emotionally supported, which may result in a less healthy

and meaningful overseas experience. Study One suggested that third spaces could contribute to

developed friendships, which give many international students extra spaces to discuss their

everyday concerns. This finding was consistent with Seligman's (2011, pp. 32–80) interpretation of

"positive relationships" arising from meaningful connections and interactions with other people who

care about them. Moreover, within third spaces, many students were able to practise English and

talk to people from different cultures, which facilitated socialised learning and the gaining of cultural

competence. In turn, this could contribute to a psychologically healthy and meaningful PGT

experience.

In comparison, the bottom half of Figure 5 (depicting Study Two) shows that even during the

COVID-19 pandemic, which created new pressures, many international Chinese PGT students could

find ways to improve their academic, health and well-being experience (Lin et al., 2020; Zhang et al.,

2020) when the lens of the modified PERMA theory is considered (Wong, 2021; Wong et al., 2021),

by exploring the third space, particularly those related to exercise. During the pandemic, the extra

socialisation opportunities found in third spaces were even more important than before as students

lacked the face-to-face support of classmates and university staff over a considerable period (i.e. the

second semester, from March to September 2020). Furthermore, due to lockdown and distancing

measures, many third space activities were also prohibited, including group trips in Europe. As a

result, many students needed intensive socialisation but had only limited options to access third

spaces. In this respect, the modified PERMA model is also a more suitable lens as it offered a chance

to understand how students transcended COVID-19 barriers and frequented third spaces in new

ways. By doing so, they achieved mature happiness and found inner peace. This shows that being

satisfied with overseas education is possible even in the worst moments of life (Seligman, 2011;

Wong, 2021; Wong et al., 2021; see also Frankl, 1959; 1966).

The role of third spaces and a socially connected life tended to be crucial in obtaining

'emotional support', particularly during winter vacation and lockdown, when students' small

accommodation had a significantly negative impact on their lifestyles and psychological well-being.

During the pandemic, exercise allowed many international Chinese PGT students to open lines of

(face-to-face) communication with their peers, albeit in small groups, outdoors, and with the

required distancing. In this context, exercising in groups enabled them to regain a lost sense of

community and develop a means to live a socially and physically active lifestyle. These students,

therefore, were also provided with a better chance of enhancing their psychological well-being and

creating a more meaningful acculturation experience compared to those who did not choose the

third space route. Many students who chose not to engage with third spaces during this special time

tended to be less socially connected, physically active and emotionally supported. These conditions

may ultimately result in a less balanced life and a less meaningful overseas study experience. Group

exercise participation, according to Study Two, made life under lockdown less lonely and more

enjoyable for many Chinese students and their peers, thereby facilitating socialised learning (e.g.,

obtaining academic-related advice, support and encouragement). Furthermore, regular exercise

during the COVID-19 pandemic contributed to a greater appreciation of the importance of health,

which may even contribute to many Chinese students' lifelong exercise habits. During the pandemic,

therefore, interaction with one's peers in third spaces had arguably facilitated a psychologically

balanced and meaningful overseas PGT experience, too. This finding corroborated Wong's (2021)

emphasis on authentic and genuine connections to other people who have the same limitations and

weaknesses as ourselves (during the age of COVID-19).

Studies One and Two suggested that formal support systems are crucial but may not be sufficient in facilitating a smooth acculturation process for many international PGT students, both before and during the pandemic. Furthermore, even formal support systems such as university counselling services may present challenges, such as language barriers (see Tang et al., 2012). These support systems are open to all HE students and can be very helpful for their acculturation, health and well-being. However, they may not always be available for discussing day-to-day concerns. Third spaces, where peers offer accessible and immediate support, can thus be of great value to students and should not be overlooked, particularly during critical times.

Both Study One and Two suggested that many international PGT students who found their 'third space' were able to live a socially active life and learn positive lessons, thereby avoiding the dangers of staying isolated in confined spaces. In turn, their 'third space' experience significantly helped their acculturation, well-being and personal growth. Altogether, the 'third space' route, when compared to the 'non-third space' route offered added physical, emotional, and social dimensions that inevitably enriched the academic experience of many international PGT students sojourning pre- and during the pandemic.

Studies One and Two indicated that many international PGT students had many opportunities to improve their well-being and make the most of their time overseas ('meaning' and 'accomplishment'), both before and during the pandemic (Snape & Rienties, 2016; Yan et al., 2015; Zhang et al., 2020). However, the quality of their acculturation journey tended to relate to whether and how they explored third spaces and obtained support from them (Li & Zizzi, 2017; Sallis et al., 2021; Yu & Moskal, 2018). The findings of both studies suggested that many Chinese PGT students in Scotland, and perhaps other international PGT students in similar (Western) contexts, may strongly consider accessing third space groups to improve their acculturation journeys rather than only to have fun, particularly during challenging times. By adopting a positive psychology approach (Seligman; 2011; Wong, 2021; Wong et al., 2021), international education is no longer viewed as a

struggle to survive and a competition to obtain a degree. Compared to students who overlooked

third spaces or failed to adopt them, those who took advantage of them could manage to have a

happier and more meaningful international education experience (see also Figure 5). This

achievement was largely due to a strengthened social network ('positive relationships'), extra

everyday emotional support ('positive emotions'), and an engagement in the active lifestyle

('engagement'). A successful acculturation may, in turn, contribute to a positive attitude towards

health and a cosmopolitan outlook that, arguably, can benefit the rest of the person's life (Chang et

al., 2012; Gbadamosi, 2018; Mikhaylov, 2014).

These results, additionally, also support the inclusion of 'positive relationships' as an

independent and important theme in Seligman's (2011) PERMA theory and Wong's modification of

such theory (Wong, 2021; Wong et al., 2021). If international PGT students found it hard to achieve

'Positive Relationships' (in third space groups) with others during their acculturation, their other

psychological needs could also be significantly affected (e.g., without the opportunity to

meaningfully communicate with each other, students might have to repress their emotions [Positive

Emotion], and had fewer opportunities for cross-cultural communication [Meaning]; see Theme 3.1

of both Studies).

Echoing Seligman (2011), the findings of this PhD research have demonstrated that those

independent PERMA themes are potentially interconnected; while for many international PGT

students, having 'Positive Relationships' tended to be of central importance, even though this may

not be of more importance than achieving other dimensions of 'Happiness'. Amongst the multiple

psychological benefits of engaging in third spaces, its social connection opportunities were also

highlighted as being particularly significant on many occasions for this cohort of students (e.g.,

during the Christmas Break and COVID-19 lockdown).

Overall, Studies One and Two suggested that many international PGT students were

presented with numerous opportunities to achieve happiness at both a personal and a social level,

and that this was true before and during the pandemic. In addition, the research outcomes allowed me to suggest that these students may particularly consider making the most of each social connection and paying attention to multiple third space groups to establish 'Positive Relationships' to create a healthy and enjoyable overseas experience.

However, the experiences of some other international students in different contexts may differ from those of the 24 participants in Scotland, particularly as a result of living arrangements and COVID-19-related policies (Farbenblum & Berg, 2020; Mahdy, 2020; Wang et al., 2020). For example, even though academics have highlighted isolation and poor mental health as a universal issue during the pandemic, many Chinese international students in other contexts may not have to stay in small accommodations for long periods; their sense of loneliness may thus be the result of hate crimes against Asian students (Farbenblum & Berg, 2020; Mian & Duan, 2020). For instance, the respondents in Farbenblum and Berg's (2020) survey described the negative experiences of living in Australia, including being avoided and harassed by local Australians on their way to the university and back home during the COVID-19 outbreak (see also Chapter 2). Seemingly, their well-being needs were not significantly linked to confined living spaces. The necessity of going out to participate with others in a third space was thus also rather limited. Still, the social benefits associated with attending 'inclusive' third space groups should not be overlooked. More research is needed on this issue.

Overall, the research findings from Studies One and Two endorsed the value of developing a largely positive attitude towards participation in 'inclusive' third space groups for many international PGT students. Insights and knowledge from both studies demonstrate to students, academics and HEIs how to understand better the role of third spaces and possibly design tailored measures to help students improve their acculturation experiences as well as their psychological well-being (see also 5.3). This can be done by highlighting the importance of understanding the components as well as the strengths of the theory and their implications for students' psychological well-being (e.g.,

targeting and boosting students' group exercise motivation to facilitate well-being and avoid COVID-related distress and at an extreme case, suicide).

Furthermore, my research has demonstrated that third spaces may have substantially changed during lockdown, shifting towards virtual contexts. As discussed in Study Two, during the COVID-19 pandemic, traditional third space environments were limited by lockdowns and social distancing measures. However, many activities usually carried out in third spaces took place online (e.g., streaming exercises and music) as a result of the need to adapt to the new social reality (Menhas et al., 2022; Tong et al., 2022). Online third spaces already existed before COVID-19, but the pandemic helped to popularise them. Both the recent literature (e.g., Petersen et al., 2021; Yang & Koenigstorfer, 2020) and the participants of Study Two have highlighted how online exercise communities can help to address the spatial limitations of meeting, build social networks and improve an individual's motivation to live a balanced life. In particular, these communities can strengthen the sense of togetherness among international students who are eager to enhance social connection and peer support in order to avoid the inactivity, isolation and associated poor psychological health of the COVID-19 age (Cronshaw, 2022; Menhas et al., 2022; Tong et al., 2022).

These findings contribute to our understanding of contemporary third spaces. They underscore the importance of having meaningful social connections for many international students. Traditionally, a third space was conceived of as an environment for acculturation and improved health and well-being found outside academic, work and home environments, where physical meetings and socialised learning were possible (e.g., a coffee shop, gym or music hall; see the findings of Study One) (Bhabha, 1994; Elliot, Baumfield, Reid, & Makara, 2016; Oldenburg, 1989). The COVID-19 pandemic allowed many people to realise the importance of online third space communities (e.g., online music and exercise forums) for a healthy life (Petersen et al., 2021; Tong et al., 2022). Due to the development of modern technologies, such as computers and smartphones, a lot of people today have convenient access to online third space communities. These platforms have

made meetings safer (by eliminating the risk of infection during a pandemic) and reduced the need for travel (by making international communication possible).

Study Two and the recent literature also suggest that online third spaces have created opportunities for many new types of activities (e.g., learning a new type of exercise) and for meeting like-minded individuals around the world (Cronshaw, 2022; Tong et al., 2022). In the context of this doctoral research, these new experiences and expanded social ties tended to be crucial for the health and well-being of some international students, who were living a largely isolated life in a foreign country, away from close family and friends, and who were tired of the pandemic's lockdowns. Students who faced barriers to physical third space attendance due to time or travel constraints (caused by intensive PGT studies or disabilities) may have benefited significantly from the spread of online platforms during the pandemic. This trend may have improved their condition and allowed them to enjoy their life. These experiences advance our understanding of third spaces, which may be viewed in the future as fourth spaces where people's meetings can take place without spatial limitations thanks to advanced technologies such as AR (Augmented Reality) and VR (Virtual Reality), which can also simulate the reality of the actual face-to-face meeting.

