Returnee Scholars' Academic Reintegration into Chinese Regional Universities: the Role of Transnational Capital

Hanwei Li[1] · Xin Xing[1] · Bing Zuo[2]

Abstract

When Chinese scholars who have obtained doctoral degrees or have undertaken research visits abroad return to work in China, they bring with them transferable experiences, knowledge, and skills acquired overseas. However, they also face challenges with academic reintegration. This study, through 18 semi-structured interviews with returnee scholars, examines the academic reintegration processes of these individuals at Chinese regional universities, focusing on the impact of transnational capital on their reintegration. It highlights the challenges that returnee scholars encounter, such as insufficient resources or a lack of academic infrastructure, and demonstrates how transnational capital can serve as a valuable asset for academic reintegration. This article advocates for a contextualized understanding of the academic reintegration process that considers how the scholars' personal attributes and the environments of their home institutions either facilitate or impede transnational knowledge production. Our findings have implications for the development of policies by the Chinese government and regional universities to support the reintegration of returnee scholars.

Keywords Returnee scholar · Academic reintegration · Academic mobility · Transnational research collaboration · Transnational capital

With scholars and academics crossing borders to engage in collaborative research and knowledge exchange, global academic mobility has emerged as a significant phenomenon. The international networking tradition within academia has facilitated this trend, as scholars have embraced their role as global intellectuals, contributing to the knowledge economy (Marginson, 2014). Academic mobility plays a vital role in driving innovation and economic growth, as it generates new ideas and

✉ Bing Zuo
zuobing2006@163.com

1 Faculty of Educational Sciences, Yan'an University, Yan'an, China

2 Library, Lingnan Normal University, Zhanjiang, China

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innovations through transnational collaborations (Ranga & Etzkowitz, 2013). Such collaborations are facilitated by extensive innovation networks that connect actors from diverse backgrounds, fostering knowledge co-creation and exchange (Powell et al., 2005). In the context of the knowledge-based economy, which is characterized by innovation ecosystems, sustainable innovation and development depend on the coevolution and co-creation of actors across sectors and nations (Etzkowitz et al., 2000). Therefore, global academic mobility serves not only as a driving force for the knowledge economy but also as a catalyst for fostering robust innovation networks and the development of dynamic innovation ecosystems (Cai et al., 2020).

Globalization and the increasing importance of international collaboration in scientific research have contributed to the rising number of academic returnee scholars in recent years, particularly in China. From 248 in 1978, the number of Chinese returnee scholars and students increased to 580,300 in 2019, reflecting an increase of almost 2340 times over a 40-year period (The State Council Information Office of the People's Republic of China, 2019). Studies have demonstrated that the return of Chinese overseas scholars significantly impacts China's human capital and technological development (Miao & Wang, 2017). Chinese returnee scholars are often thought of as possessing valuable skills, knowledge, and international experience, which can contribute to the development of the country's academic institutions. The mobility of academic scholars contributes not only to the advancement of individual scholars' academic careers but also to the emergence of a global innovation network (Li, 2020a, b) and the transnational innovation ecosystem (Cai et al., 2019).

Talented returnee scholars are considered valuable academic resources for Chinese universities and are often given favorable policies. There are several potential benefits to attracting and retaining returnee scholars for scientific and technological development. First, returnee scholars play a key role in developing stronger links between China and other countries, helping to develop international networks and partnerships, and contributing to the broader goal of building a more innovative and competitive knowledge economy in China. Second, they can bring valuable skills and expertise back to China, helping to address skill shortages in key areas. Although there is no specific data to show how many returnee scholars are employed at Chinese universities, their (re)integration has received both policy and academic attention (Fan & Liu, 2021; Lei & Guo, 2020).

While past research has shed light on the broader reintegration of Chinese returnee scholars, fewer investigations have specifically explored the role of transnational capital in the reintegration process. While several studies have examined the challenges and opportunities faced by returnee scholars during reintegration (e.g., Ai and Wang (2017)), there is a need for more research that explicitly examines the role of transnational capital in shaping their reintegration experiences. Investigating how returnee scholars leverage their transnational social and cultural capital during the reintegration process can provide researchers with deeper insights into the dynamics and outcomes of academic reintegration. Meanwhile, few studies have focused exclusively on returnee scholars' academic (re)integration in Chinese regional universities. Primarily administered and financed by provincial or municipal governments, Chinese regional universities account for the majority of Chinese universities. Compared to Chinese "double first-class universities," Chinese regional

universities, which receive less funding and provide a research environment less supportive of high-quality international research, may pose more difficulties for the reintegration of returnee scholars. The current research sheds light on these challenges by paying special attention to local contexts and the broader academic policy and culture of the state and society. Thus, the research questions addressed in the current study are as follows:

1. What challenges do returnee scholars face during academic reintegration when returning to work in Chinese regional universities?
2. How do returnee scholars utilize their transnational capital to overcome challenges during the process of academic reintegration?

To address these research inquiries, we developed an analytical framework that combines insights from studies on academic return migration, reintegration, and transnational capital. Substantiated with qualitative, semi-structured interview data, this paper illustrates how returnee scholars have employed their "transnational capital" to transfer knowledge, networks, and resources that contribute to their own academic reintegration and the internationalization of Chinese higher education. In this study, academic reintegration refers to the process of returnee scholars adapting to their home academic environment after completing their studies or research abroad. Transnational capital, which comprises social and cultural resources acquired during the overseas experiences of returnee scholars, plays a significant role in addressing the challenges of academic reintegration (Zweig & Wang, 2013). This includes a range of assets, from academic knowledge and skills to networks and cultural competencies, gained in an international context (Bourdieu, 1986; Erel, 2010). By employing transnational capital as an analytical framework, this study provides a lens through which to examine the interplay between academic reintegration, transnational capital, and the challenges faced by Chinese returnee scholars.

