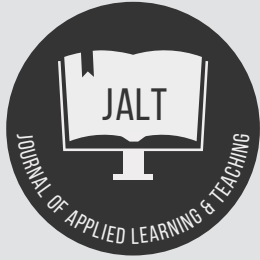


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Should I stay or should I go? International students' challenges and opportunities to secure employment in their host country after graduation. A scoping review using PRISMA

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Keywords

Graduate employment;
graduate skills;
international education;
employability;
post-graduation work.

Abstract

The opportunity to find employment is often a key push factor for students to study abroad. However, previous research has established that international graduates often face difficulties in securing employment in their host country and have a lower employment rate compared to local graduates. Although some research has been conducted on this topic in the Australian context, to date, the problem has been under-researched elsewhere. The aim of this scoping review of the literature is to address this gap and examine the challenges faced by international students when seeking employment in their host countries after graduation, as well as the potential opportunities offered to them. 18 articles were identified and were included in the review. Content analysis of the data was undertaken using NVivo 12.0.

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Introduction

The internationalization of higher education (HE), student mobility and employment in global labor markets are links on the same chain (Guruz, 2011). They have implications upon each other which not only affect international education but consequently can impact a nation's economy through its policies on employment for graduate skilled labor (Blackmore et al., 2014).

Graduate mobility, often referring to international graduate students' ability to remain in their host countries for employment upon graduation (Wut et al., 2022), is a complex and often understudied area comprised of graduate skills or skills mismatch (Pham & Jackson, 2020; Pham & Saito, 2020; Santandreu Calonge et al., 2019; Calonge & Shah, 2016); graduate outcomes; lucrative international student fees; education policies and immigration policies which are often linked to the processes of economic development (Cameron et al., 2019; Mok & Han, 2016). Despite these complexities, the prospects of finding employment after graduation is often a significant push factor for students to study abroad (Cameron et al., 2019). However, international students who decide to study in a foreign country often face significant challenges in securing employment after graduation (Scott et al., 2015; Khanal & Gaulee, 2019; Tran et al., 2020; Sofat, 2021; Tran et al., 2023).

Previous research in several countries has indicated that these challenges are often due to several factors, including local language proficiency (Mathies & Karhunen, 2021; Zainuddin et al., 2019), mismatch between the skills employers expect and the skills graduates have (Brunello & Wruuck, 2019; Tymon, 2013; Di Pietro & Urwin, 2006), cultural differences and cross-cultural competence (Nguyen & Hartz, 2020; Jackson, 2017; Mehdizadeh & Scott, 2005), a lack of local professional/social networks (Tran et al., 2022b; Alho, 2020), and familiarity with the local job market (Huang & Turner, 2018; Blackmore et al., 2017). In addition, international graduates may, in some contexts, face discrimination and bias from potential employers (Tran et al., 2023; Coffey et al., 2021; Desbiens & Vidaillet, 2010), making it even more difficult for them to find suitable job opportunities. Furthermore, visa restrictions and complex immigration regulations can limit their eligibility for certain types of employment (Tran et al., 2020) and make it difficult for them to remain in the country after graduation. Despite these challenges, many international graduates persist in their efforts to search for work opportunities in their host country, driven by the desire to settle down, gain practical experience and establish a career in their chosen field.

Although some research has been carried out on post-study work in Australia, the United States and in the United Kingdom, to date, only a limited number of studies, apart from perhaps Han et al. (2022), examine international students' employability challenges and opportunities post-graduation globally, in the last five years. Additionally, no single study exists which addresses the two research questions set for this exploratory article. For these reasons, a scoping review was conducted to systematically map the research done in this area, as well as to identify any existing gaps in knowledge. This study, therefore, aims to contribute

to this growing area of research by providing fresh insights into the global field of graduate employment.

This study proceeds as follows: Section two reviews the literature and presents the theoretical framework, section three lays out the methodology and conceptual framework, sections four and five present, analyze and discuss the results. The final section concludes and discusses implications.

