An exploration of Chinese Doctoral Students' Motivations and Expectations of Studying in the UK

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Jianqi Liu

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Dedication

I hereby declare that the work presented in this thesis is entirely my original work, except explicit attribution is made. None of this thesis has been previously submitted for any other award.

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Abstract

This qualitative research study delves into the perceived impact of UK doctoral programmes on Chinese doctoral students (CDS), aiming to elucidate their motivations, experiences, and expectations throughout their academic journey. Focused on understanding the academic experience and professional development of CDS, the research investigates the reasons behind their decision-making and the influencing factors on their behaviour. At the same time, the push and pull theoretical framework offers this research a valuable lens through which to examine the complex dynamics of migration. Through a qualitative research methodology, including semi-structured interviews and focus groups, firsthand experiences and perceptions of CDS studying abroad in the UK are collected and analysed. The study explores various dimensions, including motivations for studying in the UK, perceptions of learning and teaching experiences, expectations regarding the impact on future academic careers, and motivations for returning to China post-graduation.

The key findings of this study are threefold: Firstly, there are a number of reasons why the respondents selected the UK as their preferred destination for further study. These included: the quality of education, career prospects, economic prosperity, their own interests, family pressure, peer influence and policy-related factors. Secondly, regarding to teaching and learning experience in the UK, CDS generally exhibit a positive outlook on the learning environment in the UK, acknowledging the emphasis on critical thinking, independent study, and research skills. Thirdly, despite the allure of opportunities and experiences abroad, a significant proportion of CDS harbour a deep-rooted commitment to contributing to the development and advancement of their home country. They perceive their education overseas not only as a means to enhance their individual skills and knowledge but also as a means to contribute to China's socio-economic progress and global standing.

Findings from this study offer insights and practical recommendations for universities, policymakers, and academic staff members seeking to enhance the experiences of doctoral students studying abroad. Ultimately, this research contributes to the improvement of international doctoral education and provides valuable guidance for facilitating the academic and professional development of Chinese doctoral students in the UK.

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Glossary of key terms.

Chinese Doctoral Student

A Chinese doctoral student (CDS) refers to an individual who holds Chinese nationality and is formally enrolled in a doctoral programme at a higher education institution in the United Kingdom. This definition distinguishes them from Chinese doctoral students pursuing their studies in other countries, as their academic experiences, cultural adaptation, and institutional expectations are shaped by the unique educational environment and policies of UK universities. The term specifically highlights the intersection of their Chinese cultural and academic background with the distinct pedagogical, social, and research-oriented frameworks prevalent in the UK higher education system.

Overseas Doctoral Degree

An overseas doctoral degree refers to an advanced academic qualification awarded at the doctoral level by a university or academic institution situated in a country different from the individual's country of origin or current residence. This type of degree is often pursued by students seeking to broaden their academic horizons, gain exposure to international research methodologies, and immerse themselves in a diverse cultural and intellectual environment. The pursuit of an overseas doctoral degree typically involves navigating cross-cultural academic expectations, adapting to different educational systems, and often engaging in comparative or globally relevant research. It is distinct from domestic doctoral studies, as it inherently involves the challenges and opportunities associated with international mobility, such as language barriers, cultural adaptation, and the integration into a foreign academic community.(Altbath, 2007; Kim and Roh, 2017; Jung, 2018).

Talent

In the Chinese context, talent is often defined as individuals who possess exceptional abilities, skills, and knowledge that contribute to the advancement and prosperity of society (Li, 2018). This definition encompasses not only academic achievements but also practical expertise, creativity, leadership qualities, and a strong sense of social responsibility. Talent is highly valued in China as it is seen as essential for driving innovation, economic growth, and social development in an increasingly competitive global landscape.

Sea Turtle and Returnee

The term "sea turtle returnee" is not typically used in the context of doctoral student motivation. It is more readily used to refer to discussions about sea turtle conservation and their nesting habits. In this doctoral thesis, the term is adopted to enable a focus on student motivations for returning home; the author refers to students who return to their home country after studying abroad as "doctoral returnees" or "academic repatriates" aligns with this research on return motivations.

An overseas returnee, also known as a returnee or repatriate, refers to an individual who has lived or studied abroad for a certain period and then returned to their home country (Ho et al., 2016). In the context of studying abroad, an overseas returnee is someone who has completed their education or training in a foreign country and has subsequently come back to their country of origin. The term is commonly used in the context of international education and global mobility, reflecting the growing trend of people pursuing educational opportunities in foreign countries and then returning to contribute to their home communities.

Brain Drain

Brain drain refers to the large-scale migration or emigration of highly educated, skilled, or talented individuals from one country, region, or sector to another, often driven by better employment opportunities, higher wages, improved quality of life, or more favourable academic or research environments (Tan, 2024). This phenomenon can result in a loss of valuable human capital and expertise for the originating country or sector, potentially impacting its economic development, innovation capacity, and overall competitiveness. In the context of Chinese doctoral students studying abroad, brain drain may occur when these individuals choose to remain in their host countries after completing their studies, contributing to a significant loss of talent for China.

Push and Pull

The push-pull theory refers to a framework that is used to understand the factors influencing CDS's decisions to pursue their studies abroad. It analyses both the internal and external forces that motivate this choice. Regarding push factors, these are the internal or external pressures that compel students to leave their home country for doctoral studies. For pull factors, these are the attractive aspects of studying abroad that draw students to a particular country or university. In this doctoral thesis,

the push-pull theory could be used to explore the motivations of students who choose to pursue doctoral studies abroad.

Motivation

Motivation is a multifaceted psychological concept that refers to the internal and external factors that drive, energise, and direct human behaviour towards the attainment of goals (Greenberg et al., 2008). It is the force or set of forces that initiate, guide, and maintain goal-oriented actions. Motivation is a fundamental aspect of human nature and plays a crucial role in determining the level of effort, persistence, and dedication individuals invest in various activities (Anjomshoa and Sadighi, 2015). Essentially, motivation often begins with an internal drive or need. These can be basic physiological needs, such as hunger or thirst, or higher-level psychological needs, such as the desire for achievement, recognition, or self-actualization, as proposed by Maslow's (1971) hierarchy of needs (Tripathi, 2018). In addition, motivation can be classified into two broad categories—intrinsic and extrinsic. Intrinsic motivation arises from internal factors, such as personal interest, enjoyment, or a sense of purpose, while extrinsic motivation comes from external factors, such as rewards, punishments, or social approval (Rheinberg and Engeser, 2018). Within this study, social support, peer pressure and cultural values are considered to significantly influence the goals individuals pursue and their level of motivation. For example, within this research students' motivation for pursuing a doctoral degree overseas might reveal the value they place on gaining a global perspective in their field or how it enhances their long-term career goals and contribute to individuals' professional development.

Expectation

Expectation, in a general sense, refers to a belief or anticipation about what may happen in the future (Sanz et al., 2000; Roese and Sherman, 2022). It involves a sense of what one thinks should or will happen based on certain conditions, experiences, or information. When it comes to overseas international students' expectations, these are the specific beliefs and anticipations that individuals from one country have when they decide to study in another country. These expectations can encompass various aspects, including academic, cultural, social, and personal experience. It is important to note that these expectations can vary widely among individuals and are influenced by factors such as the individual's background, previous experiences, and the information they have gathered about the host country. Sometimes, managing these expectations and adapting to the actual experiences can be a significant aspect of the

international student's journey. In this study, Chinese students pursuing an overseas doctoral degree often have a range of expectations shaped by various factors, including cultural, educational, career, and personal considerations.

Chapter 1 Introduction

In 2021, UNESCO reported a staggering 5.3 million international students engaged in pursuing education abroad, a figure that underscores the unprecedented significance of global mobility in the realm of education (Simonds et al., 2023). This surge in international study represents more than just a statistical trend; it epitomizes a profound shift in the educational landscape, propelled by the forces of globalisation. In an era where industries are continuously reshaped by global interconnectedness, the convergence of diverse cultures and economies necessitates a fresh cohort of graduates equipped with a global perspective and cross-cultural competence (Edwards and Ritchie, 2022). Consequently, the imperative to seek education beyond one's national borders transcends mere academic ambition; it emerges as a strategic necessity in navigating the complexities of an increasingly interconnected world.

There are numerous reasons why students choose to pursue their studies abroad. Research has consistently demonstrated that studying abroad offers significant benefits, including enhanced cultural learning, personal growth, and the development of global competencies (Bandyopadhyay, 2015; Dwyer, 2004; Gong et al., 2015; Paige et al., 2009). In the context of globalization and the rise of the knowledge economy, internationalization has emerged as a defining characteristic and a strategic priority for doctoral education systems worldwide. This shift reflects the growing recognition that cross-border academic mobility fosters the exchange of ideas, facilitates access to cutting-edge research, and cultivates globally competitive scholars. For instance, Nilsson and Ripmeester (2016) argue that international mobility enables doctoral students to access higher-quality academic training, which not only enriches their research capabilities but also enhances their prospects for future academic career development. Moreover, in the global labor market, international study experience is often perceived as a valuable asset and a positive screening signal for employers. This is because doctoral students who engage in mobile learning gain unique skills, such as adaptability, cross-cultural communication, and a global perspective, which are highly sought after in an increasingly interconnected world. Additionally, the ability to relocate to regions where their specialized knowledge and human capital investments yield greater returns further underscores the strategic value of international doctoral education.

With the expansion of the flow of students to study abroad, the flow to study abroad and then returns home afterwards, the value-added impact of studying abroad on their ability improvement has gradually been regarded as an important process index to measure the quality of training (Li et al., 2023). Additionally, as the dynamics of knowledge production

continue to evolve, doctoral students find themselves presented with an increasingly diverse array of career opportunities within the economic sphere. Tavares et al. (2020) argue that doctoral candidates occupy a multifaceted role as both creators and consumers of knowledge. In this paradigm, the traditional view of doctoral education is broadening to encompass not only the acquisition of specialized expertise but also the development of skills that are transferable across various sectors of society. This shift in focus underscores the growing recognition of the importance of equipping doctoral students with the ability to apply their expertise in real-world contexts, thereby enhancing their adaptability and relevance in an ever-changing professional landscape.

Highly skilled doctoral students who return to China after study (returnees) are valued and compete very successfully in the job market (Hao & Welch, 2012). Doctoral students who have the experience of studying abroad, as returnees with international qualifications and experience, are comparatively successful and distributed in a wide range of fields, especially in the field of education. These individuals often bring with them the knowledge, skills, and cultural experiences gained during their time abroad. According to Chen (2017) the reason is that universities are often seen as key drivers of economic development, and the Chinese government's ambition is to develop higher education to meet domestic and global demand and compete with other foreign universities. However, they may face a period of readjustment as they reintegrate into their home country's society and workforce (Baas, 2015). At the same time, to keep up with the trend of internationalization, Chinese universities need large numbers of students who have studied for higher for higher degrees from developed countries(ibid). Due to the expanding interest in studying abroad and the increased demand for highly qualified returnees, it is important to explore the experiences and motivations of these students.

1.1 Research Background

Since the end of last century, China's study abroad and foreign education in China have witnessed an unprecedented level of development (Jiani, 2017). Both the number of overseas students and the level of overseas study have undergone great changes. This development is closely related to the reform and development of China's study abroad policy, which reflects the historical evolution and portrayal of Chinese study abroad activities. Since the 1970s, China has formed four series of policies: study abroad sponsored by the state, study abroad sponsored by work units, study abroad at one's own expense and study abroad back home (Li and Zhang, 2011). In particular, the formation of China's self-funded study abroad policy has greatly affected China's study abroad

activities, and the trend of the popularization of study abroad activities has accelerated. The change of study abroad activities from elitism to popularisation is the result of the adjustment of China's study abroad ideas and policies, and the need to adapt to the development of cultural integration in the world (Nanzhao, et al., 2017). This section will provide background information on studying abroad, including the growing trend of students seeking education in foreign countries and the significance of this phenomenon in today's globalised world.

Currently, China holds the distinction of being the largest exporter of international students for overseas education, exerting significant influence on global educational endeavours (Li, 2018). With the continuous strengthening of political, economic, and cultural exchanges between China and foreign nations following the reform and opening-up policies, the number of both Chinese and foreign students pursuing education has witnessed a steady rise. Particularly noteworthy is the trend observed over the past decade, wherein a growing number of Chinese students opt to study abroad at various academic levels, ranging from high school to self-funded doctoral programs (Li, 2017). Doctoral degrees, such as a PhD (Doctor of Philosophy) or equivalent, typically require several years of advanced study and original research. The decision to pursue an overseas doctoral degree is often influenced by factors such as the reputation of the academic institution, the quality of the research facilities, the expertise of faculty members, and the opportunities for collaboration and networking (Kuzhabekova et al., 2019). Individuals who pursue overseas doctoral degrees may come from various backgrounds and may return to their home countries or choose to work internationally after completing their studies. The experience of studying for a doctoral degree abroad often involves cultural immersion, exposure to different academic traditions, and the opportunity to engage with a diverse community of scholars (Marijuan and Sanz, 2018). Understanding why Chinese students pursue doctoral degrees in the UK involves recognising the combination of academic, cultural, and career-related factors that make the UK an attractive destination for advanced studies.

Since China's reform and opening-up policy in 1978, the intensification of political, economic, and cultural exchanges between China and the global community has catalyzed unprecedented growth in transnational educational mobility. This phenomenon is most prominently reflected in the exponential rise of Chinese students pursuing education abroad, alongside a parallel increase in international students entering Chinese institutions. Notably, the past decade has witnessed a paradigm shift in overseas study patterns: Chinese students now embark on educational journeys at progressively younger ages, with high school students constituting a growing demographic, while self-funded doctoral candidates increasingly dominate postgraduate flows (Li, 2017). This trend

underscores both the diversification of educational aspirations and the expanding financial capacity of Chinese households.

Statistical evidence reveals the scale of this transformation. At the turn of the 21st century, China recorded merely 39,000 outbound students annually (Yang et al., 2013). By 2011, this figure had surged nearly ninefold to 339,700 (Qiang, 2012), and the momentum continued unabated. The China Development Report (2016) highlights that Chinese students abroad numbered 1.26 million by 2016, representing approximately 25% of the global international student population. This staggering proportion establishes China as the world's largest exporter of tertiary students, a status sustained through the 2020s. Geographic preferences further illuminate this trend. Anglophone nations remain primary destinations: The United States hosted over 372,000 Chinese students in 2022, constituting 30% of its international cohort (IIE Open Doors, 2022); Australia reported 152,000 Chinese enrollments in 2023, accounting for 26% of its international student body (Australian Government, 2023); Canada and the UK similarly rely on Chinese students for 35% and 28% of their international enrollments, respectively (ICEF Monitor, 2023). Concurrently, regional dynamics in Asia have gained prominence. Japan and South Korea now rank among top non-Western destinations, driven by geographic proximity and cultural affinity. In 2022, Chinese students comprised 43% of Japan's international enrollments (JASSO, 2023), while South Korea reported 68,000 Chinese learners—nearly half its foreign student population (Korean MOE, 2023). Singapore, leveraging its bilingual education system, has emerged as a strategic hub for Chinese families prioritizing transitional Western-style curricula within Asia.

According to recent data from the Ministry of Education (2023) in China, spanning the period from 1978 to the close of 2022, a remarkable 6,800,000 individuals ventured abroad for educational pursuits from diverse backgrounds. Remarkably, upon completion of their studies, according to Yin and Zong (2022), a significant majority, totalling 4,500,000 individuals, opted to return to China for further career advancement, constituting a notable 83.82% of the total cohort. Over the years 2019 to 2022, this trend continued its upward trajectory, with a cumulative increase of 98,200 individuals choosing to study overseas, representing a growth rate of 14.53% (ibid). Yang (2022) suggested that the number of returnees surged by 72,600, marking an increase of 15.20%, totalling 592,000 students who returned home during this period. These statistics highlight a consistent pattern of Chinese students seeking international education while demonstrating a strong inclination towards contributing their acquired skills and knowledge to the development of their home country. Breaking down the figures for 2022 specifically, the latest available data reveals that the total number of Chinese students pursuing education abroad has reached a new

pinnacle, standing at 730,000 individuals (Yang, 2022). Among them, 32,500 were recipients of state sponsorship, indicating the government's continued support for fostering international academic endeavours. Institutions sponsored another 39,000 students, while an overwhelming majority of 658,500 individuals financed their overseas education independently (Freeman, 2022). This robust growth in the number of Chinese students studying overseas underscores both the increasing accessibility of global educational opportunities and the nation's unwavering commitment to nurturing a globally competitive talent pool.

Several studies have explored the issue of the reasons why more and more Chinese students elect to study abroad (Yang et al., 2013; Zhou, Chung and Hung, 2009); they consistently found that economic factors are one of the most important determinants, such as scholarship, expected economic returns and employment prospects. According to the research of Yang (2013), economic potential salary (confirmed by 29% of students) influenced students' intention to study abroad, followed by educational factors (27%), personal factors (15%), social factors (13%), cultural factors (9%) and political factors (7%). In terms of economic factors, many students believe that those who study abroad and return home (returnees) enjoy higher economic returns and more employment opportunities in the domestic labour market compared with those who study in China (Jackson, 2019). An important reason is that China's labour market recognises and values overseas degree holders, furthermore the Chinese government has launched a series of preferential policies (see section 1.3) to provide more job opportunities and economic benefits for returnees, such as housing, project subsidies or other favourable conditions to set up companies or enterprises (Hu. et al., 2013).

1.2 Chinese perspective on international education opportunities

1.2.1 Historical Perspective

In the early 21st century, China shifted the focus of its study abroad policy to how to support financially and attract overseas graduates back to China, a phenomenon that continues to this day.

The first significant policy shift in China's international education strategy occurred in 2004, when the China Scholarship Council (CSC) launched the Program for Young Elite Teachers to Study Abroad. This initiative marked a strategic pivot toward cultivating a globally competitive academic workforce by sponsoring promising young faculty members to pursue advanced studies and research at leading international institutions. By 2007, the program had successfully enrolled 11,403 participants, fostering robust academic collaboration and institutional partnerships between Chinese and foreign universities

(Quality Engineering Leadership Group Office, 2009). This initiative not only enhanced the academic qualifications of domestic faculty but also facilitated the transfer of cutting-edge knowledge and pedagogical practices back to Chinese higher education institutions. Building on the success of this program, the Chinese government further institutionalized its commitment to internationalizing higher education through the Outline of the National Plan for Medium and Long-Term Education Reform and Development (2010-2020), issued by the Ministry of Education in 2010. This landmark policy document outlined a comprehensive strategy to elevate China's higher education system to global prominence. A key pillar of this strategy was the systematic recruitment of world-class experts, scholars, and high-level talents from abroad to teach, conduct research, and assume leadership roles in Chinese universities. The plan emphasized the importance of leveraging the expertise of overseas-trained Chinese scholars and foreign academics to drive innovation, improve institutional governance, and enhance the international competitiveness of Chinese universities.

In December 2010, the Central Talent Coordination group sanctioned 'The detailed rules for the introduction of young overseas high-level talents', a pivotal initiative designed to attract promising individuals from abroad. Under this programme, each candidate was allocated a substantial living allowance along with a research grant ranging from one to three million yuan, spanning a three-year period. Primarily targeting fields within the natural sciences and engineering technology, this initiative aimed to bolster China's research and innovation capabilities (Yu & Zhu, 2015). Since its inception in 2011, China has annually recruited approximately 400 exceptional young talents from overseas, with the number steadily rising. By 2015, the program had successfully welcomed and integrated 2,000 outstanding young talents into various sectors of the country's academic and industrial landscape, marking a significant milestone in China's efforts to attract and retain top-tier talent from around the globe (Yu & Zhu, 2015). This concerted endeavour not only reinforces China's commitment to fostering innovation and excellence but also underscores its proactive approach towards cultivating a diverse and dynamic talent pool to propel the nation's development forward.

In March 2012, the Ministry of Education unveiled the ambitious "Cheung Kong Scholars Award Programme," marking a significant milestone in China's endeavour to enhance its academic excellence and research capabilities. This initiative aimed to bolster the recruitment of top-tier talent by allocating resources to universities for the appointment of distinguished professors, chair professors, and promising young scholars. Specifically, the program sought to enlist 150 distinguished professors, 50 chair professors, and a cohort of young scholars annually, with the goal of injecting fresh expertise and vitality into the

academic community (Zhao, 2017). By March 2017, the Cheung Kong Scholars Award Programme had made considerable strides, successfully recruiting a total of 2,051 distinguished professors, 897 chair professors, and 440 young scholars, reflecting the program's robust impact and growing momentum (Zu-bin, 2019). These esteemed scholars, hailing from diverse academic backgrounds and disciplines, have played a pivotal role in elevating the research standards and academic prestige of their respective institutions. To incentivise these scholars to return and contribute to China's academic landscape, the state offers various benefits, including prestigious titles and financial rewards, as outlined in the program guidelines (Shi, Liu and Wang, 2023). These incentives are designed to recognize and reward their academic achievements while also ensuring a conducive environment for their professional and personal growth. By nurturing and retaining top talent through initiatives like the Cheung Kong Scholars Award Programme, China reaffirms its commitment to fostering a vibrant academic ecosystem that drives innovation, scholarship, and societal advancement.

1.2.2 Ever-changing political scene: Double First Class

The process of global integration has accelerated the exchanges and cooperation among countries, leading to China acknowledging that it needs to re-examine the international environment of higher education if it is to build world-class universities. This resulted in a strategic investment plan: Double first-class plan. China re-examined the international environment of higher education and put forward a strategic investment plan. Before that, the successful 211 project and 985 project did the same. Both the 211 and 985 projects have had a profound impact on China's higher education landscape. According to Huang (2022), these initiatives have not only elevated the status and competitiveness of participating universities but have also catalysed broader reforms within the academic sector. By concentrating resources on a select group of institutions, China has been able to cultivate centres of excellence that drive innovation, produce groundbreaking research (Zha, 2020), and attract top talent from around the world. Furthermore, these projects have contributed to the internationalization of Chinese higher education, facilitating greater collaboration and exchange with global partners.

As an incubator for the development of new knowledge and technologies, higher education is widely recognised as the key to promoting economic development and technological innovation (Olo, Correia, and Rego, 2021). In terms of economic return, In the UK universities, for example, universities produced more than £73 billion in 2011-12 and contributed more than £39.9 billion to its Gross Domestic Product (GDP), equivalent to 2.8% of its total GDP in 2011 (Liu et al. 2019). Research conducted by Chakrabarti, Gorton and Lavenham (2020), explored the relationship between human capital investment and its

returns, highlighting the significant contribution of investing in higher education to overall educational returns. As conventional approaches cantered on material investment for economic development struggle to keep pace with rapid advancements in science and technology, many nations are recognising the pivotal role of higher education in enhancing international competitiveness (Andreoni and Tregenna, 2020). Consequently, there is a growing trend among countries to prioritize higher education as an effective means to bolster their global standing, leading to increased investment in this sector.

Focusing particularly on China, the concept of "double First-class university" is intertwined with a concerted initiative aimed at nurturing world-class universities and disciplines within the nation (Lee, 2018). China's commitment to enhancing the quality and global competitiveness of its higher education institutions is evident through substantial investments made in recent years. The "double First class" initiative emerges as a pivotal component of this overarching strategy, representing a targeted effort to elevate selected Chinese universities and disciplines to the pinnacle of international acclaim in terms of research prowess (Woo, 2023), faculty excellence, and overall academic standing (Tan, 2024). Furthermore, the government's emphasis on innovation-driven development and the integration of education with industry has spurred collaborative efforts between academia and the private sector, leading to the establishment of research parks, innovation hubs, and technology incubators. These initiatives not only facilitate knowledge transfer and technology commercialization but also contribute to the overall vibrancy and dynamism of China's innovation ecosystem.

For China, the pursuit of building world-class universities and disciplines represents a cornerstone of the nation's strategic commitment to adapting to the rapidly evolving global and domestic educational landscape. This ambition is not merely a response to the increasing demand for high-quality education within China but also a proactive effort to position the country as a global leader in higher education and innovation. The Double First-Class initiative, formally launched in 2017, embodies this vision, marking a transformative shift in China's approach to higher education development. It is both a continuation of earlier efforts, such as the 985 and 211 projects, and an innovative strategy to redefine the role of Chinese universities in the global knowledge economy. On January 24, 2017, the Ministry of Education, the Ministry of Finance, and the National Development and Reform Commission jointly issued a landmark document titled Implementation Measures for the Coordinated Development of World-Class Universities and First-Class Disciplines. This document provided a comprehensive framework for the Double First-Class initiative, outlining its objectives, selection criteria, and implementation mechanisms.

Specifically, the initiative aimed to cultivate a select group of universities and disciplines to achieve global prominence by the mid-21st century. The document detailed the conditions for selecting participating institutions, which included factors such as academic reputation, research output, international collaboration, and contributions to national development. It also established a dynamic management system, whereby institutions and disciplines would undergo periodic evaluations to ensure accountability and continuous improvement (Ministry of Education, 2017). The Double First-Class initiative officially entered its implementation phase with the release of these guidelines, signaling a new era in China's higher education policy. The initiative identified 42 universities as part of the "world-class university" category and 95 institutions for the "world-class discipline" category, covering a wide range of fields from engineering and natural sciences to humanities and social sciences (Sun, 2017). This targeted approach allowed for a more nuanced and strategic allocation of resources, ensuring that both comprehensive universities and specialised institutions could contribute to China's global academic standing.

Beyond economic considerations, the social landscape serves as the bedrock of higher education and plays a pivotal role in shaping a country's educational policies. The evolution of higher education is intrinsically linked to societal shifts, reflecting the dynamic interplay between academia and the broader social fabric. In the context of China, the trajectory of its economy from rapid expansion to a more stabilized phase underscores the importance of aligning higher education with evolving societal needs and priorities (Zhang, 2015). As China navigates its economic transition, characterized by a shift from extensive growth patterns to an emphasis on quality and efficiency, higher education must adapt accordingly. This transition entails a concerted effort to transition from traditional manufacturing industries to advanced manufacturing sectors, fostering investment and innovation-led economic growth. Moreover, there is a notable shift towards market-driven mechanisms for resource allocation, signalling a departure from centralized planning towards a more dynamic and responsive economic ecosystem.

Regarding studying abroad for a PhD, the impact of the "double first class" initiative could vary. Firstly, if a university or discipline is part of the "double first class" initiative, it may attract more research funding and resources. This could lead to increased research opportunities for both domestic and international PhD students. Chinese universities involved in the initiative might seek to establish collaborations with top international institutions. This could create more opportunities for PhD students to engage in joint research projects or academic exchange programmes. Finally, as Chinese universities strive for global recognition, there might be increased competition for academic positions

and research opportunities within these institutions. The emphasis on building world-class universities could lead to changes in admission policies, potentially making it more competitive to gain admission to top Chinese universities for PhD programs. Therefore, it is important to note that policies and their effects can change, so for the most accurate and up-to-date information, stakeholders should check with the specific universities or relevant government agencies in China and beyond. Additionally, international students considering a PhD abroad should always research the specific policies and opportunities offered by the institutions they are interested in.

To sum up, as part of the "Double First-Class University (DFCU)" initiative, China's higher education institutions have formulated strategic plans that focus on disciplinary and professional development. They have formulated specific measures to develop subject areas, train talents, build up the ranks of teachers and researchers, and enhance the characteristics of subjects. However, there are some potential problems with the implementation of the dual First-class initiative, particularly the inaccurate definition of "world-class", the narrow focus on the institutional scope, and the lack of a future-oriented approach to development. These problems have caught the attention of the Chinese government and universities and sparked a wider discussion in society.

1.2.3 Cultural Context

In examining the motivations and experiences of Chinese domestic students (CDS) studying abroad, it is essential to situate their decisions within the broader cultural, economic, and socioeconomic landscape of contemporary China. As Cherng, Hannum, and Lu (2012) argue, understanding the phenomenon of Chinese students pursuing education overseas requires an analysis of the intricate class structure that underpins Chinese society. This structure is characterized by pronounced disparities in wealth, educational access, and social mobility, which collectively influence individuals' aspirations, opportunities, and life trajectories. Historically, China's class hierarchy has been shaped by factors such as occupation, income, geographic location, and access to educational resources (Li, Gu, and Zhang, 2015). These factors create distinct socioeconomic strata that not only determine individuals' access to opportunities but also shape their perceptions of success and their strategies for upward mobility (Liu, Peng, and Luo, 2020). The decision to study abroad is often deeply intertwined with these class dynamics. For students from affluent urban families, particularly those in Tier 1 cities like Beijing, Shanghai, and Guangzhou, overseas education is frequently viewed as a means of consolidating their privileged status. These families often possess the financial resources to send their children to prestigious international schools and fund their studies at top universities abroad. For them, studying abroad is not merely an academic pursuit but a

strategic investment in cultural capital, enhancing their children's global competitiveness and social standing (Fong, 2011). Conversely, for students from less affluent backgrounds, particularly those from rural areas or smaller cities, studying abroad represents a more aspirational and challenging endeavor. While these students may lack the financial resources of their urban counterparts, they often benefit from government scholarships, institutional partnerships, or family sacrifices to pursue overseas education. For them, studying abroad is often seen as a transformative opportunity to break free from the constraints of their socioeconomic background and achieve upward mobility (Zhao, 2014). However, these students may face additional challenges, such as navigating cultural differences, overcoming language barriers, and managing financial pressures, which can shape their experiences in profound ways.

A notable phenomenon within China's evolving socioeconomic landscape is the emergence of the 'new middle class,' a demographic segment characterised by rising affluence, educational attainment, and aspirations for upward mobility. This burgeoning cohort represents a departure from traditional class distinctions, fuelled by China's rapid economic growth, urbanisation, and globalisation. The new middle class encompasses professionals, entrepreneurs, and knowledge workers who have benefited from economic reforms and expanded educational opportunities (Au, 2019), affording them greater social mobility and consumer power. Within this context, the motivations of Chinese doctoral students to pursue education abroad are multifaceted and reflect the intersecting influences of cultural, socioeconomic, and individual factors. For many aspiring scholars hailing from the new middle class, according to Liu, Huang and Shen (2022), studying abroad represents a pathway to accessing world-class educational resources, acquiring prestigious credentials, and expanding their intellectual horizons. Moreover, the allure of international exposure and cross-cultural exchange holds intrinsic value for individuals seeking to distinguish themselves in an increasingly competitive global job market. However, it is crucial to acknowledge that the decision to study abroad is not solely driven by economic or career considerations (Petzold and Moog, 2018). Cultural factors, such as familial expectations, societal norms, and notions of prestige, also play a significant role in shaping individuals' educational trajectories. In Chinese society, where filial piety and familial honour hold paramount importance, the pursuit of educational excellence is often viewed as a means of fulfilling familial aspirations and securing social status (Chyu, 2021). Furthermore, the experiences of Chinese doctoral students studying abroad are influenced by their cultural background, including values, communication styles, and modes of social interaction.

Regarding to the connection between the motivations and experiences of Chinese doctoral students studying abroad and the country's one-child policy is multifaceted and warrants careful consideration. The one-child policy, implemented in 1979 to curb population growth, has had far-reaching implications for Chinese society, including its educational landscape. One notable impact of the one-child policy is its role in shaping family dynamics and parental expectations regarding education. With only one child to invest in, parents often prioritize their offspring's education as a means of securing their future success and social mobility. Consequently, Chinese families may place significant pressure on their single child to excel academically, leading to intense competition within the education system.

For Chinese doctoral students who grew up under the one-child policy, the pursuit of advanced education, including opportunities to study abroad, may be viewed as a means of fulfilling familial expectations and securing a brighter future (Zhou, 2019). The policy's emphasis on educational attainment as a pathway to socioeconomic advancement can influence individuals' aspirations and decisions regarding their educational and career trajectories. Moreover, according to Cai and Feng (2019), the one-child policy has contributed to demographic shifts in China, including an aging population and a shrinking workforce. In response, the Chinese government has implemented various strategies to address labour shortages and promote economic growth, including initiatives to attract skilled professionals and foster innovation. In this context, the motivations of Chinese doctoral students to study abroad may also be influenced by broader economic imperatives and government policies aimed at cultivating a highly skilled workforce and stimulating technological innovation.

1.3 Justification and Rationale of this Research

The justification and rationale for this research is based on two principles. Firstly, it recognises the internationalisation of higher education may create more opportunities and spaces for each student and university, and more opportunities for students and teachers to learn in different cultures. Globalisation has brought universities, countries, and people closer together (Hershock, 2010). More students are pursuing higher education, experiencing new cultures, and adopting different lifestyles abroad. This has led to a significant and steady increase in the number of Chinese students studying overseas.

The UK has become a significant destination for international PhD students, with the proportion of such students rising from 32.7% in 1995 to 43.8% in 2013. This increase has

had a notable impact on academic mobility and research collaboration. The improvement in China's higher education and research environment, coupled with the implementation of preferential policies, has led to a rise in the number of PhD students returning to China. This trend has significantly impacted the Chinese economy, as evidenced by the increased number of academic staff at Shanghai Jiaotong University who obtained their PhD abroad, rising from 5.9% in 2006 to 21.7% in 2013. Furthermore, Chinese scholars who continue to contribute to China's academic development through overseas connections do so through various channels such as joint research with mainland scholars, offering courses at mainland universities, attending academic conferences in China, publishing joint research, and participating in joint cultivation programs, such as those facilitated by the China Scholarship Council. Moreover, some universities in China have been learning from their counterparts in the United States, the United Kingdom, Australia, Canada and other countries to enhance and improve the management type, teaching methods, curriculum setting and even goals of universities (Changying, 2012).

Understanding why students return to their home countries after studying abroad is crucial due to the significant impact they have on their home universities. Rosen and Zweig (2004) identified four main reasons why "sea turtles" (returnees) come back: international and domestic political and economic factors, government policies, and personal considerations. They also examined the skills and contributions of returnees versus local scholars, their international networks, compensation, recognition, and the perceived value of returning scholars, along with the local demand for professionals. Their analysis concludes that returnees bring unique transnational expertise, providing them with more career development opportunities. This advantage suggests that returnees are likely to become influential in academic institutions over time. In recent years, the number of international students in doctoral education has increased. For example, according to Sá and Sabzalieva (2018), in the United States, doctoral education is the most international, whilst in the UK, Germany, France and Australia, a high proportion of all PhD candidates are international students. Based on the assumption that international doctoral students can improve domestic research productivity, policy measures are adopted to encourage internationally trained PhD students to return to China to improve domestic research productivity (Heitor et al. 2014). Therefore, globalisation and internationalisation become the driving force for the development of doctoral education.

Despite a growing body of literature on the internationalisation and globalisation of doctoral education, there remains a gap in research focusing on specific countries and the trends within those contexts. Studies on the internationalisation of doctoral education often do not highlight country-specific discussions, especially regarding the impact and trends of

international students pursuing doctoral degrees. This leads to a lack of detailed analysis of the contributions these international doctoral students make to knowledge development and the subsequent innovations they bring back to their home countries. Works by Zhong (2008), Shen et al. (2014), and Chen (2017) touch on aspects of these issues but do not provide in-depth discussions. Additionally, Stuen, Mobarak, and Maskus (2012) explore the broader contributions of international doctoral students to the development and innovation of their home countries, suggesting that further exploration into these contributions would be beneficial. The directional and selective nature of doctoral student mobility across borders underscores the importance of conducting thorough investigations from a single-country perspective to grasp the underlying motivations.

Regrettably, there is a paucity of existing studies that can offer guidance for such inquiries within the Chinese context. Understanding the reasons behind Chinese PhD students' emigration decisions, particularly in comparison with Southeast Asian students, helps uncover nuanced factors related to economic development, cultural values, and global talent mobility. For example, focusing on the difference in cultural and social factors, Chinese students often face societal and familia expectations to remain abroad after study (Hu, 2021), whilst in many Southeast Asian countries (e.g. Indonesia, Thailand and the Philippines) there is often a stronger focus on contributing the local community (Yeung & Li, 2019). Equally, the concept of filial piety (孝, *xiào*) is deeply ingrained in Chinese culture, emphasising responsibility towards one's parents and elders. However, this does not always translate into returning home as many students select to send financial support home. By contrast, in Southeast Asia, family structures are often tightly knit, and children are expected to stay physically close to parents or extended family. This pressure can encourage students to return home after their studies.

Moreover, while extensive research has been conducted on student mobility globally, with comparative analyses focusing on the perceived value of degree programme, academic experiences, and returnees' perceptions, much of this scholarship tends to concentrate on short-term language learners, undergraduates, and graduate students.

Thirdly, it is not enough to analyse the impact of doctoral students studying abroad on their home country from the perspectives of brain drain, talent acquisition and talent flow, because these concepts do not consider the motivation of doctoral students' international mobility and the impact on the higher education system of their home country.

Understanding these motivations is crucial for several reasons. Firstly, it provides insights into the factors that drive individuals to embark on the challenging journey of doctoral

study, shedding light on their intellectual passions, career goals, and personal aspirations. Secondly, it helps identify potential barriers and challenges that may hinder their academic progress and well-being. For example, students driven primarily by external pressures (e.g., parental expectations, societal status) may experience higher levels of stress and anxiety compared to those driven by intrinsic motivations such as intellectual curiosity and a genuine passion for research.

Furthermore, the doctoral experience is deeply intertwined with the development of academic identity. As students engage in independent research, they gradually transition from being primarily consumers of knowledge to active producers of new knowledge. This process involves the development of critical thinking skills, research methodologies, and a deep understanding of their chosen field. Investigating student motivations at this crucial juncture can provide valuable insights into the factors that shape their academic identity, their evolving research interests, and their professional aspirations.

The decision to return to their home country or pursue career opportunities abroad is a critical juncture in the lives of many international doctoral students. Unlike undergraduate or even master's students, doctoral graduates often possess highly specialised skills and knowledge that are highly valued in both academic and industry settings. Their decision to return or remain abroad has significant implications for both their personal and professional development, as well as for the economic and intellectual development of both the host and home countries. Investigating return intentions at the doctoral level is particularly important for several reasons. Firstly, doctoral graduates represent a significant investment in human capital for both the host and home countries. Understanding their motivations for returning (or not returning) to their home countries can inform policies and strategies aimed at attracting and retaining highly skilled talent. Secondly, the return of highly trained doctoral graduates can have a significant impact on the development of research and innovation in their home countries. By investigating their return intentions, policymakers can identify potential barriers to return and develop strategies to encourage the return of highly skilled individuals.

Finally, the doctoral experience itself can have a profound impact on students' perspectives, values, and career trajectories. Exposure to diverse research environments, collaboration with international scholars, and engagement with global challenges can broaden their horizons and shape their future aspirations. Investigating their return intentions can provide valuable insights into how the doctoral experience has shaped their perspectives on their home countries, their career goals, and their contributions to society.

Therefore, it is necessary to consider the value of returnees both personally and institutionally. Additionally, the transnational flow of doctoral students has greatly changed China's doctoral research training system and the recruitment policy of academic staff.

To summarise, overseas study is perceived by the Chinese government as an important way for China to train talents, especially in the cultivation of high-end talents. The employment status of overseas doctoral students has been widely considered and valued by the relevant departments of the state, and they have made outstanding contributions in various fields such as economy, science and technology, education, culture and health. Recent years have witnessed ever- increasing numbers of returning overseas doctoral students, especially overseas high-end talents, to the Chinese employment market, which is an important way to supplement the human resources in the high-end talent market. This thesis therefore seeks to unravel the intricate tapestry of motivations woven into the decision to study a doctoral programme in the UK and the factors for remaining or returning home after graduation. internationally.

1.4 Research Aims, Objectives and Research Questions

Based on the above, this study focuses on investigating the perceived impact of UK international doctoral programmes on Chinese doctoral students'(CDS) motivation and expectations. Specifically, the purpose of this study is to better understand the academic experience and professional development of CDS, the reasons behind their decision-making and the influencing factors about their behaviour. By exploring and analysing the perceived benefits and challenges of pursuing doctoral studies abroad, it becomes possible to understand the unique experiences and perspectives of CDS. The research adopts a qualitative research methodology to understand the participants' perceptions of the academic and research environments of one international UK university hosting doctoral programmes, assessing how these environments contribute to the academic and professional development of CDS. Also, this study explores what opportunities there were for additional activities outside their degree that might have impacted on their future academic career.

Specifically, this study used semi-structured and focus groups interviews to collect firsthand experiences and perceptions of CDS studying abroad in the UK, ensuring there was a diverse representation of participants from various disciplines and three geographical locations. Finally, this study provides findings to offer practical recommendations for universities, policymakers, and academic staff members aiming to enhance the experiences of doctoral students studying abroad, thereby contributing to the

improvement of international doctoral education. Therefore, the specific research questions consider the following aspects:

Main Research Question:

What are Chinese Doctoral Students' (CDS) motivations and experiences of studying for a PhD in the UK?

Sub-Research Question (SRQs):

1. What are the motivations for CDS to study in the UK?

2. What are CDS's perceptions of their learning and teaching experience when they study in the UK?

3. What are CDS's expectations of the impact that studying in the UK will have on their future academic career?

4. What is the motivation for CDS to return to China after graduation?

1.5 Positionality of the researcher

In any doctoral research study, the positionality of the researcher plays a crucial role in shaping the inquiry, influencing the research process, and ultimately impacting the findings. Positionality refers to the researcher's subjective stance, including their background, experiences, beliefs, and social context, which can influence how they perceive and interpret the phenomenon under investigation (Corlett and Mavin, 2018). In the context of a doctoral student studying abroad, the researcher's positionality is multifaceted. Firstly, the personal background of the researcher, such as their cultural upbringing, language proficiency, and prior experiences, may shape their perceptions of the host country and its academic environment. These factors can influence the researcher's ability to navigate the unfamiliar terrain and interact with participants, potentially affecting the data collection process.