The rest of this article is structured as follows: The second section reviews two relevant streams of literature on returnee scholars' academic (re)integration and presents the research gap. The analytical framework and methodology are then introduced. The fifth section presents our empirical findings, and the final section consists of a discussion, a conclusion, and recommendations for future research.

Literature Review

As China has achieved increased return migration of overseas-trained academics in recent years, a growing body of literature provides valuable insights into the evolving dynamics of returnee scholars' reintegration. One strand of literature focuses primarily on returnee scholars and their academic reintegration after returning to work at Chinese universities (Chen, 2017; Li et al., 2019). Another strand of research focuses on returnee scholars' transnational research collaboration (Shen & Jiang, 2021).

Returnee Scholars and Academic (Re)integration

Academic returnee scholars, alternatively referred to as "overseas returnee scholars" or *haigui* in China, are scholars who have pursued higher education or conducted research abroad and have subsequently returned to their home country (Wang et al., 2006). Among the growing body of scholarly investigations into returnees, special attention has been given to the process of academic reintegration of returnee scholars. Academic reintegration pertains to the process whereby returnee scholars, following a period of academic or professional engagement abroad, reintegrate into their domestic academic institutions. They aim to adjust and leverage their acquired experiences, skills, and networks for the betterment of their local academic context (Kim, 2010; Zweig et al., 2006). This process can involve various challenges, such as adjusting to an unfamiliar cultural and academic environment (Li & Pitkänen, 2018; Li, 2020a, b), establishing a new network of collaborations (Fan & Liu, 2021), and searching for research funding (Miao et al., 2017). Some of the most reported challenges include the following:

1. Reverse culture shock and intercultural reintegration: Returnee scholars may face difficulties adjusting to the cultural and academic norms in China, particularly if they have spent a significant amount of time abroad (Hao et al., 2017). Academic culture in China can be significantly different from that in Western countries, and the former is heavily influenced by traditional Chinese culture and *guanxi* network formation logic (Li & Tang, 2019; Li & Xue, 2021).

2. Lack of a local academic network (*guanxi*): Returnee scholars may find it difficult to establish new collaborations and networks (*guanxi*) with researchers in their home country. Cao (2008) states that China is a *guanxi* society in which one's career success depends more on who one knows than on how well one performs. For returnee scholars who have received academic training and spent significant time abroad, establishing new academic *guanxi* networks in their home country can be challenging, especially if their host university is not among the top-tier "double first-class universities" (Cheng et al., 2021; Fan & Liu, 2021).

3. Lack of effective academic policy or culture supporting high-quality teaching and research: Several studies (e.g., Ai and Wang (2017) and Li and Xue (2021)) have found that some universities do not have specific policies to support academic returnees' research work nor do they have appropriate evaluation standards for internationally peer-reviewed journal papers. International journal papers published in non–Social Sciences Citation Index (SSCI) journals, although recognized by the international academic community, are often not counted as scientific output at many Chinese universities (Ai & Wang, 2017).

4. Universities' administrative bureaucracies and complicated local politics: While professional and administrative support is essential for returnee scholars' successful reintegration, such a support system is often unavailable, and returnees may find themselves dealing with complicated interpersonal relationships with domestic scholars (Antal & Bartz, 2006; Cao, 2008; Cao et al., 2020; Li et al., 2015; Zweig et al., 2008). Returnees might be disheartened by unmet expectations. Consequently, they should receive robust support and a warm welcome

from senior leaders and colleagues, akin to what they encountered during their overseas studies or visits (Hao & Welch, 2012).

Academic reintegration can involve several dimensions, including (1) balancing teaching and research, (2) research collaboration and networking, and (3) adaptation to local academic and institutional culture. (1) *Balancing teaching and research* is an especially pertinent challenge for returnee scholars who return to their home countries after an extended period of study or work abroad. Since many Chinese universities emphasize the importance of research output, scholars often face the challenge of managing their research projects while also delivering high-quality teaching to their students. (2) *Research collaboration and networking* are central elements of academic reintegration, especially for returnee scholars. Returnee scholars, having spent a considerable amount of time abroad, might find themselves detached from the academic networks in their home countries. Conversely, they might possess expansive networks in their previous locations, which can be perceived both as an asset and a potential source of alienation at home (Jonkers & Tijssen, 2008). (3) *Adaption to local academic and institutional culture* refers to the process of adjusting to the norms, values, practices, and expectations of one's home academic environment after a period of study or work abroad. Since each academic environment has its unique culture, returnee scholars might face divergent opinions on academic freedom, varying research emphasis, different classroom dynamics, or expectations regarding pedagogical methods from what they have grown accustomed to abroad (Marginson, 2014). Meanwhile, institutional hierarchies and power dynamics can vary significantly between countries. Returnee scholars might find that decision-making processes, academic freedom levels, or the value placed on certain types of research differ markedly from what they experienced abroad. Adapting to these dynamics is a crucial part of their reintegration.

Returnee Scholars and Transnational Research Cooperation

Several studies have investigated the factors that influence returnees' transnational research collaborations. For example, Jonkers and Cruz-Castro (2013) found that overseas work experience is beneficial for returnee scholars' international research collaborations. Li et al. (2015) proposed a framework for analyzing the three factors that influence individual research collaboration behaviors: cooperation processes, cooperation from institutions, and research partners' characteristics. They also identified the primary factors that influence the cooperative behaviors of returnee scholars as their academic relationships in China, the overseas academic network they established before returning to China, and their research planning after returning to China. Whether returnee scholars' transnational capital can be fully utilized depends on the social and cultural environment of their country of origin and the organizational environment of institutions (Li et al., 2015).