Background

Employability skills and graduate employability

Employability is a multi-dimensional, competence-based construct (Römogens et al., 2020) that has grown in currency in the last twenty years, used in higher education and government policies globally. However, employability remains a "woolly concept to pin down" (Cranmer, 2006, p. 172) due to the different definitions, meanings, and usage of the term. While there is no one fixed definition of employability, common across the literature is that employability focuses on the lifelong attainment of skills and attributes that will prepare people for gaining and keeping employment (Römogens et al., 2020; Osmani et al., 2019). Yorke's (2004) definition of employability refers to a "set of achievements, skills, understandings and personal attributes – which makes graduates more likely to gain employment and be successful in their chosen occupations" (p. 8). Hillage & Pollard (1998) focus their conceptualization of employability on the individual's ability to "realize potential through sustainable employment" (p. 2) over the course of their working life and have the necessary skills to find fulfilling work. Yorke and Knight's USEM (Understanding, Skills, Efficacy, Metacognition) model proposes that employability needs to be embedded in the curriculum as employability is a strength to 'good learning' rather than something that detracts from the academic curriculum. In their influential model for thinking about employability, Yorke and Knight also stated that employability is "not something static but something a person can develop throughout life" (Yorke & Knight, 2006, p. 3).

Common across these widely referred-to models of employability is it being something more than gaining employment but rather a focus on the transferability of skills across different occupation domains, circumstances, and the lifelong development of employability skills. Often these skills are provided as a list of generic skills (Succi & Canovi, 2020) and knowledge such as "problem solving, leadership, critical thinking, interpersonal skills, adaptability, teamwork, and personal qualities" (Krishnan et al., 2021, p. 29).

As employability is difficult to define and measure, higher education institutions and government policies often interchange the term with employment outcomes (Behle, 2020), resulting in crude statistics on employment rather than employability and a focus on job-getting as opposed to the ability to "create and sustain work, over time" (Bennett, 2019, p. 32). Short-term metrics, league tables and funding have been tied to graduate employment outcomes, such as graduate destination surveys, rather than the actual employability of graduates (Jackson & Bridgstock, 2021).

With the 'massification' of higher education, the university degree has become a standard expectation for many jobs, hence the requirement for graduates to develop additional skills on top of degree knowledge (Barrie, 2006). Within countries such as Australia, the United Kingdom, Canada, and New Zealand, there has been a strategic push by higher education institutions to include career-readiness attributes and employability as part of their offering (Jackson & Bridgstock, 2018). There is also the growing expectancy that university graduates will not only have degree knowledge but also be able to immediately apply an array of skills that are essential to the workplace (Griffin & Coelho, 2019).

Work-readiness and the skills mismatch

Graduates are increasingly expected to be work-ready and able to apply both their degree knowledge as well as seamlessly transition to the workplace and use their generic skills (Winterton & Turner, 2019). With this, universities are expected to produce work-ready graduates and prepare their students with a diverse set of skills and capabilities (Pouratashi & Zamani, 2019). The preparation of work-ready graduates is a key purpose of universities due to the coupling of education and the labor market (Jackson, 2014; Tomlinson, 2012). The use of graduate attributes by universities as sets of lists of work-ready skills signals to the industry that the university has adequately prepared the graduate with a set of skills and capabilities that will see them transition successfully to the professional environment (Borg & Scott-Young, 2020; Hatzenbuehler, 2019; Daniels & Brooker, 2014). However, there is concern that universities are not adequately preparing graduates for the skills needed in the labor market and employers' expectations resulting in a skills gap (Salas-Velesco, 2021; Calonge & Shah, 2016; Mocanu et al., 2014). A recurrent complaint from employers is that there are no suitable graduates (Small et al., 2022). This indicates that there is a problem with the supply side and the perception that students are not graduating with the requisite skills and knowledge required by employers (De Lange et al., 2022; Osmani et al., 2019).

In the literature, the exploration of employability from the perspectives of the graduate, the employer, and higher education and the differences between these perspectives yields a gap that adds to the challenges of graduates, particularly international graduates, and perpetuates the skills mismatch. These views are subjective and continuously evolving, which means there is a potential risk of a constant gap between the skills the graduates acquire at university, the employers' needs, and market requirements (Mansour & Dean, 2016).

Logistical challenges

Han et al. (2022) argued that "a country's immigration policies can play a critical role in influencing international graduates' settlement decisions and work integration" (p. 183). Employment visa processes are often complex, lengthy, and costly for employers with no guarantee of obtaining a working visa for an international graduate, so organizations tend to recruit from the local talent pool. This complication

puts international graduates at a disadvantage in the host country.

Furthermore, other practices in some countries, such as the prioritization of hiring citizens or permanent residents of a country over hiring of immigrant employees or requiring organizations to provide evidence that the position prioritizes local candidates (Han et al., 2022), may again put international graduates at a significant disadvantage.