The findings of Study Two have expanded the literature and contributed to a greater understanding of the digital third space interactions of a group of Chinese international PGT students living in a Western nation during the COVID-19 pandemic. The creation of online third space communities for international students is an area that remains largely unexplored; future academics should pay significant attention to it (the practical implications of using online third spaces will be discussed in section 5.3). Studies One and Two have shown that a third space can be both a physical meeting place outside students' academic, work and home environments aimed at acculturation and well-being and an online platform for meaningful social interactions without spatial limitations. Many third spaces have remained open to international students before and during the pandemic, and students can also meaningfully contribute to the community by engaging

with such spaces on several levels (e.g., by receiving help and advice as well as giving support to others; one example I discussed was supervising each other while doing exercises online). Regardless of the form of participation, third spaces can bond students together and create social cohesion and shared values, which will eventually allow some of them to obtain support from each other and improve their psychological well-being (Cronshaw, 2022; Menhas et al., 2022; Tong et al., 2022). During a pandemic, online third spaces tended to play an important role in some people's lives as they allowed them to engage in effective socialised learning while staying at a safe distance.

Today, online third spaces and traditional third spaces may work in tandem to offer a more holistic approach to meeting the health and well-being needs of some international students regardless of the presence of a pandemic. For example, some students could exercise in the gym and interact with their classmates there while learning new types of exercises using smartphone applications. Others could join in online chats and forums via social media to share their experiences and help those in need. In summary, students could participate in both forms of third spaces according to their requirements, while always being mindful of spending an appropriate amount of time in these spaces. (Section 5.3 will highlight the implications of having online third spaces as an option and their potential to offer greater support to the international student cohort not just during but also after the pandemic.)

5.2.3 A Critical Approach to Research

The previous sections have discussed the contributions to academic knowledge of Studies One and Two. The current section will explain how the project's methodological choices contributed to a greater understanding of many Chinese PGT students' overseas acculturation and well-being in a Western society.

Taking a critical approach, I motivated participants to discuss their acculturation experiences beyond university, work and home. I asked them to cover both the positive and limitations of third spaces (Study One) and exercise participation (Study Two). Many academics often overlook the

drawbacks associated with third spaces (see Elliot, Baumfield, Reid, & Makara, 2016). Theme 3.2 in both Study One and Two offered further evidence that even though the psychological contribution of third spaces and exercise activities is greater than their limitations, students may consider addressing these limitations (e.g., injuries) to have better experiences. The interview approach adopted in the research allowed to go beyond an account focused solely on participants' positive experiences. A comprehensive understanding of both the positive and limitations of third space activities was, arguably, a vital step towards many Chinese PGT students' effective use of these spaces and their further thriving in new social and academic contexts.

Overall, the research design effectively captured the breadth and depth of many Chinese PGT students' overseas experience in relation to acculturation and health and well-being. All the participants (N = 24) were given a chance to talk about their stories in a detailed manner (King et al., 2019; Rubin & Rubin, 2005; Salmons, 2015). The research design thus contributed to the collection of rich interview data and uncovered significant and perhaps overlooked aspects (e.g., potential limitations of third spaces). This evidence could help to effectively understand and ideally assist with many Chinese PGT students' acculturation in Scotland, and perhaps, other international PGT students in similar (Western) contexts.

Studies One and Two had also practical implications for improving many international PGT students' overseas experiences, as discussed in the following section.

5.3 Practical Implications of the Research Findings

In this section, I will explain how the findings of this PhD research project may provide valuable suggestions for many international PGT students and HEIs intending to improve the experiences of these students.

As previously discussed in 5.2.1, many Chinese international PGT students in Scotland, and perhaps, other international PGT students in similar contexts, may face the risk of isolation and negative psychological state. The results also suggested that third spaces, particularly group outdoor

exercising, could offer the opportunity to socialise, improve one's psychological well-being, and help individual students to develop cultural competence (Brunette et al., 2011; Li & Zizzi, 2017; Yan & Cardinal, 2013a). International PGT students, therefore, may strongly consider proactively seeking and exploring third spaces to have a more meaningful overseas study experience.

I would argue that international PGT students themselves play the most crucial role in their acculturative experience. Based on my research findings, it would be beneficial for them to consider adopting a positive and proactive attitude towards exercising, particularly in a group and outdoor format, even when this is not their preferred third space, particularly since adults are recommended to complete at least 150 minutes of exercise per week (NHS, 2021; WHO, 2022b). In contrast, adults living an inactive lifestyle have a greater risk of physical and mental disease (Lesser & Nienhuis, 2020; Sallis et al., 2021). As an effective third space, exercise participation also has the potential to allow many international PGT students to interact with each other and with other domestic students, and practise the English language, mitigate feelings of isolation and relieve academic stress (Sallis et al., 2021; Yan et al., 2015; Zhang et al., 2020), (see also Theme 3.1 in Studies One and Two). In turn, doing so could allow them to reduce their acculturation anxiety and improve their psychological well-being in both normal times and during the challenging time (e.g., during wintertime or pandemic).

International PGT students need to continuously move onwards and upwards, being mindful that maximising the benefits of their international education in a competitive HEI requires proactivity on their part. Searching for a third space, particularly group outdoor exercise participation, should be seen not as optional, but necessary. For example (see also 5.2), the third space could offer extra socialisation opportunities and allow individual international PGT students to communicate with others from different cultures. Third space groups could also help many of these students protect their health and well-being during particularly challenging periods such as winter Christmas Breaks and COVID-19 lockdown when formal emotional support from classmates and

university staff is largely unavailable. Furthermore (see also Figure 5), international PGT students' acculturation experiences in third spaces may also contribute to their future careers (e.g., PhD). This is true in relation to improved cultural competence and positive lifestyles, which are important characteristics for students moving on to their future destinations (e.g., competitive internationalised academia, or globalised employment market [Chang et al., 2012; Gbadamosi, 2018; Mikhaylov, 2014]).

In addition, knowledge from this research project could also contribute to better designing institutional interventions aimed at achieving positive overseas acculturation experiences for many Chinese as well as other groups of international PGT students who continue to be a crucial segment for universities in the Western countries (including Scotland and other parts of the UK) (HESA, 2022). One way to do this would be to target third spaces, particularly group exercise participation. In fact, as discussed, feeling low and a lack of meaningful social connections should not be seen as deficiencies of individual students. Inadequate physical and psychological support from HEIs may lead to these problems (Aikman et al., 2016; Deuchar, 2022; UKCISA, 2022; see also section 1.3.2 in Chapter 1). Future studies could consider investigating HEIs' needs and potential difficulties in supporting international students (e.g., financial concerns and barriers to the recruitment of international staff). Obtaining this kind of information may better help improve international students' overall acculturation.

HEIs could consider encouraging social interactions and enhancing the quality of friendships among students, which would allow them to benefit from improved motivations, social support and avoid isolation and associated poor mental health. Interventions could include regularly organising group exercise activities (e.g., in the park) and pairing each international PGT student with an exercise volunteer (e.g., Walk and Talk groups organised by HE students to facilitate health and well-being). As Theme 2.1 in Study Two suggested, some students may need peer support to access an exercise environment (Farah et al., 2021; Humphreys et al., 2021).

The HEIs may also consider facilitating contact between international (e.g., those from China) and domestic students in non-conventional environments (e.g., the outdoor football court) and advertise the benefits that could arise from this contact (e.g., the opportunity to learn a new language via games). The benefits include cross-cultural connections and a sense of cultural competence from which both local students and international ones could benefit, contributing to a more meaningful higher education experience for all (Chang et al., 2012; Yan & Cardinal, 2013a).

Echoing the goal of UKCISA (2022), the current PhD study may also contribute to the health and well-being (e.g., how to access exercise) of the international students in the UK wishing to enjoy a world-class education and thrive within and beyond academia (see the student charter promoted by UKCISA mentioned in Chapter 1). This study (its knowledge) may help students go beyond merely surviving intensive overseas PGT studies. It may assist them in becoming persons who are able to think, learn, emote and interact with others effectively. Students may thus be able to achieve their potential, cope with stress, and make contributions with meaning and purpose (WHO, 2022a). Based on this study's findings, some detailed and practical recommendations are given below for the international students and the Western HEIs wishing to foster a better acculturation experience:

a) Students should consider obtaining information (e.g., from the university's website and former students) regarding which third spaces are available and how to join them before moving overseas, as these spaces can help their acculturation from the beginning of their studies;

b) Students need to make efforts to participate in third space activities appropriately while minding their potential downsides (e.g., set a timer for monitoring the time spent on third space activities; warm up before exercising); they should also be aware that a better participation experience may foster a lifelong hobby;

c) HEIs should consider helping students to access and adapt to new third space activities (e.g., by creating and promoting new types of exercise or a new exercise

club and making them available on their website) following a pandemic or lockdown, as students' preferred activity may no longer exist after these events;

d) HEIs should consider supporting more research like this PhD project to explore and understand the specific needs of student communities with different cultures and modes of study within and beyond university.

Furthermore, as discussed, recent studies as well as my research have highlighted that during lockdown, many third space activities were carried out online (Menhas et al., 2022; Petersen et al., 2021; Yang & Koenigstorfer, 2020). Today, many HE students have the option to participate in both online and traditional third spaces activities. The development of online third spaces has enabled people to meet at a distance, learn new types of activities and get to know new people (Cronshaw, 2022; Tong et al., 2022). HEIs and international students may thus consider exploring and embracing online platforms, which could effectively support students' acculturation and psychological well-being. On their part, developers may need to consider offering tailored services for the health and well-being of students of different cultures and who have different modes of study (e.g., tailoring services to the language preference of the app and the average time available to spend on the programme). For example, students may consider joining an online exercise programme to exercise with their family who are in their home country to live a healthy life together and alleviate a possible sense of loneliness. Developers may consider offering friendly lessons/programmes that can be adopted by family members (e.g., children and the elderly).

Most of the benefits of online third spaces could also apply to the post-pandemic context. Academics expect that some of these spaces (e.g., online exercise) may become permanently intertwined with traditional third space environments rather than be a passing trend (Menhas et al., 2022; Petersen et al., 2021). For instance, innovative methods of exercise training, such as streaming workouts, have become more common globally (Tong et al., 2022; Yang & Koenigstorfer, 2020). Also, certain advanced AR and VR technologies that have been applied to professional sports settings are

waiting to be transferred to recreational settings. Although virtual third spaces also pose many

challenges, such as internet lag and the missing sense of close contact among participants,

innovative technologies, including AR and VR, are expected to offer new experiences and facilitate

the popularisation of this form of participation (Menhas et al., 2022). Adding the opportunities

provided by online third spaces may improve the social bonds, lifestyles and psychological health of

many international students during their acculturation, both during and after the pandemic. This has

implications also for individuals' academic, work and home life since there are multiple online

communities where people could search for academic, cooking or career advice. By overcoming

significant spatial limitations, the development of these communities could also offer substantial

support to students.