As a Chinese doctoral student researching the motivations and expectations of doctoral students studying abroad, my positionality as the researcher is inherently shaped by my own background, experiences, and cultural context. Growing up in China and pursuing higher education in a distinct academic environment, my unique cultural lens undoubtedly influences how I approach and interpret the study abroad experiences of fellow Chinese doctoral students in the UK. My cultural background may offer an insider perspective, providing an intimate understanding of the societal expectations, familial pressures, and

educational values that often characterize the motivations of Chinese students pursuing doctoral studies abroad. Simultaneously, it is crucial to recognize that this insider perspective may also introduce biases or assumptions that need careful consideration. Being immersed in the Chinese educational system, I bring a particular set of preconceptions about academic aspirations, success, and the role of international education that could influence my interpretation of participants' motivations.

Furthermore, my personal experiences as a doctoral student studying abroad could also shape my positionality. Navigating the challenges and opportunities of an international academic environment, I may draw on my own journey to empathise with the participants, offering a deeper understanding of the complexities involved in pursuing doctoral studies in a foreign context. It is essential for me, as the researcher, to remain reflexive throughout the research process, continuously examining how my positionality may impact the research design, data collection, and analysis. Embracing a reflexive stance enables me to identify and address potential biases, ensuring that the study is conducted with rigour and that the findings reflect the diverse motivations and expectations of Chinese doctoral students studying abroad. By transparently acknowledging and navigating my positionality, I aim to contribute a nuanced and culturally sensitive perspective to the broader discourse on international doctoral education.

1.6 Overview of this thesis

As discussed in this chapter, the overarching purpose of this research is to gain insights into the intricate web of motivations and expectations that drive doctoral students to cross international borders for their academic pursuits in the UK. By doing so, this research aims to contribute valuable knowledge that not only enriches the academic discourse but also informs institutions and policymakers on how to better support and facilitate the unique needs of this growing cohort.

Specifically, this chapter introduces the structure of this thesis, which is essential to provide readers with a roadmap for navigating through this research.

In Chapter 2, existing literature is reviewed, and theoretical considerations that underpin the study are examined. The chapter synthesises key findings from relevant studies, identifies gaps and lays the groundwork for the current research; they also outline the theoretical lens through which the motivations and expectations of doctoral students studying abroad are analysed, such as push and pull factors.

Chapter 3 presents the Methodology, which includes a justification of the chosen research design, and outlines the methodological approach employed in gathering and analysing data. Detailing the procedures for data collection, this chapter explains the instruments used, sampling techniques, and ethical considerations. Finally, it outlines the methods employed for data analysis, this part elucidates the steps taken to derive meaningful insights from the gathered information.

Chapters 4, 5 and 6 present the Findings. They identify emerging themes from three aspects related to the motivations and expectations of doctoral students studying abroad, which includes push and pull factor, CDS teaching and learning experience, as well as the reasons for returning.

Chapter 7 is the Discussion, which interprets the findings in the context of the existing literature, exploring implications, and offering insights. Additionally, in discussing the theoretical contributions of the study, this chapter positions the research within the broader academic discourse.

Chapter 8 summarises the key findings and insights, revisits the research questions and emphasises the contributions made. Also, it acknowledges the limitations of the study and makes recommendations for future research in this domain.

By following this structured framework, this thesis endeavours to offer a comprehensive exploration of the motivations and expectations of doctoral students studying abroad, contributing valuable insights to the field of international education.

Chapter 2 Literature review

2.1 Introduction

The decision to pursue education in a foreign land is a complex interplay of personal, academic, and societal influences. This review will not only scrutinize the conventional motivations such as academic advancement and career prospects but also probe into the nuanced realms of cultural curiosity, personal development, and global citizenship. Through a synthesis of existing literature, this section endeavours to shed light on the intricate tapestry of factors that contribute to the global migration of students and the broader implications for both individuals and the societies they engage with. As evidenced in the preceding chapter, the trend of studying abroad has undergone exponential growth, captivating the aspirations of individuals eager for a transformative educational journey (Chen, 2017; Collins, 2013; Griner and Sobol, 2014; Lee et al., 2015). At the heart of this investigation lies a quest to unravel the myriad motivations that inspire students to venture beyond familiar shores in pursuit of their educational goals. By critically analysing the insights gleaned from existing literature, this study seeks to shed light on the complex interplay of personal, academic, cultural, and socio-economic factors that shape individuals' decisions to embark on this transformative journey. From aspirations for academic excellence and access to world-class educational resources to desires for personal growth, cultural immersion, and global citizenship, the motivations driving students to study abroad are as diverse as the individuals themselves. By synthesising insights from a multitude of perspectives and disciplines, this chapter aim to contribute to a deeper understanding of the multifaceted nature of student mobility and its implications for individuals, educational institutions, and society at large.

In this literature review, I firstly embark on an exploration of the intricate web of motivations that underlie the decision to pursue higher education in foreign lands. The push and pull model will be presented and evaluated. Then, delving into an extensive array of scholarly works and empirical studies related to specific motivation, the aim is to construct a nuanced understanding of the diverse and dynamic factors that drive students towards the enriching experience of studying abroad. Followed by a theoretical consideration, it includes a Bourdieu perspective analysis of international CDS flows. Fourthly, teaching and learning experiences in international education are reviewed. The last reverse push and pull factor will be discussed for empirical study.

2.2 Overview of theoretical perspective on studying abroad movement

2.2.1 Background to international student mobility

2.2.1.1 Studying aboard movement of student

The push-pull theory is a commonly accepted framework for explaining international student mobility (ISM). McMahon (1992) was among the first to introduce this theory by studying international students from 18 developing countries during the 1960s and 1970s. Since then, the theory has become a popular basis for ISM research. Altbach's (2004) study outlines the push factors as issues within the students' home countries, such as limited university spaces, intense competition, a lack of quality institutions, discrimination in admissions, and political or social repression. The pull factors, on the other hand, are related to the attractions of the host country, including prestigious universities and degrees, improved employability prospects, job opportunities, the potential to relocate to the host country, cultural ties or knowledge-sharing with the home country, financial aid like scholarships, and active marketing strategies.

While the push-pull theory is widely accepted as a foundational framework for explaining international student mobility, it has faced criticism. De Haas (2009) argued that the theory overly emphasizes macro or external factors while neglecting the micro or personal elements driving transnational mobility. In response, a modified push-pull theory was developed, integrating personal factors like individual career advancement (Bamber, 2014), intercultural awareness (Langley and Breese, 2005), family influence (Pope et al., 2014), local community networking in the host country (Sivakumaran et al., 2013), cost of living (Shanka et al., 2005), and escape from stressful situations at home (Forsey et al., 2012). Despite these additions, Lauermann (2015) contended that even the revised push-pull theory treats personal factors as "concrete" elements rather than addressing the deeper intrinsic motivations behind them.

The decision to pursue education in a foreign land is a complex interplay of personal, academic, and societal influences. This review will not only scrutinize the conventional motivations such as academic advancement and career prospects but also probe into the nuanced realms of cultural curiosity, personal development, and global citizenship. Through a synthesis of existing literature, this section endeavours to shed light on the intricate tapestry of factors that contribute to the global migration of students and the broader implications for both individuals and the societies they engage with.

Most individuals' overseas select to study activities are in stages, or abroad for a specified period of time. For example, when they finish their high school or undergraduate study in their home country, they will find a developed country or an overseas country suitable for them to apply for a higher degree or a more advanced education. Later, after an initial degree or an academic input, learners may choose to return to their home country to seek employment or continue their studies, or they may choose to find a career in the host country (Hao and Welch, 2012). If divided into two stages—pre-study abroad and post-study abroad—each period can be explained by its specific motivations. The pre-study abroad phase involves understanding the reasons students choose to study abroad, while the post-study abroad phase focuses on whether students decide to stay abroad or return home. Each stage has its own push and pull factors influencing individuals or groups of students. A detailed discussion of these factors follows.

2.2.1.2 Doctoral genre

This section presents an overview of what constitutes a doctorate. The doctoral genre presents a unique and multifaceted context for investigating student motivations and return intentions. Unlike undergraduate or even master's programmes, doctoral study is a highly specialised and demanding undertaking, characterised by deep intellectual engagement, independent research, and the pursuit of original knowledge. Doctoral education in the International Standard Classifcation of Education (ISCED) is defined as an advanced research qualifcation, resulting from advanced study and original research typically offered by research-oriented universities, in both academic and professional fields, requiring the submission of work of publishable quality that is the product of original research and represents a significant contribution to knowledge in a field of study (OECD/Eurostat/UNESCO, 2015). Statistics on doctoral level attainment presented by the World Bank data start only in 2010. No information is available for many countries (e.g. China) and for other countries many years of data are missing (e.g. UK, Germany, France, Japan).

The recent expansion of doctoral education has been accompanied by changes in its nature, from an apprenticeship-type period under the supervision of a "master" to a highly structured education programme in most countries, with doctoral schools, formal processes, and a defined duration and expectations (Sorrico, 2022). Whilst this expansion seems likely to continue as governments increase funding for doctoral education in an attempt to boost competitiveness and talent pools in an internationally competitive environment (Sarrico, 2022), nonetheless, there are attempts to diversify away from traditional "academic doctorates" with "collaborative PhDs", "professional doctorates",

"industrial doctorates", or simply introducing professional development and career development opportunities. In addition, the scope of doctoral education is widening, seeking to prepare people for diverse careers and include doctorates that cross disciplinary boundaries (Powell and Green, 2007).

There is a broad and rich literature exploring doctoral education that often refer to metaphors of pathways, journeys, voyages or crossings (Batchelor & Di Napoli, 2006; Barnacle and Mewburn, 2010; Brook et al., 2010; Wisker et al., 2010; Wisker, 2018) in order to depict researchers' developing growth and increasing progression along their doctoral trajectory. As Batchelor and Di Napoli (2006, 18) explain 'traditionally, the experience of doctoral studies has been reified as a fairly compact process characterised by a set of aims, rules and expectations.' Hughes and Tight (2013, 771) examine the implications of using such metaphors within doctoral education and contend that the image of a journey is limiting in its individualist narrative: 'its message of travailing against all obstacles, through the strength of inner spirit, speaks strongly to neo-liberal values of individualism, where personal motivation is all that is required to succeed.' Such narratives of personal success and 'inner spirit' reference damaging discourses of competitive neoliberalism and individualism. Neoliberal ideologies and practices have been widely criticised (e.g. Morley, 2016; Acker &Wagner, 2019; Bottrell & Manathunga, 2019; Taylor, 2020) Taylor (2020) explains that neoliberal discourses enable the simplification of doctoral study, depicting the journey as 'skill acquisition'.

Moreover, Petersen (2007) identifies alternative conceptions of doctoral study that have been put forward to re-invigorate an understanding and to offer a more nuanced reading of both doctoral study and the nature of learning and change. Taylor (2011, 443), for example, identifies that linear narratives of research progression sit in tension with alternative perspectives of doctoral study that imagine 'an opportunity for deep immersion in a topic, an opportunity to follow up leads that may turn out to be red herrings, and a source of personal fulfilment'. Consequently, academic pursuits at doctoral level may transcend mere knowledge acquisition. Doctoral students are not simply consumers of information but active producers of new knowledge. Their motivations are intricately intertwined with their intellectual curiosity, research interests, and aspirations for scholarly contribution.

2.2.2 The push-pull theory from two perspectives

The following content is a preliminary division and exploration of push-pull theory from two perspectives. First, it is the motivation and decision process of students before studying abroad; secondly, it is the motivation of returning home once they have graduated.

2.2.2.1 The original push-pull model

The push-pull theory is one of the important theories to study the causes of population migration (Bagne,1969; Molho, 1986; Zhang et al., 1997). It believes that migration is the result of the combined action of the thrust from the place of departure and the pull from the place of arrival. Bagne (1969) first suggested that the purpose of population movement was to improve living conditions. In other words, individuals possess a dual identity as both economic agents and labour resources. Their movement between industries and regions reflects their choices in education and employment, which in turn represents their value decisions. These choices determine the direction of the free flow of labour.

The push-pull theory is adapted from the demographic sociology theory. It has been well developed in the field of education and has been widely used by international educational scholars (Branco & Soares, 2016; Gesing & Glass, 2019; Jiani, 2017; Lam et al., 2011; Liu, 2009; McMahon, 1992). That is to say that it is recognised as an appropriate international educational research theory which in recent years has been regarded as important in explaining the reasons for international student mobility. It sums up the reasons for the flow of students into the domestic push, the pull of host countries and the influence of personal factors. According to many existing studies, push factors may include personal relevance and family/peer influence in the decision-making process and motivation mechanism of international students (Counsell, 2011; Lee, 2017; Li & Qi, 2019; Wu, 2015); The aspect of 'pull' includes factors relates to academic expectations and overseas experience (Huang, 2009; Marginson, 2014; Wilkins et al., 2012).

The push and pull theoretical framework offer this research a valuable lens through which to examine the complex dynamics of migration. By considering the interplay between push factors that compel individuals to leave their home country and pull factors that attract them to a destination, this framework provides a comprehensive understanding of migration motivations. However, its application requires careful consideration of context-specific factors and potential oversimplifications of the multifaceted nature of migration decisions. While the framework helps identify broad trends and patterns in migration flows, its predictive power may be limited by unpredictable events and individual agency. Nonetheless, the push and pull framework remains a valuable tool for policymakers and researchers seeking to address the root causes of migration, develop effective migration management strategies, and promote social integration and cohesion in host societies.

2.2.2.2 Flipped or reversed push-pull model

Thus far, the focus has been on the general push-pull theory, which presents factors that influence the international students before they study abroad. In the following sections,

international migration and the reasons for the return of international students to their home country are explored and discussed.

Most scholars, such as Lien & Wang (2005), Han & Appelbaum (2016) and Jain (2013), have studied the motivations and decision-making process of students studying abroad. However, there is little research on the migration intention of students after graduation. A better understanding of the driving and pulling factors that influence the flow of international students aligns with the supply and demand of labour (Gesing & Glass, 2019). Lien & Wang (2005) refer to the brain drain (a slang term indicating substantial emigration or migration of individuals)) from one country and the brain gain (an increase in the number of highly trained, foreign-born professionals entering a country to live and work where greater opportunities are offered). Moreover, the talent cycle plays a greater role in how international students interact at the social and professional levels (Han & Appelbaum, 2016). By analysing the factors that influence international students to stay in or leave their home countries, it may be possible to better determine the flow patterns associated with career development, personal adjustment and attraction factors.

In the next section, the specific and different factors will be demonstrated, which both include push and pull, as well as returning motivators.

2.3 Driving Motivations of Chinese Doctoral Students Studying Abroad

2.3.1 Overviewing the decision-making of overseas study

Studying abroad has become an increasingly popular option for students seeking a diverse and enriching educational experience. This section explores and analyses the various motivational factors that influence international students' decisions to study abroad. Understanding these factors is crucial for educational institutions, policymakers, and educators to enhance support structures and design effective programmes that cater to the evolving needs and aspirations of prospective international students. As indicated above there are many factors that influence students' decision-making on whether to study abroad. These are explored in more detail in this section.

 The frequent mobility of the global student population is a defining feature of contemporary globalization, particularly among elite individuals who possess the resources, networks, and aspirations to pursue educational opportunities across borders (Cano-Kollmann, 2018). This phenomenon reflects the increasing interconnectedness of the world's education systems, driven by advancements in technology, transportation,

and communication, as well as the growing demand for globally competitive skills and credentials. The rise in student mobility is not merely a byproduct of globalization but also a key driver of it, as students who study abroad often become agents of cultural exchange, economic collaboration, and knowledge transfer. Data from earlier studies underscore the scale and pace of this trend. Between 2002 and 2009, the number of internationally mobile students worldwide surged from 2.1 million to 3.4 million, marking a significant increase in a relatively short period (Altbach et al., 2016). This growth trajectory has been consistent over the past two decades, with the global number of mobile students increasing by 65% since 2000 (Bhandari and Blumenthal, 2011). Projections from the Organisation for Economic Co-operation and Development (OECD) suggest that this trend will continue, with the number of internationally mobile students potentially reaching nearly 6 million within a decade (OECD, 2008). These figures highlight the transformative impact of globalization on higher education, as students increasingly view international experience as a critical component of their personal and professional development

Studies exploring this issue (Yang et al., 2013; Zhou, Chung & Hung., 2009), found that economic factors are one of the most important determinants; these include scholarship, expected economic returns and employment prospects. Drawing on the research of Yang (2013) (discussed in section 1.1), Jackson (2019) concurs citing the significance of economic factors; many students believe that those who study abroad and return home (returnees) enjoy higher economic returns and more employment opportunities in the domestic labour market compared with those who study in China (Jackson, 2019). One significant factor driving the trend of Chinese students returning home after completing their studies abroad is the recognition and appreciation of overseas degree holders within China's labour market. Employers in China often place a high value on the skills, knowledge, and international perspectives that individuals acquire through studying abroad. Consequently, returning students are often seen as valuable assets who can contribute to the country's economic development and global competitiveness. In addition to the favourable perception of overseas education, the Chinese government has implemented a range of attractive policies aimed at incentivising students to return home and contribute to the nation's growth. For example, the government may offer housing subsidies, project funding, or other favourable conditions to encourage returnees to establish their own companies or enterprises (Hu et al., 2013). These policies include various forms of support and incentives designed to facilitate the reintegration of returnees into the domestic workforce.

The intrinsic motivation of students themselves may be an important factor that promotes the development of overseas education. Self-funded study abroad activities have played a

significant role in expanding the scale of study abroad and promoting the development of study abroad education in China (Huang & Wang, 2013). According to Chen (2012), the main contribution to the growth of the total number of Chinese students studying abroad is from self-funded study abroad, which largely speeds up the cultural exchanges between China and foreign countries, bringing a large number of talents studying abroad back to China, and promotes the development of Chinese education and culture). This also means that students studying abroad no longer rely on national scholarships, which need to be obtained through fierce competition. Therefore, intrinsic motivation is clearly reflected in students' motivations for studying abroad, however, they may have increased expectations due to self-funding.

While many students are intrinsically motivated to study abroad, they often face uncertainties and anxiety due to adjusting to a new cultural environment and different ways of living (Chen & Isa, 2003; Ward & Kennedy, 1999). This adaptation process can bring emotional challenges, and students may encounter communication barriers not experienced in their home country (Kim, 2001). Those unable to adapt to the host culture may suffer from psychological and physical health issues (Zheng & Berry, 1991). Despite these potential hurdles, many students find the benefits of studying abroad outweigh the challenges. However, Australian students reflecting on their study abroad experience noted that their perceived benefits differed significantly from the grand expectations set by their home universities (Forsey, Broomhall, & Davis, 2012, p. 129). They reported that half the students stated their priorities were to have fun, travel and make friends, and they saw study abroad as a break from serious work. Students who have studied abroad often report increased confidence, independence, and greater open-mindedness. This aligns with findings from a 1994 study by King and Young (1994) at Oregon State University, where students who hadn't yet studied abroad indicated that their interest in doing so was driven by a desire to experience another culture, travel and have adventures, pursue personal growth, and learn about other countries. Numerous studies on the outcomes of studying abroad highlight various perceived benefits, including personal development and autonomy, identity exploration, adaptability, cross-cultural skills, a broader understanding of the world, enhanced motivation, and improved career prospects.

2.3.2 Academic motivation

Academic motivation stands as a primary driver for students pursuing international education, reflecting their pursuit of high-quality academic experiences and globally recognized credentials. Central to this motivation is the perceived reputation of universities, which serves as a critical determinant in students' decision-making processes. As Pyvis

and Chapman (2007) emphasize, institutional prestige operates as both a symbolic marker of educational excellence and a pragmatic guarantee of future employability. This reputation-driven choice is further reinforced by institutional factors such as global university rankings, labor market alignment, and the perceived quality of pedagogical infrastructure, all of which shape students' expectations and aspirations (van Zanten & Legavre, 2014). The hegemony of global ranking systems—exemplified by the QS World University Rankings, Times Higher Education (THE), and Academic Ranking of World Universities (ARWU)—has profoundly influenced student mobility patterns. Universities consistently ranked within the global top 100 attract disproportionate numbers of international applicants, as these rankings are widely interpreted as proxies for academic rigor, research output, and graduate employability. For instance, institutions like MIT, Oxford, and Tsinghua University leverage their top-tier rankings to position themselves as "destination brands" in the global education market (Marginson, 2021).

Labor market considerations further amplify the weight of academic reputation. Students increasingly view international degrees as currency in competitive job markets, particularly in sectors such as finance, technology, and engineering. A 2020 survey of 10,000 international students across 20 countries revealed that 68% prioritized universities with strong industry partnerships and internship opportunities, underscoring the interplay between academic reputation and career preparedness (ICEF Monitor, 2021). National policies also play a role: countries like Canada and Australia have integrated post-study work rights into their visa regimes, effectively tying institutional choice to long-term migration potential (Hawthorne, 2022). The role of student networks in amplifying institutional reputation is particularly evident in the case of Chinese students. Cebolla-Boado and Soysal's (2018) seminal study of Chinese students selecting UK universities demonstrated how existing student communities act as "reputation multipliers." Their survey of 120 participants revealed that universities with established Chinese student populations—such as the University of Manchester or University College London—benefited from peer-driven information sharing via social media platforms (e.g., WeChat, Xiaohongshu) and alumni networks. These informal channels often carried greater credibility than official marketing materials, with 73% of respondents citing peer recommendations as their primary source of institutional evaluation. This phenomenon reflects the cultural significance of guanxi (social connections) in Chinese decision-making, where collective experiences outweigh institutional propaganda (Li & Bray, 2007). However, this reputation-centric model is not without critique. Scholars argue that the focus on

rankings perpetuates a homogenized view of academic quality, marginalizing institutions in the Global South that excel in localized contexts but lack global visibility (Takagi & de Wit, 2021). Additionally, the commercialization of reputation — evident in universities' aggressive branding campaigns and reliance on agent networks — risks reducing educational choice to a transactional calculus, overshadowing pedagogical values (Sidhu, 2023).

Many studies (Ahmad and Buchanan, 2017; Findlay et al., 2012; Teichler, 2017) also suggest that students are attracted to renowned institutions and unique academic programmes that may not be available in their home countries. As such, from a motivational perspective, studying in an institution that is highly ranked can help with meeting students' needs for self-enhancement and self-esteem/image (e.g., Bhattacharya & Sen, 2003; Knight, 2011). Also, Heffernan et al. (2018) outline the importance of institutions' rank and reputation as components that contribute to building students' trust in that institution. Individually, the desire to access specialised courses, cutting-edge research facilities, and expert faculty members drives students to explore international educational opportunities.

Investing in higher education is a common strategy for acquiring human capital, leading prospective students to seek what they perceive as the "best" education, often found in foreign countries (Bourdieu, 1986; Findlay et al., 2012; Teichler, 2017). Human capital encompasses an individual's skills, knowledge, and abilities, typically evaluated through formal education and practical experiences (Felício et al., 2014; Luthans et al., 2004; Luthans & Youssef, 2004). A study by Ahmad and Buchanan (2017) supports this notion, with a survey of 218 undergraduate and postgraduate students, along with semi-structured interviews with 18 PhD students, indicating that motivations for studying at international branch campuses are influenced by a mix of push-pull factors. These factors include the institution's reputation, the degree's marketability, lower tuition fees compared to home institutions, lower cost of living, safety, similarities in education systems, and cultural proximity.

For doctoral students, one of the most notable aspects of study experience is the exposure to diverse academic environments. According to Chow et al. (2018), doctoral candidates find themselves immersed in cutting-edge research, working alongside leading experts in their field. This exposure not only enhances their subject expertise but also fosters a global perspective, enriching their understanding of how their research fits into the broader international academic landscape. For example, a study by Yang, Volet and Mansfield (2018) investigated the motivations of Chinese international doctoral students in

science, technology, engineering, and mathematics fields for undertaking a PhD in seven universities in four Australian states, and the external factors influencing this major life. The reputation of academic supervisors, both in terms of their professional credentials and personal qualities, is a significant factor in choosing host institutions for doctoral studies (Yang et al. 2018). In a study involving in-depth interviews with 35 Chinese international doctoral students, the primary personal motivators for studying abroad were to enrich life experiences and pursue self-cultivation. While the decision to study in another country is ultimately personal, it is influenced by various factors, including ongoing partnerships between the students' home and host institutions.

2.3.3 Career-related motivations

Beyond academic goals, career-related motivations are a key factor in the decision to study abroad. Many studies suggest a strong link between studying abroad and improved career opportunities after graduation. For example, in addition to the academic knowledge gained from higher education, students can acquire human capital through other experiences. These secondary benefits include enhanced language skills, among other competencies, which can be valuable in the job market (e.g., Ahmad et al., 2016; Cubillo et al., 2006; Huong & Cong, 2018; Lewis, 2016; Nathan, 2017; Tantivorakulchai, 2018; Yang, 2007), or learning new cultural codes, norms, gestures and more (Hyams-Ssekasi et al., 2014). International experience as an individual's future career development is the main motivation for going abroad (Lam et al., 2011). Students say that it is an opportunity for them to gain foreign experience, which will become their competitive advantage in job hunting. In a qualitative survey of doctoral students studying abroad in tourism, the respondents mentioned that career motivation, especially career choice and career development, was an important factor that prompted them to study abroad. In China, overseas doctoral degree is becoming more important, because Chinese universities are more willing to recruit overseas doctoral graduates (Li & Qi, 2019). In addition, their own desire to explore and research disciplines is also an integral part of promoting students to pursue overseas academic achievements (Jupiter, 2017).

Studying abroad can help students develop a variety of skills that enhance their competitiveness in the labour market. Many students who study internationally become fluent in a second language, which has shown to be advantageous in the workplace. A study of U.S. college graduates (Saiz & E, 2015) found that employees who are bilingual earned a two to three percent higher salary compared to their monolingual counterparts, suggesting a direct benefit of language proficiency in the job market. However, there were differences based on the nature of the second language spoken – Spanish was not as sought after as German, for instance. Sorrenti's (2017) study, which examined the

language skills of Italian graduates who had spent time abroad during their studies, yielded similar findings. The study revealed that studying abroad positively impacted foreign language acquisition, yet the labor market rewards varied by language. Proficiency in German was linked to a higher wage premium compared to proficiency in English, French, or Spanish. Therefore, these studies suggest that students often perceive international education as a pathway to acquiring global perspectives, gaining cross-cultural and language skills, and thus increasing employability in the global job market. The above empirical evidence supports the idea that studying abroad can contribute to the development of a competitive edge and enhance long-term career prospects, however, it is important to note that not all students benefit equally.

2.3.4 Cultural curiosity and personal growth

Cultural curiosity and the desire for personal growth are recurring themes in the literature on study abroad motivations. Broadly, many students express a keen interest in immersing themselves in different cultures, languages, and lifestyles. Exposure to diverse perspectives is believed to foster personal development, intercultural competence, and a broader worldview, which are increasingly valued attributes in today's interconnected world. For example, according to research by Phan (2023), Asian doctoral students who study abroad, not only have the capacity to navigate the horizons of aspirations, but also the extension of imaginative spaces among them. Indeed, cultural immersion plays a pivotal role in shaping the study experience for overseas doctoral students. Living in a foreign country exposes foreign students to different customs, languages, and ways of thinking. This cultural diversity fosters adaptability, resilience, and a broader worldview. It also promotes cross-cultural collaboration, as students learn to navigate and appreciate the nuances of working with peers from various backgrounds (Li and Qi, 2019). These interpersonal skills are invaluable, both in academia and in an increasingly interconnected global society. However, while the academic and cultural aspects are crucial, the overseas doctoral study experience is not without its challenges. Adapting to a new educational system, dealing with language barriers, and being away from familiar support networks can be demanding. Overcoming these challenges contributes to personal growth, resilience, and a heightened sense of accomplishment (Sverdlik et al., 2018). The ability to navigate these hurdles equips students with valuable life skills that extend beyond their academic pursuits.

In addition, cultural experience may be similar to the accumulation of human capital. The perspective of cultural capital also drives the instrumental interests of going abroad. From this perspective, the cultural uniqueness and social network established by a person may be important (Collins, 2013). Many researchers (Marginson, 2014; Tran, 2015) suggest that

international higher education is to some extent associated with self-growth and the acquisition of new experiences and perspectives. That is to say, the participation in foreign campus culture, social and environmental experiences are very important in the process of Chinese students' pursuit of international education. But Cantewell et al. (2009) found that pull factors are also affected by the student's home country; students from economically developed western countries seek short-term studies because of the desire to experience a different culture, and students more inclined to accept the scholarship and the opportunity to gain high quality academic education. In a word, cultural experience is an important pulling factor in the decision-making and motivation of students' overseas study activities.

Finally, literature suggests that students are motivated by the opportunity to build international networks, make friends from different cultural and academic backgrounds, and engage in social experiences that go beyond the academic realm (Cheung and Xu, 2015; Yang et al., 2018). The social dimension of studying abroad is often intertwined with the desire for a more enriching and fulfilling overall experience during the study abroad period. For many students, the chance to immerse themselves in a new cultural environment, learn new languages, and participate in diverse social activities is as compelling as the academic benefits. According to Walker et al. (2009) and Brewer and Ogden (2023), networking and collaboration are integral components of doctoral research, and studying abroad provides students with unparalleled opportunities to connect with scholars, researchers, and professionals from around the world. These connections not only enhance the quality of research by exposing students to different methodologies, perspectives, and resources but also open doors to potential collaborations, job opportunities, and a global network that lasts a lifetime. Moreover, the process of building these international networks often begins in informal settings, such as conferences, workshops, and social gatherings, where students can exchange ideas and form lasting relationships. The friendships and professional connections forged during study abroad programs often extend beyond the duration of the program itself, creating a supportive community that spans continents. This global network can be particularly valuable in today's interconnected world, where cross-cultural understanding and international collaboration are increasingly important in both academic and professional contexts. Additionally, the social experiences gained through studying abroad contribute to personal growth, fostering skills such as adaptability, empathy, and intercultural communication, which are highly valued in both academic and non-academic careers.

2.3.5 Parental expectations

In addition to the preceding factors, parents' expectations and their educational backgrounds are also key determining factors that influence individuals' intentions to study abroad (Miller, 2008; Pope et al., 2014). Parents wield a significant influence on a student's decision to study abroad, shaping their perspectives and choices throughout the process. The influence of family and peers is also a driving factor in the decision-making process of studying abroad. An earlier study by Shank et al. (2005) showed that 37% of international undergraduates chose their parents and friends as the main sources of information in the decision-making process of overseas study. At the same time, researchers such as Collins (2013), discuss the importance of students' contact and peers' opinions, so it may not be the individual alone who decides to choose the research institution of the host country. Specifically, this may be because students have friends studying at the university they want to go to, as well as personal experiences of their friends and family studying at university. Therefore, family, friends or tutors are also considered to be a major influence on student choice (push factors).

From the initial consideration of studying in a foreign country to the practical aspects of application and departure, parental guidance plays a crucial role. Financial considerations, emotional support, and the assurance of safety are among the key factors where parents exert influence. According to Kijima et al. (2021) and Yu (2021), they provide valuable insights into the potential benefits of an international education, emphasising the opportunities for academic enrichment, cultural exposure, and personal growth. Moreover, parents' attitudes towards global experiences, their own educational backgrounds, and career aspirations can profoundly impact a student's mindset, influencing the choice of destination and field of study. According to Liu(2018), the encouragement and endorsement of parents can serve as a motivating force for students, instilling confidence, and determination as they embark on the transformative journey of studying abroad. More deeply, parents with higher education degrees tend to encourage their children to pursue tertiary education after completing secondary education and give more suggestions on their course selection (Salisbury et al., 2010). Also, those with well-educated parents usually come from higher-income families and attend what they perceive to be better secondary schools, which can finance their enrolment and give them a desire to study abroad (Kim and Lawrence, 2021).

These views could correlate to cultural reproduction theory, which is a core concept in Bourdieu's educational sociology theory. Bourdieu highlighted the pivotal role of cultural reproduction, distinguishing it from the attributes of conventional societies. Unlike traditional societies where social mobility may be constrained by factors like birthright or

caste, Bourdieu's theory emphasises how cultural capital—such as knowledge, skills, and cultural norms—is unequally distributed and perpetuated within social structures (Cannon, 2020). On the other hand, he shows the complex process of its operation and emphasises its special function in adjusting and reconstructing social class structure, individual lifestyle, mentality, ideological style, and redistribution of cultural resources (Bourdieu, 1973). In this research, cultural reproduction and parent investment are sociological concepts that can be relevant when considering whether their child should study overseas for a PhD. When a child goes abroad for education, parents often aim to reproduce certain cultural elements, ensuring that their cultural identity and values are maintained even in a foreign environment (Tsang, 2013). Parental investment, on the other hand, encompasses the resources, both tangible and intangible, that parents provide to support their children's well-being and success (Temple and Reynolds, 2007; Werum et al., 2018). For example, parents may invest not only in the financial aspects of education but also in emotional support, guidance, and cultural preservation. This investment reflects a commitment to ensuring their child's academic and personal success while navigating the challenges of living in a different cultural setting. This dual commitment to cultural reproduction and investment in the child's overseas education reflects the complexity of parental involvement in shaping a student's international study experience.

2.3.6 Peer influence

Finally, another important driving factor here is the pivotal role that peers have on students' decisions to study abroad. The allure of shared experiences and insights from peers who have embarked on similar academic journeys can be a powerful motivator (Lewis, 2016; Wellington and Sikes, 2007). Researchers have additionally found that student attitudinal and behavioural traits influence their participation in study abroad. For example, Goldstein and Kim (2006) concluded that expectations of study abroad play a critical role in a student's subsequent study abroad participation and that students who exhibit high levels of ethnocentrism and prejudice are considerably less likely to study abroad. Conversations with peers who are considering or have successfully pursued doctoral programmes abroad create a sense of camaraderie and shared aspirations. Additionally, observing how peers who have undertaken overseas doctoral studies have expanded their academic horizons and career opportunities can serve as a persuasive factor. The collective enthusiasm within a peer group contemplating such educational pursuits can create a supportive environment, making the decision-making process more collaborative and reassuring for individuals seeking to advance their academic and professional paths on an international stage. Along these same lines, Luo and Jamieson Drake (2015) uncover evidence that intent to participate in certain student groups, such organisations or clubs

centred around common interests, is significantly associated with an increased intent to study abroad.

2.4 Theoretical Consideration - Habitus and Cultural Capital

In view of the above discussion on the push and pull factors of overseas student mobility, it is important to explore the deeper perspective of capital thinking. Bourdieu's major contributions to the sociology of education, the theory of sociology, and sociology of aesthetics have achieved wide influence in several related academic fields (e.g. anthropology, media and cultural studies, education, popular culture, and the arts). Educational researchers widely acknowledge the appeal and utility of Bourdieu's conceptual framework, finding it to be a rich source of insight and analysis (Gale & Lingard, 2015; James, 2015). However, there exist variations in the extent to which researchers engage with Bourdieu's theories, often referred to as the "depth of use." Some studies simply apply Bourdieu's concepts as theoretical constructs, while others leverage his ideas as practical tools to address real-world challenges within the field of education. This deeper understanding enables this study to elucidate the mechanisms through which social inequalities are perpetuated and reproduced within educational systems. This section will explore the basic framework of Bourdieu's theory, including field, habitus and capital (Bourdieu, 1992). Secondly, sociology-related theories related to the topic of the mobility of international students, students will be explored to understand the occurrence of overseas study activities.

2.4.1 Bourdieu's perspective with study abroad

Bourdieu introduced the concept of habitus to elucidate the ways in which individuals internalise cultural norms, values, and dispositions, shaping their perceptions and behaviours (Piroddi, 2021). In the context of international doctoral students, habitus provides a valuable lens to examine how their prior social, cultural, and educational backgrounds influence their motivations and expectations. Bourdieu's (2018) work was primarily concerned with the dynamics of power in society, especially the diverse and subtle ways in which power is transferred and social order is maintained within and across generations. Habitus is created through a social, rather than individual process leading to patterns that are enduring and transferrable from one context to another, but that also shift in relation to specific contexts and over time. Habitus is not fixed or permanent and can be changed under unexpected situations or over a long historical period (Navarro 2006). Furthermore, if a person has a background in a certain field, there may be some influence of the environment on their behaviour, such as the way they speak, the knowledge of their

class, etc. This 'habitus' is not consciously considered, in other words, people do not really need to be aware of their influence, it can play a role in a specific situation (Gaddis, 2013).

International doctoral students bring diverse habitus with them, rooted in their home countries' academic, social, and cultural contexts. These habits impact their approach to academic pursuits, research methodologies, and interactions within the academic community. For instance, a student raised in an environment where collaboration is highly emphasised may exhibit a different approach to research than a student from a more individualistic academic culture. Moreover, Bourdieu's theory helps to unpack the complex interplay between habitus and the academic field. Doctoral programmes represent a distinct field with its own set of rules, practices, and hierarchies. Understanding how international students' habitus align or conflict with the academic field sheds light on the challenges they may face in adapting to the new environment. Additionally, Bourdieu's concept of capital, encompassing economic, social, and cultural forms, is relevant to the study of international doctoral students' motivations. These students often invest significant cultural and social capital to navigate unfamiliar academic landscapes, seeking to convert their efforts into academic success. The interplay between habitus and capital within the international doctoral student experience provides a rich theoretical lens through which to explore the motivations and expectations that drive their academic journey.

2.4.2 Different capital link with doctoral student mobility

As globalisation accelerates the interconnectedness of educational landscapes, international education has evolved into a transformative mechanism through which individuals negotiate their identities and life trajectories. This phenomenon transcends mere geographical relocation, embodying what Tran (2016) conceptualizes as a multidimensional mobility—a convergence of educational aspirations, cultural reinvention, and sociopersonal metamorphosis. At its core, cross-border education operates as a reflexive project of selfhood, wherein students actively engage in what Marginson (2014) terms agentic self-formation — a deliberate curation of skills, worldviews, and social networks to construct "a life deemed worth living" (p. 21). The shifting paradigms of international student mobility (ISM) reveal a critical departure from its historical emphasis on human capital accumulation. Contemporary motivations, as Tran's (2016) longitudinal studies demonstrate, are increasingly characterized by existential diversification—students seek not only academic credentials but also symbolic capital to navigate transnational labor markets, emancipate themselves from constrictive sociocultural norms, or even renegotiate familial expectations. For instance, Vietnamese students in Australia frequently

frame their mobility as a dual project: acquiring Western academic distinction while simultaneously cultivating cosmopolitan dispositions that challenge local collectivist paradigms (Tran & Nguyen, 2021).

Bourdieu's theory of practice provides a robust analytical framework to decode these complex dynamics. The interplay between habitus, capital, and field elucidates how students' decisions are neither fully deterministic nor purely voluntaristic. As embodied histories, students' habitus — shaped by class backgrounds, ethnic identities, and prior educational experiences — interacts with the global higher education field, a stratified space where institutional rankings and national policies convert cultural capital into positional advantages. Chinese students' strategic preference for Anglo-American universities, for instance, reflects a calculative alignment of family economic capital with the symbolic power of Ivy League degrees to maximize future returns (Waters, 2006). Furthermore, Bourdieu's concept of symbolic violence unveils the tacit hierarchies embedded in ISM. The valorization of English-medium education and Western pedagogical norms often marginalizes alternative epistemologies, compelling students from the Global South to internalize dominant cultural codes as "legitimate" knowledge. Paradoxically, this very process enables subversive agency: Indian engineering students in Germany, while acculturating to Eurocentric technical paradigms, frequently hybridize their professional identities to claim niche expertise in cross-cultural innovation systems (Bhandari, 2020). Such empirical manifestations confirm that ISM constitutes a field of struggle where individuals strategically mobilize capitals to reconfigure life possibilities. As national education systems become nodes within global circuits of power, students' mobility decisions emerge as tactical responses to intersecting structures — neoliberal labor markets, postcolonial hierarchies, and digital-era connectivity. Ultimately, the Bourdieusian lens compels us to view international education not as a linear path toward predefined goals, but as a contested terrain of identity negotiation, where the very act of border-crossing becomes a performative assertion of aspirational becoming.

In the pursuit of understanding how students navigate their academic term and living situation, this research applies the theoretical lens of habitus and capital to explore the complexities of student social mobility. Habitus, the set of ingrained dispositions shaped by a student's social background, interacts with various forms of capital, such as the resources provided by their family (family capital) and the resources offered by their educational institutions (institutional capital). By examining this interplay, we can gain a deeper understanding of how these factors shape students' experiences and their trajectories within the social hierarchy. This focus on the intersection of habitus and capital

allows us to move beyond simply clarifying the student's situation and delve into the rich tapestry of influences that define their educational journey. Knowledge about the university is passed down from parents to children, as individuals tend to adopt family habits in their original environment (Reay, 2004). For instance, the choice to study abroad is often influenced by parental advice and expectations. Therefore, since it elucidates how past experiences shape an individual's character traits, this suggests that behaviours will be guided by these traits during the decision-making process. In the realm of international doctoral students' motivations and expectations, Bourdieu's (2018) concept of cultural capital proves particularly insightful. Cultural capital encompasses a spectrum of resources embedded in an individual's socialization and education, reflecting their familiarity with cultural practices and symbolic systems.