Theoretical framework

Various theoretical frameworks have been used in the literature that address the employability concept. For this systematic review, the authors of this article opted for the Human Capital Theory (HCT) (Becker, 2009).

HCT posits that investment in education and training positively affects performance, productivity and, ultimately, the general economy by enhancing knowledge and skills and making graduates employable. This, in turn, supports economic productivity and provides, in theory, better compensation for new market entrants (Herrmann et al., 2023). The aim of the education system is to support the development of human capital, which includes developing transferrable skills and competencies that can add value to graduates' employability. This is considered general human capital. Specific human capital is developed through education, training and experience and may potentially be less transferable and may not support graduate mobility. The education system should be designed to contribute to both categories of human capital development (Mocanu et al., 2014). Human Capital considers multiple dimensions: person, organization, and market. The first dimension suggests that individuals can boost their earning potential and overall economic value by investing in their own human capital. The organization level investigates the collective competencies of employees within an organization setting. Finally, the macro-level, or the labor market, is concerned with the overall competencies available in the workforce by specifically considering academic qualifications (Smaldone et al., 2022).

The relevance of this approach to the current research lies in its emphasis on investing in human capital, with higher education being a crucial component that international students seek from international universities. According to Tran et al. (2020), higher education can enhance the likelihood of securing better job prospects and higher income in the host country where international students complete their degrees.

When discussing the challenges and opportunities of graduate employment in their graduate host country, HCT can thus provide significant insights into the value of education and training as a means of enhancing employability. For instance, graduates who possess specialized skills, capabilities or knowledge that are in high demand in their host country may have greater opportunities for employment and career advancement. Similarly, graduates who invest in additional education or training may be more competitive in the job market, increasing their chances of securing

employment. On the other hand, Human Capital Theory can also explain some of the challenges that graduates may face in their job search. For example, if a graduate's education or skills are not valued in their host country, they may face difficulty finding suitable employment opportunities or end up underemployed, with lower-paid, lower-skilled roles, often referred to as brain waste (Mattoo et al., 2008). Additionally, graduates who lack the financial resources to invest in additional education or training may face limited opportunities in the highly competitive entry-level end of the job market.

When employing HCT as the theoretical framework, it is critical to explore the theoretical perspectives of the researchers. The premise of the human capital theory is to provide a universal mechanism of exploring and investigating the relationship between education and employment. It describes these relationships as interconnected concepts, which might be more suitable for a more relativist perspective and may not be as effective when using empirical methods (Blair, 2018; Marginson, 2017). Due to the closed-system nature of this theory, it does not account for the potential external factors that might impact this relationship since both education and employment exist in complex interconnected systems (Marginson, 2017). Another study highlights how the theory does not take into consideration how individuals with educational backgrounds end up in different occupations, although it does predict the association between education and income (Kivinen & Ahola, 1999). Kivinen & Ahola (1999) argue even the highest level of credentials and education cannot guarantee job security, thus providing another limitation of the closed system of HCT. Despite these limitations, HCT provided this paper with a theoretical framework for understanding the challenges and opportunities of graduate employment in their graduate host country, highlighting the importance of education and skills as a form of investment in human capital.

Methods

The study was conducted in the form of a scoping review (Arksey & O'Malley, 2005). A scoping review "differs from a systematic literature review in that it requires broader research aims" (Schwendimann et al., 2018, p. 3) and is an "ideal tool to determine the scope or coverage of a body of literature on a given topic" as it gives "clear indication of the volume of literature and studies available as well as an overview (broad or detailed) of its focus" (Munn et al., 2018, p. 2). Searches by three independent researchers from February to April 2023 focused on Google Scholar and Scopus, yielding a total of 97 results. Five phases were then undertaken: (1) identification of research question(s), (2) identification of relevant studies, (3) selection of studies, (4) charting of data according to issues, codes, and key themes, and (5) collating, summarizing, and reporting of results (Arksey & O'Malley, 2005).

Phase 1: Identify the research question(s)

The following research questions were investigated:

- (1) What barriers do international students face when seeking employment in their university education host country, post-graduation?
- (2) How do host countries and higher education benefit from opportunities of employment for international students, post-graduation?

Phase 2: Identify relevant studies

To focus on the most current research, database searches were limited to the past 5 years (2019–April 2023). Figure 1 shows Boolean search terms and numbers. The abstract and full-text screening was performed by three authors. The inclusion and exclusion criteria were agreed upon by the research team.