Other studies have focused on the impact of research collaboration on academic output. Many studies have confirmed that research collaboration has a positive effect on academic output (e.g., Lei and Guo (2020); Li et al. (2019)). This promotes returnee

scholars' personal academic and professional development, improves their research level, meets their endogenous needs for lifelong learning and personal academic interests (Lei & Guo, 2020), ameliorates the scientific research quality of domestic scholars and institutions, enhances the degree of internationalization and international academic influence of domestic scholars (Li, 2020a, b), and increases the quantity and quality of published papers. Shen and Jiang (2021) showed that although university prestige does not affect Chinese returnee scholars' academic productivity, their supervisors' support and collaboration play a key role in enhancing that productivity. Meanwhile, Zhu et al. (2021) revealed that the intensity of cooperative relationships has a significant negative impact and a major regulatory effect on university research performance.

Third, some studies have examined the extent of returnees' academic collaborations and networks. Jiang et al. (2020) found that a considerable proportion of Europe-trained Chinese Ph.D. returnees had co-authorships with their supervisors during their doctoral studies, and most maintained these research partnerships after returning to China. Similarly, Wang et al. (2006) discovered that after returning to China, the amount of academic cooperation among returnee scholars increased, and the focus of cooperation gradually changed from inter-institutional and transnational cooperation to inter-institutional cooperation. However, Miao et al. (2017) found that the average percentage of internationally coauthored papers decreased after Chinese scholars returned to China (Miao et al., 2017). Fangmeng (2016) also found that scholars with high-quality publications in the USA experienced diminished collaboration intention after returning to China. If academic returnees focus on reconstructing the domestic academic network or over-relying on the domestic academic network (local resources), then their advantages in international research cooperation will not be reflected (Ai & Wang, 2017).

Existing studies on returnee scholars' reintegration have mostly discussed their academic performance in relation to research activities, especially their academic performance and output (e.g., Li et al. (2019)). However, less attention has been paid to how returnees adjust to teaching and tutoring students while balancing teaching and research tasks as part of their academic reintegration. In addition, numerous studies have explored how returnee scholars reintegrate into elite overseas returnee recruitment programs (Fan & Liu, 2021; Jiang et al., 2020; Li et al., 2018) or elite Chinese universities, such as those belonging to the "double first-class universities" (Li & Xue, 2021; Yi, 2011), while few have examined the reintegration of returnee scholars into regional universities. Some scholars (Ai & Wang, 2017) have noted that it might be more challenging for returnee scholars to reintegrate into regional universities, as those universities have fewer resources and less support for high-quality international research. This situation complicates competition for research funding.

Analytical Framework

This study used transnationalism and transnational capital as analytical lenses to analyze Chinese returnee scholars' reintegration through in-depth, semi-structured interviews. *Transnationalism* can be described as a social process whereby

individuals, families, and groups engage in cross-border activities that involve ongoing and sustained social relationships, networks, and practices across national border (Faist, 2010). It considers return migration an important part of the migration cycle (Vertovec, 2009) and highlights the sustained transnational social and economic connection to multiple countries that migrants maintain via a common sense of belonging or other types of group affinity (Levitt, 2001). Returnee scholars are important actors in transnational academic mobility and global innovation networks, as they bring with them knowledge, skills, and social networks that bridge the gap between different academic and cultural contexts. Scientists' mobility can enhance their skills and knowledge and create positive externalities for their home countries by transferring technological and human capital (Li et al., 2018).

Returnee scholars possess transnational capital derived from their overseas educational experiences and the skills and knowledge they acquire while studying or working abroad. Transnational capital is conceptualized as a composite of social, cultural, and economic assets that individuals amass through their engagements in diverse national contexts (Zweig et al., 2004). Such capital is instrumental for scholars in facilitating their reintegration into their native academic environment. Armed with their overseas academic insights, affiliations, and expertise, returnee scholars emerge as potent catalysts for transnational knowledge dissemination and collaborative research endeavors. A study by Li et al. (2018) focusing on participants of China's "Thousand Talents" youth initiative reveals that these returnee academics adeptly harness their transnational capital to foster their professional growth and ascend in the Chinese academic hierarchy. In environments supported by encouraging policies, these scholars are well-positioned to introduce innovative methods in both teaching and research, champion the generation of transnational knowledge, and pioneer novel disciplines and avant-garde research domains (Chen, 2017). Furthermore, Jonkers and Tijssen (2008) have devised a comprehensive framework that integrates scientific, social, and human facets of capital to delineate the professional affiliations, knowledge spectrum, and competencies of researchers.

Transnational capital builds upon Bourdieu's (1986) theory of capital and extends the analysis to the transnational realm, highlighting the interconnectedness of actors, institutions, and resources across borders. While Bourdieu primarily focused on economic, social, cultural, and symbolic capital within national contexts, transnational capital theory extends these concepts to incorporate the transnational and global dimensions of capital. It recognizes that in a globalized world, individuals and groups can acquire and deploy various forms of capital in multiple countries or regions simultaneously, blurring traditional boundaries and enabling transnational practices. It emphasizes the ways in which transnational networks, resources, and connections shape and influence social, economic, and cultural processes. In the context of academic mobility and return migration (Vertovec, 2009), Bourdieu's forms of capital are often applied to analyze how individuals' cultural and social backgrounds, education, and networks influence their experiences and opportunities in the academic field (Braun Střelcová et al., 2023). Transnational capital, on the other hand, expands the analysis beyond a single national context and examines how

scholars navigate and capitalize on resources and connections across different countries or regions (Zweig et al., 2004). By employing the framework of transnational capital, we gain a comprehensive lens through which to explore how transnational academic networks and resources influence career trajectories, research collaborations, and knowledge production during returnee scholars' reintegration.