Bourdieu further breaks down cultural capital into three distinct forms: embodied, objectified, and institutionalised capital. Embodied cultural capital refers to the internalised dispositions, skills, and habits that individuals acquire through their upbringing and socialization. Embodied cultural capital, as Bourdieu (1986) theorizes, encompasses the deeply ingrained dispositions, skills, and habits that individuals acquire through prolonged socialization processes, often beginning in familial and educational environments. For international students, this form of capital manifests in their ability to adapt to unfamiliar academic cultures, negotiate cross-cultural interactions, and internalize new modes of thinking. Early scholars such as Ballard and Clanchy (1997) and Fox (1996) highlighted that many students pursue international education precisely to acquire skills they perceive as lacking in their home contexts, such as critical thinking, analytical reasoning, and independent learning. These skills, once internalized, become part of their embodied capital, enabling them to navigate the complexities of global academic and professional landscapes. Moreover, the process of acquiring embodied capital is not merely transactional but transformative. As Ryan and Hellmundt (2007) argue, cross-cultural learning fosters intercultural competence—a critical dimension of embodied capital that facilitates meaningful communication and bridges cultural divides. For instance, Chinese students studying in Australia often develop a hybridized academic habitus, blending Confucian values of diligence and respect for authority with Western pedagogical emphases on debate and self-expression (Tran & Vu, 2018). This synthesis of cultural dispositions enhances their ability to operate within diverse sociocultural contexts, thereby enriching their embodied capital.

In the context of international doctoral students, embodied cultural capital encompasses their academic habits, linguistic competencies, and cognitive skills developed in their home countries. For instance, a student raised in a research-intensive academic

environment may bring a well-developed methodological toolkit, influencing their research approach and expectations within the international doctoral programme. Secondly, objectified cultural capital involves external, tangible manifestations of cultural knowledge and resources. These may include educational credentials, academic publications, or other tangible representations of one's cultural background. International doctoral students often carry objectified cultural capital in the form of degrees, certificates, or research outputs from their home countries. This capital serves as a form of symbolic wealth within the academic field, influencing perceptions of their expertise and legitimacy. International students believe they have gained experience, education, and training from the overseas country, which is then translated into economic capital (better employment prospects after graduation) (Huang and Turner, 2018). Thirdly, institutionalised cultural capital relates to the recognition and validation of cultural knowledge by formal institutions, such as educational systems and academic establishments. The prestige associated with degrees from renowned institutions or academic traditions contributes to the institutionalized cultural capital of international doctoral students. The acknowledgment of their home country's educational system and the compatibility of their prior academic experiences with the expectations of the host institution play a crucial role in shaping their academic journey.

Understanding how international doctoral students navigate and leverage these different forms of cultural capital provides insights into their motivations and expectations. Embodied cultural capital influences their academic practices and approaches, objectified cultural capital contributes to the symbolic recognition of their expertise, and institutionalized cultural capital shapes their interactions within the formal structures of the host institution. Incorporating these nuances of cultural capital into the theoretical framework of motivations and expectations enriches the analysis, highlighting the complex interplay between individual backgrounds and the broader academic context. It underscores the importance of recognising and valuing diverse forms of cultural capital to create an inclusive and supportive environment for international doctoral students as they navigate their academic pursuits. Cultural capital also exists in the study of international education and study abroad. Wood (2014) suggests that some current studies focus on a certain form of capital rather than combining social, economic, and cultural aspects. Therefore, in the field of educational mobility/migration, capital often helps to receive overseas educational opportunities, but in the process of mobility, cultural capital is gradually attached to the subject and object who have different perspectives in how individuals and their experiences are positioned within the process of education-related movement across borders.

In this instance, the subject (or active agent) is the student who engages in the mobility process, makes choices, and accumulates cultural capital. They exercise agency in deciding to study abroad, adapting to a new educational environment, and transforming their cultural, social, and economic capital. For example, a Chinese student choosing to pursue a PhD in the UK, who need to navigate academic expectations, and acquire new forms of cultural capital through immersion in an international educational setting. On the other hand, the object refers to the recipient of change or transformation in the mobility process. In this sense, the student may also be seen as an object of the education system, government policies, or social structures that shape their mobility experience. Institutions, host countries, and education markets often treat international students as economic or strategic assets rather than active agents. An example of this would be a host university treating international students as tuition revenue sources, shaping their policies to attract more foreign applicants.

To sum up, in understanding the logic and practice of international student mobility as a social field, it is of great significance to draw lessons from Bourdieu's integrative and transformative forms of capital. The concept of 'habitus' leads to the fundamental decisions and motivations that arise when students choose to study abroad. Second, the underlying reasons show that students or individuals and related groups not only have the simple process of accepting and replicating capital, but may also participate in different ways in building, promoting and transforming various kinds of capital. Therefore, the theory about Bourdieu or other has reason to be explored in the research topic being generated, developed, and conducted.

2.5 Learning and teaching experience in the UK

2.5.1 International student experience

An interest in cross-cultural awareness and other driving factors has led to a significant increase in the number of students undertaking academic education overseas (Varela, 2017). These studies (Jupiter et al., 2017; Kunuroghu et al., 2015; Lee et al., 2015; Pyvis, 2007) generally show that overseas experiences bring an inclusive and cross-cultural perspective. For example, international mobility and strong cross-cultural ability improves the quality of the students' communication and critical thinking (Tran & Pham 2016). Simultaneously, international students contribute to the cultivation of critical thinking skills and the advancement of a robust democracy (Walker, 2012). This phenomenon may be attributed to the exposure gained through international higher education, which fosters self-reflection and dialectical training. Transnational experiences cause identity issues as

well; however, they function as a double-edged sword in international doctoral students' lives (Fotovatian, 2012; Ye & Edwards, 2015; Ye & Edwards, 2017; Zhang, 2016). When international doctoral students find their usual habits and assumptions inadequate for navigating a new environment, they can struggle with feelings of being an "outsider" and "invisible," accompanied by shifts in their sense of self. These identity and adaptation challenges often bring emotional stress, manifesting as loneliness, anxiety, isolation, and frustration (Li, 2016; Mittal & Wieling, 2006; Russell-Pinson & Harris, 2019). However, Zhang (2016) suggests that studying abroad can be a catalyst for personal growth. It can lead to an accumulation of personal capital, fostering self-development. Students often become more aware of cultural diversity, more open to differences, and more responsible as individuals and autonomous learners.

At the same time, the efficacy of communication is prominently showcased when compared to students who did not engage in international study. (Luo & Jamieson, 2015). Moreover, language skills are a key part of the acquisition of overseas knowledge. Similarly, confidence in using language is increased through the international curriculum (Cubillos & Ilvento, 2012). Another study (Reynoleds, 2013) found that students' understanding of different language forms was constantly improving, especially in spoken and written language. Language proficiency plays a more significant role in a student's comfort with relocating to a foreign country than factors like education, age, marital status, or sex. It's a vital aspect of cultural adaptation (Misra et al., 2003). Language barriers can affect communication, comprehension of academic work, academic writing, overall learning, and understanding of technical terms (Andrade, 2006; Cowley & Hyams-Ssekasi, 2018; Lewis, 2016; Wilkins et al., 2012; Wu et al., 2015; Yang, 2007). Therefore, language skills are considered an invaluable asset and a major incentive for international mobility (Lasanowski, 2011).

In addition, the ecological perspective focuses on the relationship between people and their living environment, which is interactive and reciprocal (van Lier, 2004,2008). Zappa-Hollman and Duff (2015) investigated the socialisation process of international students in a Canadian university, discovering that students respond to academic learning challenges by building their own personal practice networks. In their study, the researchers observed students using learner agents to seek help from others both inside and outside the classroom. In most cases, international students occasionally feel marginalised and isolated. Especially in light of the restrictions imposed by campus closures during COVID-19, many PhD students have survived the academic writing challenge for more than a year by meeting online with their supervisor. For international PhD students, navigating academic writing challenges became even more daunting amidst the uncertainties and

disruptions caused by the pandemic. The transition to remote learning and research presented unique obstacles, including limited access to physical resources, heightened isolation, and challenges in maintaining productive communication with supervisors and peers. Moreover, the closure of research facilities and libraries further exacerbated the difficulties faced by international students in accessing essential academic materials and resources necessary for their research projects. One significant aspect of the impact of COVID-19 on international PhD students' experiences lies in the adaptation to virtual supervision and remote meetings with their advisors. As campus closures persisted, many PhD students relied heavily on online platforms and virtual communication tools to maintain regular contact with their supervisors. While virtual meetings provided a lifeline for academic guidance and support, they also posed challenges in terms of establishing rapport, conveying complex ideas, and fostering meaningful intellectual exchange. Therefore, international students may also face the challenge of connecting with others socially and academically.

2.5.2 The role of supervisor and doctoral supervision

The role of a supervisor in academic settings, particularly in the context of higher education and research, has been a subject of extensive exploration in literature. Scholars (Lee, 2019; Thiry and Laursen, 2011) have investigated the multifaceted responsibilities and influence that supervisors exert on the academic and personal development of their students. One key aspect addressed in the literature is the mentorship function of a supervisor. Research emphasises the pivotal role supervisors play in guiding, advising, and supporting their students throughout the academic journey. According to Goldhaber, Krieg and Theobald (2020), effective mentorship has been linked to increased student satisfaction, higher completion rates, and enhanced research productivity. Scholars underscore the importance of supervisors not only imparting subject-specific knowledge but also fostering critical thinking, independence, and resilience in their mentees.

The literature also delves into the interpersonal dynamics of the supervisor-student relationship. Effective communication, trust-building, and the establishment of clear expectations are identified as crucial elements in ensuring a positive and productive working relationship (Spencer and Molina, 2018). Researchers (Lee, 2019; Zaheer and Munir, 2020) highlight the significance of a supportive and constructive feedback loop, where supervisors provide guidance while encouraging students to develop their own scholarly voice. Furthermore, the evolving role of supervisors is explored in light of changes in the academic landscape. With the rise of interdisciplinary research, globalisation, and advancements in technology, supervisors are expected to adapt their approaches to accommodate diverse research methodologies and collaborative initiatives

(Fenge, 2012). The literature underscores the need for supervisors to be agile in responding to these changes and to provide a supportive environment that nurtures creativity and innovation. However, based on different disciplines, different supervisory practice is reflected. This study focuses on the role of doctoral supervisors in business and humanities.

Challenges in the supervisory role are also addressed in the literature, including issues related to workload, balancing competing demands, and addressing the diverse needs of a growing and increasingly international student body (Bastalich and McCulloch, 2022). Strategies for addressing these challenges, such as professional development opportunities for supervisors and the implementation of clear institutional policies, are discussed as potential avenues for improvement.

The relationship between international students and their supervisors in the context of higher education is a critical area of study that addresses unique challenges and opportunities (Mori et al., 2009; Nachatar Singh, 2022). One prominent theme in the literature is the role of cultural diversity in shaping the supervisory relationship. International students often bring diverse cultural perspectives, educational backgrounds, and communication styles to the academic setting. Studies (Wang and Li, 2011; Zepke and Leach, 2016) highlight the importance of supervisors being culturally sensitive and aware, adapting their mentoring approaches to accommodate the needs and expectations of students from different cultural backgrounds Understanding cultural nuances can positively impact communication, trust-building, and the overall success of the supervisory partnership. However, communication barriers represent another key focus in the literature. Language differences and variations in communication norms can create challenges in conveying complex academic concepts, expectations, and feedback (Ismail et al., 2013; Masek and Alias, 2020). Research emphasises the need for clear and transparent communication strategies, including the use of plain language, non-verbal cues, and active listening, to bridge these gaps. Effective communication is viewed as essential for establishing a supportive and constructive supervisory relationship.

The literature also addresses the social and emotional dimensions of the international student-supervisor relationship. Studies (Bui, 2014; Lundgren and Osika, 2021) highlight the potential for isolation and homesickness among international students, and the role supervisors can play in providing social support and a sense of belonging. Emotional support from supervisors is seen as crucial for the well-being of international students, influencing their academic engagement, confidence, and overall satisfaction with the doctoral experience. Additionally, scholars (Amery et al., 2020) have explored the impact

of the supervisor's role in facilitating the integration of international students into the academic community; This includes providing guidance on navigating institutional policies, facilitating networking opportunities, and fostering a sense of community within the research group. Such support is considered vital for the academic and personal success of international students. In addition, the literature (Fan et al., 2019) also acknowledges the reciprocal nature of the international student-supervisor relationship. Supervisors often benefit from exposure to diverse perspectives, enhanced cultural competence, and the enrichment of their own research through collaborations with international students. This mutual exchange is seen as contributing to a vibrant and dynamic academic environment (Wisker and Robinson, 2016). As higher education continues to attract a globally diverse student body, ongoing research in this area provides valuable insights for institutions, supervisors, and international students seeking to optimize the doctoral experience and foster successful academic journeys.

To summarise, doctoral supervision has been a subject of extensive examination within the academic literature, with scholars and researchers delving into various aspects of this critical dimension of higher education. The literature on doctoral supervision encompasses a broad range of topics, including supervisory styles, the evolving role of supervisors, challenges faced by both supervisors and candidates, and the impact of supervisory practices on the overall doctoral experience. Researchers have explored the dynamics of the supervisor-student relationship, emphasising the importance of effective communication, mutual trust, and collaboration. Additionally, the literature delves into the evolving landscape of doctoral education, addressing issues such as the impact of technology, the globalisation of research, and the changing expectations of doctoral candidates. Therefore, the ongoing exploration of doctoral supervision in the UK needs to be reflected as a commitment to continuous improvement and adaptation in response to the evolving needs of doctoral candidates and the broader academic community.

2.6 Approaching Graduation: Thinking of Return

2.6.1 Overview of flipped Push and pull factors.

There are some early studies (Potter and Phillips, 2006) about international migration, that suggest that economic factors play a crucial role in people's decision to move for example, the difficulty of finding jobs can be a powerful driver. Waldorf (1995) also suggests that immigrants who are satisfied with their jobs are less willing to return than those who are dissatisfied with their jobs. The opposite of this is borne out by a more recent study by Lee et al. (2015) of Koreans in New Zealand, which found that many Koreans decided to

return home because of the difficulty in finding jobs in the visiting country. The job discrimination and sense of alienation they faced also prompted them to seek jobs in South Korea. Kibria et al. (2014) concur citing that the atmosphere of discrimination and marginalisation may cause people to return to their original countries because they are used to the original group solidarity. In particular, it may be the difficulty of social integration and language related obstacles that make them feel like a stranger or never fully belong to the host country, which motivates them to return.

Cerase (1974) believed that some individuals who want to return are doing so in order to bring skills and knowledge (human capital) they have learned and acquired back to their original country and make a positive contribution. Returnees make up a vibrant group who see themselves as "agents of change." Their goal is to return and change their home country by bringing new ideas and values, as well as using the knowledge and skills acquired in the host country (Kunuroglu et al., 2015). In addition, Hassan et al. (2013) found that a sense of responsibility had a significant impact on the return and investment of returnees., Andreeva et al. (2009) suggest that family networks are one of the factors that promote returning home. Some studies (Cassarino, 2004) indicate that maintaining positive relationships with friends and family back home may increase the likelihood of returning home. However, people who live abroad are less likely to return home if their family members are in the host country (Constant & Massey, 2002).

Regarding the pull factor, as mentioned earlier, due to the challenging job opportunities in host countries (especially western countries) and the possibility of patriotism, people are likely to decide to return home and use their knowledge and skills. In this case, the possible economic returns are mutually beneficial to both the returnees and the governments of the original countries (Chand, 2016). Developing countries, such as Asia and Africa, use favourable policies to attract overseas students or expatriates back home (Giannetti et al., 2015; Wolff et al., 2016; Zagade and Desai, 2017). At the same time, returnees feel valued and fulfilled when they consider themselves to be involved in the preferential policy.

The decision of international students to return to their home countries constitutes a complex negotiation between disrupted identities and reconstructed belonging, shaped by intersecting sociopolitical, cultural, and psychological forces. King et al. (2011) situate this phenomenon within a framework of existential recalibration, arguing that prolonged exposure to marginalization, cultural dissonance, and systemic exclusion in host countries often triggers a profound reassessment of one's place in transnational hierarchies. For Chinese students, this process is further mediated by China's unique sociopolitical

ecosystem, where state-engineered narratives of national rejuvenation and civilizational continuity intersect with individual aspirations for stability and cultural rootedness. The "unpleasant experiences" cited by King et al. (2011) extend beyond mere logistical challenges, encompassing what scholars term affective displacement — a state of psychological alienation exacerbated by racial microaggressions, linguistic barriers, and the daily performance of cultural translation. For instance, Chinese students in Anglo-American universities frequently report being pigeonholed as "perpetual foreigners," their academic contributions overshadowed by stereotypes of passive Asian learners (Li & Lowe, 2016). Such experiences engender what Wang and Miao (2020) call diasporic double consciousness, wherein students simultaneously inhabit and critique both host and home societies, ultimately seeking refuge in familiar cultural frameworks. This identity crisis is compounded by structural inequities. Despite possessing institutionalized cultural capital (e.g., Western degrees), returnees often face symbolic devaluation of their transnational experiences in host labor markets—a phenomenon termed credential dissonance (Zweig & Wang, 2013). The resulting cognitive dissonance drives many to repatriate, seeking environments where their hybrid capital is legible and valorized.

King and Christou's (2014) emphasis on "national cohesion" must be critically unpacked. Returnees often engage in strategic essentialism, selectively performing Chineseness to access state resources while privately critiquing authoritarian governance. For example, tech entrepreneurs in Shenzhen leverage nationalist rhetoric to secure government funding, yet simultaneously adopt Silicon Valley-style management practices that subvert state-centric models (Zhou, 2018). Moreover, the notion of "belonging" is inherently contested. While returnees may physically reintegrate, their subjectivities remain transnational. Surveys reveal that 72% of Chinese haigui maintain professional networks abroad and consume global media, embodying what Ley (2021) terms rooted cosmopolitanism — a simultaneous attachment to local identities and global imaginaries.

2.6.2   Considerations for returning to China.

The decision for overseas PhD graduates to return to China is often shaped by a combination of professional, personal, and national considerations. Many individuals are enticed by the robust career opportunities emerging in China's rapidly growing economy. The country's expanding industries and technological advancements create a compelling environment for those seeking impactful roles in academia, research, and industry. Additionally, a deep-seated sense of cultural identity and familial ties can motivate individuals to return, fostering a desire to contribute to their home country's development and be closer to loved ones. Government initiatives aimed at attracting skilled

professionals, coupled with a flourishing research and innovation landscape, further bolster the appeal of returning. For some, the prospect of leveraging international networks built during their overseas studies adds an extra layer of motivation. Whether driven by a commitment to personal fulfilment, entrepreneurial aspirations, or an improved quality of life, the decision to return to China reflects the intricate interplay of individual values, career goals, and the evolving opportunities within the dynamic socio-economic landscape of their homeland.

In the initial stage, the immigration of international students brings resources to the human capital of developed countries but causes the loss of human capital and economic towards the original countries to a certain extent. For example, Since the 1990s, brain drain (students who study abroad choosing to remain and work overseas) in China has become a prominent concern as a substantial number of highly skilled and educated individuals seek opportunities abroad. Welch and Zhen (2008) highlight that Fuelled by a quest for enhanced career prospects, better working conditions, and higher salaries, professionals ranging from scientists and researchers to entrepreneurs are increasingly opting to leave China for more developed nations (Welch and Zhen, 2008). The allure of superior educational systems and advanced research facilities, along with concerns about political and social factors, contribute to this phenomenon. The departure of these talented individuals has far-reaching consequences for China, resulting in a loss of innovation, weakened research and development efforts, and potential economic implications (Mok and Han, 2016).

In response to the brain drain phenomenon, Zweig, Chen, and Rosen (1995) conducted a survey of 273 Chinese students and scholars in the US concerning their intention to return to China. The research was shaped by two significant historical events: the Chinese Student Protection Act, which allowed many participants to apply for permanent U.S. residency after the Tiananmen Square Protest, and Deng Xiaoping's "Southern Tour" in 1992, which encouraged a more open economic and cultural environment in China. Initially, Zweig, Chen, and Rosen found that political instability and limited political freedom were key factors discouraging people from returning to China. Other reasons included inadequate equipment, challenging work conditions, and limited career development opportunities. However, a more recent study by Jonkers (2010) on China's returning scientists highlighted that the increase in funding for scientific research, institutional reforms, and the enhanced visibility of China's research system contributed to a new wave of return migration.

Research outside of the education field emphasises the role of the political system for returnees. Some studies have been developed to attract expatriates back home, which use the reverse push-pull factor. Specifically, entrepreneurs or emerging economies, as a focus, are attracted to invest in their countries of origin by some developing countries like China, using socio-political stability, economic prosperity, and talent development programmes as driving factors (Logan, 2009; Lu and Zhang, 2015). Moreover, some studies (Brinkerhoff, 2016; Annette and Brinkerhoff, 2011) indicate that the development of enterprise in the countries of origin of immigrant entrepreneurs is due to their relative knowledge of the local institutional environment, social networks and culture, which may be oblivious to their foreign counterparts who may wish to invest in such local markets. Thus, it can be concluded that the institutional structure of the host country, such as at the national level and the enterprise level, can be recognised by overseas entrepreneurs as some favourable factors for their sustainable development enterprises.

Another frequent contrast here is between returnees and locals. For example, research by Kiong et al. (2019) reveals that returnees with international experience are in a more competitive position with overseas educational activities and soft skills proving to significantly affect employability after returning to China. However, by citing the case of recent reform at Beijing University, there is also a strong tension over resources and power between returnees and locally educated students, due to the preferential policies for returnees. The assumption behind the preferential policies is that the returnees are better educated than local students. To test this hypothesis, Rosen, and Zweig (2005) conducted research with 109 returnees and 90 local academics. Their data revealed that the returnees were received more positively by academics in terms of their transnational capital, a term used to refer to human capital based on knowledge, networks, and resources accumulated overseas that is not available in China (ibid). They emphasised the importance of overseas experience in reshaping the power and status of the faculty in the process of internationalisation in China. However, interviews with local scholars (working in universities in China), suggests that the government overemphasised the returnees' ability, skills, and employability. In addition, according to Gu et al. (2010) international students often present as accomplished and competitive immigrants, and so are considered to have advantages, which include cultural and later employment achievements after returning home (Gu et al., 2010). Culture is often perceived to include acculturation, cross-cultural communication skills and language-related abilities. Most studies have found that international academic experience can have a positive effect on students' cultural adaptation, for example, their adaptive ability changes greatly compared with that of students who stay at home (Mapp, 2012; Williams, 2005). Regarding the influence of

communication ability on international students, more scholars (Gullekson, 2011; Tuleja, 2008) believe that overseas academic experience can make them more confident and no longer have concerns about communication.

However, more recently, the improvement of the employment and entrepreneurship environment in China has shifted this opinion resulting in the emergence of a new trend. The issue of brain drain has begun to shift with large numbers of students choosing to return from overseas (Chen et al., 2014). Highly skilled returnees are valued and compete very successfully in the job market (Hao & Welch, 2012). Students, who have the experience of studying abroad, as returnees with international qualifications and experience, are comparatively successful and distributed in a wide range of fields, especially in the field of education. The reason is that universities are often seen as key drivers of economic development, and the Chinese government's ambition is to develop higher education to meet domestic and global demand and compete with other foreign universities (Chen, 2017). Research by Li & Pu (2017) focused on exploring global talent management issues such as motivation, policy, management, support, opinion and evaluation of Chinese university presidents on overseas returnees. The results indicated that most of the returnees have met the expectations of the university and made great contributions to the university, such as introducing new projects, ideas, ideas, skills, courses and methods; improving academic projects research quality and internationalized projects of the university; and combining with foreign universities. This suggests that there has been a shift in perception of the value placed on returnees that would benefit from further exploration.

2.7 Summary and Research Gap Analysis

This chapter explored the different frameworks and concepts used to understand doctoral students' motivations to study abroad, such as the push-pull theory and motivation. It also highlighted the key factors influencing doctoral students' decisions to study abroad, including academic development, career advancement, personal growth, parental expectation and international exposure. In the second part, it discussed the literature on the learning and teaching experiences of both doctoral students and the impact of their supervisors in an international doctoral programme. This could include challenges faced such as cultural differences, communication barriers, and differences in teaching and learning styles. Additionally, it explored positive aspects like fostering intercultural competence, knowledge exchange, and broadening perspectives. Finally, it considered by summarising the factors that influence CDS's decisions to return to their home country or

stay in the host country after completing their studies. This could include career opportunities, family ties, government policies, and personal preferences.

Existing literature also provides valuable insights into the motivations, experiences, and career trajectories of international doctoral students, a significant gap remains in the understanding of the unique experiences and perspectives of Chinese doctoral students in the UK. While Southeast Asian students may share some similarities with Chinese students, there are crucial distinctions that warrant specific investigation. The Chinese higher education system, with its unique characteristics and rapid development, significantly influences the aspirations and expectations of Chinese students. Furthermore, the evolving political and economic relationship between China and the UK, along with the Chinese government's increasing emphasis on talent development and global engagement, significantly shapes the motivations and experiences of Chinese doctoral students. Research specifically focused on CDS will contribute valuable insights in several ways. Firstly, it will provide a deeper understanding of the factors that drive Chinese students to pursue doctoral studies in the UK, including the role of government policies, family expectations, and personal aspirations within the specific context of China. Secondly, it will shed light on the unique challenges and opportunities faced by Chinese doctoral students in the UK, such as cultural adaptation, language barriers, and the integration of Chinese perspectives into their research. Thirdly, this research will inform the development of more effective strategies for attracting and supporting Chinese doctoral students in the UK, including tailored academic programs, mentorship initiatives, and career guidance services that address their specific needs and aspirations. By focusing specifically on the experiences of CDS, this research will contribute to a more nuanced and comprehensive understanding of international student mobility and its impact on both the UK and China.

Whilst drawing on the literature about international students' motivations and expectations of studying abroad, it became clear that there was a gap in research focusing specifically on Chinese doctoral students in the UK; many of the studies were conducted in the US. Consequently, this study's main research question seeks to explore this research gap by focusing on the motivation, expectation, and experiences of CDS's study in the UK. Moreover, since existing research mainly focuses on the challenges or positive aspects of studying abroad, this research explores CDS's perceptions of their learning and teaching experience by focusing on the specific strategies they adopt and how their supervisors enhance or limit their learning experience in a cross-cultural setting. Finally, due to a lack of research on the challenges faced by CDS returnees to their home countries, it investigates their expectations of the impact that studying in the UK might

have on their academic career if they remain in the UK or return to China, which is meaningful especially when applied to the push-pull framework. The significance of this study relates to the specific motivation of CDS (e.g., career advancement), which has not been explored in-depth within the context of this study. The next will be the Methodology of this research.

Chapter 3 Methodology

3.1 Introduction

The exploration of individuals' motivations for studying abroad is a complex and nuanced endeavour, requiring a comprehensive and insightful research methodology.

The popularity of international education has led to an increase in research about the motivation, academic experience, and cultural experience of overseas students in recent years. The purpose of this study is to explore the academic experience of Chinese doctoral students (CDS) in the UK and their professional development once they return to China, from the perspective of push-pull theory (Bagne 1969; Gesing & Glass, 2019; McMahon,1992)(see section2.2). The study aims to consider the following research questions:

Main Research Question:

What are Chinese Doctoral Students's (CDS) motivations and experiences of studying for a PhD in the UK?

Sub-Research Questions:

1. What are the motivations for CDS to study in the UK?

2. What are CDS's perceptions of their learning and teaching experience when they study in the UK?

3. What are CDS's expectations of the impact that studying in the UK will have on their future academic career?

4. What are the motivations of CDS who return who return to China after graduation?

3.2 Philosophical assumption

This section discusses and justifies the research philosophy and design. This part discusses my ontology and epistemology in this study from the perspectives of constructivism and interpretivism, which includes how these perspectives apply to my research. Finally, there is an important part about how Bourdieu's thinking is integrated into this study.

Drawing from critical scholarship on academic mobility and cultural globalisation, this study used a qualitative research methodology to explore motivation and the daily experiences of CDS studying in the UK. The research paradigm shapes how researchers perceive the world, frame problems, and define appropriate knowledge, and reflects specific values and beliefs (Bartlett and Burton, 2016; Hammond and Wellington, 2013). This paradigm informs the types of questions researchers ask about human interactions and guides their choice of research methods. The interpretivist worldview, which aims to understand individual perceptions, share their meaning, and gain insights from specific cases (Bryman, 2008), is employed in this study. As such, the interpretivist approach allows for an examination of how CDS's subjective interpretations influence broader social dynamics and understanding.

Methodological and philosophical assumptions play a significant role in shaping research approaches, and when it comes to international mobility (Breckenridge et al., 2012); understanding the philosophical underpinnings of constructivism can provide insights into the methodological choices made in studying this subject (Denicolo, Long and Bradley-Cole, 2016). A constructivist ontological philosophical stance asserts that reality is socially constructed, and that knowledge and motivations are not inherent or universally defined but rather socially constructed and subjectively interpreted by individuals (Gonzalez, 2019). According to Amineh and Asl (2015), constructivism emphasises the importance of social interactions and context in shaping individuals' perceptions and knowledge. Methodologically, the researcher, studying international mobility from a constructivist perspective might employ methods that capture the social dynamics of mobility, such as observing interactions in diverse cultural setting. This stance posits recognising the intricate interplay of cultural, personal, and contextual factors in shaping motivations

A further consideration when undertaking research is to reflect on one's epistemology. Epistemology is one of the core branches of philosophy concerned with the theory of knowledge, its methods, validation, and "the possible ways of gaining knowledge of social reality, whatever it is understood to be" (Blaikie, 2000, p.8). These ways are not static but reflect the assumptions on which they are based and their origin (Grix, 2010). From an epistemological perspective, I employed an interpretivist position to understand the knowledge acquisition in the context of the motivations of CDS to study in the UK. This perspective aligns with the belief that knowledge about motivations is context-dependent and subjective. In my research design, I employed qualitative methods including interviews and narrative analysis to delve into the rich tapestry of individual experiences and uncover the meanings attached to the decision to study abroad.

Acknowledging the interpretivist stance, I recognised that knowledge about the motivations of Chinese doctoral students was something I could relate to as a Chinese doctoral student myself. Whilst it created some difficulties in ensuring my cultural bias did not impact the data analysis, the advantages facilitated an interactive process of inquiry in which was able to draw on my own experiences, perspectives and interpretations to shape the research process. To mitigate the potential influence of my own biases, I employed several strategies. Firstly, I engaged in rigorous reflexivity throughout the research process, regularly reflecting on my own assumptions, values, and potential blind spots. Secondly, I utilised multiple data sources, including in-depth interviews with students from diverse backgrounds and experiences, to triangulate findings and enhance the credibility of the interpretations. Thirdly, I engaged in member checking, sharing preliminary findings with participants and seeking their feedback to ensure that my interpretations resonated with their lived experiences. By acknowledging the subjective and co-constructed nature of knowledge and employing these strategies to enhance rigor, I aimed to produce a nuanced and authentic understanding of the motivations and expectations of CDS studying in the UK.

Adopting these philosophical positions, led me to adopt a qualitative paradigm which delves deeply into the individual narratives, employing interviews, participant observations, and document analyses to capture the richness and complexity of study abroad encounters. The recognition of multiple realities becomes pivotal, urging researchers to appreciate the unique perspectives shaped by cultural, social, and personal contexts (Guba and Lincoln, 1994; Kincheloe and McLaren, 2011). Moreover, the analysis in this research emphasises a descriptive and interpretive lens, unravelling the meanings embedded in CDS's expressions and emphasising the role of language in shaping the construction of their realities. Through this philosophical lens, qualitative research on study abroad unfolds as a nuanced exploration, providing valuable insights into the intricate tapestry of subjective experiences within the context of international education.

In summary, while my research is rooted in constructivist ontology and interpretivist epistemology, I recognise the value of acknowledging common patterns and factors that may emerge across diverse experiences. This integrative approach allowed me to navigate between the broader, shared aspects of motivation (realism) and the subjective, context-specific dimensions (constructivism and interpretivism). By collecting qualitative data, the methodology sought to provide a comprehensive and nuanced exploration of the motivation of CDS to study abroad, contributing to a more holistic understanding of this complex phenomenon.

Since this study adopted a constructivist ontological approach, I drew on Bourdieu's work as a lens through which to understand the motivations of CDS. Bourdieu emphasises the importance of considering social structures and context in understanding individuals' behaviours (Husu, 2013), which resonates with a qualitative methodology, with its emphasis on in-depth understanding within specific contexts. Researchers can employ various methods, such as ethnography or in-depth interviews, to delve into the contextual nuances that both influence and are influenced by individuals' habits. Habitus, a central element of Bourdieu's sociological framework, refers to the ingrained dispositions, behaviours, and perceptions that individuals acquire through their socialisation within specific social structures (Reay, 2004; Stahl and McDonald, 2021). Drawing on this perspective, I engaged in a reflexive approach, acknowledging my positions and biases. However, as a Chinese PhD student, my habitus influenced an appropriate research design and process, and supported the interpretation of data, leading to a more nuanced understanding of the subject under investigation. Bourdieu's concept of habitus provides a rich and nuanced perspective for guiding qualitative methodology, offering a sociological lens through which I was able to explore the intricate interplay between the individual experiences of CDS and broader social structures. Adopting a Bourdieusian approach in qualitative research deepens the understanding of how CDS's habitus shapes and is shaped by their social world.

3.3 Qualitative design

In this part, I return to the focus of educational research: methods and methodology. Methodology functions as a conceptual framework comprising diverse research paradigms that are systematically applied in educational inquiry to gather empirical evidence, which is then utilized to substantiate analytical processes, hermeneutic constructions, and predictive modeling. This section refers to methodological considerations of the study; the methods are addressed in section 3.6. According to Creswell (2003), the process of designing qualitative research begins not with methods, but with the broad assumptions at the heart of qualitative research, a worldview consistent with it and, in many cases, a theoretical perspective that shapes the research. The design process of qualitative research is generated in the process of inquiry, but generally follows the pattern of scientific research. It starts with broad assumptions and focuses on qualitative research, world outlook positions, theoretical perspectives, and research topics (Creswell, 2003). For example, after presenting a research question on the topic to the participants, the researcher asks several open-ended research questions, collects various forms of data to

answer these questions, and understands the meaning of the data by grouping the information into codes, topics or categories, and larger dimensions.

Qualitative research prioritizes gaining a deeper understanding of a specific issue or topic overachieving statistical representativeness. The objective of qualitative methods is to generate detailed and descriptive information to better understand the diverse elements of the problem under investigation. This type of research emphasises aspects that cannot be quantified and centers on interpreting the dynamics of social relationships. According to Maxwell (2018), qualitative research focuses on a realm of meaning, motivation, desire, belief, values, and attitudes, addressing deeper connections, and processes, that resist simplification through variable manipulation. In its broadest sense, qualitative research is a field study in the form of words, which describes and records what people say, write and how they behave in the natural environment. Qualitative research is opposed to collecting and verifying data with pre-set theories or research hypotheses, but advocates replacing the assumption of single truth with "multi-faceted truth" (Shelton et al., 2014). It emphasises that researchers should interpret the viewpoints and significance of the participants studied on their life situation and culture in a natural context.

Quantitative research, which relies on large sample sizes, aims to represent entire populations, providing a broad and comprehensive view (Martin & Bridgmon, 2012). This approach emphasizes objectivity and uses structured methods to gather data that can be quantified, allowing researchers to draw inferences from a sample to the broader population. Because quantitative research focuses on objective, measurable variables, it employs formal tools and systematic processes for data collection. However, this structured approach may not be suitable for studies requiring an in-depth understanding of individual participants and unique insights into the academic development experiences of Chinese Doctoral Students (CDS). Due to its limitations in capturing complex personal experiences and nuanced information, quantitative research might not be ideal for investigating research questions that demand deeper, more detailed analysis.

Since the sample in quantitative research is usually large, , the main rationale and justification for adopting a qualitative research approach is that it enables the structure of appropriate methods to support the collection of data that, provides in-depth knowledge of individual's perceptions and inner experiences; it has a flexible , dynamic and discovery nature, leading to the collection of rich data and employs a naturalistic investigation in the world of individuals (Creswell, 2014; Denzin and Lincoln, 2005; Ritchie and Lewis, 2003; Miles, Saldana and Huberman, 2014).

3.4 Settings and participants

To explore the experiences of CDS studying in the UK, I chose students who were studying for or obtained doctoral degrees in the UK. There are two reasons for my focus on UK PhD recipients' candidates. First, UK higher education has a reputation for research capacity, learning facilities and quality of education (Altbach et al., 2019). It has been the most popular destination for China's best students seeking overseas graduate study. Second, doctorates from UK higher education institutions are highly valued in China (Jiang et al., 2010). This is especially true in academia, where Chinese universities are now emulating the institutional innovations of UK universities.

Initially, participants were selected based on the criteria that they were studying for a PhD in the UK before returning before returning to China. To ensure the study drew from the experiences of a range of CDS, the inclusion and exclusion criteria had first to be determined, prior to selection (Robinson, 2014). The following table shows the refined criteria, criteria (see Table 3-1).

Table 3.1 Inclusion and exclusion criteria of student participants

Categories	Inclusion criteria	Exclusion criteria
Subject/discipline	Humanities and business	Outside the humanities and business
Age	Wide age range	No limited
Year of study	Years 1-5 and graduates	No limited
Course type	Full-time	Part-time, visiting scholar and exchange students

Firstly, this study focused on doctoral students with a background in the humanities and business, because I have strong links with this group, in addition they formed the largest group of CDS in the UK. Secondly, in terms of age, there was a wider requirement, as the age span of the CDS studying in the UK is in a very large number. Drawing data from CDS in different years of study, provided the possibility for a range of diverse opinions and

feelings to come to the fore as they reflected on the different stages of their research, thus enabling me to better understand what influences their choices, and behaviour and experiences. So, the selected participants ranged from their first to final year of study, as well as those on the verge of graduation. Also, while the primary focus of this research was to understand the motivations and expectations of Chinese doctoral students in the UK, including master's students in the sample provided opportunities to explore whether they held the same motivations as existing CDS or whether the pressure of the changing Chinese higher education sector and increasing competitiveness in the job market had altered their aspirations. The specific information is presented in Table 3.2.

Table 3.2 Demographic characteristic of participants

Abbreviation:

CDS: Chinese doctoral student   MS: Master student

NO.	Participant	Subject	Year of study	Gender
1	CDS A	Education	2	Male
2	CDS B	Journalism and communication	3	Female
3	CDS C	Financial	3	Female
4	CDS D	Education	3	Female
5	CDS E	Accounting	2	Female
6	CDS F	Teaching English to speakers of other languages (Tesol)	4	Female
7	MS A	Management	2	Male
8	CDS G	Tesol	3	Female
9	CDS H	Educational psychology	1	Male
10	CDS I	Education	5	Female
11	MS B	Supply chain management	2	Male
12	MS C	Educational management	3	Male

13	CDS J	Policy and Politics	4	Male
14	CDS K	Sociology	2	Female
15	CDS L	Accounting and Finance	3	Female
16	CDS M	Accounting and Finance	3	Male
17	CDS N	Education	1	Female
18	CDS O	Education	2	Female
19	CDS P	Finance	4	Male

3.5 Sampling methods

Purposive sampling method was used to recruit study participants to ensure that the selection of participants was relevant to my research strategy (i.e., met the inclusion criteria). Purposive sampling, also known as judgmental sampling, selective sampling, or subjective sampling, is a method that relies on the judgment of researchers in selecting participants (Seidman, 2006). Qualitative research relies heavily on purposeful sampling to pinpoint and select cases that offer rich insights into the phenomenon under investigation. However, despite its prevalence, navigating the complexities of selecting the most suitable sampling strategies remains a significant challenge for researchers across various studies. Effective sampling strategies should be intricately intertwined with the conceptual frameworks and research questions that shape the study's direction and objectives (Kemper et al., 2003). Therefore, the selection process demands careful consideration and alignment with the overarching research goals to ensure the acquisition of meaningful data.

Snowball sampling is a method where researchers begin with a small group of readily accessible participants and expand the sample by asking each participant to suggest other potential participants (Naderifar, 2017). This approach is valuable for reaching hard-to-access or specific populations and can be quicker than other sampling methods. Snowball sampling can also lead to increased student participation, as participants can draw from their personal networks to refer others.

In this study, participants were identified in a variety of ways. An online search was the first methods I used to recruit potential participants. For some UK universities, information about PhD students can be found on their universities' websites. Browsing students'

profiles and getting further information, including their field, educational background, research area, and contact information, all assisted in the selection process. I asked my peers and friends in higher education in the UK for help through my social network, hoping that they could help me contact people they knew at their own university. At the same time, I asked for help from my supervisor in being introduced to relevant personnel at other at other universities. In this way, there was a high probability of gaining access to the contact information of some Chinese students receiving doctoral education in the UK.

3.6 Data collection instruments

3.6.1 Interview guide approach.

Focusing more specifically on the methods, Silverman (2010, p.124) states 'there are not right or wrong methods, there are only methods that are appropriate to the research topic'. Moreover, my use of interviews responds to marks a shift in research, that is, whereby 'human objects are no longer regarded as simple and operable objects, nor data as external individuals, but knowledge as knowledge generated between humans, usually through dialogue' (Kvale, 1996, p.11). The nature of the interview asks participants, both the interviewers and interviewees, to discuss their interpretation of the world they live in and to express how they see the situation from their point of view. In these senses, interviews are not just about collecting data about life: they are part of life itself, and the combination of their own personalities is inevitable (Cohen and Morrison, 2017). Interviews can also serve to explore unexpected results, validate other research methods, or delve deeper into interviewees' motivations and the reasons behind their responses (Kerlinger, 1970). This study found interviewing advantageous because it enabled me to combine my own experiences with those of the participants, facilitating a co-construction of meaning in their qualitative human world. This approach allowed for a more collaborative interpretation of data, whereby I was actively engaging in the process to gain deeper insights into the participants' perspectives and motivations.