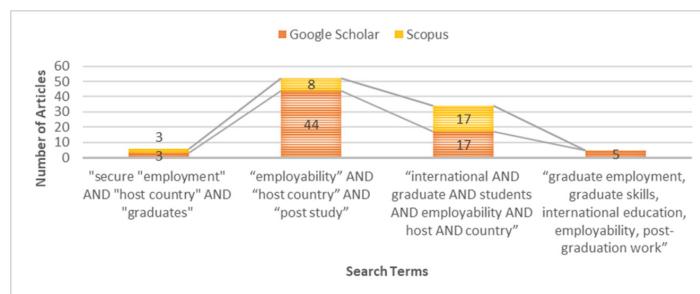


Figure 1. Search Terms, databases, and numbers.

Phase 3: Selection of studies

The review included industry reports, articles, and documents to minimize bias and provide a reliable and reproducible assessment. A protocol was drafted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines for scoping reviews (PRISMA-ScR, as shown in figure 2) (Tricco et al., 2018). PRISMA-ScR provides a standard methodology that uses a 20-item guideline checklist. Studies were screened and included in the review if they were: (1) written in English, (2) peer-reviewed (articles/book chapters), (3) reports, (4) Op-eds, (5) conducted in any country, and (6) published between 2019 and April 2023 (Table 1). Studies were excluded if (a) they were published in a language other than English, if (b) they predated 2019, if (c) full text was unavailable, if (d) was not related to employment or employment challenges/barriers/opportunities, if (e) it was not related to employment or employability post-graduation, and if (f) it was an unpublished thesis/dissertation. In total, 18 articles were selected for inclusion. Krippendorff's alpha coefficient (Krippendorff, 2011) was used to determine the degree of inter-rater reliability for abstracts (.85) and full texts (1.00). The three reviewers resolved disagreements on study selection and data extraction by discussion and consensus to reach 100% agreement.

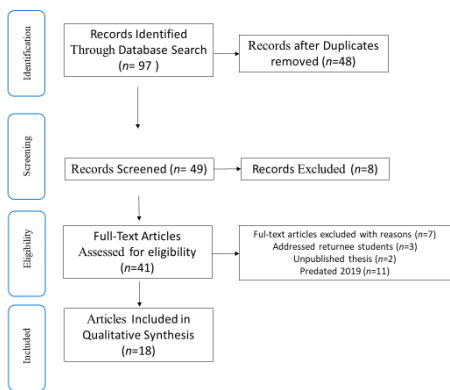


Figure 2. Overview of literature search process using PRISMA-ScR.

Results

Phase 4: Chart data

Data from eligible studies were charted using Excel. Table 1 provides a list of authors, year of publication (reverse chronological order), the title of the article, source, type of article (qualitative/quantitative/mixed methods), context, inclusion criteria and main themes from the article. Figure 3 graphically shows the countries where the included studies were conducted.

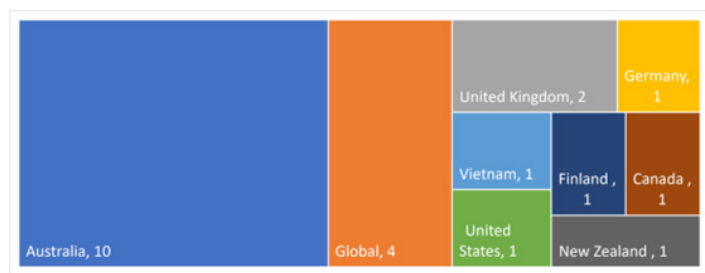


Figure 3. Country and number of articles where the included studies were conducted.