Studies such as the current PhD research are useful to understand the needs and

experiences of different groups of students in relation to third spaces (both online and offline),

which remains a largely unexplored area. In this context, furthermore, the use of mixed methods

would be helpful in obtaining rich findings that can be generalised and projected onto a wider

population as well as in-depth information regarding students' needs (Mertens, 2014; Watkins &

Gioia, 2015). For instance, future academics may consider adopting a qualitative approach to

understand specific needs connected to third spaces and a quantitative approach to explore

whether the knowledge from the qualitative study applies to other students. Doing so may provide a

complete picture of a target population in a university. This could facilitate an intervention-to-

feedback circle that would allow the implementation of sensitive measures. This knowledge could

also be used by HEIs, policymakers and healthcare providers, who could organise rapid and effective

support for students in need. Finally, this type of study may be of particular interest to investors in

online third space platforms as it may allow them to offer tailored services to their target

population.

The measures discussed above, overall, could effectively help many international PGT students to become socially connected, which would significantly improve their health and well-being. These measures could complement the conventional institutional support systems, increasing many international PGT students' chances of thriving and reducing the risk of isolation and distress. In particular, appropriate and regular exercise participation (both online and offline) is an important goal to sustain physical as well as mental health/psychological well-being for all HE students in many stages of their life (particularly during the pandemic; see Lesser & Nienhuis, 2020; Lu et al., 2022; Spatafora et al., 2022).

5.4 Limitations and Future Research Directions

It is important to acknowledge that the current PhD study project also has its own limitations. The implications of this study should also be considered as there are many ways to build on it by addressing its limitations, thus ensuring a greater contribution to academic knowledge.

In terms of methodology, the interview process may have limited the research. Although the Zoom interviews generally yielded rich data, it was difficult to observe the whole interview environment and the body language of participants. This may have affected the quality of the interview data (Gubrium et al., 2012; King & Horrocks, 2010; Salmons, 2015). For example, during the interviews, I actively listened to participants and interacted with them in a friendly and professional way. However, due to the technological medium, it was impossible to witness and respond to interesting responses in terms of participants' body language that was out of sight (e.g., feet and legs). I felt that many subtle, non-verbal visual clues, which could have helped contextualise the information in a face-to-face scenario, were lost (King & Horrocks, 2010; Salmons, 2015). For instance, when participants discussed psychological well-being issues during acculturation, I was unable to tell from their full-body language which factors (e.g., language barriers, bad weather or academic stress) had a particularly strong impact on their overseas experience in relation to

acculturation and health and well-being. It, therefore, made it more challenging to explore these dimensions in more detail. The same limitation applies to Study Two as well.

As I was able to see their faces, when they showed obvious expressions, such as a frown (some participants frowned when they discussed their isolation issues in both Study One and Two, which seemed to suggest that an isolated lifestyle was particularly problematic for them), I tried to ask more detailed follow-up questions. However, apart from these obvious facial expressions, other interesting aspects of body language, which I could not observe might have led to miss some additional information from my participants. While online interviews tend to be time-saving and inexpensive, face-to-face ones are recommended (if appropriate and practical) as they may help to observe the whole interview environment and participants' body language, thus yielding higher quality data (King & Horrocks, 2010; Salmons, 2015).

Another limitation is connected to the fact that all the participants (N=24) in Studies One and Two were from mainland China. Their background may have given these PGT students a different overseas acculturation experience compared to that of other Chinese students (e.g., language used and lifestyles), which also undermines the study's representativeness. For instance, PGT students from other parts of China, such as Hong Kong and Macau, have more Westernised cultures (rather than the collectivist culture). This qualitative exploratory PhD study project was not intended to find generalisable answers to all Chinese students. However, it offered constructive suggestions for many future mainland Chinese international PGT students to have an improved acculturation experience and enjoy better psychological well-being in Scotland and/or other parts of the UK.

Given the limited time and financial resources available for this PhD research project, it would have been difficult to improve the representativeness of the sample. This shortcoming could be addressed by conducting further research with a larger sample that includes broader demographics. This would require more time and financial resources (e.g., to conduct the probability

sampling rather than the non-probability sampling [Gill, 2020; Given, 2008]), and would probably need to be carried out in cooperation with other academics. This study project can inform context-specific and culturally sensitive measures to improve the overseas PGT study experience of many mainland Chinese international PGT students in Scotland (and perhaps, other international PGT students in similar [Western] contexts). Future research could investigate other international PGT students in other contexts for comparison.

Future research in each of these areas of limitation could be illuminating. I intend to conduct these studies in the future (possibly in my post-doctorate career) and thus build on this PhD research project. By exploring further the acculturative lives of international PGT students, I intend to contribute more to academic knowledge and interventions in this field.

5.5 Reflections on the Research Process

Carrying out this PhD research project has been a life-transforming experience, as I faced many unexpected challenges along the way (e.g., gaining ethical approval for conducting Study Two during the pandemic). However, finally completing the research has taught me many positive lessons. For example, by completing Study Two during the COVID-19 pandemic, I gained valuable and rewarding research experience. I have managed to strike a balance between my personal life (e.g., attending many events and activities, such as group exercise) and intensive academic studies, which in turn contributed to a stable psychological condition in a stressful situation. This overseas experience has significantly contributed to my sense of resilience as I have become confident that I will be able to face similar challenges in the future. Furthermore, I have also learnt from my interview participants the importance of meaningful social connections for health and well-being during challenging situations. I thus aim to expand my social networks to establish a powerful support system for my peers and me.

Furthermore, the research process has helped me develop and improve my academic professionalism, as I have learnt how to manage my time more efficiently with a heavy workload. I

have also learnt how to communicate with participants effectively by showing respect and using a friendly attitude to ask questions, then listening to their stories carefully. I have also learnt how to use NVivo to organise and analyse qualitative data. Moreover, I have learnt how to conduct research independently and rigorously, and how to communicate with supervisors and other academics more effectively. I feel that I have grown and improved my expertise thanks to this research project, which gives me the confidence to conduct more relevant research in the future.

Most importantly, this PhD research project has provided me with a deeper understanding of Chinese international PGT students' lives in a Western society, which is a topic that I have been interested in since my Master's course at the University of Glasgow. I have always been eager to help those around me as I believe that (arguably) health and well-being are the most important needs of all people (Jackson, 2013; Sallis et al., 2021; Wang et al., 2020). During my stay in Scotland, I have found that many Chinese international students, including myself, often face significant challenges both in their studies and personal lives (e.g., isolation). As a result, many Chinese students tend to overlook the importance of a healthy lifestyle while overseas.

Many of the Chinese PGT students around me tend only to concentrate on their academic studies while ignoring that international education could bring about several other benefits, such as a deeper knowledge of Western culture (Brunette et al., 2011; Li & Zizzi, 2017; Yan & Cardinal, 2013a). These benefits could be obtained by seizing the opportunities offered by third spaces, including travelling in the UK and exercising with home students, which are only waiting to be explored during their acculturation journey.

Many unexpected findings from Studies One and Two have been inspiring, particularly those that have highlighted the largely positive role (e.g., helping students stay socially connected and obtain emotional support from others) that third spaces play in many Chinese international PGT students' psychological well-being during difficult times, as well as the positive lessons (e.g., gaining cultural competence through communication with others) students obtain from third space

participation. They have motivated me to conduct further research with curiosity and confidence, in an effort to address the study's implications and imitations. More relevant research is needed in future, as we intend to be more prepared for the post-pandemic world. All in all, (knowledge from) this PhD research project may not only positively contribute to many future Chinese and some other international PGT student groups' study experiences and third space participation, but also encourage other academics (and myself) to become interested in these invaluable but widely neglected research areas.

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University
of Glasgow

College of Social
Sciences

Study Title:

An Investigation of Chinese International PGT Students' 'Third Spaces' and Their Psychological Well-Being

Researcher details:

Researcher: Wenhao Wang (Ph.D. in Education)

Supervisors: Dr Dely Elliot: Dely.Elliot@glasgow.ac.uk; Dr Kate Reid: Kate.Reid@glasgow.ac.uk; Mr Mark Breslin: Mark.Breslin@glasgow.ac.uk

I am a PhD student from the School of Education, University of Glasgow. I am conducting a research study to explore Chinese international PGT (Postgraduate Taught) Master's students' studying and living experiences in Scotland, and how their experiences relate to health and well-being. I am especially eager to understand how Chinese international PGT students use appropriate strategies and what strategies have been proactively pursued outside academic life to achieve a better overseas study experience.

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me if there is anything that is not clear or if you would like more information prior to agreeing to take part. Take time to decide whether or not you wish to take part. If you agree to take part in my study, please also read carefully and sign the attached Consent Form (electronic signature acceptable). Please send the signed Consent Form to me by email. Thank you for reading this.

Purpose of study:

This study explores the study and living experiences of Chinese international PGT students who undertook a PGT programme in any disciplines at a Scottish Higher Education Institution (HEI) in 2018-2019. Research participation is intended to offer you an opportunity to reflect on what you learned from your overseas study experiences. The findings of this current PhD study aim to help future Chinese international PGT students in Scottish HEIs to achieve more successful and healthy overseas experiences, while enabling them to maximise their time in Scotland.

This study requires a maximum of twelve volunteer participants (over eighteen years old Chinese, i.e. Chinese nationality) who undertook a PGT Master's degree (any discipline) from the University of Glasgow in 2018-2019. (You could join the study if you have gone back to China after having completed one-year PGT programme in any School or any College from the University of Glasgow.) If you take part, you will be invited to share your stories about moving to study and living in Glasgow in an online video interview, i.e. Zoom. Specifically, the interview will firstly investigate your experiences of cross-cultural adaptation to the study and living environment in Glasgow, including the perceived benefits and challenges during the adaptation process. To facilitate the conversation, you will initially be asked to draw a simple line diagram, on a blank piece of paper, to indicate your adaptation experiences across one year of your PGT Master's degree study (You will also be asked to take a clear picture of the diagram you drew and to send the picture to me by email after the interview.) This diagram aims to stimulate recollection of your overseas experiences and to highlight any meaningful adaptation experiences. Detailed instructions for drawing will be given by email prior to the interview. The interview will also explore the adaptation strategies that you proactively pursued outside academic life. This interview is estimated to last a maximum of one hour, and your answers will be audio-recorded. You could choose to be interviewed in either Chinese or English, and your participation is entirely voluntary. This research is considered a low-risk study and no adverse circumstance is expected to result from your participation. However, if you do not want to continue the study at any time, you have the right to withdraw and all the existing data, which you have provided will be destroyed and not used as part of the research findings.

Will taking part in this study be kept confidential?

Please note that your personal data will be strictly safeguarded, e.g., your identity will be replaced by a pseudonym and your real identity will be known to me only. You will also be referred to by a pseudonym in this PhD thesis, and in any publication or conference papers arising from this research. The researcher will ensure that no one could use the information to trace back to any of the potential participants. Paper-based personal data will all be kept safe in a locked cabinet in my home (private student accommodation which has smartcard access control and CCTV) and the electronic data will be stored in the University of Glasgow's OneDrive, which is secure and recommended for storing personal and research data, or in my own computer which is accessible by password only. All electronic personal data will then be deleted permanently by using Eraser (data erasure software) and paper-based personal data will be shredded by using the paper shredder at the end of my PhD award date (01/10/2022). Anonymised research data from this study, on the other hand, will be retained for ten years after completion of the project in compliance with the University of Glasgow Code of Good Practice in Research. This is to enable publications based on this study's research findings.

Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm is uncovered. In such cases the University of Glasgow may be obliged to contact relevant statutory bodies/agencies.

What will happen to the recorded interviews?

The interview recordings will be deposited safely in the University of Glasgow's OneDrive network. All the research data collected from you will only be accessible to me and my supervisors (and the examiners, only if needed); none of the data from this study will be shared with others. The research data, however, may be re-used in the future for academic research by personal request from the researcher.

What will happen to the results of this research?

The results of this research study will be presented as part of my PhD thesis. The results may also be presented at academic conferences or submitted as a journal article. I could provide a written summary of findings to all participants if requested.

Who has reviewed the study?

The University of Glasgow College of Social Science Research Ethics Committee have reviewed and ethically approved this study.

Contact for Further Information:

If you are interested in taking part in this research, please contact me by email so that we could arrange a suitable time for conducting Zoom interviews. If you have any further questions about this study, please feel free to contact me directly:

Email Address: XXXXXXXX@student.gla.ac.uk

Anyone with concerns regarding the conduct of the project should contact the College of Social Sciences Ethics Officer, Dr Muir Houston, email: Muir.Houston@glasgow.ac.uk.

Many thanks for reading this!

Appendix B: Consent Form for Study One

University
of Glasgow

College of Social
Sciences

Title of Project: An Investigation of Chinese International PGT Students' 'Third Spaces' and Their Psychological Well-Being

Researcher: Wenhao Wang   **Supervisors:** Dr Dely Elliot; Dr Kate Reid; Mr Mark Breslin

I confirm that I have read and understood the Plain Language Statement for the above study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

I consent to creating a simple line diagram (with instructions to be received from the researcher) to assist my reflection on my adaptation experiences. I will be asked to take a clear picture of the diagram and send it to the researcher via email after the interview.

I consent to video interviews being carried out via Zoom. I consent to interviews being audio-recorded.

I acknowledge that participants will be referred to by pseudonym.

I acknowledge that:

- All names and other material likely to identify individuals will be anonymised.
- My material will be treated as confidential and kept in secure storage at all times.
- Personal data from this research will be destroyed once the project is complete (by 01/10/2022).
- I agree to waive my copyright to any data collected as part of this project.
3. The anonymised research data from this study will be retained for 10 years after completion of the project according to the University of Glasgow Code of Good Practice in Research.

I agree to take part in the above study.

☐

Name of Participant …………………………………………Signature ………………………………………………………..

Date ………………………………… (electronic signature acceptable)

Name of Researcher: .Wenhao Wang_____Signature: 王文昊

Date 11/10/2019

Appendix C: Interview Guide for Study One

Interview Guide:

Introduction: Thank you for participating in my research study. This interview explores the studying and living experiences you had as a Chinese international PGT student who undertook a PGT programme at a Scottish Higher Education Institution. Research participation is intended to offer you an opportunity to reflect on what you learned from your overseas study experiences. The findings of this current PhD study aim to help future Chinese international PGT students in Scottish Higher Education Institutions to achieve more successful and healthy overseas experiences, while enabling them to maximise their time in Scotland. Your participation will contribute to this. Please also note that your personal information is strictly protected in this study, and if you do not want to continue the interview at any time, you have the right to withdraw.

Before the interview begins, could I just confirm with you that you have read and understood all the information on the Plain Language Statement and Consent Form, that you have provided your electronic signature and sent the signed Consent Form to me by email. Please also confirm that you have received the instruction for drawing a diagram, and that you agree this interview to be audio-recorded.

Do you have any questions before we begin the interview?

Now may you please choose a language for our interview, either Chinese or English.

Demographic Information:

-Can I ask your name please?

-Age?

-Where are you come from in China?

-What is the highest degree you have? What subject is it in?

Main Questions:

For Research Question 1: What are the main acculturation experiences of Chinese international PGT students at a Scottish HEI?

-Can you tell me why you decided to study away from home, in the UK? (rationale, motivations for this decision)

-What made you choose to study xxx subject in the University of Glasgow?

-This research is interested in how students who spend time studying away from their home country, as you did, adjust and adapt during that time of change. Could you tell me in your own words about your own experiences of adjustment and adaptation to a new study and living environment in Scotland during that time?

(Ask participants to draw a line diagram of cross-cultural adaptation across the timeline)

-Can you describe what is going on in this diagram please – explain it in your own words please.

-Can you highlight any key moments or experiences which influenced your adaptation to a new study and living environment in Scotland during this time (as indicated on the diagram) – why were they influential?

-On a scale of 1 to 10, from easy to difficult, please tell me how did you feel about adaptation to a new study and living environment in Scotland.

For Research Question 2: What is the role of the third space in Chinese international PGT students' psychological well-being at a Scottish HEI?

-This research study is also interested in how you spend your time when you were not study, work or not at home. Could you think of activities which you enjoyed spending time to have a break from study, work, and home?

-Why were these activities important?

-How did they make you feel?/ how did they affect your adjustment and adaptation to a new study and living environment?

Closing questions:

-Is there anything else you want to add? Do you have any other questions about this study?

Appendix D: Instructions for Diagrammatic Elicitation Task

Drawing Instructions:

In order to help you discussing your experiences of adapting to studying and life in Scotland, we would be keen for you to draw an XY line diagram which captures your experiences over the time you have been studying in Scotland. There is no right or wrong way to draw this diagram. We simply want you to think about the time when you arrived in Scotland and reflect on how well you feel you adapted and adjusted to a new study and living life here.

- The main aims of using this diagram are: a) to stimulate your recollection of your experiences during your one-year of studying and living in Scotland as a PGT student; and b) highlight your personal meaningful adaptation experiences. This task typically takes only three to five minutes to complete.

- The X-axis could represent the timeline when you studied in the PGT programme, while the Y-axis signals your perceived changes of adaptation.

- Please highlight by drawing and labelling a dot on the line to signify any critical events (e.g., receiving support from university language learning centre or the perceived language communication barriers) that happened during this period that significantly influenced your adaptation in either a positive or negative way.

- Please draw the diagram on a clean piece of paper. After the interview, please also take a

  clear picture of the diagram and send the picture to me by email. Please note that the

  picture will be uploaded and stored safely in the University of Glasgow's OneDrive network.

- **A possible example of the diagrammatic elicitation task** （There is no right or wrong way to

  draw this diagram. You could draw the diagram according to your own preference!）**:**

Y=Changes to adaptation

(academic writing difficulty)

(start taking language courses in university)

(English speaking barrier)

09,2018-01,2019　　01,2019-05,2019　　05,2019-09,2019

X=period of time as a PGT student in Scotland
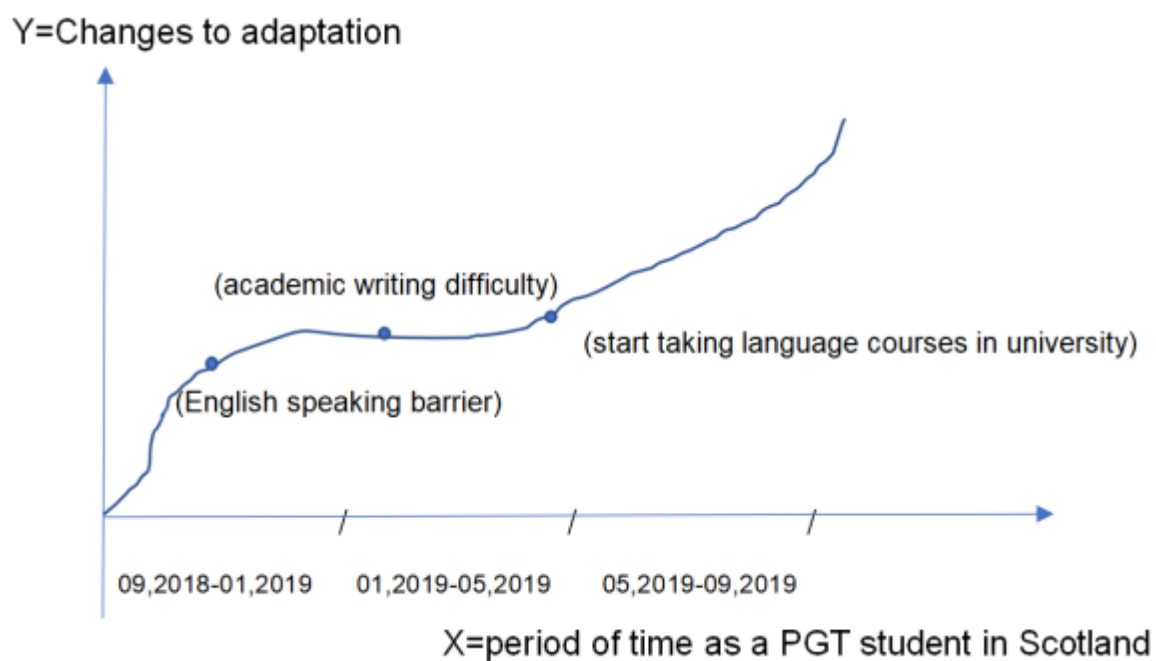
Appendix E: Screenshots of NVivo Data for Study One

The following screenshots of NVivo data for Study One will demonstrate how the themes

evolved, following the six steps of thematic analysis recommended by Braun and Clarke (2012).

Steps 1 and 2: The first two steps helped me to become familiar with the interview data by

reading over the transcripts and to generate initial nodes/codes for each transcript that were

relevant to the research questions.

Steps 3 and 4: In step 3, I started to generate themes. In step 4, I reviewed these themes in relation to the entire dataset and revised existing ones. For example, the 'Positive Sides of Challenges in Acculturation' (relevant nodes: 'benefits of encountering challenges in acculturation' and 'successful experiences of overcoming acculturation challenges'), which were part of participants' positive acculturation journey, were renamed 'Resilience and Growth in Acculturation'. This was done to indicate how acculturation challenges were interpreted as 'eustress' by some (five of 12) participants (Jackson, 2013; Selye, 1974). These challenges helped these participants develop their strengths and facilitated their acculturation, contributing to better health and well-being and a more enjoyable and meaningful overseas experience (see sub-theme 2.1, Study One).

Steps 5 and 6: Finally, I clearly defined the themes that provide a compelling 'story' about

the entire dataset. These were the final steps in the thematic analysis. For example, 'Resilience and

Growth in Acculturation (sub-theme 2.1)', 'Crucial Factors Facilitating Acculturation (sub-theme 2.2)'

and 'Life Transformation in Scotland (sub-theme 2.3)' were categorised as sub-themes under the

main theme 'Growth, Development and Life transformation (Theme 2 of Study One)' to indicate the

positive aspects of Chinese PGT students' acculturation process. These aspects were significantly

different from the 'Main Academic and Non-Academic Challenges (Theme 1 of Study One)' faced

during acculturation.