Interviews can be conducted using various methods. The Interview Guide Approach (IGA) allows the interviewer to design specific topics and issues in advance, typically in outline form, with flexibility to adjust the sequence and wording of questions during the interview. This approach enhances the comprehensiveness of the data and introduces a level of systematic collection for each respondent. It also helps identify and close potential logical gaps in the data. Despite its structure, the Interview Guide Approach maintains a conversational and situational feel, ensuring interviews remain flexible and responsive to the flow of the conversation (Turner, 2010). However, the interviewer's flexibility in ordering

and phrasing questions can lead to vastly different answers, reducing the comparability of the answers, since important and salient topics may be overlooked (Cohen and Morrison, 2017). In this study, the interviews were constructed to firstly investigate the CDS's motivations to study in the UK. Secondly, the questions were designed to understand their academic experience and feelings which relate to Bourdieu's cultural capital, and finally, to explore their thoughts about graduation or returning to China.

In terms of designing the interview, firstly, interviews were conducted at the time and place best suited to the participants. Most of the interviews were intended to take place in the participants' office, or near the cafe and campus; however, due to the restrictions imposed as a consequence of COVID-19, this was not possible. I applied alternative methods to ensure continued participation and engagement from participants, which resulted in offering virtual interview alternatives. Whilst the approach deviated from the initial method, online interviews proved to be a positive alternative; they offered convenience and flexibility, which was valuable for CDS who did not necessarily live on or near to the university campus. However, I considered the cultural differences and potential language barriers that might influence the interview process. Nonetheless, the comfort of online interviews led to more open discussions about motivations and experiences. However, some CDS experienced challenges, such as technical issues, reduced nonverbal cues, and potential privacy concerns. The comfort of interviewing from home can lead to more open discussions, but the lack of personal connection might affect rapport.

At the beginning of each interview, I briefly described the purpose of the study and how I would keep the data confidential. Afterwards, I asked the participant if he or she had any questions about the study and consent forms, if he or she agreed to be interviewed and recorded. I informed the participant that after I had transcribed the audio data, he or she would have a chance to view the interview transcripts. This is because I transcribed the interviews and left them in Mandarin for the analysis stage and only translated to English to present the findings. This method of member checking can be useful in gaining the trust of interviewees and building rapport during conversations. The interviews were conducted in Mandarin, with participants sometimes using English for emphasis or clarification. Each session lasted between 30 and 45 minutes. While an interview protocol was used as a guide, I did not adhere strictly to a set list of questions, allowing for more open-ended discussions. This approach encouraged participants to share their perspectives and experiences freely, fostering an interactive process. When participants were less talkative, I used follow-up questions to ensure all topics in the protocol were covered in their narratives about overseas and return experiences. This open-ended strategy facilitated a

more organic flow of conversation, allowing themes to emerge naturally from the discussions rather than relying solely on pre-determined categories.

3.6.2 Focus group interview.

Focus groups offer educational researchers a valuable source of rich and high-quality data, yet they are less commonly used compared to other qualitative methods like in-depth interviews and participant observation (Richard et al., 2018). A focus group interview involves engaging with a group of participants to gather a range of insights. The size of a focus group can vary, typically comprising between four and ten participants. The key advantage of focus groups is their ability to capture a broader spectrum of attitudes, feelings, beliefs, experiences, and reactions that might not be as easily accessed through other methods, such as individual interviews, observation, or surveys. In a focus group, participants interact with each other rather than with the interviewer, and it is from the interaction of the group that the data emerges: hence the dynamics of the group are important (Denscombe, 2014).

Utilizing both interview formats allowed for a more comprehensive exploration of this research topic. Individual interviews offered a space for participants to share personal experiences and perspectives in depth, while focus group interviews facilitated discussions among participants, potentially uncovering shared themes, contrasting viewpoints, and collective experiences. Different participants may feel more comfortable or inclined to express themselves in either individual or group settings. By offering both options, I provided flexibility for them to choose the format that best suited their communication style and preferences. This can lead to a richer understanding of the academic experiences and professional development trajectories of CDS.

To be specific, the focus groups were designed to explore the main research question of this study, drawing on evidence from practice and/or related documents, as in other types of research. Before embarking on using focus groups, I needed to clearly understand what type of information was required, for example, external and internal factor about motivation analysis, and from which CDS or MS this information should be obtained. Failure to clarify issues can waste a lot of time and resources. Therefore, researchers should begin focus group studies and it is necessary to record to record a clear description of the purpose of the study. Within this study, my key aim was to understand CDS's motivations and expectations of studying in the UK. The focus group interviews were interspersed between individual interviews, and after 11 individual interviews, I made an appointment with the participants who agreed to participate in the focus group.

3.7 Data analysis method

3.7.1 Qualitative data analysis approach

Qualitative data analysis for interview results involves several key steps, including analysing raw data (original text), gaining a thorough understanding of original records, data coding (whether manually or through software), and linking the data to the overarching research theme (Creswell, 2017). This process requires a deep reading of interview records, allowing the researcher to transition from a general understanding to more specific insights, and from concrete details to common patterns. In this study, I transcribed and translated all audio data from individual and focus group interviews into Mandarin initially to ensure the research met ethical standards for data protection, before translating specific quotes into English once the thematic coding was complete. According to Kvale and Brinkmann (2009), transcription is a constructive form of interpretivism, which aligns with my philosophical approach and helps deconstruct interviews from their original context. Since written transcripts don't capture body language, gestures, facial expressions, and other non-verbal cues, I took additional notes during the interviews to aid in understanding the meaning behind the spoken words.

3.7.1.1 Initial analysis

In the initial stage, I wrote field notes describing what I observed, thought, and reflected immediately after the interview's fieldwork. In addition, I transcribed the audio recording as soon as the interviews were completed. I used pseudonyms to protect the identities of the interview subjects, such as CDS A, CDS B and MS A. In addition, the transcripts were looked through twice and compared with recording, to correct and generate more fieldnotes/comments. The process of taking notes and transcribing interviews in Mandarin allowed me to better interpret the gathered information and identify emerging themes that warranted further investigation. For instance, after analysing the first six individual interviews with CDS, I observed that the characteristics of their work environments, especially intrinsic motivations, had a direct impact on their decision-making process. Consequently, in subsequent individual and focus group interviews, I paid closer attention to questions related to their work environments and personal influences. This led me to ask questions like: "What personal reasons led you to pursue a PhD abroad?" and "Who has significantly influenced you?" The American Educational Research Association (AERA, 2006) report on empirical social science research indicates that early data analysis can guide ongoing data collection, by highlighting specific categories of events, actions, or people that require deeper exploration. As a result, this initial analysis helped me engage

with the data more effectively, refining the focus of my research and adapting the interview design to probe these newly identified aspects.

In the second stage, I conducted a detailed data analysis using a combination of manual coding and a computer-aided program, Nvivo10. I started by systematically reorganising the field data, which included interview transcripts, field notes, related documents, and memos. The reorganisation involved logging the data by date and participant to ensure easy retrieval. It's important to mention that all the raw text data were in Mandarin Chinese. This presented methodological challenges, as translating the Chinese data into English could lead to a loss of meaning and cultural context. To overcome this, I conducted the data analysis using the original Chinese transcripts, translating only the quotations necessary for reporting purposes. This approach helped maintain the richness of the participants' stories and their cultural nuances, ensuring a more accurate representation of their experiences.

3.7.1.2 Coding process

In the manual coding process, I began with preset categories to code the raw data and added new categories as additional themes emerged (see Appendix 6). I initially identified codes such as "culture," "international mobility," and "outside world" drawn from the literature review and the preliminary interpretation of the data. As the coding process continued, I noticed emerging patterns within these codes, leading to new code groups or clusters. To keep track of these emerging themes, I created memos to document key insights, such as motivations, expectations, and learning experiences. As the coding process continued, the codebook developed to reflect these emerging trends and included more detailed categorisations. This iterative process allowed me to refine the analysis as the study progressed, enabling a more nuanced interpretation of the raw data.

To be specific, thematic analysis is a flexible and iterative process that aims to identify, analyse, and interpret patterns within qualitative data (Braun & Clarke, 2006). I began with a combination of pre-set and emergent coding. Informed by the literature review, I initially developed a set of preliminary codes, such as "academic excellence," "cultural experience," "career aspirations," and "family influence." These pre-set codes provided a framework for initial data exploration. However, I also recognised the importance of allowing for emergent themes to arise from the data itself. The next part is iterative coding and theme development:

The coding process was iterative and involved multiple stages of refinement. I meticulously read each transcript line-by-line and assigned initial codes to relevant segments of text.

This stage focused on identifying key concepts, ideas, and patterns within the data. Then, I began to group similar codes together and explore the relationships between them. I created sub-themes within broader categories. For example, the initial code "academic excellence" was further subdivided into sub-themes such as "research opportunities," "faculty expertise," and "world-class facilities." I also identified core themes that best represented the central phenomena under investigation. These core themes emerged from the iterative process of grouping and regrouping codes, identifying patterns, and exploring the relationships between different categories. The following is some examples from the coding process.

After I had generated the core theme of "Quality of Education in the UK", it was further refined into sub-themes. These included: research excellence *("I chose the UK because it is renowned for its research in...,"* and *"I was drawn to the opportunity to work with world-leading academics*); Teaching Quality (*"I was impressed by the interactive teaching style and the focus on critical thinking"*)(See screenshot-1); International Reputation *("A UK degree holds significant prestige in the international job market.")*

"That's very obvious, and that's where I've changed a lot"(CDS I) "I do not look at this in a critical manner, but different learning systems have different learning styles, and the one that suits you is the best"(CDS H) "I didn't change it deliberately, but I feel that my current learning style is more efficient and I take the initiative to explore"(CDS B)	Obvious(different); Learning system; Suits; Not deliberately; Efficient	Learning style

Screenshot-1: Learning experience

Family and Peer Influence emerged as another core theme. This theme was further subdivided into Parental Support *("...my parents encouraged me to pursue my studies abroad,"* and *"they were very supportive of my decision to come to the UK...")*(See the Screenshot-2)*; Peer influence ("...had already studied in the UK and had positive experiences,"* and *"their success stories inspired me to apply...".)*

"My parents' expectations were important and allowed me to prepare without hesitation" (CDS B)

"Obviously, with the one-child policy in China, for some families, parents attach great importance to where their children go to school. If they let me study abroad, it is also a very important decision, especially in such a special period."(CDS E) | Parents;

Allowed;

Without hesitation;

Chinese policy;

Important roles | Family expectation |

Screenshoot-2 Family expectation

A further key theme is Student-Centred Philosophy of Education. This theme was subdivided into: Independent Learning *("I appreciate the emphasis on independent research and critical thinking,"* and *"I feel like I've grown significantly as an independent learner."*)(See screenshot-3); Student Support Services *"the university provides excellent support services, such as career counselling and academic advising...".*)

"The way of learning in the UK is different from that in China. At the beginning, we were not used to some seminars and were always afraid to speak up. After gradually adapting to such a learning mode, I was able to improve my own research in the discussion and found some limitations, which surprised me very much. This is probably the critical thinking we talk about a lot, being good at thinking from different angles."(CDS C)

"Our ability to pay attention is the basic condition for our brain to perform cognitive activities such as perception, memory and thinking, and it also improves our efficiency in both work and study. "(CDS H) | Different;

Seminars;

Afraid to speak up;

Improve;

Discussion;

Critical thinking;

Surprised me;

Cognitive activities;

Improve efficiency | Educational experience |

Screenshot-3: Educational experience

Supervisor is Crucial for the Development of Doctors also emerged as a significant theme. This theme was further subdivided into: Research guidance (*"my supervisor provides invaluable guidance and support in my research,"* and *"they help me stay motivated and on*

track...")(See screenshot-4)*;* Mentorship ("*my supervisor acts as a mentor, not just an advisor....*" and "*they help me develop my academic and professional skills.*")

"There is a difference between students' and supervisors' research concepts, a broad consensus that appropriate supervisor support is essential throughout the doctoral research process, and the value of such support to the success of doctoral research"(CDS K) "Although not necessarily taught formally (e.g. in the classroom), through higher level tutor support (e.g. helping students develop relevant skills and knowledge.) "(CDS L)	Essential; Value; Success; Formally;	Supervisory support

Screenshot-4: Supervisory support

Throughout the coding process, I maintained detailed memos to document my thoughts, interpretations, and any emerging insights. These memos served as a valuable tool for tracking the development of themes and sub-themes, identifying potential areas for further exploration, and reflecting on the research process. The codebook was continually refined throughout the analysis, reflecting the evolving understanding of the data. It included detailed definitions of each code, examples of coded text, and any relevant memos or notes.

After manually coding the data, I used the qualitative analysis software Nvivo10 because it effectively supports Mandarin Chinese. This software allowed direct import of documents from word processing packages and enabled easy on-screen coding. Additionally, Nvivo10 allowed for memo creation and linking these memos to specific sections of text in various documents. Compared to manual coding, a major advantage of using qualitative analysis software is its efficiency in organising and retrieving data. With Nvivo10, it is easier and quicker to sort, file, search, and retrieve data, compared to manually cutting and pasting text onto paper. By leveraging the software's capabilities, I reorganised the data around specific categories and themes derived from the interview and focus group data, enhancing the efficiency and thoroughness of my analysis.
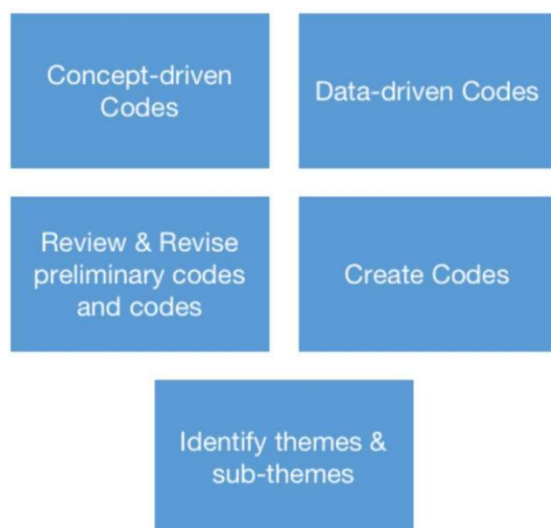
Figure 3.1 Code development framework

The codes were created from three main areas, including concept-driven, data-driven, and research objectives or topics (structure). For generating the final code, as shown in Figure 3.1, there were two types of code, one concept-driven and the other data-driven. A preliminary code and formal code followed, and then, after the code was generated, I identified themes and sub-themes. This way I could identify any connections that might exist between the codes. The conversation between me and the interviewees discussed the perspectives on motivation, learning experience and future career development of studying abroad, and how to capture the connection between these through codes. The examples of the coding process can be found in Appendix 6.

3.7.2 Theoretical consideration of data analysis

Firstly, in this study, the push and pull theory offers a comprehensive framework for analysing the motivations and experiences of Chinese doctoral students (CDS) studying in the UK and their subsequent professional development upon returning to China. Initially conceptualised in the context of international migration, this theory elucidates the interplay between factors that either push individuals away from their home country or pull them toward a destination country. In first stage, push factors typically generate the code like challenges, limitations, or dissatisfaction with the academic environment in the home country, while pull factors show the code like attractions, career opportunities, or perceived advantages in the UK. As part of the data analysis process, a systematic approach is undertaken to identify and categorize instances where CDS discussed push and pull factors shaping their academic experiences and career trajectories. Drawing from interview transcripts, codes or categories were developed to capture narratives related to both push and pull factors. Push factors may include constraints within the Chinese

academic system, such as limited research opportunities, rigid academic structures, or lack of mentorship, while pull factors encompass opportunities for world-class education, access to cutting-edge research facilities, and better career prospects abroad, particularly in the UK.

Through careful examination of the interview data, patterns emerged illustrating how push factors in the home country may have motivated participants to seek educational opportunities abroad, while pull factors in the destination country influenced their professional development goals and decisions upon returning to China. Moreover, the analysis revealed the nuanced ways in which structural factors, such as government policies, institutional practices, or global economic trends, intersect with individual motivations and experiences, further contextualizing the push and pull dynamics. In summary, the application of the push and pull theory as a lens for data analysis enriches an understanding of the academic experiences and professional development trajectories of Chinese doctoral students in the UK. Ultimately, it provides valuable insights for policymakers, educators, and practitioners seeking to support and enhance the experiences of international doctoral students and their integration into the academic and professional spheres.

Secondly, Bourdieu's analytical lens helps to understand and identify different aspects of international education, including student mobility and cultural capital. I used Bourdieu's approach because it focuses on the generation and nature of practices, highlighting structural inequality and capital relations. Moreover, Bourdieu's theory has not yet been widely applied to the topics of international students' motivation, experiences, and expectations, which might provide new insights. According to Bourdieu (1986), a social sphere is a setting that includes individuals and their social status. The position within these domains is the result of the interaction between domain rules, agents' habits, and their capital. Bourdieu added that the social sphere is a stage of historical and social space in which people strive to accumulate the resources they want. Therefore, Bourdieu's framework is used in this study to illuminate the interaction between the habitus of CDS and the level of capital they receive (especially academically related capital), resulting in students' practices (behaviour, experience, qualification, etc.) and their orientation to the field. Therefore, students' habitus is formed in the context of specific social culture and personal experience. From this perspective, the interview data were considered in terms of the aspects described above, especially in the second part of the I interview, which focused on their learning experience.

From the perspective of social mobility, family background has always been the most influential factor. Many studies (Liu, Huang and Shen, 2022; Xie and Hu, 2014) have found that intergenerational mobility in China has not been strong, because the strong family background in China often supports children's career development, and unequal family education is also an important reason for social stratification. Social relations have always been very popular in China, which is determined by Chinese traditional culture and economic and social reality (Yunjuan and Xiaoming, 2009). Among them, parents' occupation, social status, and education play a significant role in children's social mobility. The Chinese market does not necessarily provide more job opportunities; the influx of graduates makes the labour market extremely competitive, and the overall social mobility of China has decreased after the expansion of higher education enrolment. In addition, the frequent transformation between economic capital and cultural capital makes international higher education a new field of pedagogical research. Bourdieu's concept of 'field' may explain that people with similar backgrounds, habits and cultural tastes are more likely to congregate in a related field of study (Edgerton and Roberts, 2014). This provides some explanation as to why the interviewees in this study have similar family backgrounds because making educational choices requires a certain understanding of institutional rules, so the cultural capital in the family determines the reproduction of the society. Therefore, the influence of family on the development and social mobility of CDS is important, and it is mainly reflected in the transformation of cultural capital and economic capital with the direct support of social relations.

In terms of policy, it is noticeable that the change in the study abroad policy largely depends on the government's decision. The government guides the development and change of study abroad policy by issuing and implementing reasonable policy tools, including authority tools, capability tools and incentive tools (Schneider and Ingram, 1990). In addition, under the influence of the planned economy system (the economic system that plans production, resource allocation and product consumption in advance), the development of studying abroad is mainly led by the government (Douglas, 2014). This means that encouraging and attracting Chinese PhD students to study abroad depends primarily on the influence of government decisions in terms of conditions and standards. Therefore, when a similar viewpoint appears in the data, it will be an analytical perspective, which is also related to extrinsic motivation.

3.8 Credibility, reflexivity and rigour

In interpretivist research, terms such as credibility, transferability, reliability, and verifiability replace the criteria of internal and external validity, reliability, and objectivity commonly used in positivism (Denzin & Lincoln, 1998). The validity of qualitative research can be applied by considering the authenticity, strength and breadth of the data obtained, the method of the respondents, and the fairness of the researchers as explained by Winter (2000). Validity is addressed in the following ways. First, to collect sufficient rich data, I worked in this area for nearly a year to understand the research field and the participants' perspectives. At the same time, I ensured the internal validity of the research by testing the method of the research through the application of pilot research with two PhD students. To ascertain the study's credibility, I aligned the theoretical framework with insights gleaned from informal communication among CDS. To uphold transparency and openness, I meticulously coded the data, refraining from subjective interpretation and presenting information without distortion (Basit, 2010). By analysing participants' demographic characteristics and providing precise statements, the study effectively demonstrates the authenticity of the data.

Researcher reflexivity is crucial in ensuring the integrity and depth of the study. It acknowledges that researchers bring their own perspectives, biases, and experiences to the study, which can influence how data is collected, analysed, and interpreted. Reflexivity begins even before data collection, as the researcher reflects on their positionality and how it may shape their interactions with participants. In the context of this study with Chinese doctoral students in the UK, researcher reflexivity is particularly important due to my own identity as a Chinese doctoral student in the UK. Researching a topic closely related to my own experiences, I may have had preconceptions or assumptions about the issues being explored. These biases could manifest in the selection of interview questions, the interpretation of participants' responses, or the identification of themes during data analysis. To mitigate this potential bias, I continuously reflected on my positionality, biases, and preconceptions throughout the research process, as well as discussions with academic staff ensured that you were able to justify your questions, analysis, and findings. This reflexivity allowed me to acknowledge and address any personal biases that may have affected the study's rigour and trustworthiness.

In terms of rigour, several measures were employed to ensure the robustness of the research. Firstly, the use of semi-structured individual and focus group interviews allowed for a comprehensive exploration of participants' motivations, expectations, and academic experiences. These methods provided flexibility while ensuring that key topics were

covered consistently across all interviews and focus groups. Additionally, I employed purposeful sampling techniques to recruit participants from various disciplines, stages of doctoral study, and backgrounds. This diversity enhances the richness and depth of the data collected, allowing for more nuanced insights into the motivations, expectations, and academic experiences of Chinese doctoral students in the UK. Thirdly, thematic analysis was employed as the data analysis method, which involved systematically identifying, analysing, and reporting patterns or themes within the data. This approach ensured that the findings were grounded in the participants' experiences and perspectives. Therefore, transparency was maintained throughout the research process, whilst I documented and acknowledged my own background and potential biases. This transparency enhances the credibility and trustworthiness of the study findings.

Overall, the trustworthiness of this research was established through a combination of researcher reflexivity, methodological rigour, and transparency in the research process. By critically examining my own biases and assumptions, employing rigorous data collection and analysis methods, and engaging in peer debriefing and member checking, this study presents credible and reliable findings that contribute to the understanding of Chinese doctoral students' experiences in the UK.

3.9 Anticipated ethical and research issues.

Researchers face ethical challenges throughout the research process, from study design to presenting results. These challenges include maintaining anonymity and confidentiality, obtaining informed consent, and avoiding undue influence on participants (Xu et al., 2020). Throughout the research process, researchers must be sensitive to ethical considerations, particularly when interviewing participants who may disclose personal or emotional data. In this study, since the research was conducted as part of a university degree, ethical approval was obtained before starting the study. Reports and application documents (as detailed in Appendix 1) were submitted to the appropriate authorities to ensure that participants were fully informed about the project, their privacy was protected, their right to withdraw was respected, and any potential risks were minimized. At this stage, I was also conscious of ethical considerations -- seeking consent, avoiding the difficult problem of deception, maintaining confidentiality, and protecting the anonymity of the people I was interviewing (Farrimond, 2017; BERA, 2017). In addition, it is important to build a relationship of mutual support and respect, rather than using labels that the participants disagree with.

When it comes to confidentiality, the primary objective is to uphold the principle of anonymity. This involves ensuring that participants' identities are protected, and no identifying information is disclosed without explicit permission. To ensure confidentiality, a confidentiality agreement was presented at the start of each interview, emphasising that all identifying details would be altered to protect participants' anonymity.

Informed consent is a key ethical principle that ensures participants are aware of their rights and the nature of the research study. It provides participants with the right to know that they are part of a study, the purpose of the study, and the option to withdraw from the study at any time (Ryen, 2016). Before conducting each interview, I explained the study's purpose, data collection methods, and intended data use. Additionally, each participant received a consent form detailing any potential risks, benefits, and responsibilities associated with the study. Interviews were recorded only with the participants' consent, and I respected their right to accept or decline participation or withdraw at any point.

Lastly, I made every effort to minimise intrusions into the autonomy of the study participants. When it comes to highly sensitive issues, I assured CDS at the initial stage of the study, and during the data collection session. So, it is necessary is necessary for researchers to state in writing who had access to the original data and how to use it in the thesis.

3.10 Positionality of the researcher

As I previously discussed in section 1.6, as a Chinese doctoral student researching the motivation and expectations of doctoral students studying abroad, my positionality as the researcher is inherently shaped by my own background, experiences, and cultural context. Growing up in China and pursuing higher education in a distinct academic environment, my unique cultural lens undoubtedly influences how I approach and interpret the study abroad experiences of fellow Chinese doctoral students in the UK. Nonetheless, my cultural background may offer an insider perspective, providing an intimate understanding of the societal expectations, familial pressures, and educational values that often characterise the motivations of Chinese students pursuing doctoral studies abroad. Simultaneously, it is crucial to recognise that this insider perspective may also introduce biases or assumptions that need careful consideration. Being immersed in the Chinese educational system, I bring a particular set of preconceptions about academic aspirations, success, and the role of international education that could influence my interpretation of participants' motivation.

Furthermore, my personal experiences as a doctoral student studying abroad could also shape my positionality. Navigating the challenges and opportunities of an international academic environment, might have placed me in a position where I drew aw on my academic journey to empathise with the participants, offering a deeper understanding of the complexities involved in pursuing doctoral studies in a foreign context. However, it is essential for me, as the researcher, to remain reflexive throughout the research process, continuously examining how my positionality may impact the research design, data collection, and analysis to ensure that I did not slip into poor habits of agreeing or empathising with the participants which might influence their future responses. Embracing this a reflexive stance enabled me to identify and address potential biases, ensuring that the study was conducted with rigour and that the findings reflected the diverse motivations and expectations of Chinese doctoral students studying abroad. By transparently acknowledging and navigating my positionality, I aimed to consider myself ideally situated to contribute a nuanced and culturally sensitive perspective to the broader discourse on international doctoral education.

3.11 Summary

This chapter delineates the research design and methodology employed to explore CDS's decision to pursue doctoral education in foreign contexts the UK and their experiences within. The research adopted a constructivist ontological perspective and interpretivist epistemological approach. Given the inherently subjective nature of motivational factors, a qualitative approach, specifically in-depth individual and focus group interviews and focus groups, was chosen as the most suitable method to capture the rich and varied perspectives of study abroad aspirants' candidates. In addition, the purpose of this study was to understand the experiences of the participants, what happens to them in different a foreign academic environment, and how they o experience the changes in the environment. A purposive sampling method was used to recruit study participants to ensure that the selection was strategic and relevant to my research purpose. The analysis of data collection is also described in detail in this chapter. The notions of ethical considerations, credibility, rigour and reflexivity of this research are explored fully.

Chapter 4 Push and pull factors: Motivation for doing a PhD in the UK

4.1 Introduction

Studying abroad has long been regarded as an effective way for students to broaden their horizons and see the world (Curtis and Ledgerwood, 2018; Fakunle, 2020) and for students to be able to study and work in countries where academic research is well developed, satisfying their imagination and curiosity. Most participants (17 of 19) in this study had just completed their undergraduate or postgraduate taught studies and viewed studying abroad as a continuation of higher education and research training. To understand the motivating factors for the participants in this study, the first question in the interviews focused on why they had chosen the UK as their destination for further study. Most respondents (13 out of 19) agreed that the UK has always been their preferred destination for study for a variety of reasons, such as higher education's reputation, liberal academic environment and diverse cultural experiences.

Before presenting the data analysis, a brief overview of push and pull theory is explained. This theory studies the causes of population migration behaviour (Li and Qi, 2019) as a tool to understand the mobility of individuals between countries and regions within a country; migration is seen as the result of the joint action of the thrust of the emigration place and the pull of the immigration place (Uysal et al., 2009). In this theory, population movement is bilateral and individual mobility is affected by migration differences (e.g., gender, social class, age). In the field of education, studies on how Chinese students choose destination countries show that "push" (China's domestic economic, social, and political forces and other factors) and "pull" (characteristics of the host country) have an important impact on studying abroad. Increased knowledge and understanding of Western culture, as well as consideration of the quality of overseas education, appears to play the most important pulling role (Hao et al., 2020). However, the push and pull race is never one way; the "pull" factor often works in the home country, making it relatively attractive to international students. When China's domestic education supply fails to satisfy domestic demand in terms of quantity and/or quality, student mobility between countries increases (de Wit and Altbach, 2021), which would link to the flipped push-pull theory. Factors such as a better educational environment, advanced teaching facilities and concepts, and a more pleasant educational experience (compared with traditional learning methods in China) are the most considered by students in mainland China (Li et al., 2021).

This chapter presents the themes that emerged from the findings of data analysis relating to the motivations for CDS to study in the UK collected from 19 semi-structured interviews

(see figure 4.1). In addition, perspectives were sought from Chinese Masters students to determine whether they held the same motivations and aspirations as current CDs or whether they had altered as result of the shift in Chinese education policy and the competitiveness of the job market.

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│ What are the motivations │               │ Family and peer influence│
│  for CDS to study in the │───────────────└─────────────────────────┘
│           UK?            │               ┌─────────────────────────┐
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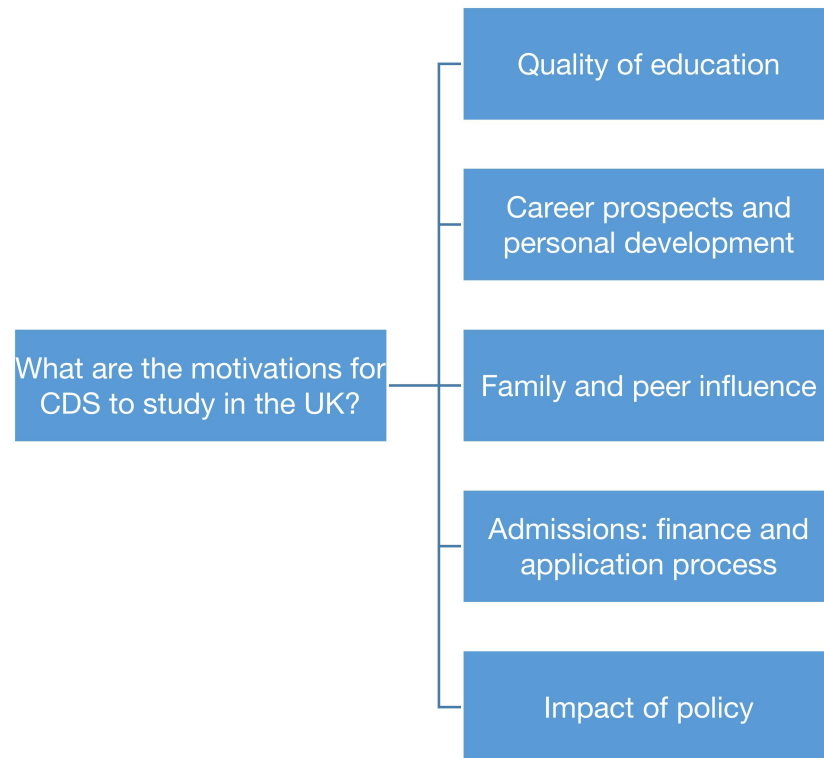
Figure 4.1 Themes emerging from the data analysis in relation to SRQ 1

4.2 Quality of education in the UK

The first major motivation is the "pull" factor from the host country. Students are attracted to the UK because they believe that, once they complete their studies, they will not only gain a globally recognised qualification, but also provide them with a platform to build a better future. Universities like Oxford and Cambridge are famous for providing world-class education (Börjesson and Lillo, 2020). The participants in this study believed that coming to the UK not only gives them world-recognised degrees and qualifications, but also gives them access to the world and provides a platform to compete in the global market. Fundamentally as CDS C and CDS F point out, international students are attracted by the UK's quality, reputation, and global visibility:

> "*The UK attracts international students for many reasons. First, people or students come up with a big name. England is a big name, a big country. The UK is economically powerful, politically powerful, and has more control and influence*

around the world. These are students' first impressions of Britain; another reason is the reputation of British education. Students think of universities like Cambridge and Oxford, which have a long history of providing quality education." (CDS C).

This was further evidenced in a statement from CDS F who stated,

"Everyone says England is great, and I want to use my youth to see what the so-called state of the art is really like. I think whoever they are, as long as they have some professional edge and ambition, they should go overseas and see how they do it." (CDS F)

Evidence from literature and wider studies appears to support these findings. Britain is one of the main destinations for international students, second only to the United States. British universities are among the best in the world and consistently perform well in world rankings. They also have a reputation for world-class research. For example, Teichler (2019) claims that UK higher education degrees and qualifications are recognised by employers and academics worldwide. At the same time, students have the opportunity to develop skills, knowledge, critical thinking and contacts to advance their careers. Increased knowledge and understanding of Western culture, as well as consideration of the quality of overseas education, has played the most important pulling role (Hao et al., 2020).

Some participants (6 of 19) expressed views that gaining an education from Britain would enhance their potential for personal growth and development. They believe that once they have gained a British degree and experience, it will improve their confidence levels and morale. For example, CDS E commented,

"British education is recognised around the world. If you have a British education, then you can go anywhere in any country and get a really good job and opportunity. That's why we are confident that if we get a good degree, we will develop our level of confidence because the British education system is so good that we will gain some experience." (CDS E)

This indicates that the reputation and education quality of the UK are important factors in attracting international students. Moreover, the recognition and value of a British degree helps international students gain international visibility, which is considered in the next theme - career prospects and personal development.

4.3 Career prospects and personal development

Analysis of the data reveals that CDS consider that doing a PhD in the UK will bring a variety of benefits - not only will they get good grades academically, but they will also get a chance to explore and experience the world. The UK is one of the most developed countries in the world and a popular destination for studying abroad, so the opportunities for CDS are wide and varied. One of the participants reveals their expectations of studying in the UK.

> *"Some people are really interested in studying abroad, they want to get a degree from a world-class university, and in my opinion, what attracts so many people is the easy access to the job market after graduation. From an economic point of view, the British currency is one of the highest in the world, so we in the developing world also see it as an incentive. Another is increased international mobility, the UK's links to the huge European market and ease of access to Europe, where they will have different opportunities to further their careers. Some dream of a free life, living in a carefree society." (CDS I)*

Here the CDS I explains that they expect not only to excel academically and experience personal growth and development, but also to gain experience in a multicultural environment and have modern facilities that attracted them to study in the UK. They perceive that studying in the UK will provide them with a platform to expose themselves to this globalised world and also an easy entry into the job market after they finish their studies with the hope of having a better life. Thus, the expectation of CDS I for the impact of studying abroad is very clear; studying abroad can change or further promote career development.

An interesting phenomenon is that the greater the reputation of the university is, the higher the standard of the doctoral degree required by overseas returnees, which is also the motivation for Chinese students to study abroad for a doctoral degree due to employment factors. In other words, Chinese students are motivated by the reputation of the university, even if it requires higher entry standards because they believe it will provide them with better employability prospects. More specifically, some CDS (7 of 19) used the opportunity to study abroad to change their career trajectory. This can be related to the changes in China's job market and employment standards (Huang and Turner, 2018). Under the influence of neoliberalism, the human capital needed by the employment market forces in China is graduates with higher qualifications from reputable institutions, which reflects the need for CDS's increased human capital. At the same time, in recent years, China has witnessed the phenomenon of "Neijuan (内卷)" in recent years, which can be interpreted

as the traditional entry standard for a certain occupation becoming higher and higher. For example, primary school teachers only needed a bachelor's or master's degree in previous years, but now they are required to have a doctoral degree, especially in developed cities such as Beijing and Shanghai (Gu et al., 2018). In addition, human capital may be conceived as tangible and transferable if viewed from the perspective of personal advancement (Wang, 2020). For example, even if CDS do not directly apply their knowledge of a particular subject, their higher level of learning experience or ability can be perceived by employers as having a wide range of skills that can be effectively transferable when they enter working life. Therefore, the perspective of neoliberalism can be understood as a linear link between the global economic system, international competitiveness, human capital and education (Belmar and Cristian, 2022). Comments from the CDS concur with the notion that argues that the global economic system brings benefits to individuals, but to benefit from these they must have relevant international experience that instils a level of competitiveness.

Not only were the participants considering their careers upon graduation, but others were thinking about furthering their current careers. For example, CDS A was already working at a university before studying abroad. After working for some time, he considered felt that his abilities and expertise were limited, so he decided to go to the UK to pursue his PhD.

> "*After getting my master's degree, I worked as a teaching assistant at the university for eight years. At that time, the economic gap between China and Britain was relatively large significant, and the trend of international study gradually took shape. I also feel that if I could study abroad, my personal development would be very considerably different. Speaking of more realistic motives, I was actually dissatisfied with the "rigid" personnel system at that time, and the purpose of going abroad was to change the learning environment." (CDS A)*

Studies such as Yang (2013) and Mok (2020) have discussed the motivation for studying abroad, and have consistently found that economic factors, such as scholarships, expected financial returns and employment prospects, were among the most important determinants. For example, the above finding concurs with Yang's (2013) research which shows the factors that influence students' willingness to study abroad. In terms of economic factors, many students believe that compared with students who study in China, students who study abroad and return to China enjoy higher economic returns and more employment opportunities in the domestic labour market (Mok et al., 2020; Jackson, 2019). One important reason is that the Chinese labour market recognises and values overseas degree holders.

An additional perspective about studying for a doctorate in the UK was raised by the master's students (MS) in China, not previously cited by CDS. They reported using study abroad as a means of shifting their research direction. They appear dissatisfied with the limited opportunities for researching work in areas of interest to them rather than their supervisors. They perceive that doctoral programmes in the UK enable them to adjust and improve their research direction accordingly. For example, MS B says,

> "*Due to my major, I have been exposed to all aspects and not only have knowledge of logistics but also other business experience, which makes my research direction very scattered and unfocused. The reason why I went to the UK to pursue my PhD at this stage is that I am currently stuck in the understanding of theoretical knowledge, rather than focusing on one field for further development. I'm looking forward to business schools in the UK where I can be semi-independent.*" *(MS B)*

Another reason CDS elect to study in the UK is related to their perception that they will acquire personal skills, which will be highly regarded and sought after by employers, compared with the culture they were exposed to in China:

> "*UK qualifications are internationally recognised and valued by employers around the world. While studying in the UK, we also have the opportunity to improve our CV by learning and improving English. Living alone in a new country and experiencing a new culture will also help us develop personal skills such as independence, flexibility, and adaptability, all of which are highly valued by employers. SoSo, I think I was attracted to a British education for all those factors and reasons.*" *(CDS I)*

Personal development was one of the main motivations for studying abroad (11 out of 19). This category includes general internal changes in the individual, such as becoming more independent, patient, confident, adaptable, and extrovert. For example, CDS C expressed,

> "*...According to my cognition, I have learned a lot about myself. When I decided to continue my doctoral study in the UK, I realised that I would be away from my family and friends for a long time, but what I need more is the development of my ability, including learning, social and life skills, etc....*"*(CDS C)*

In addition, several CDS who had learning exchange experiences before studying for their doctorate believed that their initial thoughts (gained from information from television programmes or short-term training experience) were also the motivation for their decision.

For example, CDS G participated in an exchange semester group programme as an undergraduate,

> *"I gained a lot of independence during my study and life abroad. I learned to navigate in a foreign land without using my own language. Well, I really learned how to think for myself and totally take care of myself. I feel like I just learned how to be more confident in certain situations and be able to take on things that I wasn't sure I could do. It helps prove that you can do more than you think, and I learned that." (CDS G)*

The theme of personal development is also reflected by the CDS taking their personal abilities into account. For example, one CDS explained his motivation to study abroad as an example of overcoming challenges.

> *"I just want to go out and totally challenge myself... Like using another language. I was well prepared for this, but I never really tested myself, like surviving in a strict English environment. Learning the language better than I expected." (CDS J)*

For CDS J and other participants, this change in environment may be one of the main attractions, because they can become more independent. For example, they learn how to cope with different situations on their own, and at the same time, they can enjoy unfamiliar experiences while they learn new skills.

Viewing these perspectives through the lens of Bourdieu, cross-cultural learning provides meaning for communication and builds multiple Bridges (Ryan & Hellmund, 2007). In other words, through studying abroad, CDS embrace opportunities to learn new knowledge that enhances their personal knowledge and understanding, including specialised courses, academic research, or even language improvement. This concurs with Bourdieu's (1984) suggestion that the effect of promoting learning may be related to the student's cultural capital, including social and cultural knowledge. At the same time, the economic results obtained after the doctoral programme are more aligned with the notion of human capital, that is, the level of education, scientific knowledge and labour skills directly affect the income of workers; this aligns with the motivation of CDS about their future career expectation. These two types of capital can be related to the institutionalised capital that CDS feel compelled to obtain (Tomlinson, 2004).

The participants in this study perceive that obtaining a British doctoral degree can ensure a relatively smooth transition between cultural capital and economic capital in the future and enable them to achieve higher economic benefits. Therefore, individual cultural capital

has different manifestations at each stage, from the decision-making process, for overseas study and to the acquisition of overseas study experience to the acquisition achievement of academic qualifications. For example, many of the CDS who considered personal development a central part of their experience, recalled that this formed part of their original goal to study abroad, which indicates they had high levels of cultural capital at the decision-making stage. It can also be seen that social factors such as the influence of family and peers are also one of the decisive factors for these international students to choose to study in the UK, which I will discuss in the next section.