Despite theories of transnationalism and the literature on returnee scholars covering different facets of intellectuals' return migration, there are still knowledge gaps that need to be addressed. While previous studies have examined global academic mobility through Bourdieu's conceptualization of capital (Braun Střelcová et al., 2023), fewer investigations have examined the relationship between transnationalism, transnational capital conversion, and returnee scholars' reintegration, particularly regarding whether the academic knowledge or transnational human and social capital (Cañibano et al., 2016; Horta & Yonezawa, 2013) they have gained abroad might distinguish them from local scholars during their academic reintegration. The concept of transnational capital offers a lens through which to understand the resources and connections returnee scholars accumulate across national borders and how these assets influence their reintegration into their home academic environments. Overseas study and research visits can also be transformative experiences that allow students to build new understandings and adopt new practices for teaching and conducting research. This enables returnee scholars to conduct independent research and develop critical thinking, practical abilities, awareness of academic norms, leadership, and language skills. They are influenced by their advisers' opinions of academic work, rigorous and serious study styles, and the desire to be models for others while maintaining their individuality (Li, 2017). By considering the transnational aspects of capital, this research provides insights into the role of transnational academic mobility, migration, and globalization in returnee scholars' capital accumulation and academic reintegration.

Considering the emerging perspectives discussed, we have developed an analytical framework to examine the reintegration journey of returnee scholars through the lens of transnational capital. Although transnational capital encapsulates facets of economic, social, cultural, and symbolic capital, our inquiry predominantly focuses on the nuances of transnational social and cultural capital and its implications for academic reintegration. *Transnational social capital* is conceptualized as the intricate web of relationships, affiliations, and resources that individuals or collectives maintain and operationalize spanning national frontiers. It encompasses the connections, memberships, and shared norms that facilitate cooperation, collaboration, and access to opportunities in transnational academic contexts (Levy et al., 2013). On the other hand, *transnational cultural capital* encompasses the cultural knowledge, skills, practices, and preferences that individuals or groups acquire and use across national boundaries. It includes language proficiency, educational background, cultural competencies, cross-cultural competencies, and familiarity with global research trends and practices (Ren & Liu, 2019). Our investigation identified two main themes: the challenges returnee scholars face during their academic reintegration and their use of transnational capital as a coping mechanism. With this analytical

framework, we sought to delve into the complex interplay of capital among China's returnee academic community, illuminating their skill in leveraging these facets of transnational capital to navigate challenges and overcome institutional barriers in their reintegration journey.

Based on the aforementioned perspectives, we developed an analytical framework to understand returnee scholars' reintegration within the context of transnational capital. While transnational capital can comprise economic, social, cultural, and symbolic capital, our research focused on transnational social and cultural capital and its role in returnee scholars' academic reintegration. *Transnational social capital* refers to the social networks, relationships, and resources that individuals or groups possess and utilize across national borders. It encompasses the connections, memberships, and shared norms that facilitate cooperation, collaboration, and access to opportunities in transnational academic contexts (Levy et al., 2013). *Transnational cultural capital* entails the cultural knowledge, skills, practices, and preferences that individuals or groups possess and deploy across national boundaries. It includes language proficiency, educational background, cultural competencies, cross-cultural competencies, and familiarity with global research trends and practices (Ren & Liu, 2019). In our analysis, we identified two themes: the challenges returnee scholars encounter during their academic reintegration and how these scholars use transnational capital to cope with these challenges. By using this analytical framework, we aimed to explore the dynamics of capital among returnee scholars in China, shedding light on how they utilize these forms of transnational capital, access a broader range of opportunities, and cope with inequalities and structural barriers during their academic reintegration processes.

Methodology

This study employed a qualitative design because this approach is suitable for exploring the status and process of research issues in specific situations, as well as determining the sequence of events and their causality (Denzin & Lincoln, 2011). Qualitative research also enables researchers to employ various data collection methods for conducting comprehensive explorations of social phenomena in a natural setting and to utilize inductive approaches for data analysis and theory formulation (Yi, 2011). Chinese returnee scholars working in regional universities were chosen as case studies to gain an in-depth understanding of their academic reintegration experiences. Data were collected via semi-structured interviews and analyzed using thematic analysis. A semi-structured interview approach was chosen as the main data collection method because it allowed the researchers and interviewees to delve into the experiences, academic expertise, and reintegration challenges of the returnee scholars. The interviews also made it possible to obtain various illustrations of and reflections on the participants' experiences through interaction (Schmidt, 2004).

Data Collection

The participants in the current study comprised of 18 university teachers, all of whom had earned their doctoral degrees abroad and had been conducting research overseas for more than 6 months. Given the scarcity of teachers with overseas study experience at Chinese regional universities, we employed purposive snowball sampling to collect the data. The geographical distribution, level, and category of the participants' universities, as well as the participants' genders, ages, teaching durations, professional titles, and subjects of study, were considered. The initial 11 participants were identified through personal connections and referrals from the corresponding author's friends. The remaining seven participants were contacted through the initial 11. The corresponding author conducted interviews with the 18 participants between May 2019 and October 2021. Among the interviews, 13 were conducted face-to-face, while five were conducted online because of COVID-19 pandemic restrictions. Eleven of the participants were female and seven were male, while 11 had carried out visiting research abroad, and seven had obtained doctoral degrees abroad.

The 18 interviewees were selected for the following reasons. First, they represented 11 different Chinese regional universities located in five different regions of China (northeast, east, southwest, south, and central). Second, they came from different disciplines: 11 were from the humanities and social sciences, and seven were from the natural sciences, life sciences, and engineering. Third, they represented two main categories of overseas studies: doctoral education and visiting research. Collectively, they represented a diverse cross-section of returnee scholars at Chinese regional universities. Permission to collect data was obtained from the Lingnan Normal University Ethics Committee and from the participants themselves. Prior to the interviews, the corresponding author explained the purpose of the study to the participants. All interviewees consented to have their interviews audio-recorded and signed the informed consent forms. The interviews were conducted in Mandarin Chinese and lasted 55–150 min. The interview quotes utilized in this article have been translated by the first author and the corresponding author. The corresponding author transcribed all the recordings. The interviewees verified and confirmed the transcriptions to ensure data accuracy. All personal information was removed to ensure participant anonymity. Detailed profiles of the interviewees are presented in Table 1.