Appendix F: Study One Participants' Diagrams

Diagram Produced by Shangguan:

(first dot: pre-sessional courses; second dot: treatment in the hospital; third dot: end of

postgraduate taught [courses]; fourth dot: travelled in Europe)
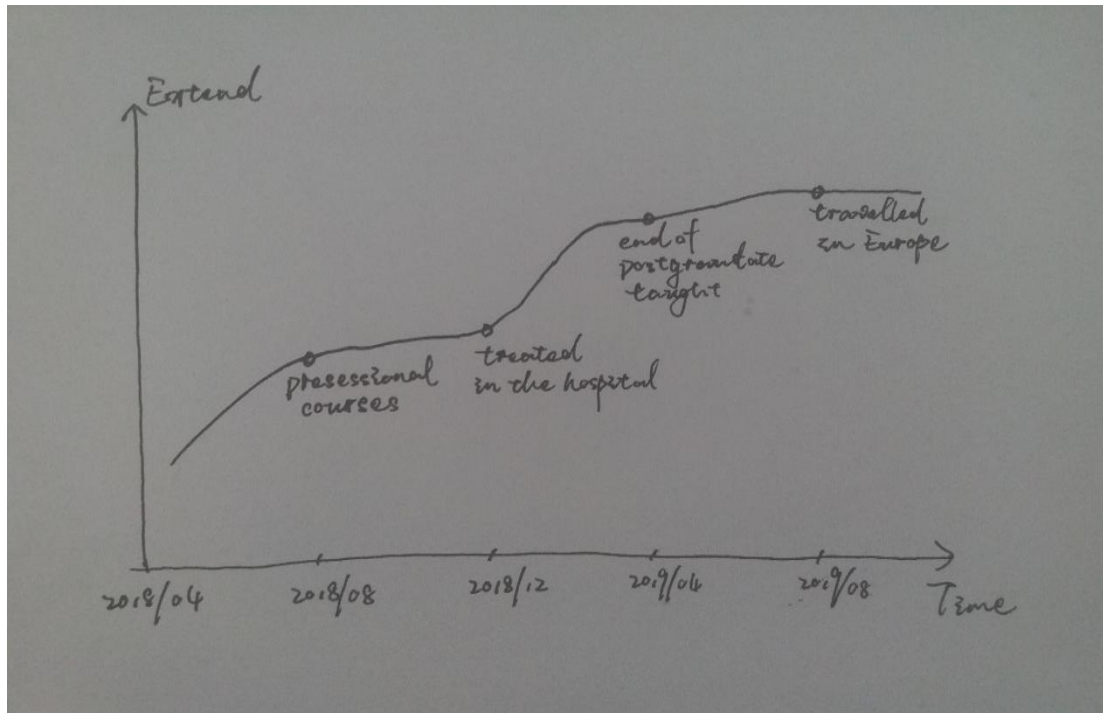
Diagram Produced by Xiahou:

(first dot: have some [study] experiences in UK; second dot: accent of lectures; third dot: overcome

the challenges)

Y = changes to Aadaption

07.2018   12.2018   9.2019   X = period of time as
                                                                a PGT student in Scotlan

① have some experiences in UK
①~② accent of lecturers
② overcome the challenges
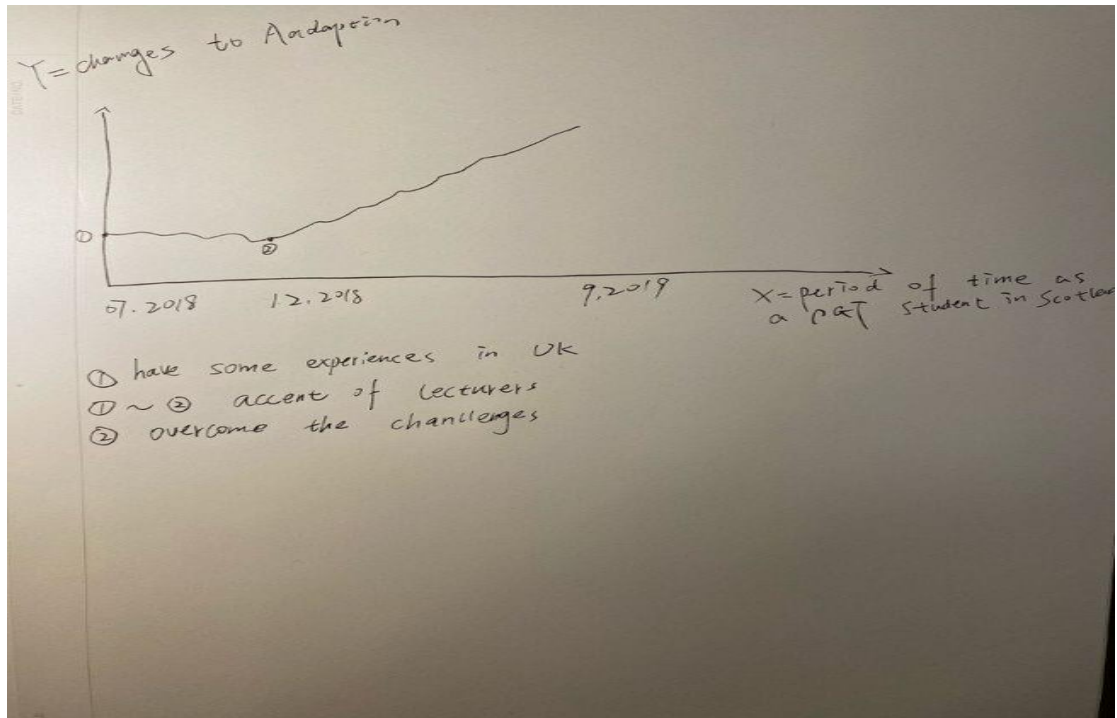
Diagram Produced by Sima:

(first dot: English language barrier; second dot: adapt the layout [structure] of UK's lessons; third dot: the improvement of life quality; fourth dot: tired of UK life and missing China and family; fifth dot: worry about the asymmetric information in searching jobs [unable to effectively find information in relation to Chinese employment market during stay in Scotland])

y = changes to adaptation

the improvement of life quality

worry about the asymmetric information in searching jobs

adapt the layout of UK's lessons

tired of UK life and miss China and family

English Language barrier

2019.6.30 to 2019.9.17

2018.6.14 to 2018.9.17

2018.9.17 to 2018.12.3

2018.12.5 to 2019.3.1

2019.3.1 to 2019.6.30

x = period of time as a PGT student in Scotland
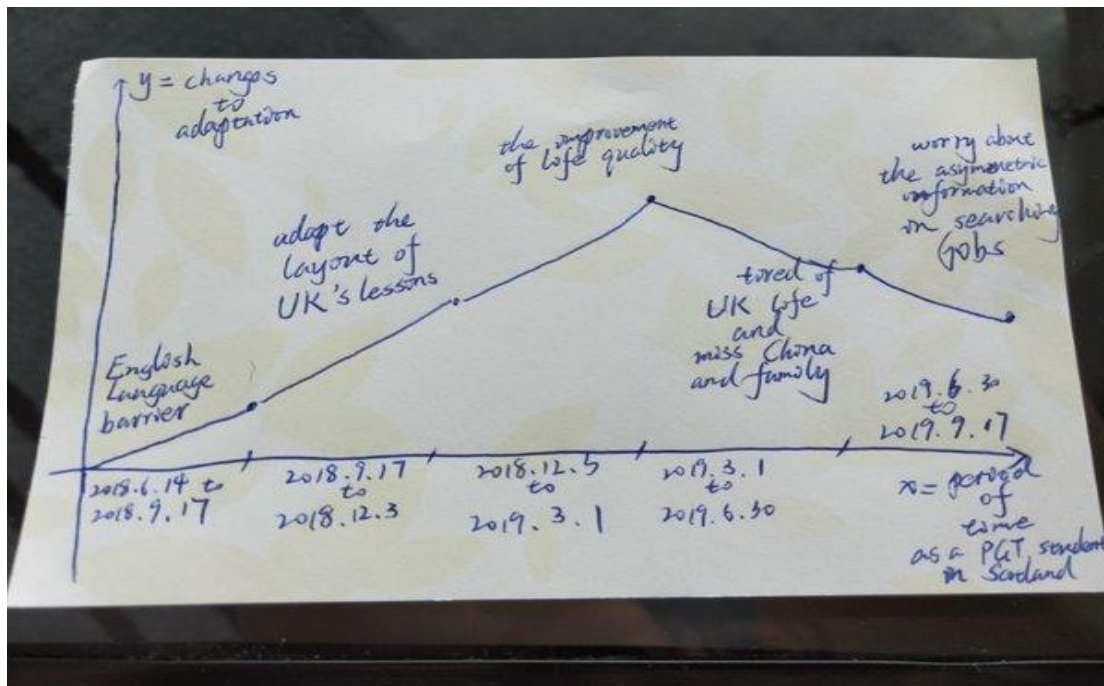
Diagram Produced by Wenren:

(first dot: learning enthusiasm; second dot: volume of assignment; third dot: special climate

[weather]; fourth dot: recreational activities; fifth dot: new friends; sixth dot: self-debate

[questioning herself]; seventh dot: emotional control [make peace with herself])
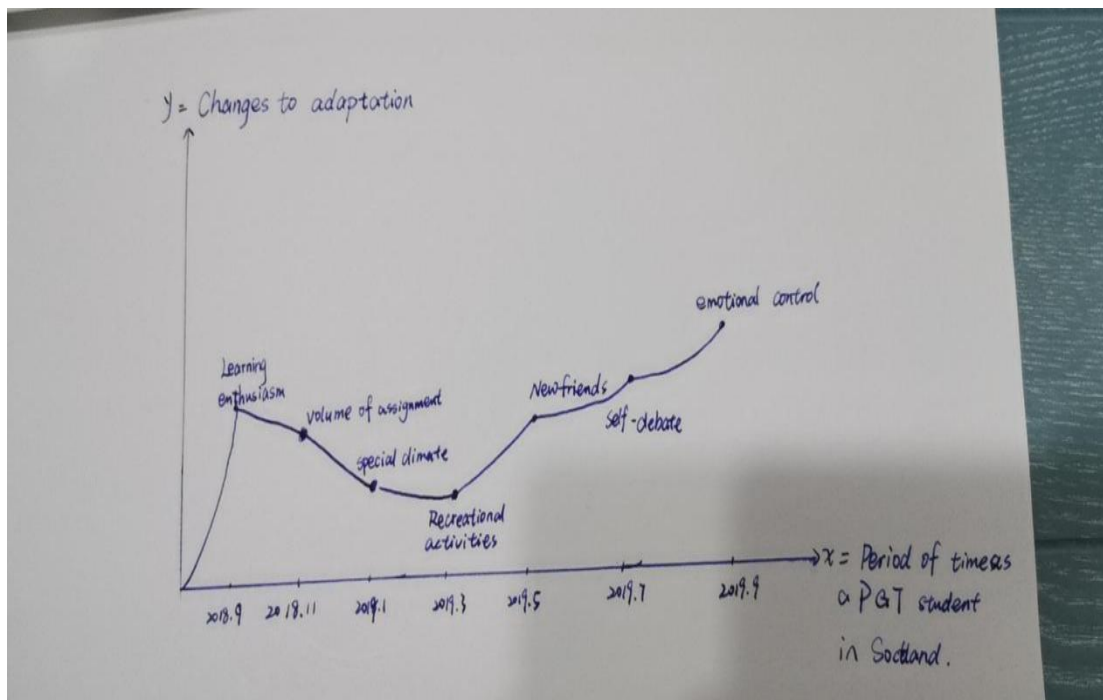
Diagram Produced by Nangong:

(first dot: English speaking barrier; second dot: course difficulty; third dot: writing difficulty)
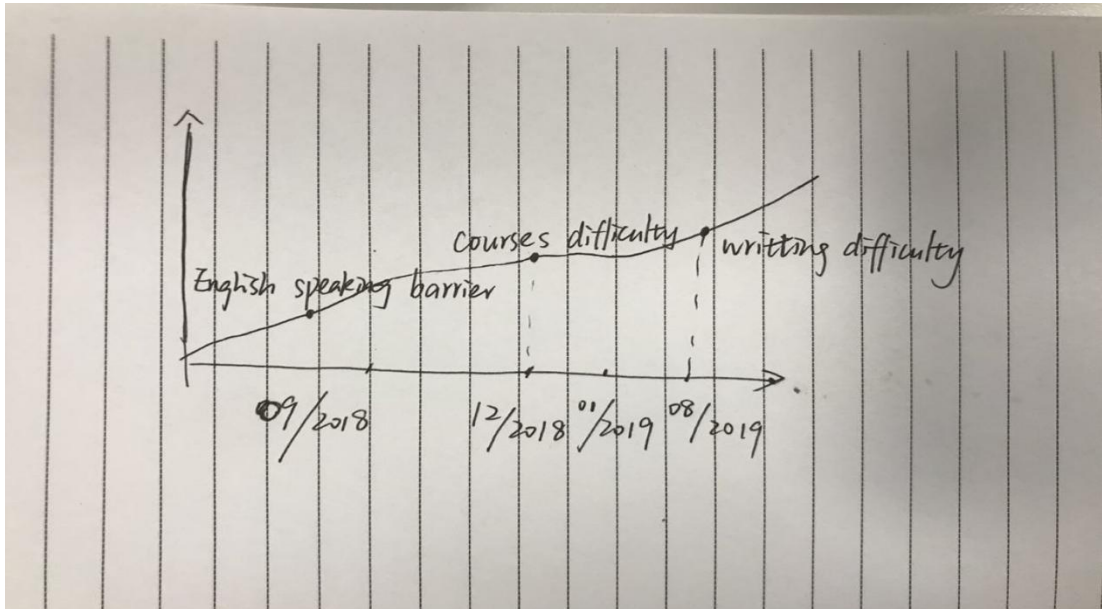
Diagram Produced by Ximen:

(first dot: first course works and team projects; second dot: holiday; third dot: second-semester start; fourth dot: do all courses in the lab with friends; fifth dot: prepare for the exam; sixth dot: exam end; seventh dot: work for summer project)
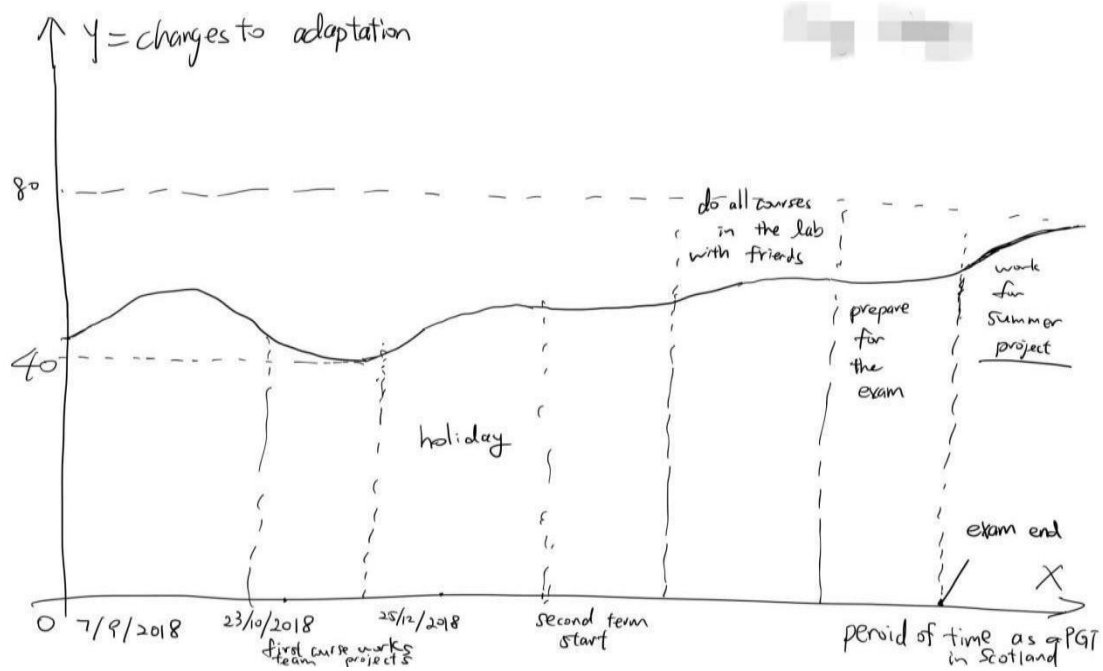
Diagram Produced by Liangqiu:

(first dot: new life in Glasgow: difficulties with accent and Master's courses; second dot: examination difficulty; third dot: second semester; fourth dot: all the courses finished; fifth dot: finished dissertation)
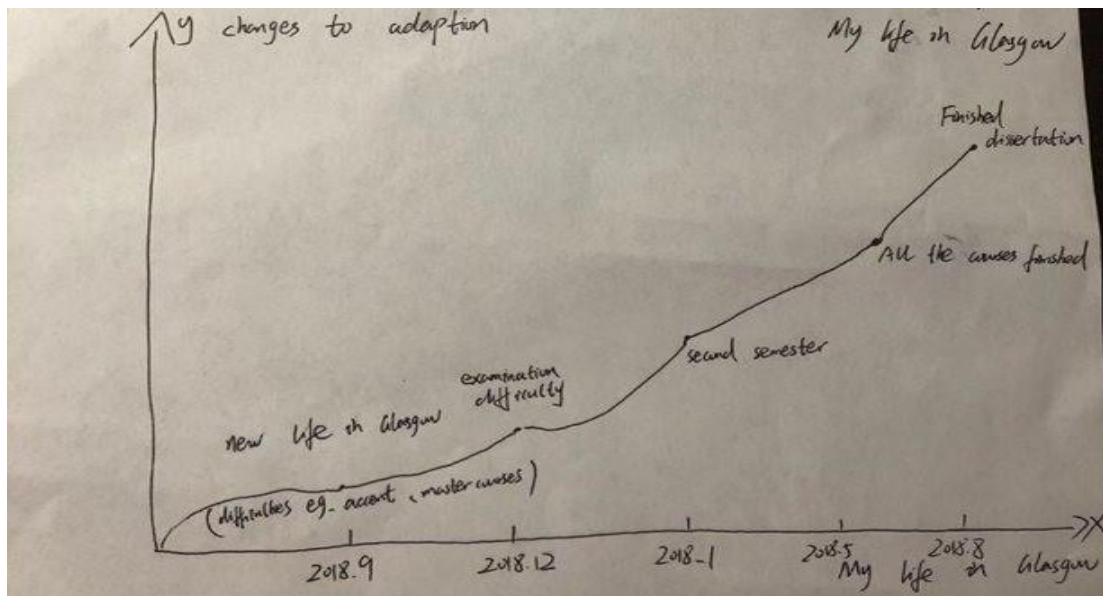
Diagram Produced by Zhuge:

(see Section 3 of Chapter 3 for a detailed discussion)
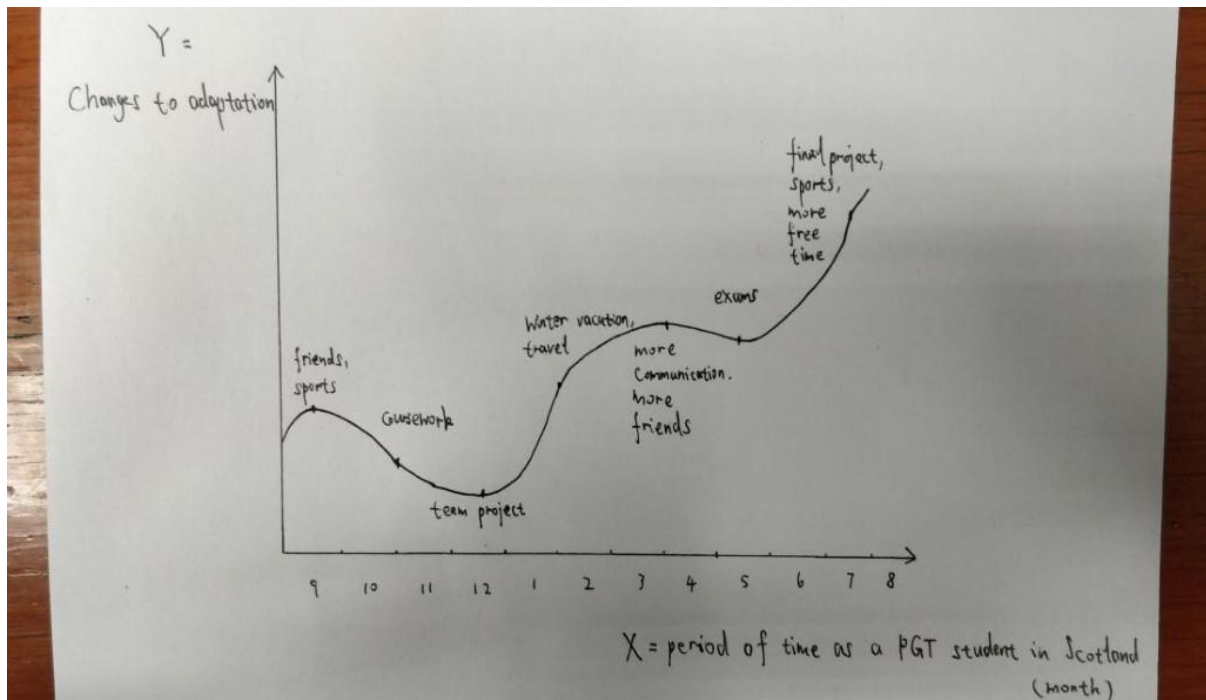
Diagram Produced by Ziche:

(fist dot: English listening and academic [study] barrier; second dot: academic exam difficulty; third dot: Enjoy the Christmas holiday; fourth dot: heavy pressure in exams; fifth dot: focus mainly on dissertation)
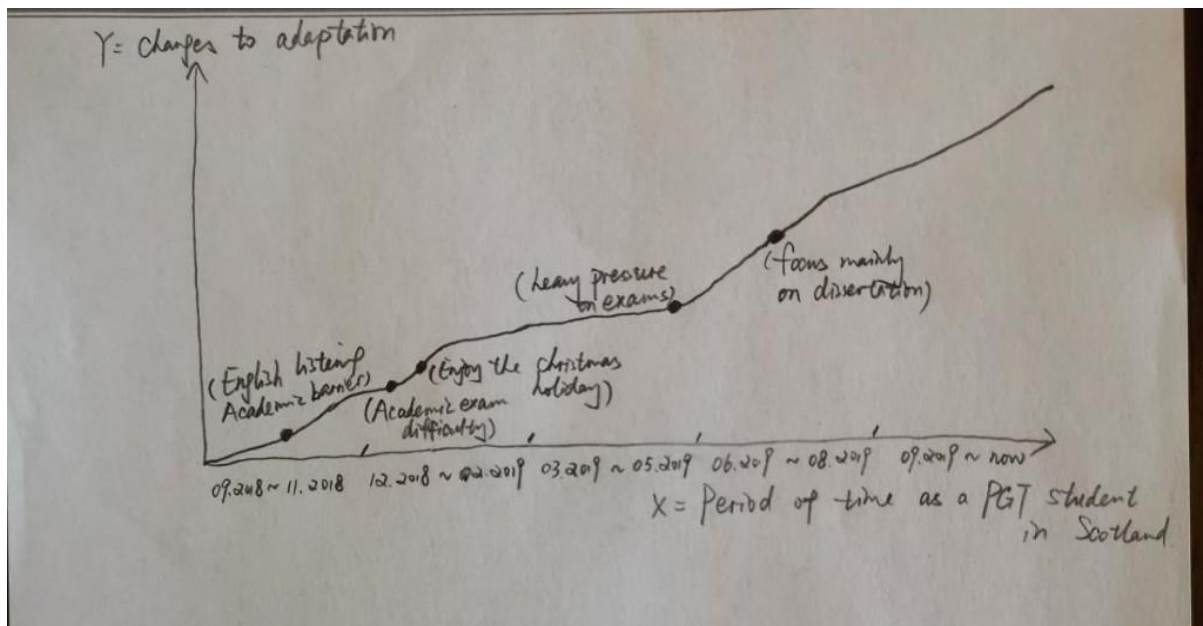
Diagram Produced by Zuoqu:

(In her diagram, the X-axis represents the timeline of her stay in Scotland, while the Y-axis shows perceived changes in acculturation. The first dot indicates "improvement in academic writing," the second dot is for the "first lab report" and the last dot signals the "final experiment and report.")
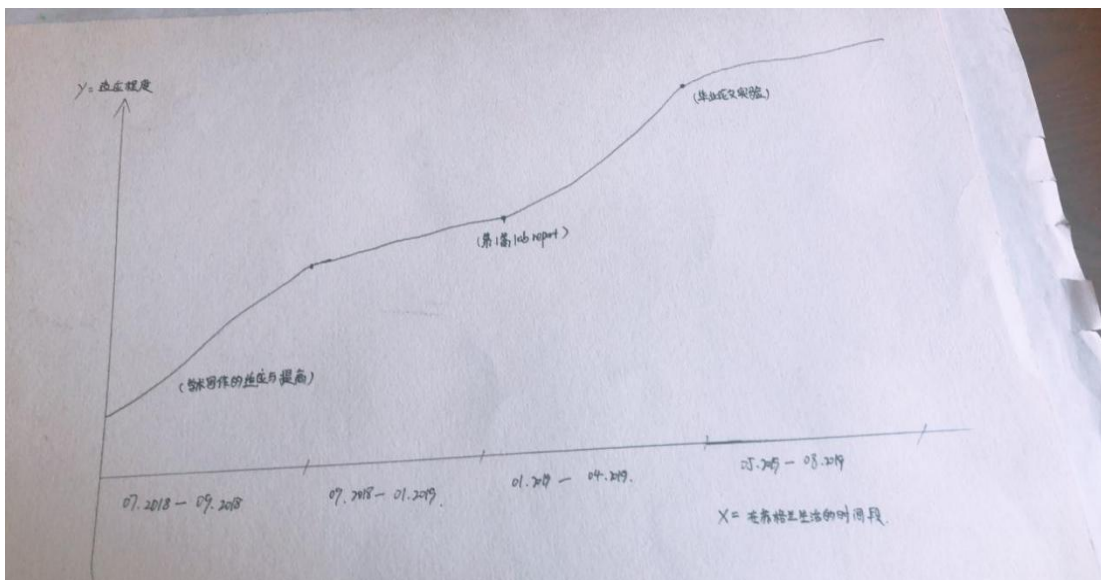
Diagram Produced by Baili:

(first dot: difficulties in understanding lectures; second dot: limited vocabulary in looking up

[reading] literatures; third dot: experiencing local culture in Christmas Break)
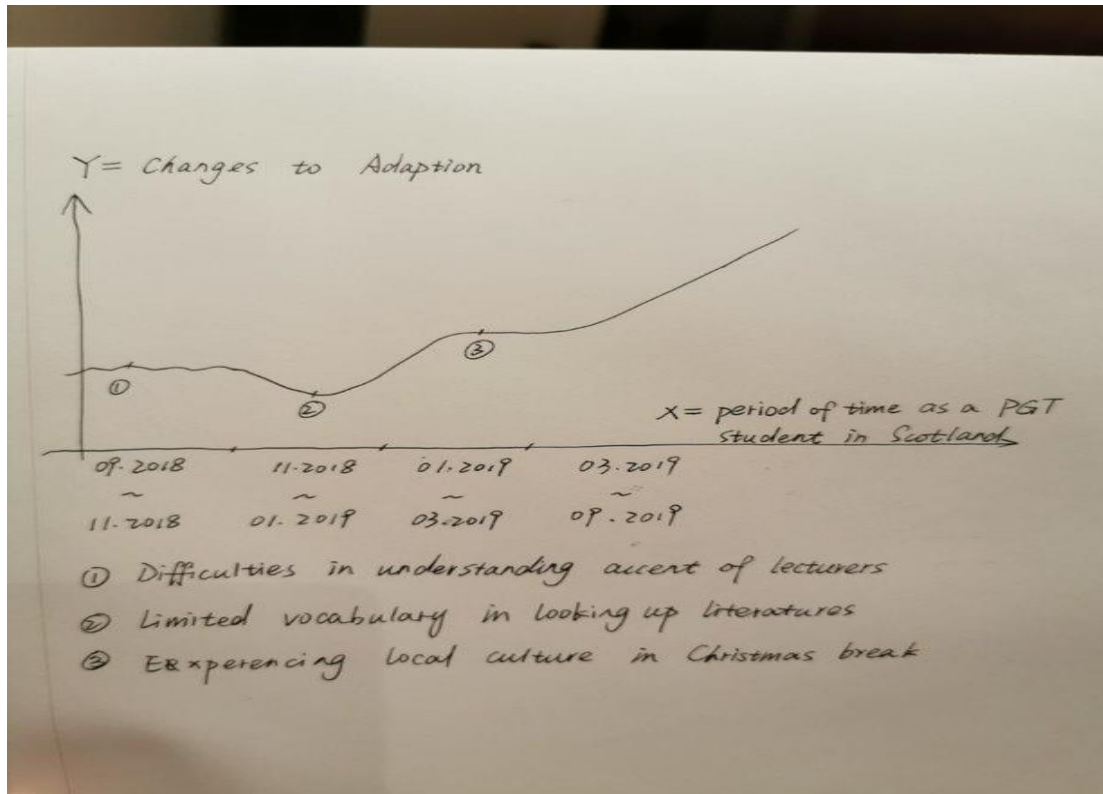
Diagram Produced by Gongyang:

(first dot: Scottish accent barrier; second dot: first exam period; third dot: difficult presentation

[task]; fourth: start dissertation; fifth dot: finish dissertation)
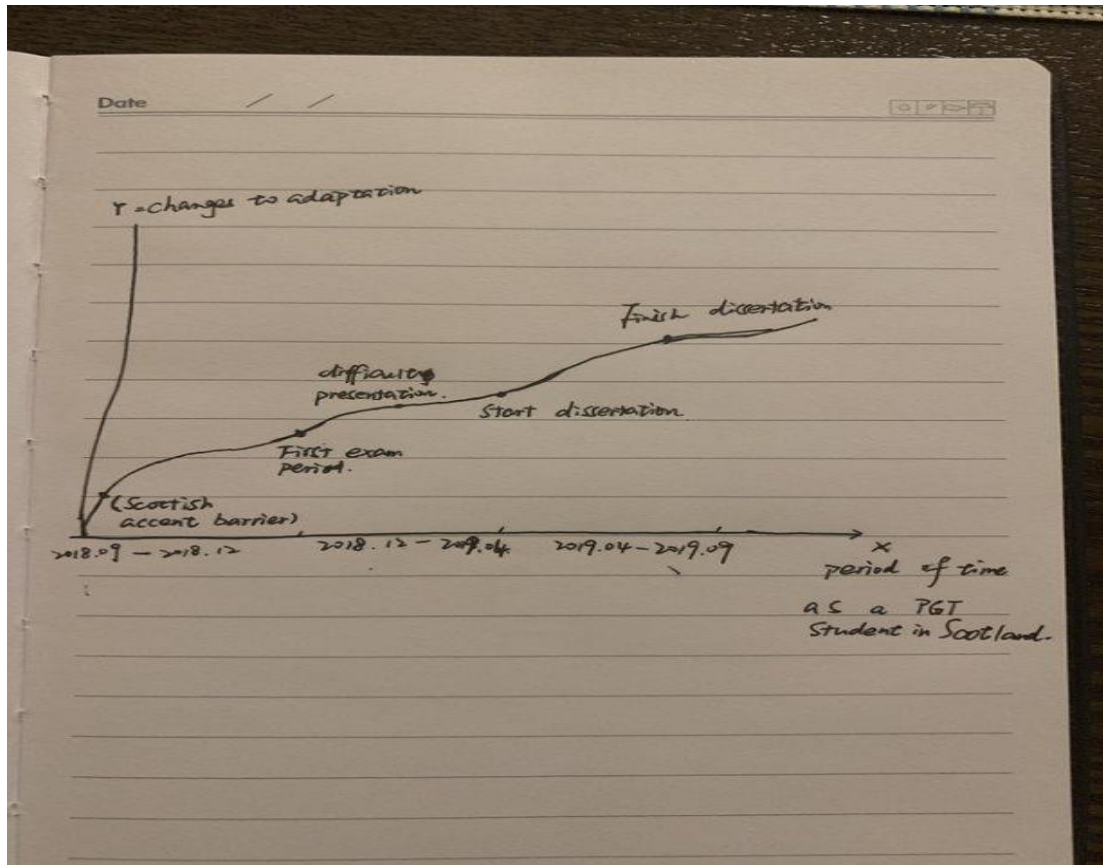
University of Glasgow

College of Social Sciences

Study Title:

An Investigation of Chinese International Postgraduate Students' 'Third Spaces' and Their Psychological Well-Being (Study Two)

Researcher details:

Researcher: Wenhao Wang (Ph.D. in Education)

Supervisors: Dr Dely Elliot: Dely.Elliot@glasgow.ac.uk; Dr Kate Reid: Kate.Reid@glasgow.ac.uk; Mr Mark Breslin: Mark.Breslin@glasgow.ac.uk

I am a PhD student from the School of Education, University of Glasgow. I am conducting a study to explore Chinese international postgraduate (including Master's and PhD) students' study, living and exercise experiences during the COVID-19 pandemic in Scotland (before students completed their tasks of studies in 2019-2020 academic year and moved back to China), and how their experiences relate to their health and well-being, especially their psychological well-being. I am especially eager to understand how the disruption to exercise resulting from social distancing measures (including lockdown) was experienced and adapted to by Chinese international postgraduate students in Scotland, as well as how exercise affected the psychological well-being of these students during this challenging time.