4.4 Family and peer influence

Another factor that influences the CDS's decision-making is family and peers. Studying abroad as a social phenomenon has aroused public concern. Family and peers play a significant role in shaping the decision-making process of Chinese doctoral students (CDS) regarding their academic pursuits abroad. The influence of family and peers extends beyond mere personal aspirations and encompasses broader societal expectations and cultural norms. According to Pang (2019), in many Chinese households, the decision to pursue education abroad carries substantial weight and is often viewed as a symbol of prestige and success. Parents of CDS, in particular, may exert considerable influence on their children's educational choices, encouraging them to pursue opportunities that promise greater academic and career advancement. Many Chinese students, especially those from top universities in China, choose to study abroad as a way to continue their studies (Li, Shen and Xie, 2021). As previously mentioned, studying abroad is also a way to find job opportunities. However, it is interesting to note that some of the master's student did not have a clear position on how the study abroad activity could support their future employment when making their decisions despite the challenging job market, instead, they said they chose the UK because of parental pressure. They commented that their parents viewed the UK as their preferred destination for further study and wanted their children to have the same opportunities as them since they had travelled to the UK and returned home.

> *"A long time ago, my father was here, and he told me that England is a very good place, and I should consider studying there, so I was influenced by him "(MS A)*

This notion is supported by other studies including one undertaken by Bodycott (2009). In addition, some CDS cited having relatives and friends currently working or studying in the

UK, or about to embark on their studies, as another factor since it would prevent them from becoming homesick and they would have family and moral support.

> "*My undergraduate and master's universities are located in central cities, with relatively closed information compared to Beijing, Shanghai and other places. But I have a colleague who is studying in Shanghai and has just come back to prepare for the TOEFL test, so I will study with him.*" (CDS J)

> "*The first reason I chose England was because I have relatives here. My family and I are very comfortable here. Another reason I want to stay in England is because it's safe.* (MS A)

In addition, many CDS stated that the expectation and demand to study abroad is so great that it is not considered unusual. This comment from one CDS explains the pressure that this places on them to select the UK as their study destination:

> "*You will find that most of the students around you have to go abroad. Everyone reviews TOEFL, GRE or IELTS all day long and if I don't, I will be ashamed. At that time, it was a herd mentality. Everyone does one thing, so I do the same.*" (CDS I)

Baddeley (2018) indicates that the pressure from their peers is almost too much to ignore as it would result in feelings of shame if they do not follow suit – the herd mentality.

Another significant aspect to consider is the prospect of enhancing their quality of life. This phenomenon can be understood through the lens of Bourdieu's theory of cultural reproduction, which delves into the intricate interplay between education and the perpetuation of social structures, as viewed through the framework of conflict theory. Ikpuri (2023) elucidates how educational attainment not only shapes individuals' social mobility but also perpetuates existing power dynamics and inequalities within society. This could provide insights into how education serves as both a mechanism for upward mobility and a tool for reinforcing social stratification. As the economic importance of a skilled, well-educated workforce grows and inequalities in the school system are reproduced from generation to generation, existing class structures become more important (Brown, 2013). In other words, the impact of educational attainment on family social capital and cultural capital on educational attainment (Bourdieu, 2018) is reflected in the CDS's descriptions of how group pressure and conformity contributed to their decision to study abroad. Overall, the desire to study abroad often shapes individuals' future behavioural intentions, influencing their perspectives on how to approach various aspects of the study abroad experience. However, the preceding discussion highlights the

importance of gradually assigning distinct significance to their study abroad activities for future application.

4.5 Admissions: finance and application

This theme focuses mainly on the cost of doctoral programmes and the availability of applications (the number of PhDs advertised by faculties and supervisors). Firstly, many CDS consider financial factors as a priority, including tuition fees, housing, living and travel costs for completing a PhD in the UK. Of the study participants, 17 were self-funded and two were scholarship recipients. Notably, most CDS maintained that family support and scholarship programmes were important motivations in determining their studies. In addition, they believed that when their parents give them considerable support, including financial, it relieved their financial burden and family pressure. This was evidenced in comments from CDS E, who stated.

> *"...When I was hesitant about pursuing my PhD, it was my family who supported me and told me that my family could afford my tuition so that I could focus more on my studies without a job..." (CDS E)*

This raises an interesting point, namely, China's one-child policy (discussed in Chapter One: Introduction). Often, students in this age group are the only child in their family. As mentioned in section 4.4, family influence is a very important driver, especially for middle-class families who can support their children to study abroad, both of whom are pursuing the middle-class lifestyle (discussed in section 1.2) (Liu, 2008). Students who successfully secure a place to study at a UK university are perceived as achieving highly by their parents - this brings the added pressure of continuing in their studies to doctoral level. An example of parents trying their best to support their only child is revealed through the following excerpt from an interview.

> *"I learned that my classmates and friends basically had the full support of their families. When they choose to go to the UK for their PhD, after all, tuition and living expenses are not so easy to pay. You know, although I am not the only child, my family including my sister are very supportive of my decision and they can provide me with the maximum amount of money." (CDS M)*

In addition, the interview also revealed that the UK's application approach and entry conditions contributed to their motivation, in addition to financial support providing them with more opportunities.

The notion of the impact of the application process is evident from the focus group data; the following excerpt shows that different education systems lead to different ways of application. For example,

> "*I think the UK application route is flexible and more in line with my academic interests. We all know the PhD application in China, which requires a highly competitive thesis exam followed by a rigorous interview. In fact, this causes many masters to give up applying, or lose heart...*" (Focus Group 2, CDS A)

This quote indicates there is more to the application process than it simply being flexible and that the intrinsic motivation of students themselves may be another important factor in promoting the development of overseas education. To that, Huang and Wang (2013) emphasise the need for intrinsic motivation since self-funded study abroad activities play a significant role in expanding the scale of study abroad and promoting the development of study abroad education in China. At present, the main contribution to the growth of the total number of Chinese students studying abroad comes from those who can fund at their own expense. This to a large extent, accelerates the cultural exchanges between China and foreign countries and brings a large number of talents studying abroad back to China and promotes the development of Chinese education and culture (Chen Ning, 2012). This is discussed in Chapter 6 where the focus is on the flipped push-pull theory.

4.6 Impact of Policy

The concluding theme discussed in this chapter pertains to the influence of policy. Several Chinese doctoral students (CDS) cited policy developments, shifts in policy priorities, and statistics concerning overseas students as significant factors influencing their decision to pursue studies in the UK. However, the discussion indicates a notable oversight regarding the policy's impact on employment and related aspects. As CDS M and C mentioned,

> "*As far as I know, as a developing country, the goal of studying abroad has gradually diversified. Previously, the state only supported science and engineering studies, and at the beginning, the channels for self-funded study were not opened. Later, as I grew up, the policy for studying abroad began to expand.*" (CDS M)

> "*I have noticed the double first-class policy, and my goal is to apply for these universities. But I know the policies will always change, but the standards will be similar.*" (CDS C）

This notion was reinforced in the focus groups, where changes in study abroad policies were also discussed. According to Yan and Berliner (2016) in the early days, the push factors behind China's development of overseas education was largely political. Since the 1980s, as the number of self-funded overseas students has increased sharply and gradually accounted for the absolute proportion of the total number of overseas students, political factors are no longer the only driving factor for overseas education. CDS K noted,

> "*In recent years, the policy to promote studying abroad is based on social development, not from a political perspective. For enterprises, sending international students helps to improve the internationalisation level of universities, strengthen the construction of emerging disciplines and urgently needed disciplines, and is more conducive to the construction of high-level disciplines and promote the rapid growth of academic leaders. But for individuals, foreign doctoral education can help make up for the shortage of educational resources in China, meet students' demand for high-quality educational resources, and help CDS improve comprehensive ability and realize personal value.*" (Focus group 1, CDS K).

However, not all participants responded positively to these changes in policies, some complained about their biased nature. As Chinese national scholarships generally give priority to funded disciplines (such as medicine, engineering and computers), it appears that they are focusing on areas urgently needed by the country for development and construction. However, CDS A illuminates the lack of equal opportunity arising form from these policies and the implications for the future,

> "*Because of the lack of policy support for the humanities in the early years, there will be a shortage of faculty in these subjects in universities.* "*This is actually a change in direction, prompting more self-funded students to choose to study abroad.*" (CDS A)

4.7 Summary

To conclude, participants were motivated by one or several factors, to study in the UK. In the traditional "push and pull theory", the factors that influence people to go abroad are often divided into "push" and "pull". The former represents national disadvantages, while the latter represents foreign advantages. According to the description of the participants, there were five themes including the quality of education in the UK, better career prospects (including personal development), family and peer influence, admissions, and policy-related factors. Specifically, CDS cited world-recognised qualifications and

improved competitiveness (job prospects) as motivations for coming to the UK. At the same time, the influence of family and peers includes parents' higher expectations (one-child policy) and peer pressure. In terms of admissions, this relates to the requirements for self-funding and flexible criteria for application. Finally, the policy of study abroad in China acts as a driver, or push, to encourage students to consider studying in a foreign country. Therefore, this diversity of motivation for studying abroad illustrates how CDS consider many different factors before making their final decision about whether to apply to study in a foreign country.

Chapter 5 CDS's perceived academic experience: teaching, learning and supervision.

5.1 Introduction

This chapter focuses on the second sub-research question, and it presents themes that emerged from an analysis of the data concerning CDS's perceptions of their learning and teaching experience when they study in the UK (see Figure 5.1).
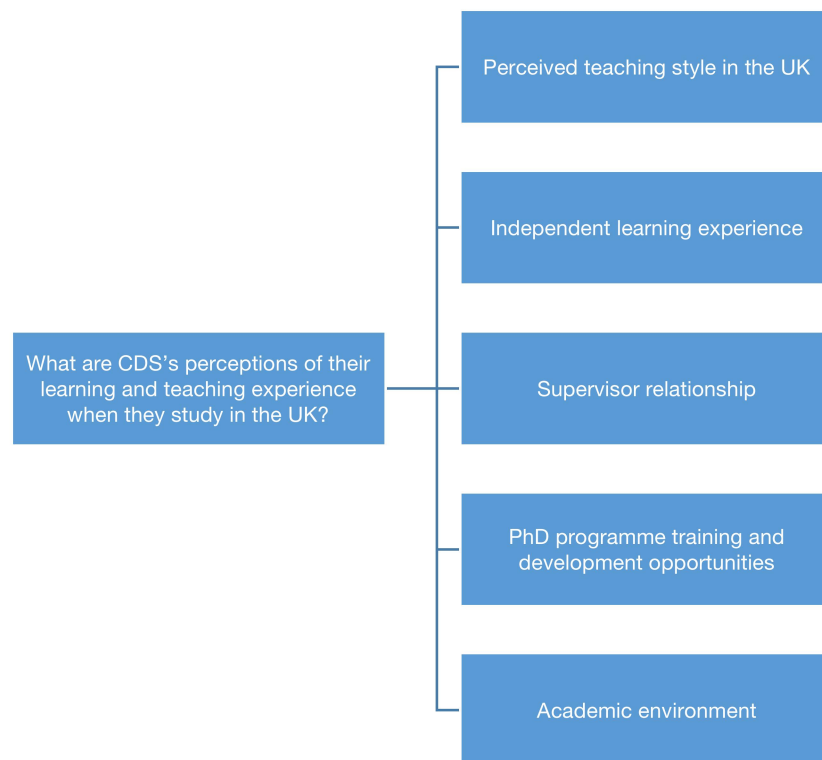
Figure 5.1 Themes emerging from the data analysis in relation to SRQ 2

The literature review suggests that international students find studying in the UK highly beneficial, with both academic and personal advantages. They are drawn by the UK's status as a top developed country, offering a diverse range of opportunities. Students benefit academically, while also experiencing personal growth and development in a multicultural setting with modern facilities. This environment not only fosters academic success but also provides students with exposure to a global community and improved access to the job market after graduation.

5.2 Perceived teaching style in the UK

5.2.1 Experience of interactive and heuristic teaching

The manner in which tutors deliver instruction and how students interpret and engage with that approach in the UK can be influenced by their prior educational backgrounds and cultural upbringing. Nonetheless, certain patterns emerge from the collected data. For instance, it was observed that a significant portion of Chinese doctoral students (7 out of 19) perceived the teaching style in the UK to be more interactive and discussion-oriented compared to their previous academic encounters. While this shift may be welcomed by some students as a positive departure, it also signifies a transitional period as individuals adapt to an educational environment that places a greater emphasis on active participation and collaborative group work. The following quotes illustrate the importance CDS place on their ability to interact with their supervisors or lecturers.

> "*Because in our small program, there are fewer PhD students, there are more opportunities for communication, supervisors pay more attention to communication with students, and students become more proactive. This is obviously different from the classroom in China. Maybe because there are too many students in the classroom in China, or because CDS tend to be defensive or introverted, students seem reluctant to answer the questions from their teachers.*" (CDS R)

> "*I think the British way is also very good, just reading the textbook is far from enough, do not go to class, missed a class cannot make up. British teachers are great storytellers, so when class ends there is a 'wait till next time' feeling, people always think about the next lesson when they have a question in their mind...*" (CDS H)

Many CDS (8 of 19) have experienced different educational systems, predominantly in China, than those in the UK, which can result in some differences in teaching styles. For example, CDS R experienced an undergraduate education in China about 10 years ago, so when she experienced English university classes, she reported that she found it stimulating.

> "*...This kind of interaction between students is also more, several people to do a thing together, and then together to show the whole class with students, the big family will become very clustered, and more willing to express their own ideas. ...in the classroom of British university, cooperation, speech, expression and other training opportunities are much more than in China. ...the advantage of having smaller class sizes, and they can try a lot of teaching methods.*" (CDS R)

This quote suggests that CDS R considers the teaching methods of English universities not only to effectively keep students in class, but also to arouse their interest in and expectations of classroom teaching. Furthermore, she stresses that the interactions in teaching are not limited between teachers and students but also encourage students to cooperate in the course and complete some teaching tasks together. For example, some international students may be accustomed to a more traditional and structured approach to learning (Li, 2012), while the UK education system often emphasises independent and critical thinking. In addition, some courses are designed to allow students of different grades or levels to interact with each other. CDS I entered a UK university as a master's student and found that some PhD courses were taken with postgraduate master students.

> *"Master's students have to pass exams at the end of the term, and doctoral students are tasked not just with taking classes, but with producing through a series of courses… If the master is interested in scientific research, he or she can have more contact with the Doctor." (CDS I)*

It can be concluded from these quotes that CDS place greater emphasis on how the learning happens rather than what is being taught. In relation to the teaching content, the education experience in the UK did not make them feel they had to "memorise knowledge" but rather it encouraged students to engage with different learning methods by interacting with others and freely explore the internal connection between concepts, principles, and practice, and use concepts and rationale to solve problems in the real world.

5.2.2 Student-centred philosophy of education

As mentioned in the previous section the most significant difference between the UK and China is their educational styles. In the interviews, many participants mentioned that doctoral education, especially as a stage for students to conduct independent research, encourages students to take the initiative to seek knowledge and explore, and the fundamental purpose is to ask more questions, debate and discuss more in class during the learning process. For example, CDS K said,

> *"...I really enjoy the freedom to explore topics that interest them, the opportunity to work with peers from diverse backgrounds, and the chance to develop skills such as critical thinking, problem-solving, and communication..." (CDS K)*

Based on CDS's comments in the previous section, interaction and communication are acknowledged as important in UK classrooms to help the students deepen their understanding of knowledge and fully embody the student-centred philosophy of education. According to Neuwirth, Jović and Mukherji (2021), when students begin to

communicate actively and teachers are able to answer questions immediately, the classroom becomes a place of equal and free academic discussion. However, as CDS are used to a more traditional didactic approach to education, they may find it more difficult to adapt to the student-centred education in the UK. Students may find it challenging to adapt to a learning environment where they are expected to take more responsibility for their learning, and to engage in more collaborative and group-based activities.

> *"...the UK education system places a high value on individuality and creativity. Students are given the freedom to pursue their own interests and to develop their critical thinking skills..." (CDS J)*

Acknowledging the differences between the teaching approaches of the UK and China, some participants commented on the complementary expectations of engagement in class activities and support for learning and teaching in UK university classrooms.,

> *"...We may benefit from the support and guidance provided by UK universities. My university offer a range of support services to help me adjust to the new learning environment and succeed academically..." (CDS E)*

On the one hand, high standards and high levels of cognition ensure the quality of teaching; on the other hand, various forms of assessment methods such as examinations, tests, essays, and classroom participation, as well as participatory and heuristic teaching methods require students to be fully focussed on the learning process. The workshops emphasise student participation and engagement. CDS also are encouraged to take an active role in their learning and to contribute to class discussions through participation and engagement. This approach can be different from the more teacher-centred education systems found in some parts of China (Bai and González, 2019). A few participants said they were not used to this approach in the beginning, for example,

> *"I participated in the seminar; my first feeling was nervous, and I didn't know what topic to join. After three or four 3-4 sessions I felt I was ready to engage." (CDS F)*

The above evidence suggests that some participants may find the UK education system to be too challenging or demanding, while others may thrive in this environment. This facet of the UK education system holds particular allure for Chinese students accustomed to a more rigid and structured approach to learning, aligning well with their motivations to pursue studies abroad. According to Reed (2023), the prospect of a more student-centred educational environment offers a refreshing departure from the traditional lecture-based format prevalent in many Chinese institutions. This shift toward student-centred learning is

often perceived as fostering greater autonomy, critical thinking skills, and collaborative engagement among students, qualities highly valued in today's globalised workforce. However, it is essential to acknowledge that perceptions of the UK as student-centred may vary among Chinese doctoral students (CDS), contingent upon their individual experiences and expectations. While some students may readily embrace the student-centred approach as a welcomed departure from the norm, others may find it initially challenging to adapt to a more participatory and self-directed learning environment. Factors such as prior exposure to Western educational practices, personal learning preferences, and cultural expectations can significantly influence how CDS perceive and navigate the educational landscape in the UK. Thus, while the student-centred nature of UK education may hold appeal for many Chinese students, it is crucial to recognize and accommodate the diverse needs and perspectives within this student population. The above evidence suggests that some participants may find the UK education system to be too challenging or demanding, while others may thrive in this environment.

5.3 Independent learning experience

Independent research is an ability valued by UK doctoral education; being involved in independent research, students are more inclined required to develop the skills and attributes necessary for such learning. Because of this, during their guidance sessions with instructors, CDS are not solely focused on meeting prescribed requirements; instead, certain training components are incorporated to foster the development of independent research skills. CDS and other PGRs may also view independent learning in the UK through the lens of social and cultural capital. Acknowledging that the previous educational experience and social capital may differ between CDS, as previously discussed, it is not unsurprising that they reported a range of emotions concerning their learning. For some CDS, studying abroad was an isolating experience, with independent learning exacerbate exacerbating feelings of loneliness and disconnection. For example, CDS C and M said,

> *"I don't have the same support system here as I did in China. It's hard to find people who understand my background and experiences, which makes the journey feel lonely."(CDS C)*

> *"My English isn't perfect, which makes it challenging to participate in class discussions and socialize with other students. It sometimes feels like I'm isolated because of the language barrier." (CDS M)*

However, others saw independent learning as an opportunity to connect with peers from diverse backgrounds and learn from their perspectives. Firstly, CDS are often highly motivated and academically driven and may view independent learning as a way to excel in their studies and stand out from their peers. According to CDS K,

> " *Although I don't have the same support system here as I did in China, I don't think tt's hard to find people who understand my background and experiences... I usually share my story with my colleagues which makes the journey feel not that lonely...". (CDS K)*

Additionally, some CDS expressed their motivation for come coming to the UK to pursue a higher standard of education than is available in China, whilst others and may viewed independent learning as a necessary component of achieving that goal. For example, CDS I and F said,

> *"... I see my doctoral study as a way to build my personal brand by myself, to realize myself, or money, or status, or dream, or to help more people..." (CDS I)*

> *"...Compared with "supervised learning", "independent learning" is a process of self-exploration and finding goals..." (CDS F)*

Reflecting on cultural differences, in China, education is often heavily focused on memorisation and rote learning, whereas in the UK, there is a greater emphasis on independent thinking and critical analysis (Rajaram, 2020). It could be argued that this is this the reason why CDS may find it challenging to adjust to this style of learning, while others may appreciate the opportunity to develop their own ideas and approaches.

Additionally, for some CDS, they found it difficult to become accustomed to making independent research choices at the very beginning of their academic journey.

> *"At the beginning of my doctoral study, I did three things every day: read literature according to my own thesis direction; Write some fragments about the graduation thesis; I keep finding my mistakes." (CDS B)*

Furthermore, English is often a second language; this resulted in CDS commenting on their struggle with the language barrier when it comes to independent learning. Reading academic texts, participating in group discussions, and writing essays, can all pose challenges for non-native speakers, and students may require additional effort and support. Several of the CDS commented on the independent learning content and style and the impact of the language barrier.

"...In fact, before going abroad, I learned that in the UK, students have a very strong autonomy. I need to decide my own research direction and topic selection..." (CDS B)

"At the beginning, my supervisor would advise me to learn the basic tools related to my major by myself and read literature... also the language is my consideration when I set my daily reading and writing task..." (CDS J).

Reading academic texts, participating in group discussions, and writing essays, can all pose challenges for non-native speakers, and students may require additional effort and support. In general, it is reasonable to anticipate a diverse spectrum of perspectives and experiences among Chinese doctoral students regarding independent learning in the UK. It is crucial to acknowledge that various individual factors, including personality traits, cultural background, and academic aspirations, can significantly shape how each student perceives and engages with this aspect of their overseas education journey. For instance, some CDS may thrive in the autonomy afforded by independent learning, viewing it as an opportunity for personal growth and intellectual exploration. These students may relish the freedom to chart their own academic path, delve into specialised topics of interest, and develop critical thinking skills through self-directed study. Conversely, others may find the transition to independent learning challenging, particularly if they come from educational systems that prioritise rote memorisation and teacher-directed instruction. For these students, adjusting to the expectation of self-motivated inquiry and self-discipline may require additional support and guidance as they navigate the unfamiliar terrain of UK higher education.

5.4 Supervisor relationship

5.4.1 Supervisor is crucial for the development of doctors.

UK universities generally implement the dual tutorial system, which means that students are supervised by two relevant supervisors according to their research topic (Polonsky and Waller, 2018). The supervisor's task is to assist students in their doctoral level research and provide support for academic research. According to Sin and Schartner (2024), supervisors and students are not in a 'superior' relationship, requiring students to complete a research task, rather, being a PGR in the UK is like being a "friend" with a supervisor. Focusing on the relationship between the supervisor and PGR. Upon analysing the data, two sub-themes emerged concerning the supervisor; the role of the supervisor and how their characteristics supported the CDS's academic experiences.

Firstly, in general, the supervisor acts as a guide to help CDS clarify their research direction and objectives, working together to develop research plans, inspiring students, and providing regular feedback. The main role of supervisors is considered as follows by CDS G:

> "*We really need the guidance of supervisors. First, they need to teach us the method of research; second, they need to discuss with us and grasp the next direction at each stage. Because in the field of research, at the beginning we are fresher, there is no direction...*" (CDS G)

> "*In the view of the supervisor, study and research are students' own affairs, he can only assist from the side, but the graduation and degree are definitely up to him such as regular review and viva because doctoral students' learning outcomes will be reflected in this aspect.*" (CDS A)

This appears to suggest that CDS expect the supervisor to assume the role of a guider, if it is said that when the supervisor determines or suggests the research direction for the PGRs, it is done so from the perspective of guiding the student (as CDS G presented above); then, in the process of research, the supervisor assumes the role of a 'director' (someone who manages a student's research). In other words, when the supervisor acts as the director, this is more in line with CDS's expectations of traditional attributes of the supervisor.

However, CDS A presents a slightly different perspective, acknowledging that although the study process is the responsibility of the student, the supervision and subsequent doctoral success are enmeshed with the supervisors' reputation. Effective supervision benefits PGRs, supervisors and the faculty

> "*In the view of the supervisor, study and research are students' own affairs, he can only assist from the side, but the graduation and degree are definitely up to him such as regular review and viva because doctoral students' learning outcomes will be reflected in this aspect.*" (CDS A)

A further matter for consideration is communication, which is also a fundamental element of supervision. An effective supervisor maintains regular communication, listens to their students, to their concerns and provides constructive feedback. Supervisors should also aim to communicate expectations clearly, establish goals and deadlines and provide timely feedback on progress.

> *"... For me, the supervisor is like a facilitator, especially for people who are not motivated by independent learning. The task the overseer gave me made me more focused..." (CDS I)*

CDS I reported that she has been constantly motivated and encouraged throughout her academic experience by her supervisor's guidance. Others suggested that effective PhD supervision involves a collaborative and supportive relationship between supervisor and student, which enables the student to develop their research skills, progress through their PhD, and prepare for their future career.

It can be seen from her experience that the supervisor's guidance can significantly affect the quality of doctoral training. Nonetheless, it is worth considering that the intense supervision and control from supervisors are not always considered useful. Supervision with a good and harmonious relationship between teachers and students is the most important factor because students under authoritative and relaxed guidance generally have the lowest academic performance (Zhang et al., 2022). According to Zhang et al. (2022), both control guidance and support guidance can promote students' creative and sharing behaviours, but the specific mechanisms are different, and students' intrinsic motivation plays an intermediary role. This is to say an effective PhD supervision requires a positive working relationship between supervisor and student. The supervisor should be approachable, supportive, and responsive to the CDS's needs.

Nonetheless, it is worth considering that intense supervision and pressure from supervisors are not always considered useful. Despite some CDS reporting that the role of supervisor is supportive, they also felt supported by their supervisors. Several participants suggested that effective PhD supervision involves a collaborative and supportive relationship between supervisor and student, which enables the student to develop their research skills, progress through their PhD, and prepare for their future career.

Others commented on the pressures placed on them:

> *"The psychological pressure, the task sent by the supervisor has become more. In addition to writing an article every semester but also to do research, do data and so on. At the same time, I also shoulder the task of another research group, they are involved in our field: data collation, analysis, writing, delivery and so on." (CDS K)*

This quote highlights the range of expectations from the supervisor. Given the importance placed on the student-supervisor relationship as indicated above, it is possibly not surprising that this student became overwhelmed by the supervisor's requests. A further

tension may come from the CDS's desire to undertake research freely and with sufficient time and space. If the supervisor has set the research scope, CDS often have no time and space to explore freely. This is important since the student-supervisor relationship is also reflected in the protection of students' mental health; when supervisors cannot provide enough trust, security and support, students will experience negative emotions and pressure (Hazell et al., 2020). CDS J provides an interesting insight into studying for a PhD, identifying that it requires taking a risk as you step into the unknown.

> *"People who have never had a PhD don't understand why a PhD is not taught. In fact, studying for a doctorate is very different from "gambling" in the popular sense. ...A doctor does research, and research means doing what no one else has done before, exploring the unknown world..." (CDS J)*

Nonetheless, supervision and feedback have the opportunity to positively affect well-being (building a positive self-image, boosting self-esteem, boosting confidence, enhancing self-worth) and act as a buffer against challenges and misfortunes.

It is also argued that independent research is an ability valued by UK doctoral education, which is also a way to grow from a student to an independent researcher. Supervisors often encourage CDS to develop independence in their research, giving them opportunities to lead their own projects and make independent decisions.

> *"The university has a summer holiday in August every year. The supervisor does not schedule anything during this month. I can do whatever I want and discuss it with him afterwards." (CDS E)*

In the process of receiving guidance from the supervisor, PGRs do not just act according to the supervisors' requirements. During supervision, it is an important task for supervisors to stimulate students' inner awareness of independent inquiry because autonomy not only affects the development of students' professional accomplishment (McCombs, 2013), but also affects changes in their academic enthusiasm. When the CDS is subject to the control or does not receive sufficient support from the supervisor, the evaluation of their ability will also be seen to decline. CDS C explained,

> *"...The habit of autonomy is not formed entirely by me. It is the supervisor's support to me that enables me to have resources to explore independently. Any form of support I get will help me to learn independently more efficiently." (CDS C)*

CDS C's description reveals that most of the reasons for the increase in students' academic enthusiasm are related to the support and respect of the supervisor, which is

also a manifestation of the increased autonomy of the doctoral students. The process of interacting with supervisors is a self-learning process. The behaviour of the supervisor allows the CDS to observe and imitate and eventually internalize into their own cognition, emotion, and performance (Watkins and Scaturo, 2013). The decline in academic enthusiasm among many CDS students in this study could be attributed to insufficient support and a lack of respect for their supervisors. This issue also highlights the limited autonomy of these doctoral students. The lack of support and guidance may be related to the characteristics of the supervisors, which will be discussed in the following section.

5.4.2 Impact of supervisors' characteristics on academic experiences

One of the key themes to emerge from the data was the importance of the supervisors' characteristics in guiding and supporting CDS. The following examples illustrate how CDS welcomed supervisors' investment in them as colleagues, not simply as students.

> *"Although the supervisor is in 50s, she is very young and tolerant of different opinions. She has an equal relationship with us. We meet every week and talk a lot besides academics. We are willing to speak our minds without being too inhibited. It's not just academic. I want to be a well-rounded person." (CDS C)*

> *"I still remember applying for the national scholarship. The supervisor bought a plane ticket together and came back the next day, asking me to give a report. He can understand that the physical participation in such activities is more important to the students than the rewards and money. And I appreciate it!" (CDS F)*

> *"For me, it was lucky to have such a supervisor. I never thought that one day there would be such a person without any blood ties to care for me and guide me…he told me to balance work and family, to fall in love when I should, to get married early, and not to delay certain life processes too much for work."(CDS B)*

Analysis of the data revealed that CDS spoke positively about their supervisors for three reasons: One is the equal relationship between supervisors and CDS in which the supervisors may act as a guide or friend or adopt the role of a democratic equal partner; age does not appear to be a contributory factor. What is more important is that supervisors adopt a balanced role that sits between being a teacher and a partner to the students. Supervisors who effectively build on general principles and create a conducive, harmonious learning atmosphere are particularly appreciated.

The second is the balance of task-oriented and individual-oriented learning, that is, supervisors are concerned about the completion of research projects or academic goals while also paying attention to the personal development of students.

> "*For me, it was lucky to have such a supervisor. I never thought that one day there would be such a person without any blood ties to care for me and guide me…he told me to balance work and family, to fall in love when I should, to get married early, and not to delay certain life processes too much for work.*"(CDS B)

These supervisors often intersect with the lives of students, and the influence of informal communication during meals and activities on students cannot be ignored. By understanding the relationship between family and career, students are enabled to reflect on the balance between work and life and to develop good attitudes towards overcoming conflict when there is an imbalance between work/study and life.

On the other hand, there are some negative supervision methods mentioned by CDS, which are characterised by "not listening to students' opinions", "not encouraging discussion and debate", "always criticizing", "no feedback", "inconsistent words and deeds", etc.

> " *He is really busy and can't take care of us. I was really looking forward to my mentor teaching us how to do research, but he always told me to learn to study by myself. I was expecting him to change my article, but every time I sent it to him, he didn't respond.*" (CDS J)

Two CDS had a strong desire to express themselves when they were studying for a doctoral degree in the early stages of their supervision relationship, but they gradually became reluctant to express themselves under the constant negation and suppression by the supervisors. For example, CDS I reported,

> "*I always feel that the focus of the problem is different from that of the supervisor. He will not listen to the opinions of the students, and communication will have no effect. It is better not to communicate. I think sometimes that's rare in the UK, but it's true that sometimes communication is difficult, and that's probably due to language and culture.*" (CDS I)

This example reveals that the negative experience of the supervisors' role is characterised by several aspects. Firstly, CDS I indicates that unilateral orders or obedience are an inappropriate means of communication with students, or lack of feedback and guidance. Communication is based on dialogue, unilateral orders and unilateral obedience cannot

result in good guidance. Secondly, where the focus of supervisors is one-sided and emphasises task orientation. This type of supervisory practice pursues utilitarian goals and does not pay attention to the dimension of students' personal development. Whilst supervisors are not required usually to get involved in PGRs' lives, CDS J highlights the negative impact of a supervisor who believes that there is no need or time to pay attention to their ' needs.

Thirdly, the personality of supervisors has an important influence on the cultivation of doctoral students through personal experience. If the teacher-student relationship tends to be one of "boss and employee" or paternalistic authority with a superior-subordinate relationship, this can have a negative impact on the students' ability to reflect on their studies and development. The supervisor needs to be aware of the influence that their personality characteristics can have on the guidance they provide to CDS, which can support them to reflect on their studies and development. On the other hand, pursuing a PhD is also a process of shaping CDS's personality. Some traits such as "resilience/frustration tolerance", "self-restraint", "active communication", "independence" and "creativity" are particularly needed for a career in academia. When entering the university as a novice, the need for a supervisor's paternalistic authority is more prominent (Bazrafkan et al., 2019); as a student accumulates knowledge and skills, develops autonomy, and builds an identity, he may expect a relationship with a teacher that favours colleagues and friends.

To summarise, the supervisor relationship refers to a special relationship between learning partners (Parker et al., 2022). The mentoring relationship is not symmetrical but can be mutually beneficial if developed authentically. If the relationship provides a positive supporting environment, where the supervisor's behaviour is positive, targeted and answers questions, and demonstrates equality, care, and encouragement, students will make better progress and have a more positive experience than if the supervisor is negative, rigid, harsh, emphasising authority and control and negating students' views (Wubbels et al., 2014).

5.5 PhD programme training and development opportunities

5.5.1 Impact of the structure of doctoral education in the UK

The structure of PhD programmes in the UK is usually divided into three stages: the first is taught courses, designed to help PGRs master the subject knowledge and methodology they need; second stage is the research proposal stage, in which students are required to

work out a detailed research plan, including research questions, objectives, methods, expected results, etc. The third stage is the research execution and writing stage, during which the doctoral student is required to complete the research and write the doctoral thesis. Many CDS (9 of 19) commented on the structure of the PhD, from both positive and negative perspectives. A couple of examples are provided to illustrate the point.

> *"...this way has a high degree of flexibility and customization. Generally speaking, I can choose taught courses taught in the first year according to my own interests. I can also freely choose my own research direction and course content. At this stage, I also have opportunities to communicate with supervisors and peers..." (CDS H)*

> *"... The flexibility of the course didn't help me plan well, and I didn't take any modules in my first year. Now it seems like the first year was all about choosing topics and setting questions, and overcoming the language barrier...'' (CDS A)*

Most CDS can arrange their study and research plans for each year under the guidance of their supervisors, but at the same time, as international students, CDS needs to have good self-management and organization and the ability to maintain good communication and cooperation with supervisors. In addition, in general, PhD projects take longer to complete and CDS may require more patience and perseverance.

In addition to the features of independent learning in the previous section, doctoral courses in the UK require students to conduct independent research and writing; structured courses may enable students to gradually cultivate their ability to think independently and solve problems, which is regarded by many CDS as the advantage of doctoral education in the UK. Hence, it became evident from the participants' perspectives that the demands of the doctoral programme are notably rigorous for students. These students are tasked with the formidable challenge of producing an original thesis of scholarly calibre and substantiating their research findings through a rigorous defence process. As a result, there arises a pressing need for a methodical and structured approach to both their learning and professional development. Within the context of a doctoral programme, according to Rogers (2020), the culmination of years of academic inquiry and scholarly pursuits hinges on the successful completion and defence of a substantive research thesis. This undertaking requires students to meticulously plan, execute, and document their research endeavours, adhering to rigorous academic standards and methodological frameworks. Furthermore, the Viva process entails a comprehensive examination and critical evaluation of CDS's research findings by a panel of esteemed academics and experts in the field. The next section discusses in detail the

perception of CDS of other methods of evaluation in addition to the structure of the doctoral program.

5.5.2 Implications for publication for PGRs

Following on from the structure of the PhD programme, the majority (16 of 19) of respondents believe that if the training process is rigorous enough, the number of published papers should not be a graduation requirement. Whilst this is not a requirement of UK universities, in China most higher education institutions require PGRs to publish academic papers related to the research content during their studies (Lei and Hu, 2019). Only when meeting some essential requirements, such as the publication of core journals, can a doctoral candidate apply for a thesis defence. The example from CDS D reveals their belief that it is the quality of the work that is more important than the number of publications, which is best discerned by the supervisor and examiners.

> "*When I graduated, it was primarily the defence committee that looked at the quality of my thesis and the work I had done throughout my PhD program, not how many articles I had published...*" (CDS D)

> "*… At my faculty, the supervisor said you were good enough to graduate, you graduated, even if there was no article. However, in Chinese universities, sometimes the professors do not make the rules, they have to set some standards for graduation.*" (CDS J)

Secondly, the participants acknowledged that the nature of academic research is a process of exploration that is full of uncertainties. When evaluating CDS' academic work, they commented on the need for the supervisor to respect this uncertainty and make an objective evaluation of the overall process of students' learning and research.

> "*The requirement for doctoral students at my institute is to compile a piece of research that can be written as a thesis and then graduate. There are no requirements for how many articles to post or how many points above the impact factor...*" (CDS H)

This indicates that CDS are more focused on producing their thesis, which may bring its own pressure, rather than responding to publishing requests. The reference to publishing may be a result of Chinese universities stipulating this as a requirement of their doctoral studies before they can graduate. However, reforms in recent years in some top Chinese

universities, have resulted in doctoral education no longer focusing on academic papers as the sole basis for evaluating the academic level of doctoral students. For example, in April 2019, Tsinghua University announced the Regulations on the Training of Doctoral Students, which no longer considers the basic requirements of published papers during doctoral study as the necessary criteria for degree awarding (Jain, 2021). Supporting this change in focus, some respondents in this study considered that a published article was not sufficient in itself to demonstrate that a doctoral student had produced work of the required standard.

> "*Publication is a form of showing what you've done, not actual academic work. There is a long process of debate, discussion and validation before a paper becomes a result. It is unreasonable to regard a paper as an achievement just because it has been published.*" (CDS D)

CDS F also notes that his university does not encourage doctoral students to publish papers, especially in their early years.

> "*My observation is that my faculty does not particularly encourage the publication of papers, let alone pursue the number of papers. A paper must be fully researched before it is published, and a truly thoughtful man cannot be a 'printing press'. The value of a paper is not in the length or the number of papers, but in the fact that it does something.*" (CDS F)

Although UK universities do not generally emphasise the number of papers published in the graduation process, many PGRs are more likely to think about where they might publish aspects of their research after graduation. Also, their focus is often on completing the doctorate in the required time rather than publishing. CDS A and CDS K, both of whom have teaching experience in universities, stated:

> "*Although there is no requirement, many students publish papers, which is the standard for university recruitment.*" (Focus Group 2, CDS A)

> "*The PhD is still a student, so the most important thing is to study, not to publish journal articles. After you have completed your academic training and have begun to conduct research, it is natural that you will develop something worth summarizing and publishing. However, that is a completely different thing from pursuing it.*" (CDS K)

The comment from CDS A might be a consequence of doctoral programmes in China, where publishing a thesis is often an important requirement for PhD applicants. This is

because the university considers the publication of a paper to demonstrate the applicant's ability and practical experience to carry out independent research in the relevant field. At the same time, the publication of papers can also show that the applicant has a certain academic reputation and achievements. However, the need to publish and the quantity and quality of the required papers will vary from institution to institution. Some positions may require only a few papers published in high quality journals, while others may require applicants to publish multiple papers within a certain period of time, and these papers must be of high impact and academic value.

In summary, the above may be a common academic work evaluation method in some doctoral programmes; that is, the number and level of academic work of students, such as conference papers, publications and research projects, is calculated as the basic unit of measurement. Whilst this quantitative method can reflect the research level and academic dedication of scholars to a certain degree, it can also lead to uneven distribution of academic resources, absence of academic autonomy and heterogeneity of academic power. Notwithstanding, quantitative methods may also produce some undesirable effects (Wang and Degol, 2017), such as the psychological pressure of PGRs, which is reflected in anxiety and lack of confidence.

Regardless of whether the structured elements of the PhD have been formally assessed, PGRs' self-examination focuses on the quality and originality of their dissertation or equivalent (Winchester-Seeto et al., 2014) and his/her ability to defend the thesis. At the same time, there has been a shift in the focus on PGRs' examination in China, largely due to the emerging culture of UK higher education and its emphasis on quality assurance, audit standards, benchmarks, and performance indicators. The traditional function of the PhD is to train future academic workers.

5.5.3 Professional training and development opportunities

Attending academic conferences is considered a route to postdoctoral fellowships, academic positions, and industry-related careers (Yang et al., 2022). Academic conferences provide doctoral students with the opportunity to present their research and network with experts in their field and is a key element academic training. Several CDS commented on networking as being important and considered it to "be a decisive factor in pursuing an academic career" (CDS K).

> "*The first academic conference I had was on my own. Fortunately, this has given me a lot of opportunities to meet new people and research. I am positive about*

making meaningful social contacts in academic settings. It's fun to ask people what they're interested in and find common ground with different people." (CDS A)

Whether formal or informal, networking can put PGRs in touch with senior academics who have formed their own research outcomes, or researchers who share a common research interest in future collaborations. Networking at conferences provides opportunities for PGRs to move into socialised areas of research outside of their own research institutions. However, some CDS said that they were not familiar with the value of conference participation at first.