Data Analysis

Based on the existing literature and guided by the analytical framework, we analyzed the data collected to identify recurring patterns, commonalities, and important aspects related to the academic reintegration process. Through an inductive approach to analysis, three themes were identified that encapsulate the process of transnational capital conversion and returnee scholars' reintegration: balancing teaching and research, research collaboration, and adapting to Chinese regional universities. These main themes were divided into subthemes, as shown in Table 2.

Table 1 Participants' profiles

Code	Gender	Age*	Duration of teaching	Title	Overseas experience	Subject	Location	Host country	Length of stay abroad
T1	Female	49	22 years	Professor	Ph.D. degree abroad	Marine engineering	Zhanjiang	USA	16 years
T2	Male	50	21 years	Professor	Ph.D. degree abroad	Comparative education	Zhanjiang	Japan	8 years
T3	Male	56	25 years	Professor	Visiting research abroad	Agronomy	Zhanjiang	Australia	1.5 years
T4	Female	48	23 years	Professor	Ph.D. degree abroad	Agronomy	Harbin	USA and Canada	18 months
T5	Male	35	13 years	Instructor	Visiting research abroad	Statistics	Chongqing	USA	1 year
T6	Male	51	22 years	Associate professor	Visiting research abroad	Materials science	Wuhan	USA	6 months
T7	Female	46	22 years	Professor	Ph.D. degree abroad	Materials chemistry	Hangzhou	Japan	3 years
T8	Female	54	26 years	Professor	Visiting research abroad	Education	Hangzhou	Japan	6 months
T9	Female	34	2 years	Instructor	Visiting research abroad	Engineering	Nanjing	USA	12 years
T10	Female	38	12 years	Associate professor	Visiting research abroad	Management	Nanjing	New Zealand	1 year
T11	Male	47	18 years	Professor	Visiting research abroad	Biogenetics	Nanjing	USA	1 year
T12	Female	31	3 years	Lecturer	Ph.D. degree abroad	Education	Nanjing	Australia	3 years
T13	Female	42	22 years	Associate professor	Visiting research abroad	English	Changsha	USA	1 year
T14	Male	36	6 years	Associate professor	Visiting research abroad	Psychology	Changsha	Australia	1 year
T15	Female	40	7 years	Lecturer	Visiting research abroad	Education	Guangzhou	Finland	1 year
T16	Female	48	15 years	Associate professor	Ph.D. degree abroad	Education	Qingdao	Finland	1 year
T17	Female	40	15 years	Associate professor	Visiting research abroad	Linguistics	Zhanjiang	Japan	6 years
T18	Male	52	6 years	Professor	Ph.D. degree abroad	Sociology	Guizhou	Britain	7 years

Age refers to age at the time of the interview

Table 2 Categorization system and coding of the analysis

Main themes	Challenges	Forms of capital	Utilization of capital to cope with challenges
Balancing teaching and research	Difficulty of balancing teaching and research	Transnational cultural capital	Prioritizing either teaching or research
	Managing different teaching styles and student expectations		Adopting student-centered teaching methods
	Emphasis on research output quantity over quality		Encouraging critical thinking and free discussion
	Lack of objective teaching evaluation system		Adopting relaxed and natural teaching styles
Research collaboration	Difficulty of establishing research team and network in China	Transnational social capital	Leveraging transnational research network
	Institutional barriers hindering cooperation		Becoming familiar with Chinese academic norms
	Critical role of transnational research network		
Adapting to Chinese regional universities	Difficulty in securing research funding	Transnational cultural capital	Maintaining high research ethics and rigor
	Limited academic resources and research funding		Adapting teaching methods to students
	Difficulty in tutoring students		
	Lack of administrative support		
	Excessive administrative interference in academic affairs		

Findings

In the following section, we present the experiences and reflections of the research participants to demonstrate how academic mobility and overseas experiences can be transformed into transnational capital, influencing the academic integration of returnee scholars upon their return to their home countries.

Balancing Teaching and Research

After returning to China, many returnee scholars face challenges in balancing teaching and research. Currently, the issue of Chinese universities "prioritizing research and neglecting teaching" is particularly prominent. Six interviewees (T6, T10, T11, T13, T16, and T17) cited the different evaluation standards for research and teaching as the reason for this imbalance. They opined that research evaluation indicators are easy to quantify and can positively affect university rankings. However, it is harder to evaluate teaching using quantitative indicators alone. Interviewees expressed doubts about the evaluation system for teaching and research at their respective Chinese universities. For example, seven interviewees (T3, T4, T6, T7, T13, T16, and T17) reported that university evaluations focus only on speedy publication and fail to consider the time needed for quality and impactful research. In addition, the evaluations fail to consider the social or economic impact of teachers' research. This reinforces the notion that teachers are eager to achieve quick success and immediate benefits through research. One participant shared the following thoughts on this topic:

> The evaluation mechanism for our research is 'short and quick': how many funds one gets and how many articles are published each year. We are eager to achieve rapid success with immediate benefits. We publish our work immediately, without taking time to accumulate more knowledge on our research topics, and I do not like the way we are evaluated. (T7, female, materials chemistry)

The interviewees also raised concerns about the teaching evaluation system at the Chinese regional universities where they are employed. For example, certain universities use peer, supervisory, and student evaluations to judge teaching quality. Three teachers (T13, T16, and T17) declared that such methods cannot objectively reflect teaching quality and that student evaluation of teaching is especially questionable, for instance:

> Some teachers have strict requirements for students; students give low scores to those teachers, so the teacher's final evaluation score is not good. Does 'not good' indicate that a teacher's teaching quality is not high? Therefore, [students' teaching evaluations] may sometimes be unreasonable. Now, I feel that students like the parents and teachers who serve them. They

[the teachers and parents] dare not offend the students. Some students give teachers low scores or do other things, and the teachers dare not control this. (T17, female, Japanese)

All interviewees concurred that teaching and research mutually reinforce each other. They believed that teaching and research are two important functions of universities. The basic responsibility of a university teacher is to cultivate talent through teaching, whereas research is the process through which a university teacher discovers problems and creates knowledge. However, five teachers (T13, T14, T15, T16, and T17) stated that people have limited energy and that it is difficult to perform both teaching and research satisfactorily. They can only find a balance between the two or choose one over the other. For example:

As a teacher, you really need to teach and conduct research, but your energy is limited. For example, if you have excellent courses—first-class courses, ideological and political courses—and you have to publish in a 'CSSCI journal' [the Chinese SSCI], your time and energy are not enough… It is generally said that teaching and research complement each other, but I don't think so. (T17, female, Japanese)

Although the returnees struggled to balance their efforts between teaching and research, the transnational cultural capital they acquired through overseas experience significantly influenced their teaching methods, content, and style. For example, four teachers (T6, T11, T14, and T15) applied the teaching methods that they had experienced abroad to their Chinese regional university classes and achieved good results. Returnees are eager to try different methods of teaching, such as flipped classrooms and other student-centered learning approaches that use small group tasks and discussions.

They also leveraged their transnational capital by inviting overseas academic contacts to give guest lectures or co-teaching, which enhanced student perspectives and received favorable feedback. One teacher's experience of observing a session in a church and adopting a similar style in her own classroom demonstrates how transnational capital inspires innovative teaching practices and breaks traditional boundaries to facilitate effective learning: For instance, one teacher said:

During one of my classes, the teacher held a session on community education in a church where refugees were also accommodated in a small room. The teacher asked each group to present their reports in this room. This teaching approach sparked an idea in me, and I decided to adopt this style in my classroom as well. For instance, I arranged a few round tables in the classroom and moved some desks to the corridor to enable students to have discussions in small groups. I was able to do this confidently due to my teachers' belief that classrooms should have no boundaries, and if breaking those boundaries facilitates learning, then it's worth doing. (T15, female, education)

In addition, several interviewees expressed the impression that foreign students dare to critically challenge authority and that the overseas classroom atmosphere is freer and more relaxed. In contrast, Chinese university students are accustomed

to receiving knowledge from their teachers and are often hesitant to ask questions in class. Therefore, some returnees use their transnational cultural capital to reform their classrooms, ensuring that students enjoy a more relaxed classroom atmosphere to promote active student participation and critical engagement in the classroom. For instance, one interviewee said:

> After returning to China, I made two changes to my teaching. First, my teaching style has become more relaxed and natural. The atmosphere of foreign academic lectures is informal. Typically, anyone can ask questions while listening to reports during lunchtime. Sometimes, people sit on the ground to listen. Influenced by these practices, I created a relaxed atmosphere in my classes. Second, I ask more questions and encourage more discussion. I used to do this less in my class… When I present classic theories in class, I ask the students if anyone disagrees. When I attended lectures given by Nobel Prize experts abroad, people freely asked questions about these experts' classic theories. Therefore, I encourage my students to think critically and challenge their own authority. (T14, male, psychology)

Research Collaboration

In our interviews with the 18 returnee scholars, the issue of research collaboration emerged as a significant challenge to their academic reintegration. Many interviewees expressed the opinion that research is not only about individual efforts but also about relying heavily on research team collaborations to overcome scientific challenges. However, the returnees also stated that their universities' research evaluation systems made it difficult for them to find research partners in China. Six interviewees (T5, T13, T14, T15, T16, and T18) declared that the current teaching and research evaluation system for Chinese university teachers places much emphasis on the order of the author and very often only recognizes the achievements of the first author and the first author's institution. This approach significantly hinders university teachers' willingness to cooperate and prevents the formation of a team spirit, which affects the construction of research and innovation teams, as one of the interviewees expressed:

> The domestic evaluation mechanism does not encourage teachers to cooperate, as only the first authors of papers published in domestic journals are recognized. However, recognizing the first author and the corresponding author, as in the English SSCI, can promote cooperation between them. (T18, male, sociology)

Regarding cooperation with Chinese colleagues, some teachers mentioned difficulties in finding true partners because of competition between schools within the same university:

> One school at our university invited a highly regarded professor to provide guidance on research funding applications. I was interested in attending the meeting, but when I arrived in the meeting hall, I found that it had ended. Later, I heard from someone that news of the event had spread and that too

many people wanted to attend. However, because the liberal arts majors belonging to the school were competitive, the organizers did not want participants from other schools to attend. So, the organizer changed the event time. This was unusual: it was like two children fighting over candy. At that moment, I realized how difficult it was to share my knowledge with China. As a young teacher, I longed for growth and guidance, but I did not know where to begin. (T15, female, education)

Meanwhile, it was found that three returnee teachers (T9, T12, and T17) were not familiar with the Chinese academic environment and lacked comprehension of Chinese academic norms. They also found it difficult to establish their own academic networks and encountered many difficulties in academic cooperation with their Chinese counterparts:

I find it challenging to apply for research funding. First, I am not very good at writing Chinese project applications and am unfamiliar with domestic norms and rules. Previously, I conducted postdoctoral research in the United States and wrote many project applications. However, some experts told me that I could not write it [the Chinese project application] in the same way as an English project application because the [English] text format was not in line with the Chinese format. What shocked me the most was that I had to write about what Professor A had done at University B in China. (T9, female, chemical engineering)

Despite the challenges of finding local or domestic collaboration partners, returnees rely on their transnational social capital to achieve better academic performance. The transnational academic network with which they engage allows them to convert transnational social capital into professional development opportunities and stay up to date with the newest research development. Six teachers (T4, T12, T14, T15, T16, and T18) took advantage of their overseas study experiences to cooperate and exchange knowledge with foreign teachers and peers by participating in transnational research projects, co-publishing papers, jointly developing international courses, and participating in international academic conferences. They also sought to establish cooperative relationships with foreign academic networks and to promote their personal academic development. Building and nurturing academic networks, particularly with former supervisors and foreign advisory teams, contribute to their enthusiasm, growth, and continuous learning in their academic pursuits:

I need to learn and build social networks. However, these relationships are unrelated to profits. Here, I refer to academic networks. Therefore, I made a conscious effort to connect with my former supervisors. The first time I contacted them after I returned to China, they were very warm and concerned about how I was doing with my academic work, what I was studying, and whether I should join their reading group—whatever. I felt like they were pulling me back to the way I used to be when I was a Ph.D. student, and I felt enthusiastic again. (T12, female, education)

The era of individuals working in isolation is over. Today, we see teachers perform well in research and grow up in teams. When applying for a project or writing an article, they work as a team. I think this type of team cooperation is beneficial. I joined my foreign advisory team and experienced such feelings. As my domestic master's adviser has retired and my doctoral advisor is no longer engaged in academic work, I do not have a team. At my school, we tried to establish a team but failed. This is because of competition among colleagues. In contrast, I have been working closely on projects with my foreign advisor team and have been continuously learning. (T15, female, education)

Adapting to the Chinese Regional University Environment

Chinese regional universities are eager to attract returnee scholars who they consider elite researchers with excellent academic training from abroad and who they expect to bring cutting-edge research and international research networks to their universities. However, upon their return to China, these scholars often find their academic development constrained due to low-ranking research platforms, insufficient funding, and a shortage of human resources at regional universities:

Because of the university's low rank and reputation, it is very difficult to secure research funding. Teachers face significant pressure to conduct research with limited funding. (T6, male, materials science)
Small universities such as ours receive little attention, have limited resources, and lack the necessary personnel. This makes it difficult to secure funding for research projects. (T16, female, education)

Interviewees also indicated that administrative authority tends to overshadow academic power in regional Chinese universities. The administrative departments of some regional universities interfere excessively with academic affairs, making it difficult for returnee teachers to adapt to the environment and pushing some teachers to even consider leaving:

I think there is a significant difference between universities. For example, there was a less-administrative atmosphere in Project 985 universities, similar to many foreign universities. The university secretary, counselors, and administrative staff members acted as service providers. However, at regional universities such as ours, there is too much chaos. Because of this issue, I was suppressed—really being suppressed everywhere. How can I pursue my academic career at such a university? I have no choice but to leave. (T12, female, education)

In addition, four returnee scholars (T1, T3, T6, and T18) stated that students at regional universities generally have poor basic skills and a weaker initiative to learn. If instructors at these schools were to teach advanced content in class, the students might not understand it satisfactorily. Thus, teachers need to adopt flexible teaching

methods that allow students more time to review materials, think more deeply, and explore problems. However, it remains difficult for students to achieve their desired learning outcomes. One interviewee said:

> When I came to this university, I taught graduate students, but their learning outcomes were unsatisfactory. The experienced teachers repeatedly told me that some students were of average quality. I may need to teach the same thing five or six times, but they may still not understand it. I have to explain and demonstrate things personally, which increased my workload. (T1, female, ocean engineering)

However, some returnee scholars still utilize their transnational cultural capital to enhance their teaching practices and adapt to the learning characteristics of Chinese university students. For example, 14 of the interviewed teachers reported that they try to improve students' learning initiatives, critical thinking, and teamwork abilities through critical pedagogy and the student-centered learning approach that they learned abroad. They emphasize active engagement, open discussions, and practical problem-solving activities to encourage students' active participation and reflection. By integrating their transnational cultural capital into their teaching methods, returnee scholars contribute to the improvement of the teaching and learning environment in Chinese regional universities, contributing innovative approaches and pedagogical strategies to enhance students' educational experiences:

> Before studying abroad, I focused on lectures. However, after returning, I focused more on encouraging my students to think critically. I presented them with a range of practical problems to solve and urged them to engage in discussions. When there was a significant event in the world or in China, I encouraged my students to meet and discuss it. I promoted open discussion and reflection. Like most teachers abroad, I want my students to be active rather than passive listeners. Nowadays, I have structured my teaching approach to actively engage my students. (T13, female, English)

Meanwhile, despite the challenges of the working atmosphere at Chinese regional universities, many returnee scholars are still keen on maintaining the same rigor and true passion for research at their current universities as they have witnessed abroad. After research visits or study terms abroad, returnee scholars are often impressed by the passion, high standard of research ethics, and rigor demonstrated by researchers at host institutions. First, many interviewees noted that researchers abroad mainly conduct research based on personal interests and passions, while Chinese teachers conduct research with more specific purposes. The latter often apply for funding based on national policies and industry hot topics. In addition, eight teachers (T1, T3, T6, T11, T12, T13, T15, and T16) stated that they were impressed by overseas teachers' rigorous attitude toward research; for example, they confirm research results repeatedly, conduct experiments carefully, and ensure that research conclusions are fully supported by evidence. This is in stark contrast to research attitudes in China. One interviewee said:

> After returning from Japan, I believe that we should be very rigorous in everything we do, because the Japanese have a more rigorous style. When I was in Japan, I had many ideas, but sometimes my boss disagreed. He continued to insist on the evidence. I had to find evidence, and not just rely on my thoughts…I had to provide tangible and visible evidence before he agreed. Although I would like to report many results in my article, he would not have published my results without 100% proof. (T7, female, materials chemistry)

This shows that returnee scholars bring with them the transnational cultural capital gained through their exposure to rigorous research practices, an emphasis on evidence-based decision-making, and the pursuit of personal interests and passions in research. Their experiences abroad serve as valuable resources for enhancing research quality, fostering a more vibrant academic community, and bridging the gap between international and domestic research standards. By leveraging their transnational cultural capital, returnee scholars can facilitate their academic reintegration and foster a more dynamic and rigorous research environment within Chinese regional universities.

Discussion and Conclusion

As the global economy becomes more interconnected, an increasing number of scholars who have developed transnational capital abroad are returning to their home countries. While the consensus is that academic mobility can greatly enhance one's personal and professional development, many scholars struggle to reintegrate after they return. Drawing on extensive interview data, the current study demonstrates how returnee scholars use the transnational capital gained from their academic mobility experiences to reintegrate after returning to their home country to work.