You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me if there is anything that is not clear or if you would like more information prior to agreeing to take part. Take some time to decide whether or not you wish to take part. If you agree to take part in my study, please also read carefully and sign the attached Consent Form (electronic signature acceptable). Please send the signed Consent Form to me by email. Thank you for reading this.

Purpose of study:

This study explores the exercise experiences with regards to health and well-being of Chinese international postgraduate students in any discipline at a Scottish Higher Education Institution (HEI) in 2019-2020. Research participation is intended to offer you a chance to reflect on what you have learned from your overseas study and living experiences during this especially challenging time, the COVID-19 pandemic (before you completed your tasks of studies in 2019-2020 academic year and

moved back to China). Participating in the study can also help you reach a better understanding of the importance of exercise activities for your own study, work, health and well-being. The findings of this study aim to help future Chinese international postgraduate students in Scottish HEIs to embrace an active lifestyle and enjoy healthier and more successful overseas experiences, while enabling these students to maximise their time in Scotland.

This study requires a maximum of 24 volunteer participants (who must be over 18 years old and of Chinese, [i.e. Chinese nationals]), who undertook or are undertaking a postgraduate degree in any School or any College of the University of Glasgow in 2019-2020. You can join the study if you were/are a member of a university's club, gym or group where exercise takes place, and you have participated in exercise activities regularly outside the university, such as in your accommodation or in the park (around 150 minutes a week), during the COVID-19 outbreak and lockdown period in Scotland (before you completed your tasks of studies in 2019-2020 academic year and moved back to China). If you take part, you will be invited to share your stories about participating in exercise activities during the COVID-19 pandemic in Scotland in an online video interview, e.g., through Zoom. The interview will investigate the impact of the COVID-19 outbreak and lockdown on your personal study and life, your exercise participation behaviour, and your health and well-being conditions in Scotland, and it will also explore the impact of exercise activities on your personal health and well-being, especially on your psychological well-being.

This interview is estimated to last a maximum of one hour, and your answers will be audio-recorded. You can choose to be interviewed in either Chinese or English, and your participation is entirely voluntary. This research is considered a low-risk study and no adverse circumstance is expected to result from your participation. However, if you do not want to continue the study at any time, you have the right to withdraw and all the existing data, which you have provided will be destroyed and not used as part of the research findings.

However, should you become distressed as a result of talking about your experiences of studying and living in Scotland during COVID-19 outbreak and lockdown, then I will first offer opportunities for you to take a break as well as to terminate your participation, if you wish. If you are feeling extreme discomfort and distress, then I will call for help from my supervisor, Dr Dely Elliot and/or ask for support from the mental health specialist as in below:

Contact of Counselling and Psychological Services (University of Glasgow)

Telephone: +44 (0) 141 330 4528 Email: studentcounselling@glasgow.ac.uk

Contact of Medical Treatment in China (including Counselling and Psychological Services)

Telephone: 120

Will taking part in this study be kept confidential?

Please note that your personal data will be strictly safeguarded, e.g., your identity will be replaced by a pseudonym and your real identity will be known to me only. You will also be referred to by a pseudonym in this PhD thesis, and in any publication or conference papers arising from this research.

The researcher will ensure that no one can use the information to trace back to any of the potential participants. Paper-based personal data will all be kept safe in a locked cabinet in my home (private student accommodation which has smartcard access control and CCTV) and the electronic data will be stored in the University of Glasgow's OneDrive, which is secure and recommended for storing personal and research data, or in my own computer which is accessible by password only. All electronic personal data will then be deleted permanently by using Eraser (data erasure software) and paper-based personal data will be shredded by using the paper shredder at the end of my anticipated PhD award date (01/10/2022). Anonymised research data from this study, on the other hand, will be retained for ten years after completion of the project in compliance with the University of Glasgow Code of Good Practice in Research. This is to enable publications based on this study's research findings.

Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm is uncovered. In such cases, the University of Glasgow may be obliged to contact relevant statutory bodies/agencies. Please also note that confidentiality may also be impossible to guarantee; for example due to size of sample, particular locations etc.

What will happen to the recorded interviews?

The interview recordings will be deposited safely in the University of Glasgow's OneDrive network. All the research data collected from you will only be accessible to me and my supervisors (and the examiners, only if needed); none of the data from this study will be shared with others. The research data, however, may be re-used in the future for academic research by personal request from the researcher.

What will happen to the results of this research?

The results of this research study will be presented as part of my PhD thesis. The results may also be presented at academic conferences or submitted as a journal article. I can provide a written summary of findings to all participants if requested.

Who has reviewed the study?

The University of Glasgow College of Social Science Research Ethics Committee have considered and approved this study.

Contact for Further Information:

If you are interested in taking part in this research, please contact me by email so that we can arrange a suitable time for conducting Zoom interviews. If you have any further questions about this study, please feel free to contact me directly:

Email Address: XXXXXXXX@student.gla.ac.uk

To pursue any complaint about the conduct of the research: contact the College of Social Sciences Ethics Officer, Dr Muir Houston, email: Muir.Houston@glasgow.ac.uk

Many thanks for reading this!

University of Glasgow

College of Social Sciences

Title of Project: An Investigation of Chinese International Postgraduate Students' 'Third Spaces' and Their Psychological Well-Being (Study Two)

Name of Researcher: Wenhao Wang   **Name of Supervisors:** Dr Dely Elliot; Dr Kate Reid; Mr Mark Breslin

I confirm that I have read and understood the Plain Language Statement for the above study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

I consent to video interviews being carried out via Zoom.

I consent to interviews being audio-recorded.

I acknowledge that participants will be referred to by pseudonym.

I acknowledge that:

- All names and other material likely to identify individuals will be anonymised.
- My material will be treated as confidential and kept in secure storage at all times.
- Personal data from this research will be destroyed once the project is complete (by 01/10/2022).
- I agree to waive my copyright to any data collected as part of this project.
- The anonymised research data from this study will be retained for 10 years after completion of the project according to the University of Glasgow Code of Good Practice in Research.

The research data may also be re-used in the future for academic research and for print or online publications (as the journal article or conference paper), and will be available from the researcher only by personal request.

I agree to take part in this research study.

☐

Name of Participant: …………………………………Signature: …………………………………………………..

Date: ……………………………… (electronic signature acceptable)

Name of Researcher: <u>Wenhao Wang</u>   Signature: <u>王文昊</u>

Date: <u>21/07/2020</u>

Appendix I: Interview Guide for Study Two

Interview Guide:

Introduction: Thank you for participating in my research study. This PhD project is divided into two studies, and this interview is for Study Two. This study explores exercise participation experiences of Chinese international PGT students at a Scottish Higher Education institution with regard to their health and well-being during the COVID-19 pandemic period. The research participation process will offer an excellent opportunity to encourage you to reflect on what you been through and what you have learned from your overseas study and living experiences during an especially challenging time: the COVID-19 pandemic in Scotland. Moreover, participating in this study can help you gain a better understanding of the role of exercise activities in your own study, work, health and well-being. The findings of the current study, which uses students from the University of Glasgow as its sample, may be used to help future Chinese international PGT students in Scottish Higher Education Institutions embrace an active lifestyle and enjoy healthier and more successful overseas experiences, which would enable them to make the most of their time in Scotland. Your participation will contribute to this. Please also note that your personal information is strictly protected in this study, and if you do not want to continue the interview at any time, you have the right to withdraw.

Before the interview begins, can I just confirm that you have read and understood all the information on the Plain Language Statement and Consent Form, and that you have provided your electronic signature and sent the signed Consent Form to me by email? Please also confirm that you agree this interview being audio-recorded.

Do you have any questions before we begin the interview?

Now may you please choose a language for our interview, either Chinese or English.

Demographic Information:

-May I ask your name, please?

-What is your age?

-Where do you come from in China?

-What is your degree/subject and year of study?

Main questions:

For Research Question 1: How has the COVID-19 pandemic and associated social distancing measures affected Chinese international PGT students' psychological well-being in Scotland?

-Please tell me about your general impression of the COVID-19 lockdown. How has your impression of the COVID-19 lockdown changed over time, if at all?

-Did you stay in Scotland during the COVID-19 outbreak and lockdown before you completed the tasks for your studies [in the 2019-2020 academic year] and moved back to China? Where are you now? When did you move back to China?

-What did your life look like during COVID-19 outbreak and lockdown in Scotland?

-How did this outbreak and lockdown influence your health and well-being in Scotland, if at all? How did this outbreak and lockdown influence your mental health and well-being in Scotland?

-How did the outbreak and lockdown change your exercise patterns in Scotland, if at all?

-How did you reintroduce what you had lost from your previous formal exercise environment in Scotland? (e.g., How did you stay connected to your exercise peers during the COVID-19 outbreak and lockdown in Scotland, if at all?)

For Research Question 2: How did exercise participation impact the psychological well-being of Chinese international PGT students during the COVID-19 pandemic in Scotland?

-Why was exercise important to you before/during the COVID-19 outbreak and lockdown period in Scotland?

-How did exercise participation influence your psychological well-being before/during the COVID-19 outbreak and lockdown period in Scotland?

Closing questions:

-Is there anything else you want to add? Do you have any other questions about this study?

Appendix J: Screenshots of NVivo Data for Study Two

The following screenshots of NVivo data for Study Two will demonstrate how the themes

evolved, following the six steps of thematic analysis recommended by Braun and Clarke (2012).

Steps 1 and 2: The first two steps helped me to become familiar with the interview data by

reading over the transcripts and to generate initial nodes/codes for each transcript that were

relevant to the research questions.

Steps 3 and 4: In step 3, I started to generate themes. In step 4, I reviewed these themes in relation to the entire dataset and revised existing ones. For example, 'Oppressive Space and Limited Entertainment' (relevant nodes: 'limited interaction and entertainment' and 'living alone in student accommodation') was initially created as a sub-theme of Theme 3 'Interrupted Normal Life' to indicate an unexpected period of isolated and stressful life during the COVID-19 pandemic. It was then categorised as a sub-theme under Main Theme 1: 'A Shocking Outbreak', thus indicating part of the significantly negative impact of the pandemic on (10 out of 12) participants' overseas journey.

Steps 5 and 6: Finally, I clearly defined the themes that provide a compelling 'story' about the entire dataset; these were the final steps in the thematic analysis. For example, the sub-theme 'Oppressive Space and Limited Entertainment' was renamed 'Lockdown and Locked Up' (see sub-theme 1.3, Study Two) under the main theme 'Unprecedented International Student Life (renamed Main Theme 1)' to represent the unforeseen experience of isolation and the associated poor mental health as the key challenges for Chinese PGT students during the pandemic.