On a more negative note, there is a clear gap between disciplines and even between different universities in terms of PGRs' access to conferences. While PGRs studying business have in the past, especially before the pandemic, participated in international academic conferences in their field of study. This is exemplified by CDS C who is studying in the field of business,

> *"Although the impact of the epidemic did not have a chance to participate in the conference during that period, and there were few opportunities to communicate with scholars and experts. However, when I first entered the doctoral programme, I tried to attend a conference. Now I am also preparing a large conference and preparing a speech." (CDS C)*

Moreover, there is evidence that PGRs in the field of business have many opportunities to attend and present at conferences. Three CDS had presented at least two personal papers at a conference, one CDS had only been studying for a few months at the time of the interview had already presented a poster at a conference. In contrast, among participants in the humanities, only CDS A and CDS I had attended international conferences. The rest of the participants attended only university-level conferences, and they did not present their findings. As a result, CDS in different disciplines have varying degrees of recognition outside of their own place of study. In addition, participants' attitudes to attending conferences varied according to the stage of their doctoral studies. CDS K in their fourth year of the PhD identified themselves as a "facilitator", while participants in the second year of the PhD tended to identify themselves as "listeners" or "learners", indicating different learning stages and identities. CDS I and CDS A share their positive experiences of speaking at the conference:

> *"I'm confident in my content. I thought the speech went well." (CDS A)*

> *"I even got a chance to do a post-doctoral study in Hong Kong. There was a senior researcher who was interested." (CDS I)*

Participants believed that these opportunities affirmed the construction of their scientific identity by sharing their work (performance), and) and affirmed their skills and knowledge by receiving positive feedback and recognition. The difference between a supervisory meeting and a conference is that the meeting has the potential to be a passive process, but presenting at a conference is an active process, with access to networking and presentation. As CDS K says:

> *"At first, I was nervous to attend. In my experience, an academic conference is more like a lecture with free food and drink than a lecture. But it wasn't until my junior year, when I presented some of my work as a speaker, that I understood the meaning of a conference." (CDS K)*

Overall, the conference environment gives participating CDS a sense of acceptance by the academic community, which contributes to the recognition of the scientific identity development model. In addition, the conference enables participants to exchange knowledge of more content and develop competency dimensions of the scholar identity model.

5.6 Academic Environment

5.6.1 International colleagues and an inclusive environment

This section can also be related to the motivation for studying abroad previously discussed in Chapter 5. An international academic environment attracts global talents to study in the UK with an open education and research system, generous scholarships, and flexible immigration policies. The gathering of these highly qualified talents has further enhanced the level of UK academic research and made its academic environment more attractive.

For example, recalling her first year as a PhD student, CDS C expressed her appreciation of the UK's ability to attract elite talent.

> *"...The UK has all the talent in the world, it has an eclectic approach to recruiting people, even if you don't have the money to pay tuition fees, and the huge of scholarships that are given out means that a lot of the best people come to the UK..." (CDS C)*

In this environment, the learning experience of CDS is enriched by the presence of PGRs from other countries, which is also conducive to the improvement of one's own ability to a certain extent. When CDS K was at the research centre, it was in an international environment.

> "*At most we have seven or eight researchers in our office, from China, Japan, Korea, Taiwan, Colombia, Brazil, Saudi Arabia, India, Spain and Egypt. It's a very international research environment.*" (CDS K)

This international environment provides supportive networks for CDS, particularly those from other Asian countries and they understand the challenges faced due to their similar educational backgrounds.

> "*...there were other students from my own country and similar background studying there already so it was easy to adapt....*" (CDS I)

Moreover, many respondents noted that forming interpersonal relationships in the UK academic setting was relatively easy. They had the chance to live in a multicultural environment where students came from various countries and backgrounds. This experience not only enhanced their cultural awareness but also provided a platform to appreciate and celebrate cultural diversity within the educational context by becoming acquainted with different values, beliefs, traditions, and customs.

> "*It's funny how sometimes people sit down and have a cup of coffee and talk and they come up with an intention to collaborate or help each other. Collaboration is a very natural thing.*" (CDS M)

> "*I feel that the overall humanistic care is still relatively more, interpersonal relations are relatively simple, in general, everything is fair, reasonable and acceptable...*" (CDS B)

The interviewed CDS also noted that they had the chance to adopt new learning strategies and study patterns that differed from those they were accustomed to in their home country. They found that the educational approach was more focused on practical thinking and application rather than solely on theoretical learning. For example, CDS D has a regular weekly exchange time at the campus, which supports their learning:

> "*Each research group should send one person to introduce the work of the group. This allows you to communicate with others in addition to your own group. Because*

sometimes ideas can be complementary, and other people can bring up aspects that we didn't think of." (CDS D)

Other participants commented on the flexibility in their learning time:

"Although it is a working system, there are no rules on when to stay in the office, how many hours to stay in the office each week, and there will be no" high-tech "check-in methods such as fingerprint. My supervisor once told me to arrange my time freely and pay attention to enjoying life other than studying." (CDS B)

In these universities, there were only a few courses or lectures that students were required to attend; the main activities were experiments, discussions, and students' online active learning. After entering the stage of scientific research, students had more space to learn freely and develop their own research strategies. At the same time, the seminar atmosphere of the course is very strong, and there is always plenty of time and opportunities for discussion and communication in the group. Studying for a doctorate in a UK university employs a more personalized approach, where it presents a relatively free scientific research environment, but also stresses the students' own independence and efficiency.

5.6.2 Adapting to the learning environment

Chinese PGRs adapt quickly to a learning environment that is different from the one they have experienced in their home country, which relies more heavily on supervisors or faculty arranged learning plans due to the traditional learning model in China. CDS E provides insight into these challenges by explaining that he works in a team in China related to the research topics, and scientific research is always placed first. Such dedication reflects a good academic research atmosphere from CDS's perspective. CDS C, a first-year PhD student, described his daily study and work schedule as follows:

"My schedule is very simple. I go to the office in the morning, I go to class when it's time, and I go back to the office after class. I would take lunch, work in the afternoon, and then go home and cook for myself in the evening. It was a tight schedule." (CDS E)

The organised and efficient working style in the UK is difficult for a CDS to achieve in their home country. CDS F, for example, compared his status at home and abroad and believed that the main reason for his ability to work more effectively lies in the changes in people and the environment around him.

"...I always feel tired in China. Personally, I think it is because of the environment on the one hand. When I was in the UK, other people were working hard, so I would also be affected. On the other hand, it may be because the environment abroad is quieter and less disturbed." (CDS F)

It appears that CDS may be influenced by their peers' work habits and productivity levels. If they see their peers working hard and achieving their goals, they may be motivated to do the same. On the negative side, peer influence can contribute to stress and burnout if CDS feel pressured to keep up with their peers or compete with them. This can be especially true in highly competitive or demanding academic environments.

Another element relating to the learning environment is the ability of academics to focus on their research field and not feel the pressure to change the direction of research, The value of a PhD is not to solve a lot of questions, but to carry out in-depth and systematic research on a problem or issue, or to make a breakthrough in a certain aspect of a question. It is not that the problem is necessarily large, or extensive, but that there is a new way of thinking about a difficult problem, or the development of new methodologies to explore the issue, or even that there is a way to solve the problem.

"I think the most important thing about the British academic environment is that it allows people to think freely. In the end, it is a spirit of freedom, where everyone can express his own opinion without considering anything else. Even if you are a famous scientist and I am a primary school student, we are equal and can discuss problems as equals." (CDS I)

In addition to CDS I, some participants also believed that in UK academic circles, there is a strong spirit of questioning and criticism. They do not follow blindly, but always have their own thoughts. Many innovative achievements in academic research are established on the basis of overturning and developing predecessors. Most of the institutions in which CDS works also have such an environment that encourages questioning and criticism.

5.7 Summary

In summary, this chapter discussed five themes from the CDS doctoral study experience, these themes include teaching styles, independent learning experience, the supervisor relationship, the training and development opportunities in doctoral programmes, and academic environments. The data reveals that on the one hand CDS retain the behaviours associated with a traditional learning style, while on the other hand, they flexibly adapt to

the new teaching and learning in the West, and actively exchange with their peers. They also maintain the international advantages brought about by their study abroad experience through international academic exchanges. It is worth noting that due to the different circumstances and environment of each person, this study does not make any valuable judgment on the adaptation strategy of CDS, that is, it does not distinguish between good and bad adaptation or development. It does however, emphasise, the impact of the interaction between individual development and the external environment. At the same time, an important aspect is the impact that supervisors and supervision have on CDS, such as supporting their research and helping them develop the habit of independent learning. Finally, an interesting method of evaluation that is also highlighted in this chapter is the unrestricted publication of articles, unlike Chinese doctoral programmes, the doctor's productivity comes first.

Chapter 6 Flipped push and pull model: CDS's motivations for returning.

6.1 Introduction

This chapter focuses on CDS's motivations for returning to their home country after graduation. Initial findings suggested they stemmed from their hopes for better career prospects, concern for family, desire for social approval, and nostalgia for home. However, on further analysis it became clear that returning was not just an individual decision, it was also based on broader social, political, and economic conditions. Further studies on transnational academic mobility concur with these findings; for example, Hao and Leung (2023) show that it is not enough to explain the scale and dynamics of academic mobility by analysing the individual motivation of academic mobility from the micro level without considering the macro conditions. The specific personal reasons are important considerations in addition to educational internationalisation and policy-related factors. First of all, transnational academic mobility provides more career development opportunities for scholars (Li and Tang, 2019), which was discussed in chapter 4; this factor encourages CDS to study abroad and make them want to return to development after graduation. For example, returnees have had experience working and studying in different research institutions, universities or businesses and have gained broader research and teaching experience. Second, CDS mobility (study abroad and return) provides them with opportunities to collaborate and communicate with scholars from different cultures and disciplinary backgrounds. This helps to promote cooperation and exchange of academic research, broaden horizons, and increase the quality and impact of research results. Therefore, this suggests that it is important to provide a systematic analysis by placing an individual's everyday reality in a wider structural context.

Therefore, this chapter not only examines the motivations and desires of individuals to return home, but also identifies the new forces shaping mobility patterns and dynamics in the specific context of China; these include the individual perspective, cultural and family orientation to macro-national policies, economic factors, and institutional factors (see figure 6.1.)
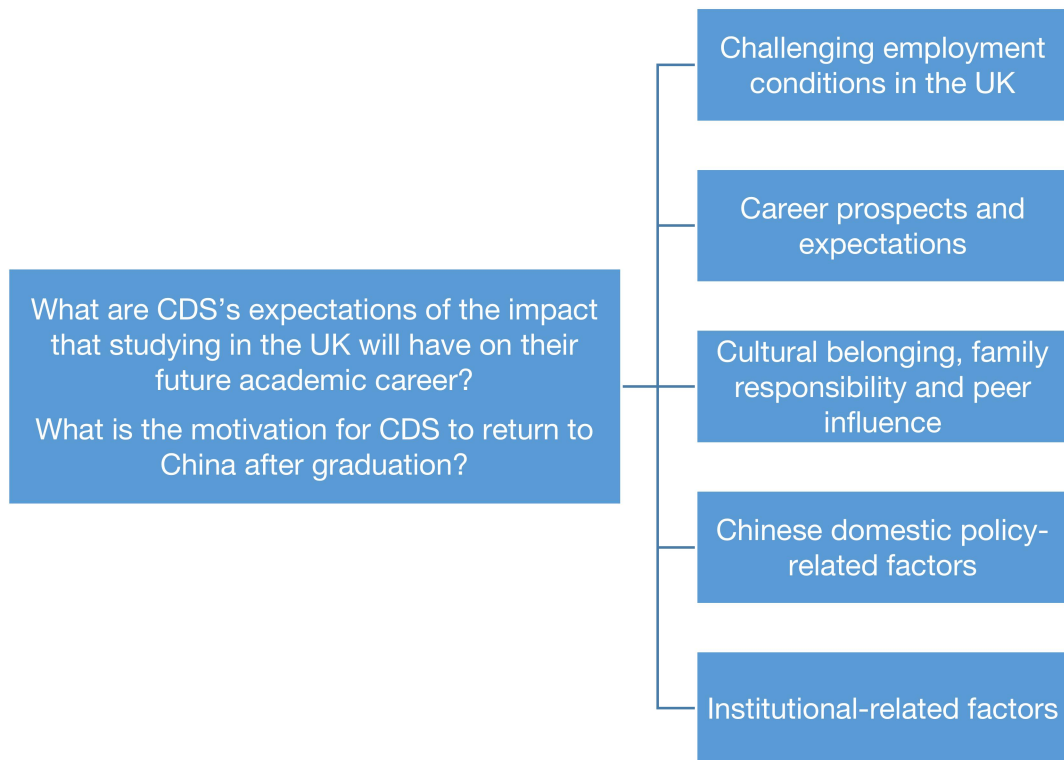
Figure 6.1 Themes emerging from the data analysis in relation to SRQ 3 and 4

6.2 Challenging employment conditions in the UK

6.2.1 Employability disconnect.

In the past, doctoral students from the Chinese mainland were rare and highly sought after by both domestic and foreign companies since they are recognised for their industrious efforts in acquiring subject knowledge, getting good grades, and getting degrees from prestigious universities (Li and Bray, 2007). However, in a collective hierarchical culture like China's, students are encouraged to follow what their teachers say rather than develop self-management and critical thinking (Wang, 2016). They are also heavily influenced by their families, peer groups and wider society. This is more conducive to gaining qualifications and certificates than actual study experience, preferring the prestigious university brand over the programme quality and suitability for individual students. As CDS E and L say,

> "*I was not used to making decisions based on my abilities and values, especially when I first entered school, even after four years of study, without a clear personal career plan. For me, studying for a PhD in the UK is an opportunity to postpone a career decision.*" *(CDS E)*

"Increasing my knowledge in the subject area, I think, is the way forward for me, and I went on to do my PhD because of my academic studies. In my opinion higher education is much more important than getting a job, but what I am now reflecting on is that the disconnect between the learning experience and what is needed in a real-world company is often striking, especially if I have to look for a formal job in the UK." (CDS L)

It can be seen here that these participants have gained skills and abilities that go beyond the name or reputation of a university on a resume if it is to impress an employer. This corresponds to the motivation presented in the study abroad section (see section 6.2), where due to the restrictions on post-graduation jobs in various countries, more and more graduates go overseas to study for doctoral degrees at first, and then come back to China to find jobs. The next section explores the pull factors that attract CDS back to China in terms of gaining more academic support and resources.

6.2.2 Immigration policy

Another reason raised by several CDS is the current political environment. Immigrants face difficulties not just because of cultural differences (East Asian societies in particular are vastly different from Western ones) but because of immigration policies and laws. Immigration policies make it harder for international students to get visas. However, the UK Post-Study Work Visa (PSW), which was relaunched in 2020, allows international students to work and live in the UK for three years after completing their PhD in the country (Tu and Nehring, 2020), during which time they can find a permanent job or pursue opportunities in entrepreneurship. However, the issue is that when their PSW visa ends, they need a stable job offer from a UK Visas and Immigration (UKVI)-licensed sponsoring employer to get a formal Tier 2 visa. In 2014, only about 27,000 companies in the UK were allowed to offer these Tier 2 visas (Gopal, 2016). In recent years, fewer international students from British universities have entered the UK workforce because limited work visas are the biggest barrier. As CDS K says:

"The process of applying for a visa can be lengthy and complicated, and I also may struggle to provide all the necessary documentation required by the UK government..." (CDS K)

Therefore, the process of obtaining a work visa in the UK can be challenging, and certain requirements must be met to be eligible. These requirements may include having a job offer from a UK employer that is willing to sponsor the visa application, meeting certain skill and salary thresholds, and passing a points-based assessment system (Liu, 2021).

6.3 Career prospects and expectations

6.3.1 Seeking career opportunities after graduation

Firstly, for universities in the UK, due to current financial constraints, the funding for scientific research has been greatly reduced. The interview data in this study suggests this is affecting the enthusiasm of younger generations and established scientists, prompting them to change careers and even move abroad. With the improving career prospects in China, the proportion of returning students has also gradually increased. CDS B cited these reasons in his interview:

> *"...funds will be very difficult, no fee no way to start working, after which there may be no room for development. Besides, I am not too young. I would like to go back to China and do something for myself..." (CDS B)*

For other CDS, they had a clear plan of how long they would like to remain in the UK after graduation before they applied to study in the UK. Some provided details about why they wanted to stay in the UK, commenting that the effect of studying in a UK university was to extend the level of their learning, whilst improving the standard of their published papers and providing a good foundation for future work back in their home country. For example, it can be found from one of focus group interview,

> "*… I feel has elevated the standard of my published papers. I can collaborate with renowned scholars and access extensive research facilities, which has improved the quality of my work…"(Focus group 1, CDS B)*

> *''…I agree with you, I feel I've gained here will be invaluable when I return to China. The experience has provided a solid foundation for my future research and career development.'' (Focus group 1, CDS I)*

Some CDS who study abroad initially do this with the idea of improving their human capital value and then returning to China. For example, they consider whether studying abroad will provide them with an opportunity for development, which become the important factors when they decide whether to go back to China. One example comes from CDS F who went back to China to visit when he was a PGR. He was invited to work in a scientific research centre of a university in Shanghai by a classmate who had returned a few years

ago. After visiting the centre, he marvelled at China's international-level infrastructure and the "sea change" (in his words). He said:

"It's all moving so fast. It's totally different from when I left." (CDS F)

His decision to return home highlighted the change in career opportunities and expectations available in China, which is further emphasized by CDS C and G.

"If I had come back later, I might not have been able to get my present position according to the requirements of the university. There really needs to be a good opportunity to make a decision to go home." (CDS C)

"I felt like I had hit a wall in my career, and I wanted to do something different. I want to challenge myself and have new experiences. I had been thinking about doing some research on interdisciplinary integration, and one university I focused on provided a great platform for me." (CDS G)

6.3.2 Returning to the Chinese research community

China's research universities have become more attractive places for young graduates to expand their careers, especially when there are fewer job opportunities at equivalent institutions abroad, several participants (5 of 19) referred to returning to China to advance their academic careers. CDS A, for example, explains that he had to alter his plans after he was unable to find employment in the UK.

"Returning home immediately after graduation was actually not my original plan. I tried to work in the UK for a few years and come back with "the knowledge" however, the decline in academic vacancies in the UK has forced me to bring forward my plans." (CDS A)

As mentioned in the first section, the lack of career prospects in the UK has been a driving factor in the return. However, this is not necessarily the only determining factor. Respondents admitted they had brought forward their return to China due to the uncertainty of changes in Chinese academia. Improved research conditions and an increasingly international work environment have been important factors in attracting young, aspiring academics back home. CDS I say:

"I made a wise decision to return to China immediately after graduation. The sooner, the better." (CDS I)

From this perspective, Chinese research-intensive universities are becoming more selective, and simply having a degree from another country may not lead to a position at such institutions in the future (Xiang and Shen, 2009). In some instances, PhD graduates who return to China may become full professors, which is rarely available if they stay abroad, however, these are merely in exceptional cases in specific areas (Science Technology Engineering and Mathematics (STEM)) and do not reflect the general highly competitive atmosphere for PhD returnees in China (Han and Appelbaum, 2018). In summary, a more familiar Chinese research community is one of the motivations for CDS to return, and the "stable" jobs that traditional Chinese students and parents expect will be discussed in the next section.

6.3.3 The perceived stability of employment

Despite the shrinking job market in the UK, some PhD graduates appear to be ambivalent about whether they remain in the UK or return to China. They measure their decisions by comparing locations, resources, and abilities to get a "better job." CDS H says,

> "*If I happen to find a teaching position at a university in England, I will stay. If not, I wouldn't mind coming back.*"

At first glance, it appears it is the notion of securing an academic job that is more important to the participant than its location. However, as the interview continued, it became clear that the quality of the job was equally important:

> "*There is a lot of competition to find teaching positions in my field in the UK. If I had stuck around, I might have ended up working at a third-tier university, or at some lower-ranked college. However, if I return, the chances of working at a top university in a big city like Shanghai or Beijing will be great.*" (CDS H)

The return to China may not have made CDS more money, but it did give them a measure of career stability and job satisfaction. This was echoed by another participant (CDS K) who preferred to return to work in China rather than take up what they perceived to be a risky career in the UK.

> "*I think the steady development of the economy can give me confidence that my career development will be positively affected. Another reason for my confidence in returning is about language, because if I stayed in the UK, I would feel I was at risk of losing my job because of some communication limitations.*" (CDS K)

In summary, the narrative of CDS challenges the neoclassical international approach of people migrating for higher incomes. It suggests that CDS do not necessarily move for economic gain. Career prospects sometimes have more influence on their decision whether to return to their home country.

6.4 Cultural belonging, family responsibility and peer influence

In addition to better career prospects, CDS also cited social and cultural reasons in their decision-making. For some CDS, their motivation was simply to get closer to their family or society. There is evidence from the interview data that belonging and social attachment play an important role in influencing people's decision to return home.

> *"Fundamentally, I don't think the UK is my country. Although I didn't feel a strong sense of alienation from American society, I couldn't quite settle down there because the thought of going home was always on my mind." (CDS D)*

> *"There were many times when I felt like something was missing in my life. Every time I come back from China, I keep asking myself, Should I go back? When do you go back? Do I really want to go back? The older I get, the more I feel it." (Focus group 2, CDS K)*

Apart from the feeling of homesickness, another reason expressed by CDS relates to their ability to access Chinese society, especially for those PGRs studying in the field of humanities. CDS J says,

> *"On the one hand, living in China brings me closer to society, closer to the scene, so that I can observe and understand daily life in China today more deeply. On the other hand, although Britain is a culturally rich country, this culture is not as close as my life experience. I always felt like an outsider in England." (CDS J）*

In general, social scientists, especially those who study in China, seem to have stronger feelings about Chinese society than natural scientists (Zhou and Guo, 2021). They could believe they may do better research at home because their knowledge is more dependent on social background. CDS A believes that his research can have a greater social impact in China than in the UK, due to the work and research background he already has. His research interests are in Chinese ideology and leadership characteristics of party and mass leadership and political science, and he believes that his work could contribute to the larger academic field in China than in the UK. This is also consistent with what CDS E says,

> *"The British society is relatively stable, and it is almost impossible for me as a foreigner to take part in its social change. However, in China, everything is undergoing great changes. There are a lot of opportunities and possibilities."* （CDS E）

In addition to social attachment and influence, a sense of responsibility to the family is another key element in the emotional realm that underlies the decision-making process. In some cases, the motivation to "care for aging parents" was the most important factor. Other family factors that had an impact on the CDS's intention to return home, include children's upbringing, spouse's attitude, and parents' attitude. In this study, most of the interviewees were young doctoral students, and their main motivation for returning to China was family (parents, relatives, and friends), which reflects the traditional emphasis on family affection and blood in Chinese culture (Gui-Zhen, 2019). For example, CDS D commented,

> *"My return to China has a special background. In the second year of my PhD, my father was suddenly ill with the new coronavirus. At that time, the situation was very urgent. I got the call at 6am UK time. I was so shocked that I asked the supervisor for leave and flew home at noon. By the time I returned to the land, my father's hand was finished. I was very impressed by this..."* (CDS D)

However, from the perspective of personal development, some CDS still had some regrets about feeling obliged to give up their research work in the UK.

> *"Actually, from a personal point of view, it would be better to stay in the UK for a while before returning. But every hour has its priorities, and I take home very seriously."* (CDS B)

Some CDS (8 out of 19) stressed that their parents were very important to them and that they were willing to sacrifice their lives in the UK to come back and look after them. It is a dilemma faced by many young Chinese overseas who are the only child of their parents because of China's one-child policy (Gui and Koropeckyj-Cox, 2016). The high cultural values of the family may transcend economic forces and market logic in understanding new patterns of academic mobility in the Chinese context.

In addition, for the younger generation, family obligations may become more complicated, especially for those single female CDS, who are more susceptible to the pressure from their families, which is the case for most female returnees. This is echoed among the

female participants of this study, with most citing their parents asking them to return home for their reason. Like CDS C said,

> *"In China, daughters always play an important role in the family, especially when it comes to home care…they usually take more responsibility for the care of elderly, including daily like care and medical care…" (CDK C)*

According to the above, while the role of gender is not my primary focus, it needs to be noted that for female returnees, family-related reasons play a more important role than career aspirations.

While cultural purposes alone are rarely the main driver of most migrations, they do form an important part of a person's decision to return. I consider that CDS do not always make decisions based on calculations such as career prospects and monetary gain, they are also influenced by emotional aspirations, such as a feeling of being more at ease with Chinese culture and society, the hope of contributing to China's development, the desire to attain a higher social status or exert greater social influence, or just the desire to be with their families.

6.5 Chinese domestic policy-related factors

Over the past two decades, China's society and research landscape have undergone significant transformation. Political instability, lack of political freedom, and poor research conditions, which once motivated scholars to remain abroad in the 1980s and early 1990s (Zweig and Changgui, 2013), are no longer primary concerns for a new generation of Chinese doctoral students (CDS). Instead, modern policy initiatives and enhanced research conditions are key factors encouraging overseas scholars to return to China. This section delves into the national and institutional policies that contribute to this shift and foster a more welcoming environment for returning scholars.

As discussed in Chapter 2 (based on China's post-1978 Study Abroad and Return Mobility Policies), incentives to encourage CDS to return to China can include investment money, competitive wage packages, positions in universities or research institutions, housing subsidies, children's education, tax incentives, and special policies for household registration or long-term residence permits for foreign citizens. The impact of these incentives is evidenced by CDS L who mentions,

"I know our country (China) is implementing a series of policies that aim to foster innovation, attract talent, and promote research and development, which can be an attractive factor for PhD students who are interested in pursuing careers in academia or industry.'' (CDS L)

Indeed, by reviewing some of these policies including the Made in China 2025 plan, the China Standards 2035 initiative, and the National New Generation Artificial Intelligence Development Plan, one of the most effective ways to attract PGRs back to China is by providing financial incentives such as competitive salaries, research grants, and housing subsidies (Cao, 2008). As mentioned above, various funding schemes aim to attract Chinese scholars back home, including the Thousand Talents Program, the Changjiang Scholars Program, and the National Science Fund for Distinguished Young Scholars (Zhu, 2019).

When I asked about the impact of relevant policies on the participants, CDS M said:

"This plan is very important. I don't think I would have intended to return without that kind of funding and support."

He further explained that some titles give him more than just material incentives, sometimes they have more symbolic meaning.

"When you have a certain title, people may think you are better than others." (CDS M)

Another participant explained that recognition via status and title were significant contributory factors when deciding whether to return to China.

"Among my friends, those who can come back have. Many did not return because they were afraid to return without any special treatment." (CDS H)

Such responses reveal some of the ways in which talent policies and special programmes can play a pulling role in influencing international students' motivation to return. These policy measures will be crucial in determining whether and under what conditions a PGR perceives a return to be possible. Even those who return without special policy support acknowledge that these initiatives at least send a message about how seriously China is taking talent issues today.

While the 'Thousand Talents Plan' and the 'Youth Plan' have had some success in attracting some of the "brightest and best" scholars, they have been criticised for targeting

very good talent while providing little support for emerging academics. An example of this comes from CDS F,

> "*In the long run, China should adjust its selection criteria to attract 'young people' rather than just 'talent', as the age range between 20 and 30 is the most productive time for a person to study.*" (CDS F)

Another negative aspect cited by CDS is that talent policies favour those in the natural sciences, engineering, and management, but rarely include those in the social sciences and humanities. Linguistics major CDS G says,

> "*I think China needs to attract more social scientists back to participate in its social and economic development, and I believe social scientists have a deeper impact on social development.*" (CDS G)

As the number of graduates increases, the job opportunities in developed cities are not enough to provide jobs for all graduates. Having a better chance of finding a job in a developed area with higher salaries, appears to be one of the major considerations for CDS to return to China. This will result in Chinese cities becoming the main pull for international talent, especially for returnees who have studied in the UK and received a world-class education. In fact, without the participation of social thinkers and public intellectuals, the country cannot achieve sustainable social development. In addition, other participants suggested that the government should establish a domestic talent matching system and create a new research culture where all scholars trained overseas and domestically have the opportunity to make the most of their values.

6.6 Peer influence and networking

Overseas talents in developing countries usually keep regular contact with family, friends, and colleagues in their home countries. This shows that they not only maintain their native culture while abroad, but also talk about work-related topics with family members friends and colleagues in China. To maintain contact with British colleagues, it is easy to find partners for new research and the opportunities for co-research. This advantage of returning talent can be of great benefit to Chinese companies.

Respondents in this study also rated relationships and networking as very important. For example, CDS C reflects on her studies in China when citing relationships as important,

> *"One of the reasons I chose to go to Beijing was interpersonal relationships. Many of my friends work in Beijing. I don't want to go home [to Guangzhou] because I want to meet more outstanding people in a professional environment." (CDS C)*

Another CDS referred to how a connection to their previous educational institution affected their decision-making about return plans and career development.

> *"I don't think my decision to come back had anything to do with special policies and certainly I don't think there were any policies that supported us. What drew me back was my calling as a teacher at home. I am grateful to work at my Alma mater, which is one of the best universities in China." (CDS F)*

This participant had been in touch with friends and colleagues at universities in China who had responded positively to her desire to return home. Recent research on Chinese intellectuals also confirms the importance of social networks in promoting transnational participation of overseas Chinese in China, where academic opportunities are sometimes based not on meritocracy but on personal connections, qualifications, or authority (Zhang, 2019). In this context, primary returnees are encountering additional challenges in re-entering the workplace and are limited in their ability to change the existing system, which remains hierarchical and bureaucratic.

6.7 Institutional-related factors

An interesting aspect that arose from the data was the notion that in different geographical areas in China, institutions might adopt different strategies to recruit what they perceived to be the best talent. CDS I share:

> *"I learned that a college in a remote area offers the most favourable incentives. Its plans include not only housing allowances, the establishment of funds, employment of spouses, but also, more attractively, the title of full professor for candidates who have earned their PhDs abroad." (CDS I)*

It appears that individual agencies have developed their own ways of interpreting and administering policies. Sometimes they may provide incentives from the government to attract overseas PGRs. At other times, they compete with each other to attract researchers who have the strength to publish in international journals and thus move up the rankings. To this extent, different universities may launch their own recruitment programs to suit their particular needs and location.

It is understandable that some universities have applied a more localised approach to their programmes, only developing their internationalisation plans in recent years, while more outward-focusing or progressive universities are using policies that compensate for their geographical disadvantages. As CDS M mentioned, she once received an invitation,

> *"The president of my former university personally called to invite me to join his university and promised to offer me an associate professor position if I took the job. I was flattered by his sincere invitation and appreciated all the advantages he offered, such as start-up capital and housing subsidies. So, after thinking about it for a while, I decided to return after graduation."(CDS M)*

Growth opportunities may also influence the choices made by CDS when deciding on where to study. CDS L, for example, went to a university in China before deciding to study in the UK. Because he wanted to go to another institution to provide better development opportunities in the future, he chose to improve his education and change his work unit.

> *"I hope I can do something I want to do in uni. Before I went abroad, I was not satisfied with my college. Before I went, the promise was that I could do my research on my own, and that was not the case when I left. Later, I came here. In the future, I would like to apply for a job who is better than before in learning art wind, culture environment and art environment." (CDS L)*

6.8 Summary

Analysis of the data indicates that CDS's decisions to return to China after graduation are made in the context of individual choice and are also affected by economic, political, social, and cultural conditions. However, the traditional push and pull factors still remain the main driving factors that trigger Chinese scholars to return to the new model. Despite the presence of market forces, the controlling function of the state continues to influence the direction and pattern of academic flows across countries, but national policies are clearly important. Universities in Western countries have traditionally been a hub for attracting global talent, but new players like China have entered the global competition for talent.

To make higher education more competitive globally, the Chinese government has implemented various reforms, concentrating state funds on a small number of researcher, institutions and building world-class universities. This has led to improvements in infrastructure and research resources, as well as institutional innovations that meet

international standards. The gradual internationalisation of China's research universities provides a new choice for academics with international backgrounds. This can be seen as a new driving force for their return. In addition, career-related considerations are one of the key reasons why most emerging academics return home. At the same time, they are driven by strong feelings for their hometown, including a desire to contribute to China's development and a feeling of being more at home in Chinese society and culture. This underlines the complexity of decision-making for CDS when deciding whether to return to China.

Chapter 7 Discussion

7.1 Introduction

Having traversed the diverse landscape of motivations driving Chinese doctoral students to pursue their studies abroad, this chapter now turns its attention to the synthesis and interpretation of the rich tapestry of findings. This discussion chapter endeavours to unravel the complexities and nuances embedded in the motivational dynamics that propel individuals to engage in doctoral programmes on an international stage. The preceding chapters have provided a nuanced exploration of the myriad factors influencing the decision-making processes of doctoral students when faced with a shifting policy landscape, a competitive labour market and the impact of their family background. This chapter's aim is twofold: firstly, to distil key patterns and themes emerging from the empirical data, and secondly, to situate these findings within the broader context of international higher education and global academic trends.

Specifically, the following content explores and refines the findings from this research from three perspectives, including **the impact of the 'New Middle Class' status, shifting higher education policy**, and **human capital development and employment competitiveness.** These reflect the key findings that Chinese doctoral students (CDS) focus on family education and parents' expectations; it will consider the impact that the reform of China's higher education and university policy has on CDS's expectations, which is a crucial factor in promoting international students to go abroad and, more importantly, the pull for their return. Finally, regarding returning CDS, the chapter explores the impact of increased human capital on their perceived employability.

7.2 The Impact of China's ' New Middle-Class' on parents' expectations of their children's education

This research explores the motivations and learning experiences of Chinese doctoral students when studying in the UK within the broader framework of China's New Middle Class and parental expectations. By contextualising the socio-cultural landscape of China that includes a reflection on the impact of the New Middle-Class status in which CDS navigate their academic journeys, this section provides insight into the multifaceted influences that shape CDS's educational pathways and personal development. Through an exploration of these dynamics, a deeper understanding of the motivations driving CDS to pursue international study opportunities and the challenges they encounter therein can be gained, contributing to the ongoing dialogue on global education and cross-cultural

exchange. According to the findings, the most important motivator relates to the support CDS receive from their parents, for which there are many reasons.

In recent decades, China has witnessed a profound socioeconomic transformation marked by the rise of a burgeoning middle class. This demographic, often termed the 'New Middle Class,' represents a cohort characterised by increased disposable income, urbanisation, and access to education (Li, 2020). As this segment continues to expand, its influence permeates various facets of Chinese society, including familial dynamics and educational aspirations, particularly regarding the academic pursuits of their offspring. Central to the discourse surrounding the New Middle Class is the role of parental expectations of their children's academic and professional trajectories. Chinese middle-class families are increasingly investing in their children due to several factors: Firstly, they have concerns about the quality and competitiveness of China's higher education system, which drives families to seek better opportunities abroad (Jiang, 2013).

This has particular significance for those studying for a doctorate, with its emphasis on individual achievement and societal recognition, thus aligning with the aspirations of the Chinese 'New Middle-Class.' Parents from this sector often view doctoral study as a pathway to social mobility and upward social status for their children. The findings of this study emphasise a growing resonates with the literature on the social and cultural factors that shape educational aspirations in China, highlighting the increasing emphasis on individual achievement and the pursuit of excellence. According to Zhou and Kim (2016), in China, where traditional values emphasising education and achievement intersect with rapid economic growth, parental aspirations for their children often reflect a blend of cultural heritage and contemporary aspirations for socioeconomic mobility. Within this context, parental expectations serve as a significant driving force shaping the educational decisions and experiences of Chinese youth, including those who pursue doctoral studies abroad.

7.2.1 Family economic status and cultural capital

Reflecting on the findings of this study from an economic perspective, it is important to consider the changes in social structure and family economic status. Following China's economic reform as a transitioning economy, its social structure underwent rapid divisions, necessitating its involvement in significant changes within the global industrial landscape. This was particularly evident with the reform initiatives initiated in the late 1970s (Xu, 2020). These changes were inevitable as China sought to adapt to the evolving global industrial structure and position itself as a key player in the international economy. The original social structure has been greatly impacted, and a new middle class has begun to emerge

in China. The original social structure in China was a strict hierarchy influenced by Confucian ideals, featuring an imperial system at the top, with scholars, farmers, artisans, and merchants forming the "Four Occupations," and a predominantly agrarian population (Chen, 2017).

The shift from elite to mass education, and the increased availability of Chinese people's years of education from generation to by generation (Li, 2010) has created the conditions for the emergence of the middle class in China, especially in the high-tech field. In China as a whole, the middle class now accounts for about 15 percent of the economically active population, or nearly 100 million people, by occupation (Piketty et al., 2019). There is a new term of 'Chinese New Middle Class', it refers to a socioeconomic group characterised by higher levels of education, professional occupations, and greater disposable income compared to traditional social classes (Marginson, 2018). They often play a significant role in driving consumption trends and shaping cultural and social values in contemporary Chinese society.

Based on the interview data, regarding the social status of the parents, the study found that all the parents of the interviewees were in the upper, middle and middle classes of the formative social and economic classes in China(see appdendix 7: Vignette for participants). As per Bourdieu's theory of cultural capital, it serves as a key factor in shaping social class dynamics. Unlike other types of capital, cultural capital is notably challenging to attain (Andersen and Hansen, 2012). Essentially, family upbringing and the cultural capital inherited from the family largely constitute embedded capital, fostering the conscious or subconscious development of individuals. In addition, Bourdieu's concept of field (See section 2.4.1) explains that people with similar backgrounds, habits and cultural tastes are more likely to group together (Bourdieu, 1983; Grenfell, 2010). This also explains why the interviewees in this study emerged from similar family backgrounds, because making educational choices requires a certain understanding of institutional rules, so cultural capital within the family determines social reproduction (Bourdieu, 2018).

Secondly, China's education-first ideology dictates parents' efforts to guide their children toward the best higher education (Wang, 2023), and China's ideological and cultural traditions dictate that Chinese parents expect their children to have at least a bachelor's degree, even a master's or PhD, preferably in one of the world's top 100 schools. So, the impact of family on the development and social mobility of returnee doctorates is considerable. The emergence of the New Middle Class in China presents a distinct social grouping with unique characteristics and priorities that may significantly influence their decisions, particularly concerning education. As a result, members of this demographic

may place a higher value on educational attainment and upward mobility for themselves and their children. Studies (Lin, 2019; Yamamoto and Holloway, 2014) have shown that parents belonging to the New Middle Class tend to have higher expectations for their children's education, emphasising academic achievement and career success as pathways to socioeconomic advancement. While these studies may not specifically focus on decisions regarding pursuing PhDs abroad, they provide valuable insights into the broader impact of the New Middle Class on educational aspirations and decision-making within Chinese society.

Notwithstanding, it is important to note that while the New Middle Class encourages parents to drive their children to study abroad, many do not want to stay in UK once they have completed their studies as they miss home and feel separated from their culture; this appears to suggest a disconnect between parents' wishes and children's desires. Moreover, responses from CDS in this study provide important information about their benefits of studying abroad in the shifting Chinese social strata. The findings revealed that CDS perceived their parents wanted their children to have the same opportunities as them to study abroad. As stated, CDS acknowledged their wishes, but they expressed concerns about studying in the UK. For example, CDS K stated "*There were many times when I felt like something was missing in my life. Every time I come back from China, I keep asking myself, Should I go back*?" and CDS I "*although Britain is a culturally rich country, this culture is not as close as my life experience. I always felt like an outsider in England.*" These concerns may reflect the changes in the education experience in the UK, which has altered quite significantly since the 1980s. For example, in the 1980s, PhD supervision followed a master-apprentice model where students worked closely with a single supervisor with limited formal teaching, which may have reduced the feelings of isolation and homesickness.

From the perspective of household economic capital, the CDS's parents are in a social class which expects them to allocate resources for their children's education so that they can remain in that social class and reap the benefits and opportunities that come from that social class. During China's recent development, there was a period when social class status seemed relatively fixed. Parents held the belief that membership in the middle class should not solely hinge on the social or financial status of their own parents. As the new China has experienced a stage of development in which the social class status was highly consistent, parents once believed that the origin of the middle class should not be absolutely linked to the social status and capital status of their parents (Hong and Zhao, 2015). However, members of the middle class have shown their class characteristics in the formation and inheritance of family cultural capital, that is to say, they invest in the

education of their children. Hu and Xu (2021) suggest that the possession of cultural capital is a fundamental characteristic of China's new middle class. Bourdieu points out that those who can adapt to high-level culture are the people who have cultural capital. According to Waddling et al. (2019), the new middle class in China comprises people who are well educated and highly educated. They state that these people have a strong grasp of new knowledge, new things, pioneering ability in their work, and, as society continues to develop, so will their understanding that income and knowledge and skills are gradually linked to a higher level of education, the higher the level of which will lead to greater professional income. They are inclined towards a more assertive approach to educational consumption, sparing no effort in passing on cultural heritage to their children. This is aimed at maintaining their family's advantage in possessing cultural capital (Soong, 2022; Tsang and Lee, 2016).

In general, this study indicates that parents of CDS tend to view their children as integral parts of their lives and hold lofty expectations for their future endeavours. For example, like CDS E said:"I am not just a part of my parents's life....Every decision they make... When it comes to education, they dream of the day I'll be able to pursue higher studies, maybe even go to a top - tier university" This sentiment is particularly pronounced in matters concerning their children's education. Among the middle-class demographic in China, aged between 30 and 50, there is a prevailing emphasis on parental involvement in their children's education (Lin, 2019), both in terms of financial support and active participation. These parents prioritise investing in their children's academic pursuits and view education as a crucial pathway to success and upward mobility. More importantly, the influence of family economic status and cultural capital on doctoral study aligns with the literature on the socio-economic factors that shape access to higher education. Students from families with higher socioeconomic status often have greater access to resources, such as quality education, private tutoring, and international exposure, which can significantly impact their academic success and their ability to pursue doctoral studies abroad. This finding underscores the importance of considering the social and economic contexts within which doctoral students are embedded and the potential impact of these factors on their academic trajectories. Generally speaking, the findings suggest that most CDS's parents are more likely to regard their children as part of their own lives and place high expectations on their future, especially when it comes to children's education, At the same time, in addition to financial considerations for CDS's studying aboard, their parents focus more specifically on their emotional and psychological wellbeing. Therefore, it is clear that parents play a major role in the motivation of CDS to study abroad.