Our findings can be divided into two parts. First, returnee scholars face various challenges during academic reintegration when returning to work in Chinese regional universities, including the need to balance teaching and research due to the evaluation systems of Chinese regional universities, which prioritize research over teaching, institutional factors that affect scholars' willingness to collaborate with peers and colleagues, difficulties stemming from unfamiliarity with domestic academic norms, a lack of academic contacts, and difficulties publishing articles and securing research projects in China. Second, the findings underscore the importance of transnational capital in facilitating academic reintegration and addressing significant challenges, such as achieving a balance between teaching and research, promoting collaboration with peers and colleagues, and navigating institutional factors. The study emphasizes the role of transnational capital in enhancing pedagogical techniques, establishing academic networks, bridging global and local, and adapting to the local academic and institutional environment. In essence, transnational capital acts as both a facilitator and an asset in the academic reintegration process, enabling scholars to reintegrate more smoothly and contribute meaningfully to their home institutions.

The findings of this study illustrate transnational capital influences returnees' academic reintegration across the three dimensions. First, scholars with international exposure often return with a broader perspective on the symbiotic relationship between teaching and research. Exposure to international academic environments fosters an appreciation for both thorough research and effective teaching. Through their transnational experiences, returnees may be familiar with innovative pedagogical techniques and advanced research methodologies (Altbach & Knight, 2007). By leveraging these methodologies, they can navigate the dual demands of Chinese regional universities, finding a balance that complements both teaching and research demands (Huang, 2003).

Second, with their established foreign contacts, returnees can establish international collaborations, enhancing their home institutions' research portfolios (Wagner & Leydesdorff, 2005). These networks further enable co-authorships, research exchanges, and global conferences, increasing the visibility and impact of their home universities (Zweig & Wang, 2013). However, simply being involved in local and transnational academic networks does not necessarily guarantee that individuals will benefit from both local and global academic environments. The ability to understand, incorporate, and share the valuable aspects of different transnational capital is not always feasible and depends on a person's circumstances. Scholars' personal characteristics and external conditions can influence opportunities for collaboration and knowledge sharing, leading to either beneficial or restrictive environments.

Third, the case of Chinese regional universities offers a fascinating exploration of the relationship between academic mobility, the conversion of transnational capital, and academic reintegration. Our study found that scholars returning to work in Chinese regional universities encounter even greater challenges in academic reintegration, such as low-ranking academic development platforms, administrative bureaucracies, and lack of support systems. The skills and knowledge accrued by returnee scholars overseas can may at times conflict with domestic academic norms, leading to initial challenges in reintegration. These experiences are not just challenges but also resources. However, the intercultural competencies acquired abroad position returnees uniquely to mediate between different academic cultures (Teichler, 2015). These competencies enable them to navigate local bureaucratic processes, identify potential reforms, and harmonize international best practices with local norms (Kim, 2009). Rather than mere assimilation, they possess the potential to drive transformation within their home institutions. It also reaffirms the importance of a collaborative and supportive institutional system to facilitate academic reintegration among returnee scholars.

Finally, contrasting with previous studies that focused on returnee scholars' motivation as the driving force behind academic collaboration (Li et al., 2015; Wang et al., 2019; Zweig & Wang, 2013), our study emphasizes the institutional factors that influence their willingness to collaborate with peers and colleagues. We found that the evaluation system in some Chinese universities can create fierce competition among colleagues and faculty within and between universities,

further hampering returnees' motivation to seek collaboration. Institutions often prioritize contributions where the scholar is the primary author, or the institution is the primary affiliation. Furthermore, unequal resource allocation and heavy administrative bureaucracy can also suppress the innovative practices returnees introduce, thereby hindering the optimal utilization of their acquired transnational capital in academic reintegration, as returnee scholars' ability to bring transnational capital back home and make an impact depends on the prevalent conditions in their home institutions.

Our study has several implications. First, returnee scholars need to adjust their expectations and find a balance between teaching and research in Chinese regional universities. Transnational cultural capital acquired abroad can aid in this process, as it includes intercultural communication skills, global perspectives, and experiences with different academic practices. Returnees should seek mentorship, engage with the local academic community, and leverage their transnational research connections for support and resources.

Second, Chinese regional universities should establish a systematic academic reintegration support system, reassess their evaluation policies, and provide research network-building assistance. Moreover, as previous studies have shown that returnees might suffer a drastic decline in research output during the initial period after returning (Li et al., 2019), it is vital for Chinese regional universities to optimize their evaluation systems so that returnees have a "buffer period" in which to reintegrate rather than become overstressed or burned out. A more balanced evaluation of teaching and research is needed so that returnee scholars can fully utilize their transnational capital. Universities can offer various forms of support, adjust evaluation systems, and promote the utilization of transnational social capital to link domestic and overseas academic networks and institutions, thereby enhancing the internationalization of Chinese regional universities.

Lastly, this study shows that many Chinese regional universities lack substantial research funding and the financial support to reintegrate talented overseas returnees. The Chinese government could allocate more funding to regional universities to support the academic reintegration of returnee scholars. Additionally, reforms are needed to balance funding allocation between elite and regional universities. Furthermore, the Chinese government and local universities should continue to send scholars abroad for training and collaboration to enhance their global perspectives and promote academic excellence.

Despite the valuable contributions of this study, it has several limitations. First, because the participants have subject backgrounds in the humanities and social sciences, natural sciences, life sciences, and engineering, further studies should be conducted to evaluate whether other subject backgrounds affect academic reintegration processes differently. Second, as this study focused only on returnees working in regional Chinese universities, future studies should examine whether returnees working in elite Chinese universities and regional universities have different trajectories of academic reintegration.

Data Availability For inquiries regarding access to the data used in this article, please contact corresponding author Dr. Bing Zuo at zuobing2006@163.com.

Declarations

Conflict of Interest The authors declare no competing interests.

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