7.2.2 Parents expectation and investment in education

All participants in this study are the only children in their family, and consequently they experience the impact of their parents' high expectations. As mentioned above, cultural capital is a kind of symbolic wealth, and as such parents' influence on their children is ubiquitous in their socialization. Children's social stratification, class distinctions of character and prestige are all influenced by adults (Erola, Jalonen and Lehti, 2016). For example, the children of advantaged groups with rich cultural capital are more likely to receive higher education, while the children of disadvantaged cultural capital receive limited education (Gao, 2011). Furthermore, middle-class parents not only pay attention to the direct transmission of cultural knowledge, and to the guidance of children's personality personalities, but they also use their own educational knowledge to reflect on the child's education process. For example, in this study, some CDS reported being influenced by their parents' experiences of having studied abroad themselves. Especially, the findings on parental expectations and investment in education resonate with the literature on the role of social capital in shaping educational outcomes. Parental involvement, support, and expectations play a crucial role in motivating and supporting students throughout their academic journey. This finding emphasizes the importance of considering the broader social and familial contexts that shape doctoral students' experiences and their academic success.

The findings of this study indicate that social capital is important within Chinese Asian families. For example, CDS presented that "Our family has always been about helping each other learn. My mom bought my English textbook last year. She said she wanted to learn English with me, and it was an amazing experience. I think this is one of the ways our Chinese - Asian families build social capital, and it definitely has a positive impact on our academic performance, just like the study findings suggest" This is also supported by other studies, such as Chen (2016), who notes that parents will buy a set of the same textbooks their children use for themselves so they can better support their homework, which is one of the reasons Asian Chinese students have higher education achievements. In addition, because the general duration of a doctorate is approximately four years, the participants reflect that they do not need to have great worries and concerns about financing their studies or living expenses when they have family support. This argument aligns with Bradley and Corwyn's assertion from 2004, which suggests that children hailing from families with higher socioeconomic status tend to possess more advantages in terms of support for cognitive development, compared to their counterparts from lower socioeconomic backgrounds (von Stumm & Plomin, 2015). The socioeconomic status of a family often dictates the resources and opportunities available to children during their

formative years. For example, children from higher socioeconomic backgrounds typically benefit from access to well-funded schools, experienced teachers, and enriching extracurricular activities, setting them on a trajectory for academic success (Hu, 2015). Additionally, they may have more financial stability, allowing for opportunities such as private tutoring or enrolment in prestigious schools, further enhancing their academic progress. Conversely, children from lower socioeconomic backgrounds may face barriers such as limited access to quality education, inadequate healthcare, and exposure to stressful environments, all of which can hinder cognitive development. These disparities in early experiences contribute to the observed differences in cognitive abilities between individuals from varying socioeconomic backgrounds. Overall, there is sufficient empirical evidence on the influence of income and education as two important indicators of family socioeconomic status on children's education and career choice.

Interestingly, the study revealed that a majority of CDS cited parental expectations as a significant factor influencing their decision to study abroad. This finding underscores the relevance of cultural reproduction, as it sheds light on the role of family dynamics in shaping educational choices. However, the reproduction theory faces a key challenge in its interpretation of family education investment as merely an intermediary step in perpetuating unequal social structures (Mendez and Gayo, 2018). This perspective raises questions about the complex interplay between societal structures and individual agency, highlighting longstanding issues surrounding structural reproduction within sociology. In Bourdieu's view, although habitus is a disposition conditioned by structure, it is also capable of generating new structure (Decoteau, 2016). Habitus serves as a bridge between the macro-level structures of society and the micro-level actions of individuals. It is through the habitual actions of individuals that larger societal structures are reproduced over time. The concept of habitus thus helps to understand how cultural and structural continuity is maintained across generations. In this study, the reproduction model regards CDS's parents' educational investment decision as a process of passively being constrained by their own social and economic status and ignores the subjectivity of parents' educational investment decision. Therefore, this may also be related to the traditional Chinese style of education, which will be discussed in detail in the section 7.4.

7.3 Shifting Policy: study abroad motivation and return decisions.

Driven by a number of assessment indicators, such as university ranking and subject evaluation, employment in higher education pays more attention to overseas returnees, (the focus of this study), including why Chinese students choose overseas doctorates and

their decision to return. First of all, from the university's policy and system level, in the Chinese university ranking system with high recognition at home and abroad, the proportion of teachers who gain a doctoral degree is an important index to measure the success of a university's faculty. Moreover, international student achievement also contributes to scientific research evaluation (Reddy, Xie and Tang, 2016), since the returning doctoral student is presupposed to produce international achievement more easily, leading to the university's tendency to employ returned doctors in different subjects. At the same time, in many colleges and universities' talent recruitment policy, the welfare of overseas returned doctors is generally higher than those with a domestic doctorate (Yu, 2023). Therefore, career opportunities are one significant factor in deciding whether to return home after studying abroad. This section discusses the relationship between the motivation to study abroad and decisions to return home, which is dynamic and influenced by a combination of political context, academic, personal, and external factors. Successful integration, fulfilling academic and career goals, and personal ties all play crucial roles in shaping an individual's decision to return.

7.3.1 The internationalisation of Chinese higher education

In this study, whilst CDS did not specifically refer to the reform of China's education policy, which has been encouraging and promoting their access to international education, their responses indicated that they had been influenced by the changes. They once again recognised China's changing policies, in referring to matters such as internationalisation and specialisation in discipline development, rising recruitment standards, and an emphasis on incentive policies. Amidst China's higher education internationalisation efforts, institutions face the dual imperative of facilitating students and educators' immersion in diverse linguistic, educational, and living environments—an encounter marked by contact, learning, and adaptation (Yuan, Li, & Yu, 2019). Concurrently, institutions must fortify their own readiness to confront challenges inherent in this dynamic landscape. It is a process of acceptance, influence, and balance to support students and teachers emerging from the international educational environment. The process of internationalisation of higher education is to raise the level of higher education and realise the vision of becoming one of the first-class higher education systems in the world, by selecting outstanding students for exchange studies abroad and then motivating returnees abroad to meet the country's data requirements for international education (Zhang, 2018). However, the mismatch between the number and quality of doctorates sent and those returned can present a challenge with an uneven distribution of talents in the process of internationalisation. While China has made significant strides in sending increasing numbers of students abroad for doctoral studies, Cheung and Xu (2015) claim that there is often a discrepancy in the quality and

relevance of the education received compared to the needs of China's evolving academic and economic landscape. Some CDS may pursue degrees or research areas that are not aligned with China's priorities or emerging industries, leading to a mismatch between the skills and expertise gained abroad and the demands of the domestic job market.

Policies such as the "Double first class" policy, have had a positive effect on university construction and international academic influence; participating universities have increased international academic achievements and academic cooperation, which to some extent has promoted their academic influence in the world (He, 2020; Lu, 2019; Wu, 2020). Chinese universities are increasingly considering educational reform and development from a global perspective, sharing cutting-edge international research results through international exchanges and cooperation, and enhancing the innovation capacity of academic teams, to cultivate all-round talents with international competitiveness (Meirui et al., 2020). He (2020) argues that in a broad sense, the components of international academic influence include first-class disciplines, first-class research results, first-class educational quality and first-class teachers, the main performance of high-level scientific research results and high-quality personnel training. In a narrow sense, the international academic influence of universities refers to the actual influence on international academic development by means of the global knowledge network, academic exchange, knowledge construction and flow of people.

Doctoral students benefit from access to a broad network of researchers and scholars from around the world. This can lead to collaborative research opportunities, exposure to diverse perspectives, and access to a wide range of resources. The existing literature (Chen, Zhang and Fu, 2019; Wang et al., 2022) measures the international academic influence of universities, mainly from the academic and scientific research outputs, using the total number of papers, those in high-level journals and those that are highly cited, and the university's degree of international academic cooperation. The international academic influence is further measured by international journal publications, international academic exchanges and the number of registered international students (Barnett et al., 2016; Lu, 2019). This shift in focus on the internationalisation of Chinese universities has resulted in CDS placing greater emphasis on employability when choosing whether to study abroad; they consider China's domestic employment environment, combined with their own current value for access to labour market. CDS frequently make decisions based on domestic recruitment standards to weigh whether they need an international academic degree, which includes requirements for academic degrees, publications, research experience, and other qualifications. For example, CDS J said that "I spoke to several professionals in my industry, and they told me that a domestic degree with strong research

experience would be sufficient for career advancement."; "The cost of studying abroad didn't seem justified when I compared it to the opportunities available with a degree from a reputable local university." Therefore, if they believe that their career goals can be achieved with a domestic degree and that the local job market values it adequately, they may opt against pursuing an international degree.

It was apparent that many of the participants perceived studying for a PhD in the UK would counter the narrative in China that focused on quantitative measures for recruitment. In the recruitment of university teachers in China, the criterion for candidates clearly stipulates the minimum number of periodicals of a certain grade and the number of projects to be hosted (Liang et al., 2016). For instance, within a Double First-Class university, the criteria for recruiting faculty members entail publishing a minimum of four academic articles, with at least two appearing in nationally recognized key journals. Quantitative assessment involves simplifying the intricate evaluation procedure into a straightforward numeric representation, wherein various criteria are expressed as digital benchmarks. Candidates are only eligible to participate in the recruitment process if they meet these quantitative requirements, otherwise they are not even eligible to send a resume (Gao and Liu, 2020). Next, in the interview and written examination, the university will present them in the form of scores, stipulating that the minimum sum of the two scores is considered to be a pass. Most Chinese universities require that the total score be made up of 40% of the written score and 60% of the interview score, with a minimum score of 60 (Huang et al., 2021). While using standardized assessment criteria may reduce the time spent engaging with the individual and reduce the expenses associated with evaluation and oversight, it comes at the expense of devaluing human capital. By strictly adhering to precise standards, there is a risk of overlooking CDS's capacity for innovation and scientific advancement. Consequently, this neglect may result in the loss of valuable talent and a decline in competitiveness among candidates (ibid).

However, in contrast to this research, what sets it apart is the state's prioritization of science and technology, which can also entice Chinese doctoral students (CDS) to return home for job opportunities, as opposed to fields in the humanities and business. China invests a significant percentage of its GDP on academic support for science and technology to reflect the country's emphasis on the specialism. Expenditure on systematic innovation, aims at improving the level of knowledge, including humanistic, cultural and social knowledge and applying it to new applications (Roco and Bainbridge, 2013). Other studies have shown that the higher the proportion of GDP, the higher the proportion of overseas students returning to work (Beine et al., 2014). The higher the proportion of GDP on academic development in other countries, the lower the proportion of international

students returning to work. Within the context of this research, it is important to understand the motivations of CDS with humanities degrees from international UK institutions since they might face challenges in terms of recognition and relevance in the Chinese job market, especially if the curriculum and focus differ significantly from domestic programmes.

However, a further consideration is that more recently there has been a call for universities to incorporate "Excellent" and "Diverse" concepts throughout the faculty recruitment process for returnees (Yu, 2023; Ashraf, 2022). "Excellent" is taken to mean that the candidate has a good academic foundation and practical training, and the requirements of a high degree and research experience are conducive to the candidate's focus on cutting-edge scientific research after completion of teaching. "Excellent" here is not simply a requirement for top-ranked overseas experience, nor is it a requirement to have a PhD and a certain number of papers published and research experience, it is about creativity and scientific literacy (Tian, Su and Ru, 2016). The shift to defining excellence as research that incorporates skills and training development alongside rigorous methodologies aligns with the CDS's perceptions that studying for a doctorate in the UK will position them more favourably in recruitment terms even though they were not studying in the field of science or technology. Moreover, "Diversity" means welcoming teachers of different genders, races, faiths, and ages, and broadening horizons to find the most suitable candidates on a global scale. Therefore, an international doctoral education equips CDS with academic competence and there has been a shift in thinking in China that recognises the need to look for excellence beyond science and technology and to recruit people from a wide range of backgrounds and experiences.

7.3.2 National identity and adaptability of returnees

The findings on national identity and the adaptability of returnees connect to the broader literature on the impact of international experiences on personal and professional development. The doctoral experience abroad can have a profound impact on students' sense of national identity, their cultural perspectives, and their ability to adapt to new environments. This finding highlights the importance of considering the cultural and social dimensions of the doctoral experience and its impact on students' personal and professional development. For example, a specific finding of this research indicates that CDS often compare their current situation with that of studying abroad, and the penetration of various ideological trends has a certain impact on their values and political identity. Political identity plays a very important role. It is an important condition for maintaining political stability and an important resource and content for realising and promoting political development. The overseas study experience and educational

background of doctoral returnees are influenced by eastern and western cultures, as well as and their political positions, which will change before and after their return (Alberts and Hazen, 2005; Li et al., 2021). Their ideals and beliefs, political consciousness, academic development after returning home, interpersonal relationship and relevant treatment all affect their political identification (Chen et al., 2017). This study could similarly reveal that the experience of CDS returning to China involves a complex interplay of factors, including national identity, cultural adaptation, and reintegration into the academic and professional landscape.

This study looked at factors such as motivation to return. Responses from the participants in this study show that CDS people are looking forward to and worried about how they will be accepted by existing work environment or adapt to a new one, how they will deal with their relationship with their leaders and colleagues, which is also a common problem for international students. For example, some CDS said "One of my biggest concerns is how to build a good relationship with my supervisor, especially with the cultural differences."; "I often worry if my working style will be accepted or if I need to completely adapt to the local way of doing things." Mao and Shen (2015) emphasise the significance of effective cross-cultural adjustment strategies, adept leadership, and strong interpersonal skills in navigating such transitions. Studies exploring workplace socialization, leadership dynamics, and career adaptability offer valuable insights into the complexities of integrating into diverse work environments. These findings collectively highlight the need for proactive approaches to cultural adaptation and interpersonal relationship-building among CDS and international students as they embark on their professional journeys.

When returning to China and seeking new employment as a doctor, there may be three difficulties in integration: first, how to integrate with a group of colleagues. With the increasing internationalisation of university departments, the number of overseas returnees is increasing daily day by day. However, there is evidence of a competitive relationship conflict between overseas doctoral students and local scholars (Zhang, 2016). The original group needs to try to accept a new member, and the new member must also try to get closer to the new group (Qi and Li, 2021). In the interviews, young returnees expressed expectations that they would be able to return to a familiar language and living environment, as well as the interpersonal environment of their colleagues, because they felt that they had similar backgrounds and traditional cultures. What needs to be taken into account is that when the doctor studies abroad for many years they are influenced by the foreign culture that values work over the university teacher (Shen et al., 2016). This is reflected in comments by CDS who wish to focus on their career development when they

return to China, but they envisage having difficulty in adjusting one's mindset and self-perception.

Moreover, findings of this study are significant in how studying abroad is perceived by CDS's parents. As previously stated, there has been considerable change in the UK's higher education sector. Since the 2000s, UK universities have introduced co-supervision to ensure broader academic support and mandatory supervisor training programmes to enhance research mentorship. Whilst these will have undoubtably led to an improved student experience, if CDS return to China with expectations of gaining employment in line with their parents' expectations, the structured support and guidance they have become used to may have an adverse effect in terms of them securing what their parents perceive to be high-quality jobs. Moreover, higher tuition fees for international students, may also increase the pressure on Chinese doctoral students to achieve highly and secure better jobs that maintain their middle-class status. Consequently, this study raises the notion that there needs to be greater awareness for Chinese universities about how they promote and prepare students for study abroad, recognising the limitations and challenges they may face both during the study phase and on return to China for employment post-study.

The other important finding to emerge from this study is that most of the returned doctors are in their middle-age or young life stage of life. This means they are under great economic and life pressure and bearing the heavy responsibility of supporting their parents and raising their children, at the same time as facing a variety of teaching and scientific research assessment and evaluation, facing the title, together with job promotion pressure. As a well-educated group from who have studied at prestigious universities abroad, they have high expectations of their own professional development. According to Gardner (2008), when the reality and the ideal are in contrast, they are prone to identity crisis, and then it is difficult to identify and love the teaching profession; once this kind of negative emotion transmits to the student, it can meld to the student's values to produce many negative influences. However, it may be the case that returnees are influenced by western individualism, liberalism, and utilitarianism (Liu, 2012). A group of returnees who have studied or worked abroad for many years, may have a strong sense of patriotism and emotional attachment and are more sympathetic to core socialist values (He, 2018). Individuals experiencing a decline in political awareness, coupled with detachment from mainstream ideologies, tend to exhibit a pluralistic value orientation. They possess a robust ideological consciousness centred around the pursuit of freedom, equality, and justice, yet perceive a dissonance between their values and the prevailing reality. Consequently, they are susceptible to ideological fluctuations and encounter challenges in

identifying and adhering to their personal value criteria, particularly emphasising individualistic perspectives.

7.4 Human capital development and employment competitiveness.

The findings on employability and human capital for returning CDS connect to the broader literature on the economic and social impact of international student mobility. The return of highly skilled doctoral graduates can have a significant impact on the economic and intellectual development of their home countries. The findings underscore the importance of developing effective strategies to support the successful reintegration of returning doctoral students into the Chinese workforce and to leverage their skills and expertise for national development. The employment situation of returning doctorates has received extensive attention and attention from the relevant state authorities of the state. In recent years, it has become a trend for increasing numbers of overseas doctors, especially the high-end talents, to return to China for employment, which is an important way to supplement the human resources of China's talent market, especially the high-end talent market (Wang et al., 2022). With the development of domestic economy and society, returning is also the mainstream choice, which also revealed in this stud y(ibid). Although many CDS graduates wish to seek employment in the local university to undertake do teaching and research work, with the uncertainty of the foreign economic environment and the heat of level of competition, most perceive they will be unable to achieve their aim. At the same time, this is supported by Chen (2022), who comments that with the increasing number of returnees, and the increasing saturation of domestic university teachers, especially the demand for overseas doctoral researchers is becoming higher and higher, forming a competitive employment atmosphere. The following are several deep-seated reasons for this.

First, when a CDS gains employment in academia, they are aware that very active researchers often feel a greater sense of identity with their colleagues outside their own professional circles than with those within their own institutions, because they have much less in common. There are significant differences in academic values, teaching inputs and working methods among university teachers in different disciplines (Jiang, Lee and Rah, 2020). For this reason, this study centres on CDS in the fields of business and humanities. Each discipline must transcend its respective professional boundaries and venture into areas of continuous advancement. Consequently, the university's openness is manifested through the consolidation of academic entities and operations (Akerlind, 2008). This openness is reflected in academic research and in the organizational and operational structures of universities. From an institutional perspective, while business and humanities

might not be valued by the state, they might be able to work in an interdisciplinary manner that will raise their profile within academia. Promoting interdisciplinary collaboration often establishes interdisciplinary research centres, facilitates cross-departmental collaboration, and supports initiatives that bridge academic disciplines. Also, this aggregation of academic organisations and operations creates an environment conducive to interdisciplinary research and fosters a sense of community among scholars with diverse expertise and interests. For example, if professors are to think independently and enjoy the freedom to create, there is no reason why they should be subject to fixed-point thinking. Thus, the expertise of CDS which is reflected in their embedded capital, will be valued by other academics.

Second, from a human capital perspective, CDS's participation in a PhD programme is a long-term and intangible investment. The reason is the knowledge and talents created by the university will produce great economic effects in the market, which may be considered as an and the investment in human capital for CDS. Therefore, the CDS are engaged in an academic career so that in the era of knowledge-based economy, the university has become the National Science and technology competition and the absolute core of talent training. Because academic careers are so critical, higher education, and especially the research university, has been a major focus of government funding, which is another factor driving the return of CDS. However, Gu, Levin and Luo (2018) indicate that the supply-demand discipline structure of the academic labour force in Chinese universities is determined by analysing the ratio between the number of doctoral awards and the number of full-time teachers in different disciplines, and the ratio between the number of undergraduate, master and doctoral degrees in different disciplines. The supply-demand ratio of science, agriculture, engineering, medicine, history, law and philosophy is better than that of management, economics, literature, education and art (Zhang, Bao and Sun, 2016). According to the change of the proportion of disciplines in the number of doctoral awards in China, the proportion advantage of science and engineering disciplines is constantly expanding, similar to the findings in this study, the fact that overseas PhDs are more focused on science and engineering makes science and engineering more readily available than the humanities and social sciences. For instance, in the United States, there has been a consistent growth in the proportion of doctoral degrees awarded in science, technology, engineering, and mathematics (STEM) fields over the past few decades (Bancroft, 2018).

Finally, while access to education is an important acquired factor that drives overall social mobility, many studies now show that domestic higher education promotes social mobility as a matter of doubt (Mok and Jiang, 2017; Tan, 2013). The annual expansion of China's

higher education enrolment has led to lower mobility in China. At the same time, problems such as educational inequality and social relations have made social mobility difficult in China. In this study, interview data show that most of the respondents' perspectives of social mobility remain is positive. As a result of returning from the doctoral programme, all respondents expected to find suitable and well-paid jobs. So educational attainment remains an important driver of social mobility. However, according to some data from the interviewees, the social mobility of the masters' participants around them is not all positive, because they are more aware that there is a disconnect between the expectation that studying for a doctorate abroad and the reality. They might be concerned about the return on investment, particularly if the individual plans to return to their home country after completing their PhD. It is crucial to consider how the international experience will contribute to their career goals. Wu (2017) indicates that various levels of higher education exert differential effects on social mobility, suggesting that not all types of higher education are equally effective in facilitating upward social mobility. While higher education, in general, is often perceived as a pathway to socioeconomic advancement, the extent to which it enables individuals to climb the social ladder can vary significantly depending on factors such as the prestige and quality of the institution, the field of study, and individual circumstances.

On the whole, the educational attainment of doctoral graduates plays a positive role in social mobility (Reale, Morettini and Zinilli, 2019). In addition, their exposure to different academic and cultural environments fosters adaptability and a broader perspective. Through interactions with diverse peers, exposure to varied teaching and research methodologies, and immersion in a multicultural setting, CDS have already developed the ability to navigate complex professional landscapes. This adaptability is particularly valuable in China's rapidly evolving business and academic sectors, where the ability to innovate and embrace change is highly prized. Fortunately, this study focused on the preference of employers and universities for international education when analysing education types compared to returning PhD's with overseas experience.

This suggests that not all CDS will achieve the same levels of social mobility. Students who are from a higher social class and those studying in the disciplines of science and engineering are far more likely to benefit from social mobility than those in lower classes (Pásztor and Wakeling, 2018). Therefore, for the social classes as discussed in section 8.3 of this chapter, not all the talented people can obtain social mobility, and it seems that the students who are already in a higher original class are more likely to obtain positive social mobility again. Since the participants in this study were from higher social classes, the

findings illustrate the usefulness of international education and is evident in as a driver for retained or improved social mobility.

7.5 Theoretical Contribution to Knowledge

This study aims to contribute to the existing body of knowledge about international mobility and study abroad by exploring the factors influencing the intention of CDS to remain in the UK or return to China upon graduation. This research contributes to the existing literature on international student mobility by proposing a "flipped" push-pull framework to understand the return intentions of Chinese doctoral students in the UK. Traditional push-pull theory, while valuable, primarily emphasises factors pushing students away from their home countries (e.g., economic hardship, political instability) and pulling them towards host countries (e.g., better educational opportunities, higher salaries). While these factors undoubtably play a role in the initial decision to study abroad, this research suggests that the dynamics of push and pull factors shift significantly during the doctoral journey and become particularly pronounced at the graduation stage.

Initially, "pull" factors, such as the UK's renowned academic institutions, research excellence, and cultural appeal, strongly influence Chinese students' decision to pursue doctoral studies. These factors represent the initial "pull" that attracts them to the UK. However, as students progress through their doctoral studies, the nature of these "pull" factors evolves. The initial allure of the UK academic environment is gradually replaced by a deeper understanding of the challenges and opportunities associated with living and working in the UK. Concerns about post-study work rights, the competitive job market, and the potential for social and cultural isolation may emerge as "push" factors, influencing their decision to return to China. More specifically, the UK may face challenges related to attracting and retaining highly skilled talent in a competitive global market (e.g., to qualify for a Tier 2 (General) visa, the applicant is required to: have a confirmed offer of employment from a licensed UK employer (sponsor); have a valid certificate of sponsorship; score 70 points under the points-based system.). Recognising the potential of international doctoral students to contribute to the UK's research and innovation agenda, the UK government has implemented various policies to attract and retain international talent, such as the Global Talent Visa and initiatives to support international research collaborations. However, despite these efforts, uncertainty surrounding immigration policies, Brexit, and the availability of post-study work opportunities can significantly influence the return intentions of CDS. Furthermore, while the UK has successfully attracted a significant number of Chinese doctoral students, there is limited research specifically examining their motivations, experiences, and return intentions within

the UK context (Yu, Liu and Waller, 2023). Existing studies (Li and Qi, 2019) often focus on broader categories of international students or overlook the unique complexities and nuances of the Chinese student experience. Consequently, this research addresses this gap by providing a significant contribution to understanding the factors that motivate CDS to pursue studies in the UK, exploring their experiences during their doctoral journey, and examining their intentions to remain in the UK or return to China upon graduation.

Conversely, while factors such as family ties and cultural familiarity may initially represent "push" factors encouraging students to return to China, these factors can evolve into "pull" factors during the doctoral journey. The desire to contribute to the development of their home country, the increasing opportunities for research and innovation in China, and the support of family and social networks can become powerful incentives for return. Furthermore, the insight gained from this study, expands the understanding about the complex interplay of the familial and societal 'pulls' for Chinese doctoral students and how they can create strong "pull" factors encouraging students to return to China, is just emerging (Liu, 2024); consequently, this study provides an important insight into how such changes might be interpreted by these students.

Another significant finding is the apparent lack of knowledge or impact of the Chinese government's initiatives, such as the "Thousand Talents Plan," and "Youth Talents Plan", which aim to attract skilled PhD graduates back home. Current research about the influence of such initiatives, underplays the challenge to securing appropriate positions that requires strong international experience. Whilst acknowledging the sample size of this study, it is clear that many CDS would prefer to stay abroad due to better salaries, research freedom and access to international networks. Equally, these findings reinforce the notion that China's job market, particularly in academia and high-tech industries is highly competitive, with many jobs concentrated in Tier 1 cities (Beijing, Shanghai, Shenzhen) making access difficult for returning students without elite credentials extremely difficult.

Furthermore, this "flipped" push-pull framework emphasises the dynamic and evolving nature of the factors that influence the return intentions of Chinese doctoral students. It suggests that the initial "pull" factors that attract students to the UK may gradually transform into "push" factors as they navigate the challenges and complexities of the doctoral experience. Conversely, initial "push" factors, such as family ties, may evolve into stronger "pull" factors as students progress through their studies and consider their future career trajectories. Equally, the hokou (household registration) system and administrative barriers can make it difficult for returnees to secure attractive positions in major cities,

discouraging some from returning. For example, the China Initiative (2018-2022) has led to greater scrutiny of Chinese researchers, with many facing investigations for alleged intellectual property theft, resulting in many CDS seeking alternatives in the UK. The significance of the findings of this study may be relevant for those making policy recommendations: China may need to reduce bureaucratic barriers, increase salaries for academic role, recognise the need to reduce the preference of senior scholars over younger talent, and provide more flexible working environments to retain top talent if they are to areverse the Brain Drain.

Therefore, this framework contributes to a more dynamic understanding of the return intentions of Chinese doctoral students in the UK and the challenges they may face. It highlights the importance of considering the evolving nature of push and pull factors throughout the doctoral journey, rather than simply focusing on the initial motivations for studying abroad. This understanding has significant implications for policymakers, universities, and other stakeholders in attracting and retaining international talent

Existing studies on Chinese parenting have demonstrated that parents, particularly those belonging to the 'New Middle-Class,' hold high expectations for their children's academic achievement (Cheng and Sally, 2009). These studies, however, primarily focus on Chinese parents in overseas contexts or in regions like Hong Kong and Taiwan. Limited research has specifically investigated the expectations of Mainland Chinese parents and how they translate into practical parenting strategies. This study aims to address this gap by exploring the expectations of Mainland Chinese parents belonging to the 'New Middle-Class' and examining how these expectations shape their children's educational trajectories. Drawing upon Bourdieu's concept of cultural capital, this research investigates how middle-class Chinese parents, through their own educational attainment and social networks, transmit specific forms of cultural capital to their children. This includes cultivating specific academic skills, fostering a strong work ethic, and emphasising the importance of pursuing prestigious educational institutions, such as those in the UK, as a means of social and economic advancement. The research explored the interplay between parental expectations, cultural capital, and the pursuit of social mobility, so this study contributes to a deeper understanding of the factors that drive Chinese students to pursue doctoral studies abroad.

7.6 Summary

This chapter scrutinizes the identified motivational patterns, offering a comprehensive analysis of the recurrent themes that have emerged from the narratives of this research participants. There were three perspectives discussed, including middle class families In

China, shifting policy, and the human capital of Chinese doctoral students (CDS). Firstly, the important support for the education of Chinese doctoral students includes family education and parents' expectations. Family status has played a significant role in promoting the social mobility of the returnees, mainly in the cultural capital and economic capital transformation and direct support of social relations. Secondly, the reform of China's higher education and university policy, is an important factor in promoting and pulling international students to go abroad and return. The relationship between study abroad motivation and return decisions is dynamic and influenced by a combination of political context, academic, personal, and external factors. Successful integration, fulfilling academic and career goals, and personal ties all play crucial roles in shaping an individual's decision to return. Most importantly, political identity plays a very important role, which is a key condition for maintaining political stability and an important resource and content for realising and promoting political development. Finally, regarding returning PhD students, their perceived employability corresponds to the human capital requirements of higher education places. This illustrates the usefulness of international education and is evident in social mobility.

Chapter 8 Conclusion

8.1 Introduction

This study has shed light on the motivations and experiences of Chinese Doctoral Students (CDS) pursuing PhD studies in the UK. In this chapter, the main content will include restating the research question, summarizing key findings, explaining research contributions, discussing possible implications, identifying the limitations of this study and providing recommendations for future research directions.

This study focuses on investigating the perceived impact of international doctoral programmes on Chinese doctoral students' motivations and expectations of Chinese doctoral students for studying a PhD in the UK. Specifically, the purpose of this study is to better understand the academic experience and professional development of CDS, the reasons behind their decision-making and influencing factors about their behaviour. Also, this study identified how studying abroad as a Chinese doctoral student influences opportunities for research collaboration and networking, examining the role of international academic communities in shaping collaborative endeavours. This study employed semi-structured interviews and focus groups to collect firsthand experiences and perceptions of CDS studying in the UK, ensuring a diverse representation of participants from various disciplines and geographical locations. Finally, this study provides findings to offer practical recommendations for universities, policymakers, and academic institutions aiming to enhance the experiences of doctoral students studying abroad, thereby contributing to the improvement of international doctoral education. Therefore, the specific research questions were the following aspects:

Main Research Question:

What are Chinese Doctoral Students' (CDS) motivations and experiences of studying for a PhD in the UK?

Sub-Research Question:

1. What are the motivations for CDS to study in the UK?

2. What are CDS's perceptions of their learning and teaching experience when they study in the UK?

3. What are CDS's expectations of the impact that studying in the UK will have on their future academic career?

4. What is the motivation for CDS to return to China after graduation?

8.2 Summarise Key Findings

Through an in-depth exploration of their perspectives, it is evident that the decision to pursue a PhD in the UK is often multifaceted, driven by a combination of individual aspirations, career goals, and perceptions of academic excellence. Many CDS are motivated by the desire to acquire advanced knowledge and skills, enhance their academic credentials, and gain international exposure. Moreover, the perceived prestige and quality of UK universities, along with the opportunity to access world-class research facilities and academic resources, serve as compelling factors influencing their decision.

At the forefront of these motivations lies the pursuit of academic excellence and prestige. UK universities are renowned globally for their esteemed faculty, cutting-edge research facilities, and rigorous academic standards. For many CDS, the opportunity to study in such an environment represents a pathway to acquiring advanced knowledge and skills, enhancing their academic credentials, and gaining international recognition. Specifically, there are a number of reasons why the respondents selected the UK as their preferred destination for further study. These included: the quality of education, career prospects, economic prosperity, their own interests, family pressure, peer influence and policy-related factors.

The first major motivation is the "pull" factor from the host country. Students are attracted to the UK because they believe that, once they complete their studies, they will not only gain a globally recognised qualification, but also provide them with a platform to build a better future. In addition, individual cultural capital has different manifestations in each stage, from the decision-making process of overseas study activities and the acquisition of overseas study experience to the acquisition of academic qualifications. For many of the CDS who considered personal development a central part of their experience, they recalled that it was part of their original goal to study abroad. The career prospects and professional opportunities afforded by studying in the UK are significant motivating factors for CDS. With its strong links to industry, robust research infrastructure, and thriving innovation ecosystem, the UK offers abundant opportunities for career advancement, networking, and entrepreneurial ventures. Many CDS view their studies in the UK as a strategic investment in their future, positioning themselves for success in a competitive global job market. Thirdly, it can also be seen that social factors such as the influence of family and peers are also one of the decisive factors for these Chinese doctoral students

to choose to study in the UK. The impact of family social capital and cultural capital on educational attainment in different periods is reflected in the CDS's descriptions of how group pressure and conformity contributed to their decision to study abroad. In general, the motivation to study abroad tends to affect their future behavioural intentions, that is, their assumptions about how to carry out the study abroad activities.

Regarding the CDS's teaching and learning experience whilst studying in the UK, they generally exhibited a positive outlook on the learning environment, acknowledging the emphasis on critical thinking, independent study, and research skills. They appreciated the interactive and participatory nature of teaching methods, which encourage active engagement and intellectual discourse. In the process of receiving the guidance, CDS do not need to respond to specific assessment requirements, on the contrary, some training links are set up for the cultivation of independent research skills. Furthermore, focusing on the relationship between the supervisor and PGR, the supervisor acts as a guide to help CDS clarify research direction and objectives, working together to develop research plans, inspiring students, and providing regular feedback. Effective supervision benefits PGRs, supervisors and faculty, also communication is a fundamental element of supervision. A supervisor maintains regular communication, listens to their students, to their concerns and provides constructive feedback. Fourthly, there is an interesting finding is that the majority of CDS believe that if the training process is rigorous enough, the number of published papers should not be a graduation requirement. Although UK universities do not generally emphasise the number of papers published in the graduation process, many PGRs are more likely to think about where they might publish aspects of their research after graduation. However, challenges also emerge in their perceptions of learning and teaching experiences. Language barriers can hinder effective communication and comprehension, particularly in lectures and seminars where rapid discourse is common. English may be a second language, and students may struggle with the language barrier when it comes to independent learning. Reading academic texts, participating in group discussions, and writing essays, can all pose challenges for non-native speakers, and students may require additional effort and support. Moreover, cultural differences in pedagogical approaches and academic expectations may lead to misunderstandings or frustration for some CDS, highlighting the importance of cultural sensitivity and inclusive teaching practices.

In reflecting on the motivations of Chinese Doctoral Students (CDS) to return to China after completing their studies in the UK, several key themes emerged from the research findings. Foremost among these is the strong sense of national identity and patriotism that many CDS express. Despite the allure of opportunities and experiences abroad, a significant

proportion of CDS harbour a deep-rooted commitment to contributing to the development and advancement of their home country. They perceive their education overseas not only as a means to enhance their individual skills and knowledge but also as a means to contribute to China's socio-economic progress and global standing. Additionally, many CDS are driven by pragmatic considerations related to career prospects and personal aspirations. While pursuing a PhD in the UK offers valuable exposure to cutting-edge research, international networks, and diverse perspectives, returning to China provides access to a rapidly growing job market, abundant career opportunities, and the chance to apply their expertise in a familiar context. Moreover, factors such as family ties, cultural affinity, and the desire for a sense of belonging often weigh heavily in their decision-making process, prompting them to eventually return to their homeland to establish themselves personally and professionally.

Furthermore, government initiatives and policies aimed at attracting and retaining high-calibre talent play a significant role in shaping the motivations of CDS to return to China. Programmes such as the Thousand Talents Plan and other incentives for overseas-educated professionals offer enticing opportunities for career advancement, research funding, and professional recognition upon returning to China. These initiatives not only serve as catalysts for reverse brain drain but also underscore the government's commitment to leveraging the expertise of returning scholars to drive innovation and economic growth. In conclusion, the decision of Chinese Doctoral Students to return to China after completing their studies in the UK is influenced by a complex interplay of national identity, career aspirations, familial ties, and government policies. While the allure of international opportunities and experiences is undeniable, many CDS ultimately feel a strong sense of duty and responsibility to contribute to the development of their homeland. By understanding and addressing the diverse motivations of CDS, policymakers and stakeholders can better facilitate their reintegration into the Chinese academic and professional landscape, ultimately fostering innovation, collaboration, and sustainable development.

8.3 Contribution of this Research

This research contributes significantly to the existing body of research on the motivations, experiences, and returning of CDS in the UK. By combining qualitative research methodologies with a focus on the unique experiences of Chinese students, this study offers several key contributions:

Firstly, a deeper understanding of Chinese doctoral student motivations, beyond traditional Push-Pull Factors, this study moves beyond the traditional push-pull framework by demonstrating that Chinese students' motivations are complex and multifaceted. While economic factors and career aspirations undoubtedly play a role, the findings reveal a nuanced interplay of factors. For example, the influence of the 'New Middle-Class' and parental expectations has been highlighted, the significant impact of parental expectations and the pursuit of social mobility on Chinese students' decisions to pursue doctoral studies abroad. Also, the findings emphasise the importance of cultural values, such as filial piety and a strong emphasis on academic achievement, in shaping student motivations. There is also includes the impact of the Chinese higher education system, the evolving Sino-UK relationship, and the specific policies implemented by both governments.

Secondly, this research moves beyond a narrow focus on academic achievement to explore the multifaceted dimensions of the doctoral experience for Chinese students in the UK. Contrary to the prevailing discourse that often emphasises solely research output and academic success, this study highlights the crucial role of social, cultural, and personal factors. The findings underscore the paramount importance of effective mentorship and supervision. CDS, navigating a new academic and cultural landscape, require guidance and support beyond research guidance. This includes navigating university bureaucracy, developing academic and professional networks, and addressing personal and social challenges. Furthermore, this study emphasises the significance of cultural adaptation and integration. The findings reveal that successful doctoral journeys are intertwined with the ability to navigate cultural differences, build relationships with peers and supervisors from diverse backgrounds, and develop intercultural competence. This research contributes to a more detailed understanding of the doctoral experience by demonstrating that academic success is intricately linked to social, cultural, and personal well-being, challenging the notion of the isolated scholar solely focused on research output.

Finally, this research moves beyond a purely economic lens to explore the multifaceted factors that influence the return intentions of Chinese doctoral students. Contrary to the dominant narrative that often emphasises economic incentives as the primary driver of return decisions, this study demonstrates the significant influence of a range of social, personal, and political factors. While career opportunities and professional development prospects in both the UK and China undoubtedly play a crucial role, the findings highlight the complex interplay of personal aspirations, family ties, and social networks in shaping return intentions. Furthermore, the study underscores the profound impact of government policies related to talent recruitment, immigration, and innovation. These policies, including visa regulations, post-study work rights, and initiatives to attract and retain international

talent, can significantly influence the decisions of Chinese doctoral students regarding their future career paths and their intentions to remain in the UK or return to China. This research contributes to a more nuanced understanding of return intentions by demonstrating that they are not solely driven by economic factors but are shaped by a complex interplay of personal, social, and political considerations.

8.4 The Implications of this research

The study's insights into the motivations and experiences of Chinese Doctoral Students (CDS) pursuing PhD studies in the UK offer valuable guidance for various stakeholders involved in the higher education ecosystem. According to Meister and Willyerd (2021), universities and departments can enhance their recruitment strategies by offering personalised information sessions and scholarships aimed at attracting top Chinese talent, while also bolstering support services through dedicated academic advisors, cultural integration programs, and access to mental health resources. Collaborative efforts between Chinese government agencies, scholarship providers, and UK universities can ensure that pre-departure training adequately prepares students for the academic and cultural challenges they may face, with a particular focus on language proficiency and mental well-being support. Employers can contribute to the success of Chinese doctoral graduates by offering internship opportunities and cultural sensitivity training, fostering an inclusive workplace environment. Additionally, Chinese student associations and international education agencies play a crucial role in providing orientation programs, peer support networks, and tailored guidance to facilitate a smooth transition and maximize the academic and professional success of Chinese doctoral students studying in the UK (Quaye et al., 2019). Overall, these practical implications underscore the importance of collaborative efforts to support the diverse needs of CDS, ultimately enriching their educational experience and prospects.

Navigating the journey of studying for a PhD in the UK presents its fair share of challenges for CDS, as illuminated by the study's findings. Language barriers often pose a significant obstacle, requiring proactive measures such as language proficiency courses and ongoing language support services to ensure academic success. Moreover, cultural differences can manifest in nuanced ways, impacting interactions with peers and faculty, as well as academic approaches and expectations. To address this, universities and departments should prioritise cultural sensitivity training for staff and implement programmes that facilitate cultural integration and understanding within the academic community. Additionally, managing academic expectations can be daunting, particularly for CDS who

may face different educational systems and pedagogical approaches. Providing clear guidance and support mechanisms, such as mentorship programmes and academic advising, can help alleviate this challenge and foster a more supportive learning environment. Overall, recognising and addressing these obstacles underscore the importance of proactive measures and tailored support services to facilitate the successful academic journey of Chinese doctoral students pursuing PhD studies in the UK.

Supervision plays a pivotal role in shaping the academic journey of Chinese PhD students in the UK, with implications extending to various stakeholders involved. For the Chinese PhD students themselves, effective supervision is essential for their academic and personal development. A supportive and knowledgeable supervisor can provide valuable guidance, feedback, and mentorship throughout the research process, helping students navigate the complexities of their doctoral studies (Lee, 2019). Clear communication, regular meetings, and constructive criticism can help students stay on track, refine their research goals, and overcome challenges they encounter along the way. Moreover, a positive supervisory relationship can contribute to students' overall well-being and sense of belonging within the academic community, enhancing their academic success and satisfaction with their PhD experience in the UK. From the perspective of supervisors, working with Chinese PhD students offers opportunities for cross-cultural exchange and collaboration. Supervisors should be culturally sensitive and adaptable in their approach, recognising and respecting differences in communication styles, academic expectations, and learning preferences. Establishing open lines of communication and building trust with students are crucial for fostering a productive supervisory relationship. Supervisors can also play a key role in supporting Chinese PhD students' integration into the academic community, facilitating networking opportunities, and providing guidance on navigating the UK higher education system. By effectively supervising Chinese PhD students, supervisors not only contribute to their students' academic success but also enrich their own teaching and research experiences.

8.5 Reflect on Limitations of This Research

In this study, interpretivist semi-structured and focus group interview methods were adopted to understand Chinese doctoral students' motivations to study in the UK, their study experience and return motivation. The study focused on doctoral students in humanities and business, and the data were analysed using thematic analysis method. Since the study focused on Chinese PhD students in the UK the findings may not be representative of the views and experiences of Chinese PhD students studying in other

countries. Moreover, the participants in this study were mainly concentrated in the humanities and business fields, which may limit the generalisability of the findings and their applicability to other subject areas. In the UK, although business students account for the majority, more and more science and engineering students come to the UK in pursuit of higher academic qualifications. At the same time, it should also be considered that if the sample size is small, it may not cover all possible motivations for studying abroad and returning to China, which will affect the comprehensiveness and universality of the study.

From the perspective of methodology, the interpretivist approach applied in this study emphasises the subjective experience and interpretation of individuals, which may lead to subjectivity and difficulty in quantifying the research results, especially since I am also a Chinese doctoral student. Subject-matter analysis especially relies on the subjective judgment and interpretation of the researcher, which may lead to the bias of the results. Finally, the results of this study may be mainly applicable to Chinese doctoral students with similar cultural backgrounds and may not apply to international students from other cultural backgrounds.

At the same time, this study acknowledges that policy changes or changes in the practice environment may affect the motivation and behaviour of CDS in the process of change, which limits the practical application of the research results. To sum up, this study has limitations in many aspects, which need to be improved and perfected in future research. The comprehensiveness and accuracy of the study can be improved by expanding the sample range, adopting multiple research methods, and considering more influential factors.

8.6 Recommendations and Future Research

Based on the above content discussed, there are specific recommendations for future research based on the qualitative study exploring the motivations and expectations of Chinese doctoral students (CDS) in the UK, as well as their decisions to return to China, from the perspective of push-pull theory. Whilst some of these recommendations and future research could be applied to the wider population of international doctoral students, others are specific to the cultural and societal influences for Chinese doctoral students.

Firstly, future studies could compare the experiences and motivations of Chinese doctoral students in the UK with those studying in other countries, such as the US, Canada, Australia, or European countries, which can help identify unique factors influencing their decisions. Understanding how different educational systems, cultural contexts, and

employment opportunities shape students' choices can provide valuable insights for policymakers, educators, and employers.

Secondly, a longitudinal study that follows Chinese doctoral students over an extended period can provide deeper insights into the evolving motivations and decision-making processes that influence their choices to return to China or stay in the UK. It is important to understand the specific experiences of Chinese doctoral students compared to other Southeast Asian students due to the differences in cultural and social factors; Chinese students often face societal and familia expectations to remain abroad after study (Hu, 2021), whilst in many Southeast Asian countries there is often a stronger focus on contributing the local community (Yeung & Li, 2019). Equally, the concept of filial piety (孝, *xiào*) is deeply ingrained in Chinese culture, emphasising responsibility towards one's parents and elders. Tracking students' experiences from the initial stages of their PhD programme through completion and beyond can illuminate how factors such as academic, professional, and personal considerations interact and change over time. Then, researchers could explore the perspectives of employers in China who hire returning Chinese doctoral graduates, to shed light on the perceived value of an overseas PhD education and its relevance to the Chinese labour market. Understanding employers' expectations, preferences, and perceptions regarding the skills, knowledge, and experiences gained through a UK PhD program can inform strategies to better align graduate outcomes with industry needs.

Other studies have revealed that students' choice of the UK is significantly influenced by popular discourses (e.g., the "UK as a global hub for research," "world-class universities," "renowned for its academic excellence," recommendations from relatives and friends both at home and from abroad), rather than on current policy changes pertaining to international education and immigration in the UK. Since none of the students interviewed for this study explicitly mentioned UK government policies regarding international students when making their decision to enrol at their university, it is possible that these issues were not explicitly revealed because the interview questions did not specifically address the meso- and macro-level factors. These limitations should be addressed in further research focusing on the UK, as well as other countries. In-depth assessment of the effects that macro-level processes (e.g., visa policies, Brexit, funding opportunities, government initiatives to attract international students) have on the decision to study abroad would provide a more comprehensive picture of the international student migration dynamics within the UK context. Exploring this unique area may reveal new kinds of "pull" factors that the UK specifically creates, such as its strong reputation for research, its vibrant cultural scene, and its connections to global industries. Conversely, it may also reveal "aversive factors"

that could potentially deter prospective international students, such as concerns about post-study work rights, increasing tuition fees, or perceived hostility towards international students. This research direction would extend and challenge the classical push-pull model by adding the possibility that there may be nuanced and complex "push" and "pull" factors within the UK, beyond the traditional economic and political considerations.

Crucially, this research should be expanded to explicitly examine the impact of Chinese and UK government policies and initiatives on the mobility patterns of Chinese doctoral students. While analysing policies related to education, employment, immigration, and research funding is essential for understanding the broader socio-political forces shaping the decisions of all international doctoral students, a specific focus on Chinese students is warranted. The unique characteristics of the Chinese higher education system, the evolving Sino-UK relationship, and the specific policies implemented by both governments significantly influence the motivations and expectations of Chinese doctoral students. By analysing policies such as the Chinese government's initiatives to cultivate high-level talent, the UK's visa policies for international students, and the funding opportunities available to both Chinese and UK researchers, it could gain deeper insights into the factors driving Chinese students to pursue doctoral studies in the UK and their subsequent career trajectories. This nuanced understanding will not only contribute to a more comprehensive understanding of international student mobility but also inform the development of more effective policies and strategies to attract and retain high-quality international talent in the UK, particularly from China.

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Appendix 1 Ethics application form

<table>
<tr><td colspan="2" align="center">**RESEARCH ETHICS COMMITTEE**

FORM A – New Application

(Involving human participants, subjects or material)</td></tr>
</table>

It is essential that you are familiar with the University Code of Good Research Practice, Research Ethics Policy and the Procedures for Granting Ethical Approval before you complete this form that can be found <u>here</u>.   Please confirm that you have read and understood these documents:

Yes

Ethics reference number (for office use):	
WorkTribe project URL	

PART A: SUMMARY

A.1 Title of the research
An exploration of Chinese Doctoral Students' motivations and expectations of studying in the UK
A.2 Principal investigator's contact details

Name *(Title, first name, surname)*	Jianqi Liu

Position	PGR
Faculty/School	School of education
Telephone number	
University of Hull email address	
A.3 To be completed by students only	
Qualification working towards (e.g. Masters, PhD, ClinPsyD)	PHD
Student number	201942874
Supervisor's name (Title, first name, surname)	Patricia Shaw
Faculty/ School	School of education
Supervisor's telephone number	
Supervisor's email address	Patricia.Shaw@hull.ac.uk
A.4 Other relevant members of the research team (e.g. co-investigators, co-supervisors)	
Name *(Title, first name, surname)*	
Position	

Faculty/ School	
Telephone number	
Institution	
Email address	

Name (Title, first name, surname)	
Position	
Faculty/ School	
Telephone number	
Email address	

A.5 Select from the list below to describe your research: (Complete all that apply)

Research on or with human participants

Yes

Research working with data of human participants

Yes

New data collected by qualitative methods

Yes

New data collected by quantitative methods

No

Research conducted outside the UK

No

Research involving accessing social media sites

Yes

B.1 Give a short summary of the research (max 300 words)

As the popularity of international education has led to increased research in this area in recent years. The research in this field is about the motivation, academic experience and cultural experience of overseas students. The purpose of this study is to explore the academic experience of Chinese doctoral students (CDS) in the UK and their professional development after returning, from the perspective of push-pull theory (Bagne 1969; Gesing & Glass, 2019; McMahon, 1992). The push-pull theory is applied to the concept of population mobility. It refers to the fact that there is a certain push force in the population exporting country to make people flow to other countries, while the receiving country has some attractive factors to guide the population inflow. Further, behind the push-pull factor, it will be integrated into Bourdieu's theory(Bourdieu, 1973; 1990; 1997) of cultural capital, which is like a scaffold in the whole research process.

In addition, directors of Chinese universities are also objects and samples of this study, and their perspectives may provide more information on professional skills and development of returned CDS. Therefore, the specific research question considers the following aspects initially and tentatively:

  Main Research Question:

What are Chinese Doctoral Students' (CDS) motivations and experiences of studying for a PhD in the UK?

Sub-Research Question:

1. What are the motivations for CDS to study in the UK?

2. What are CDS's perceptions of their learning and teaching experience when they study in the UK?

3. What are CDS's expectations of the impact that studying in the UK will have on their future academic career?

4. What is the motivation for CDS to return to China after graduation?

Based on these questions, this study intends to use the qualitative research method guided by interpretivism to approach these research questions, and collect relevant data through semi-structured interviews.

B.2 Proposed study dates and duration

Research start date (DD/MM/YY): ____27/01/2020__   Research end date (DD/MM/YY): __27/04/2024_____

Fieldwork start date (DD/MM/YY): _____   Fieldwork end date (DD/MM/YY): _____

B.3 Where will the research be undertaken? (i.e. in the street, on University of Hull premises, in schools, on-line etc.)

 Normally, the study will take place on different campuses such as offices, social spots, cafes or small classrooms. But given the current uncertainty, it may be possible to move data collection online in the future.

Do you have permission to conduct the research on the premises?

At this stage, the question is not very clear. And since they're public places, I think it's highly probable that it's feasible and permissible.

If no, please describe how this will be addressed.

_____

_____

B.4 Does the research involve any risks to the researchers themselves, or people not directly involved in the research? *E.g. lone working*

No

If yes, please describe and say how these will be addressed (include reference to relevant lone working policies):

  _____

If yes, please include a copy of your complete risk assessment form with your application.

NB: If you are unsure whether a risk assessment is required visit the Health and Safety SharePoint site. Risk assessments are required for all fieldwork taking place off campus.

B.5 What are the main ethical issues with the research and how will these be addressed?

Indicate any issues on which you would welcome advice from the ethics committee

I think there are two areas that need to be considered in particular. The first is the anonymity of the participants. Since it is difficult to avoid the approach to the identity of the participants, we even need to communicate with them face to face and for a long time. As a result, participants' personal information needs to be protected and preserved without permission from anyone other than researchers and supervisors.

Second, there is the problem of Possibility of participation. Due to the limited time of overseas doctoral students, they will be busy with their studies and research. Therefore, I found some suitable participants and they are willing to participate in my research, which will be a problem to be considered. For this purpose, I will use the suitable sampling method and try my best to show the benefits my research brings

to them, so as to achieve the purpose of recruiting participants.

B.6 Does the research involve an international collaborator or research conducted overseas:

Yes

If yes, describe any ethical review procedures that you will need to comply with in that country:

Before implementation, I need to prepare the informed consent for overseas participants, which will include my research content, interview form, recording form and so on.

Describe the measures you have taken to comply with these:

In China, I don't need an application or form for an ethics application, I just need to prepare the informed consent and get the participant's signature.

Include copies of any ethical approval letters/ certificates with your application.

PART C: HUMAN PARTCIPANTS AND SUBJECTS

C.1 Are the participants expected to be from any of the following groups? (Tick as appropriate)

Children under 16 years old

No

Specify age group:

_____

Adults with learning disabilities

No

Adults with other forms of mental incapacity or mental illness

No

Adults in emergency situations

No

Prisoners or young offenders

No

Those who could be considered to have a particularly dependent relationship with the investigator, e.g. members of staff, students

No

Other vulnerable groups

No

No participants from any of the above groups

Yes

Include in Section D5 details of extra steps taken to assure their protection.

Does your research require you to have a DBS check? **No**

C.2 What are the potential benefits and/ or risks for research participants in both the short and medium-term?

First, in terms of benefits. This study may help Chinese doctoral students understand some of the motivations and principles behind their decision to study abroad, based on push-pull theory and Bourdieu theory. At the same time, understanding directors views and requirements on returnees may provide information for both groups of participants to develop their academic abilities and identify doctoral student who wish to back to China.

In terms of risks, research may bring some psychological pressure to Chinese doctoral students studying abroad, because it involves their difficult study and unclear employment direction in the future. I will try my best to interview in a positive atmosphere.

What will be done to avoid or minimise the risks?

As mentioned above, I will emphasize the benefits of this research and create a

relaxed atmosphere during the interview.

C.3 Is there a potential for criminal or other disclosures to the researcher requiring action to take place during the research? (e.g. during interviews/group discussions, or use of screen tests for drugs?)

No

If yes, please describe and say how these will be addressed:

C.4 What will participants be asked to do in the study? *(e.g. number of visits, time involved, travel required, interviews)*

For most of the participants, this study may attempt to approach them twice, first in a one-to-one interview, and second in a focus group interview. These two parts may take about 60-90 mins for each individual. Finally, interviewees do not need to travel; researchers will arrive at the participants' locations to conduct the study.

PART D: RECRUITMENT & CONSENT PROCESSES

D.1 Describe how potential participants in the study be identified, approached and recruited and who will do this:

(i) identified:

First, when looking for suitable participants, I will identify several universities in the UK and China, then identify Chinese PhD students and director of Chinese universities. Initially, the purposive sampling method is intended to be used to recruit study participants to ensure that the selection of participants is strategic and relevant to my research purpose. Another closely related method is snowball

sampling, this is also an important approach that will be less time-consuming and generate more students.

(ii) approached:

When I find the right participants, optimistic, they may respond to me by email. An online search was one of the first methods I intend to use to recruit potential participants. For the UK universities, information about PhD students can be found on the universities' website. Browsing students' profiles and getting further information, including their field, educational background, research area, contact information, all assists in the selection process. I will try to contact them probably more than once. Secondly, when they are determined to be available as my participants, I will choose the right time and place for them to provide. In addition, I will also use the snowball sample method to approach the participants, that is, let the initial participants introduce new ones.

(iii) recruited:

It will be a long time to recruit participants. I will try to ask my classmates and friends in higher education in the UK for help through my social network, hoping that they could help me contact people they knew at their own university. At the same time, I will ask for help from my supervisor and be introduced to relevant personnel at other universities. In this way, there is a high probability to get the list and contact information of some people receiving doctoral education in the UK.

D.2 Will you be excluding any groups of people, and if so what is the rationale for that?

According to the topic of my research, I will focus on the doctoral students studying abroad in China. In other words, I would exclude PhD students from other countries when selecting participants. At the same time, among these groups I am looking for, there will be some visiting scholars (who will have one or half a year to attend doctoral courses in the UK), which is also the group I will exclude. For participants of directors, I need to make adequate preparations, including reserving sufficient time to make an appointment, presenting the rationale and justification of the research, and accepting the possibility of rescheduling.

D.3 How many participants will be recruited and how was the number decided upon?

In this study, there will be two groups of participants, Chinese doctoral student and directors at universities. Initially, I plan to include 20 participants in the student group for interviews. In fact, according to Creswell (2013), interviewees can answer more than 6 research questions, because more interviewees will saturate and duplicate the data. Secondly, among the directors of the university, there will be 10 participants minimum. And, they will belong to a different university. This purpose is to collect more comprehensive and objective data. Therefore, this study will include around 30 participants in both the UK and China.

If you have a formal power calculation, please replicate it here.

D.4 Will the research involve any element of deception?

No

If yes, please describe why this is necessary and whether participants will be informed at the end of the study.

D.5 Will informed consent be obtained from the research participants?

Yes

If yes, give details of how it will be done. Give details of any particular steps to provide information (in addition to a written information sheet) e.g. videos, interactive material. If you are not going to be obtaining informed consent you will need to justify this.

Before each interview, I would clearly explain the purpose of this study, the method of data collection, and the further use of data. I will give each participant a consent form outlining any possible risks, benefits, and responsibilities in as much detail as possible. Interviews are recorded only with the consent of the participants. In addition, I respect the respondents' decision to accept or decline the invitation or withdraw from the study. Also, I value their answers and respect them if they refuse to answer any questions.

D.6 Describe whether participants will be able to withdraw from the study, and up to what point (e.g. if data is to be anonymised). If withdrawal is <u>not</u> possible, explain why not.

Participants are allowed to withdraw data when their data is collected. At this stage, it is difficult to determine when an interviewer will withdraw the data because the data collection start date has not been determined. Basically, it's going to be set at a point in time between when I start analysing the data. I will clarify this information in the participant information sheet so that they can participate in the interview as they wish.

D.7 How long will the participant have to decide whether to take part in the research?

After I set up and sent out some posters and emails about recruitment, they would have 2-3 weeks to decide whether to participate in the study or not. Because it will depend on their willingness and timing.

D.8 What arrangements have been made for participants who might have difficulties understanding verbal explanations or written information, or who have particular communication needs that should be taken into account to facilitate their involvement in the research?

First of all, I will set up some clear structured interview steps for the group of Overseas Chinese doctors. In order for them to be familiar with the complete process, I will also be ready to explain all the details for them. Secondly, as for the directors of Chinese universities, they may not have a very good understanding of British culture or other details. I will explain and explain in advance. Overall, detailed information about the study was provided to all participants

D.9 Will individual or group interviews/ questionnaires discuss any topics or issues that might be sensitive, embarrassing or upsetting, or is it possible that criminal or other disclosures requiring action could take place during the study (e.g. during interviews or group discussions)? *The information sheet should explain under what circumstances action may be taken.*

No

If yes, give details of procedures in place to deal with these issues.

D.10 Will individual research participants receive any payments, fees, reimbursement of expenses or any other incentives or benefits for taking part in this research?

No

If Yes, please describe the amount, number and size of incentives and on what basis this was decided.

PART E: RESEARCH DATA

F.1 Explain what measures will be put in place to protect personal data. *E.g. anonymisation procedures and coding of data. Any potential for re-identification should be made clear to participants in advance.*

The researcher has the obligation to protect the identity of the research object; Identity information will not be disclosed without permission. To protect confidentiality, I will submit a confidentiality agreement at the beginning of the interview and make it clear that all identifying features would be changed.

F2. What security measures are place to ensure secure storage of data at any stage of the research?

Provide details on where personal data will be stored, any of the following: (Select all that apply)

University approved cloud computing services

Yes

Other cloud computing services

Yes

Manual files

Yes

Private company computers

Yes

Portable devices

Yes

Home or other personal computers (not recommended; data should be stored on a server such as your G, T, X or Z drive where it is secure and backed up regularly)

Yes

Please attach the data management plan in the appendices; for further inform

http://libguides.hull.ac.uk/researchdata

F.3 Who will have access to participant's personal data during the study?

Myself and my supervisor

F.4 Where will the data generated by the research be analysed and by whom?

The data will be transcribed at the University of Hull and will be done by myself.

F.5 Who will have access and act as long term custodian for the research data generated by the study?

Myself

F.6 Have all researchers that have access to the personal data that will be collected as part of the research study, completed the University (or equivalent) data protection training?

Yes

It is mandatory that all researchers accessing personal data have completed data protection training prior to commencing the research.

F.7 Will the research involve any of the following activities at any stage (including identification of potential research participants)? (Select all that apply)

Examination of personal records by those who not normally have access

No

Access to research data on individuals by people from outside the research team

No

Electronic surveys, please specify survey tool: _____

No

Other electronic transfer of data

No

Use of personal addresses, postcodes, faxes, emails or telephone numbers

No

Use of audio/visual recording devices (NB this should usually be mentioned in the participants

No

F.8 Are there any reasons to prevent or delay the publication of this research? E.g. Commercial embargoes, sensitive material.

No

If yes, provide details:

F.9 If there are restrictions on where this research should be published or reported, where will the results of this study be disseminated ? (Select all that apply)

Conference presentation

Yes

Peer reviewed journals

Yes

Publication as an eThesis in the Institutional repository HYDRA

Yes

Publication on website

Yes

Other publication or report, please state: _____

No

Submission to regulatory authorities

No

Other, please state: _____.

No

No plans to report or disseminate the results

No

F.10 How long will research data from the study be stored?

__3___ years

F.11 When will the personal data collected during the study be destroyed and how?

In essence, after 3 years of data storage, it will be destroyed on January 27, 2027. Participants were first told how long the data had been stored and then deleted before the date, both in paper and computer formats. Secondly, if other relevant personnel hold the data, the researcher will confirm and inform them to destroy the data.

Researchers must comply with the General Data Protection Regulations that are live from May 2018.

PART F: CONFLICTS OF INTEREST

G.1 Will any of the researchers or their institutions receive any other benefits or incentives for taking part in this research over and above normal salary or the

costs of undertaking the research?

No

If yes, indicate how much and on what basis this has been decided

G.2 Is there scope for any other conflict of interest? *For example, could the research findings affect any ongoing relationship between any of the individuals or organisations involved and the researcher(s)? Will the research funder have control of publication of research findings?*

No

If so, please describe this potential conflict of interest, and outline what measures will be taken to address any ethical issues that might arise from the research.

G.3 Does the research involve external funding? (Tick as appropriate)

No

If yes, what is the source of this funding?
_____

PART G: TRAINING

Please provide details of any training required to conduct this research by any member of the research team.

In the first year, researchers will improve their academic ability by reading literature, attending training courses, compulsory courses and elective courses, and participating in some online seminars. At the same time, every six-month review and annual review is a test of the researcher's competence. Finally, some research methods-related courses will also be scheduled before conducting data collection

and analysis.

PART H: DECLARATIONS

Declaration by Principal Investigator

1 The information in this form is accurate to the best of my knowledge and belief.

2. I take full responsibility for the information I have supplied in this document.

3. I undertake to abide by the University's ethical and health and safety guidelines, and the ethical principles underlying good practice guidelines appropriate to my discipline.

4. I will seek the relevant School Risk assessment/COSHH approval if required.

5. If the research is approved, I undertake to adhere to the project protocol, the terms of this application and any conditions set out by the Faculty Research Ethics Committee.

6. Before implementing substantial amendments to the protocol, I will submit an amendment request to the Faculty Research Ethics Committee seeking approval.

7. If requested, I will submit progress reports.

8. I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of participants or other personal data, including the need to register when necessary with the appropriate Data Protection Officer.

9. I understand that research records/data may be subject to inspection for audit purposes if required in future.

10. I take full responsibility for the actions of the research team and individuals supporting this study, thus all those involved will be given training relevant to their role in the study.

11. By signing the validation I agree that the Faculty Research Ethics Committee, on behalf of the University of Hull, will hold personal data in this application and this will be managed according to the principles established in the Data protection Act (2018).

Sharing information for training purposes: Optional :

I would be content for members of other Research Ethics Committees to have access to the information in the application in confidence for training purposes. All personal identifiers and references to researchers, funders and research units would be removed.

Yes/no (delete as appropriate)

- 22 -

Principal Investigator

Signature of Principal Investigator:

Print name: ....   Date:

     (dd/mm/yyyy): ....

Electronic submission by Canvas is deemed equivalent to signature.

Supervisor of student research: I have read, edited and agree with the form above.

Supervisor's signature:...

(This needs to be an actual signature rather than just typed. Electronic signatures are acceptable)

Print name: ....   Date:

     (dd/mm/yyyy): ....

mailto:**Remember to include any supporting material** such as your participant information sheet, consent form, interview questions and recruitment material with your application. Version control should be adopted to include the version number and date on relevant documents in the appendices.

These should be pasted as Appendices to this form. Multiple documents will not be accepted.

Appendix 2 Consent form for participants

FACE ETHICS COMMITTEE

CONSENT FORM for "INTERVIEW"

I, ………[the participant writes their name here]…………   of .….…………[the participant writes their address

here]……………………………………………………………………………..

hereby agree to be a participant in this study to be undertaken by:………Jianqi Liu……………….

and I understand that the purpose of the research is to explore Chinese Doctoral Students' (CDS) motivation and experiences of studying for a PhD in the UK….

and I hereby declare that

1. All data will be de-identified using pseudonyms and stored using secure servers and password protected devices. It will be destroyed on January 27, 2026.
2. Any information that I provide will not be made public in any form that could reveal my identity to an outside party (i.e. that I will remain fully anonymous).
3. Aggregated results will be used for research purposes and may be reported in academic journals or conference paper.
4. Individual results **will not** be released to any person except at my request and on my authorisation.
5. I understand that individual results will not be released to any person except at my request and on my authorisation.
6. I am free to withdraw my consent before the research data be analysed in which event my participation will immediately stop and any information obtained from me will not be used.

   Signature: …………………………………………..   Date: ………………………

The contact details of the researcher are: Jianqi.Liu-2019@hull.ac.uk

The contact details of the secretary to the Faculty of Arts Cultures and Education (FACE) Ethics Committee are:

Research Office, FACE, University of Hull, Cottingham Road, Hull, HU6 7RX. tel. 01482 462212. Email: face-ethics@hull.ac.uk

Appendix 3 Information sheet for participants

INFORMATION SHEET FOR PARTICIPANTS

(Chinese doctoral students)

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET TO KEEP

1) Researcher name: Jianqi Liu

2) Title of study and introduction：

Title: Exploring the academic experience of Chinese doctoral students in the UK and their expectations of its contribution to their professional development.

3) What is the purpose of the study?

The purpose of this study is to explore the academic experience of Chinese doctoral students (CDS) in the UK and their professional development after returning. To enrich this data, the study will explore masters' students at Chinese universities perspectives of the themes emerging from the CDS's data, which may provide more information on motivation and expectation of studying a PhD in the UK.

4) Why have I been invited to take part?

You have been chosen because as Chinese doctoral student studying in the UK, you have knowledge and understanding about your motivation, expectation, academic experience and further information that relates to my research.

5) What will happen if I take part?

You will be asked in you would be willing to take part in a focus group (approximate 60 minutes) and a follow-up interview (approximate 30-45 minutes) to find out more about your experiences and motivations for studying a doctorate in the UK.

6) Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be able to keep a copy of this information sheet and you should indicate your agreement to the interview by signing the consent form. You can still withdraw up to the point I begin analysing the data (I will provide date). You do not have to give a reason.

7) What are the possible risks of taking part?

Participating in the research is not anticipated to cause you any disadvantages or discomfort.

8) What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will have a beneficial impact by providing important insight into Chinese doctoral students' perceptions of their academic experience in the UK, which may assist Chinese students in the future when making these decisions.

9) Data handling and confidentiality

Your data will be processed in accordance with the General Data Protection Regulation 2018 (GDPR).

•   I have made arrangements for ensuring anonymity and confidentiality.

•   This research will only be done if you consent to it. I intend to use a qualitative study, make it clear that your identity will not be revealed, which will use a code instead such as A, B, etc.

•   Due to the pandemic, recordings will be made using the online videoing service (e.g. zoom, skype, Microsoft teams – depending on what you prefer). This service will be password protected and the recording will be deleted after being transferred to an encrypted university managed cloud database. If interviews are recorded face to face, the recordings will be transferred into an encrypted document, and then uploaded to an encrypted cloud database – then the recordings will be deleted from the device.

•   You can retract your data before the data is analysed. The data is anonymous.

•   The research data will be used to support future research and can be shared anonymously with other researchers.

•   Any handwritten paper field notes will be stored in a locked university cloud computer service accessible only to the researcher, and immediate digitalisation is preferable.

10) What if I change my mind about taking part?

You are free to withdraw at any point of the study, without having to give a reason. Withdrawing from the study will not affect you in any way. You are able to withdraw your data from the study up before the data be analysed, after which withdrawal of your data will no longer be possible due to the data will have been anonymised, aggregated or committed to the final report.

Appendix 4 Focus group interview questions

Focus group for CDS in the UK:

1. Can you talk about why you come to the UK to study for a PhD?

2. What are your intrinsic and extrinsic motivations?

3. What were your expectations before you came to the UK?

4. What is the learning and teaching experience of PhD students in the UK?

5. What skills do you think your PhD in the UK has equipped you?

6. What are your career plans after graduation?

Focus group for Master student in China:

1.Why do you want to apply for a PhD in the UK?

2.What are your intrinsic and extrinsic motivations?

3.What do you think is the difference between the learning environment in China and the UK?

What do you expect from the PhD courses in the UK?

Appendix 5 Individual interview questions

CDS

General information question：

1.Professional:

2.Year of study:

3.The length of stay in the UK:

1-1.What personal factor motivated you to pursue doctoral education overseas?

1-2.   What specific factors motivated you to pursue a doctoral education in the UK?

2-1.   To what extent have you improved or not improved your knowledge and skills? Such as critical thinking and independent learning, etc. (How do you think this knowledge or skill has affected you?)

2-2.   What external advantages or disadvantages do you think the UK doctoral education brings to you? (How has it affected your career development?)

2-3.   Compared with home academic qualifications, how important or unimportant are foreign academic qualifications? Why do you think this is the case?

3-1.   What factors influence your decision to return or not return to China? How did you come to that decision?

3-2. What are the advantages/disadvantages of studying for a doctorate in the UK for a student returning to China to work?

Master Student

General information question：

1.Professional:

2.Year of study:

3.Personally, why do you want to plan for a PhD in the UK?

4.What is external or other motivation for you to apply for a PhD in the UK?

5.Can you explain how these factor effect you to make this choice?

6. Compared to your current learning environment, what do you expect if you study in the UK?

7. What professional skills you perceived importantly for gaining employment in the future?

8. Do you think that the current policies attract strong doctoral students back to work in China?

Appendix 6 Example of coding process

Quotes	Preliminary codes	Codes
"profound culture, I have a yearning, a longing for the outside world" (CDS E) "Another point I think is that culture actually affects the different learning environment. So British culture is also a motivation. So, in fact, these motivations are mutually influential"(CDS C) At the beginning, I am not used to some seminars and were always afraid to speak up. After gradually adapting to such a learning mode, I was able to improve my own research in the discussion and found some limitations, which surprised me very much. "(CDS G)	Profound culture; Yearning; Outside world; Different; Habit; Change;	Culture
"communication and network are extremely developed"(CDS A) "Before going abroad, I always read all kinds of information about foreign countries, including advanced technology" (CDS F)	Communication; Network; Developed; Information; advanced	Technology
"My parents' expectations were important and allowed me to prepare without hesitation"(CDS B)	Parents; Allowed;	Family expectation

"Obviously, with the one-child policy in China, for some families, parents attach great importance to where their children go to school. If they let me study abroad, it is also a very important decision, especially in such a special period."(CDS E)	Without hesitation; Chinese policy; Important roles	
"The way of learning in the UK is different from that in China. At the beginning, we were not used to some seminars and were always afraid to speak up. After gradually adapting to such a learning mode, I was able to improve my own research in the discussion and found some limitations, which surprised me very much. This is probably the critical thinking we talk about a lot, being good at thinking from different angles."(CDS C) "Our ability to pay attention is the basic condition for our brain to perform cognitive activities such as perception, memory and thinking, and it also improves our efficiency in both work and study. "(CDS H)	Different; Seminars; Afraid to speak up; Improve; Discussion; Critical thinking; Surprised me; Cognitive activities; Improve efficiency	Educational experience
"That's very obvious, and that's where I've changed a lot"(CDS I) "I do not look at this in a critical manner, but different learning systems have different learning styles, and the one that suits you is the best"(CDS	Obvious(different); Learning system; Suits; Not deliberately; Efficient	Learning style

H) "I didn't change it deliberately, but I feel that my current learning style is more efficient and I take the initiative to explore"(CDS B)		
"There is a difference between students' and supervisors' research concepts, a broad consensus that appropriate supervisor support is essential throughout the doctoral research process, and the value of such support to the success of doctoral research"(CDS K) "Although not necessarily taught formally (e.g. in the classroom), through higher level tutor support (e.g. helping students develop relevant skills and knowledge.）"(CDS L)	Essential; Value; Success; Formally;	Supervisory support

Appendix 7 Vignette for participants

CDS A	
Gender	Male
Subject/course	Education
Year of study	2
Background information	He was the first interviewee, and I did a pilot study on him earlier. So he is relatively familiar with the interview questions. As for his personal background, he is a teaching assistant in a university, and he studied abroad several years ago. However, without English environment for a long time, language ability is limited.

CDS B	
Gender	Female
Subject/course	Journalism and communication
Year of study	3
Background information	She is an interdisciplinary PhD student who previously studied education, but has changed her mind and does not want to become an education-related practitioner. She took a year off during her second year of her PhD.

CDS C	
Gender	Female
Subject/course	Financial

Year of study	3
Background information	She was the youngest of the participants because she went straight from undergraduate to PhD. She is very enthusiastic about the doctor, but rarely communicates with others, so the communication in the interview is quite challenging. For the record, she replaced a supervisor once, in the first year of her PhD.

CDS D	
Gender	Female
Subject/course	Education
Year of study	3
Background information	This participant had education-related work experience, but not at a university. Her future goal is to be a teacher in a university. However, the employment environment in China is stressful and competitive, so now she is studying for a PhD in the UK for a higher degree. At the same time, she is hesitating and thinking about whether to go back to China to work.

CDS E	
Gender	Female
Subject/course	Accounting
Year of study	2
Background information	CDS E has completed the intermediate accounting examination in China. She is a little stressed about her current research project and doesn't think it's in her interest.

CDS F	
Gender	Female
Subject/course	Tesol
Year of study	4
Background information	The participant repeatedly expressed her pressure to graduate, anticipating that it might take six years to complete her thesis. Due to the previous language teacher, language skills are relatively high.

MS A	
Gender	Male
Subject/course	Management
Year of study	2
Background information	This is a master's student who is considering applying for a PhD programme in the UK. He has been preparing for ielts from a very early age, but the compatibility of his major and research direction is his main concern. At the same time, he explained that his economic level is medium, and it is not easy to afford the tuition of doctoral courses.

CDS G	
Gender	Female
Subject/course	Tesol
Year of study	3
Background	She currently in remote learning, which lasted for a year due

information	to the epidemic.

CDS H	
Gender	Male
Subject/course	Educational psychology
Year of study	1
Background information	The participant made it clear that the difficulty of the PhD in The UK was beyond his imagination. He had no previous experience of doing research alone, nor did he actually participate in the design of the research. So academic and research ability always put pressure on him.

CDS I	
Gender	Female
Subject/course	Education
Year of study	5
Background information	She has a very relaxed attitude towards completing the doctoral program, so the speed of writing her graduation thesis has been moderate. She says her main idea is to experience life. She was already married in the third year of her PhD.

MS B	
Gender	Male
Subject/course	Supply chain management
Year of study	2

Background information	This master student is in Hong Kong. He said that the high pressure of his study makes him yearn for the doctoral program, which is because he wants to focus on one field of research instead of attending many elective courses. The English teaching in Hong Kong gives him a good educational background and language ability.

MS C	
Gender	Male
Subject/course	Educational leadership
Year of study	3
Background information	The participant graduated last year with a master's degree in educational leadership. He is married, so he is also considering going abroad with his wife to pursue a PhD. The only factor being considered is the impact of the pandemic on the learning experience.

CDS J	
Gender	Male
Subject/course	Policy and politics
Year of study	4
Background information	None

CDS K	
Gender	Female

Subject/course	Sociology
Year of study	2
Background information	Before starting her PhD, she worked in a government function in China. She has some anxiety about graduation, as she considers whether she is too old for the university's recruitment criteria after graduation.

CDS L	
Gender	Female
Subject/course	Accounting and finance
Year of study	3
Background information	None

CDS M	
Gender	Male
Subject/course	Accounting and finance
Year of study	3
Background information	This participant is not the only child, which is special compared with other participants. He thinks he may be able to stay in the UK to find a job, because he does not need to take care of his parents alone, because he has two older sisters.

CDS N	
Gender	Female

Subject/course	Education
Year of study	1
Background information	None

Appendix 8 Mindmap for theoretical framework and data analysis

No.	Theory	Factors	Description	Relationship between theory and data (what did CDS mention)
1	Push and pull	Political benefits	Policies related to scholarships or programs in the university.	
		Financial support	Family support and institutional support or personal savings	Scholarship; self-funded China's new middle class; Parental support for their children
		cultural links	Increased understanding of western culture	acculturation, cross-cultural communication skills and language-related abilities
		quality of overseas education	domestic education supply fails to meet domestic demand satisfactorily in terms of quantity and/or quality, student mobility between countries increases	expanding the opportunities for students to study abroad and promoting the development of study abroad education

		teaching style and concepts	The perception of CDS and their adaptability to different teaching methods and concepts	The teaching method emphasizes independent learning, method training and practice training
		Educational experience (learning and teaching style)	CDS perception about attending modules, courses, seminars	inclusive and cross-cultural perspective improve the quality of the communication and critical thinking
		Personal factors	students' socio-economic status, academic ability, gender, age and motivation.	significantly affect employability after returning
		Family	The influence of family members on CDS in the process of deciding to study abroad	Parents' experiences and expectations; One-child policy
		Peer	Peer's promotion of CDS's motivation to study abroad	The communication and exchange between peers, they encourage and help CDS to further understand the study life abroad, and the competition makes CDS have the motivation to

				study abroad
2	Flipped push and pull theory	Economic factors	the difficulty of finding jobs can be a powerful driver	China's labour market recognises and values overseas degree holders
		positive contribution	bring skills and knowledge (human capital) they have learned and acquired back to their original country	Made great contributions to the university, such as introducing new projects, new ideas, new skills, new courses and new methods, improving academic projects, improving research quality, internationalized projects of the university, and Collaborating with foreign universities
		Family network	maintaining positive relationships with friends and family back home may increase the likelihood of	The one-child policy; The desire to spend time with parents and other family members

			returning home	
		discrimination and marginalisation	life pressure, loneliness, discrimination issues and intense cross-cultural challenges and struggles may be important factors in the decision to return home.	It's not obvious, CDS doesn't say a lot about unfairness.
		Social integration and language	Language skills are important factors in CDS's ability to adapt to life abroad	In terms of listening, speaking, reading and writing, the improvement of language skills is slow and cannot reach a high level in a short time
		Job opportunities in host countries	the possible economic returns are mutually beneficial to both the returnees and the governments of the original countries	employment achievements
		Political environment	Attract talent policy; university-level policy	Double first class plan
		Institutional structure	The way Chinese universities are managed, as well	

			as the structure of universities, recruitment channels	
3	Bourdieusian framework	Embodied capital	study abroad to pursue some skills they lacked; educational qualifications; it involves changes and assimilation in the labor force	CDS personal knowledge and understanding
		Objectified capital	the level of education, the amount of scientific knowledge and the mastery of labour skills have a direct impact on a worker's income	better employment prospects after graduation
		Institutionalised capital	institutional arrangements; acquisition and recognition of capital legitimate and standard; various academic qualifications; smooth transition between cultural capital and economic capital	CDS achieve high economic benefits

		Cultural reproduction	How family background influence student's educational achievement	
4	Student-centred philosophy of education	interactive and heuristic teaching; Collaborative curriculum/course;		Interaction and communication in British classrooms help students deepen their understanding of knowledge and fully embody the student-centred philosophy of education interactive and heuristic teaching; Collaborative curriculum/course;
		Independent learning & self-directed research	difference learning style between the UK and China	The guidance given by supervisors is instructive, and CDS plans and controls their learning and research content most of the time
5		Supervisor-student relationship	The role of supervisor Student perception The personality of	Students' satisfaction with supervisor's guidance is positively correlated with the frequency

			the supervisor	of teacher-student meetings. With more frequent meetings, students will have more chances to be guided by supervisors to publish articles and complete dissertations. The guiding ability and attitude of supervisors are important factors in addition to the knowledge level in the professional field. The positive emotions of supervisors and their ability to provide support, encouragement and understanding to students are important characteristics of excellent supervisors.
6		Examination and evaluation	Non-restrictive publication and engaging	

			conferences	
			Basically, the doctoral education quality evaluation project initiated by the UK Higher Education Research Institute mainly includes 8 modules: teaching and learning, thesis writing and guidance, learning resources, skill development, organization and management, career development, evaluation and feedback, and overall satisfaction	- 47 -
7		Learner agency	A comprehensive understanding of an important concept for learning how PGRs interact with their surroundings	Adapt and focus on learning as an international student