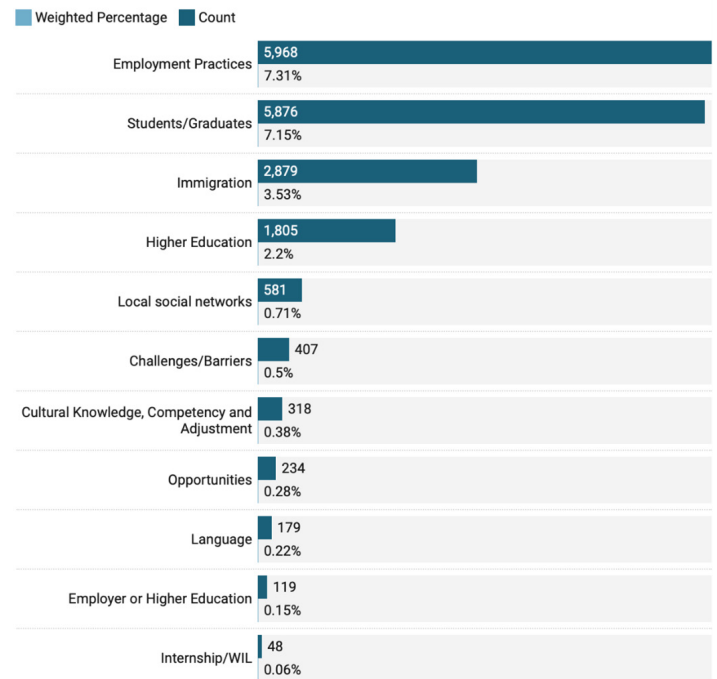
In this scoping review of the literature, 18 studies related to the challenges and opportunities met eligibility for review. Content analysis to identify themes was undertaken using NVivo 12.0.

Table 1. Overview of included studies.

#	Author (s) / Year of Publication	Article Title	Source / Article Type / Research Method	Context	Inclusion Criteria	Themes
1	AGCAS. (2023).	International Graduate Routes Narratives from the UK Job Market	<i>The Association of Graduate Careers Advisory Services</i> Report Mixed Methods	United Kingdom	1,3,4,5,6	<ul style="list-style-type: none"> Employment visas International graduates Employer's knowledge / experience in hiring international graduates Graduate internship schemes Barriers to post-graduate employment HE careers support
2	Orr, P., Forsyth, L., Caballero, C., Rosenberg, C., & Walker, A. (2023).	A systematic review of Australian higher education students' and graduates' work readiness	Higher Education Research & Development, 1-18. Qualitative	Australia	1,2,4,5,6	<ul style="list-style-type: none"> Gaps between HE and Industry Graduate work readiness Difference between work-ready and employability Industry experience Industry initiatives with HE – internships, mentorships Core employability skills Work Integrated Learning

3	Tran, L. T., Tan, G., Bui, H., & Rahimi, M. (2023).	International graduates on temporary post-graduation visas in Australia: Employment experiences and outcomes.	Population, Space and Place, 29(1), e2602. Qualitative	Australia	1,4,5,6	<ul style="list-style-type: none"> Immigration policy Field of study Employment trends based on discipline
4	Han, Y., Gulonowski, D., & Sears, G. J. (2022).	International student graduates' workforce integration: A systematic review	<i>International Journal of Intercultural Relations</i> Qualitative	Global	1,2,4,5,6	<ul style="list-style-type: none"> Immigration (permanent residence policies) Graduates' employment intention (motivation) Family influence Country and level of education Language fluency and skills Cultural knowledge and competence Local social networks (social capital) Work experience Employers' recruitment practices HE support in Immigration procedures Immigration policy Economy Safety and Stability of host country Psychological capital (agency) COVID Pandemic Pav disparity
5	Tran, L. T., Phan, H. L. T., Tan, G., & Rahimi, M. (2022c).	I changed my strategy and looked for jobs on Gumtree': the ecological circumstances and international graduates' agency and strategies to navigate the Australian labour market	<i>Compare: A Journal of Comparative and International Education</i> Mixed Methods	Australia	1,4,5,6	<ul style="list-style-type: none"> Immigration policy Employer recruitment practices (preference to local graduates)
6	Tran, L. T., Bui, H., Tan, G., & Rahimi, M. (2022a).	"It is not O.K to think that you are good just because you have graduated from overseas": Agency and contextual factors affecting Vietnamese returning graduates.	<i>International Migration</i> , 60(6), 43-59. Qualitative	Vietnam	1,4,5,6	<ul style="list-style-type: none"> Graduates' employment intention (motivation) Immigration policy Psychological capital (agency)
7	Weilage, C., & Maraz, G. (2022).	Online Study's Influence on International Student Employability Factors in Germany Vs. Overseas Based Students.	<i>Journal of Teaching in International Business</i> , 33(1), 7-30. Qualitative	Germany	1,4,5,6	<ul style="list-style-type: none"> Language fluency and skills Cultural knowledge and adjustment (cultural capital) Local social networks (social capital)
8	Coffey, J., Farivar, F., & Cameron, R. (2021).	The job seeking experiences of international graduates in the host country: Australia's lost opportunity?	<i>The International Journal of Human Resource Management</i> Qualitative	Australia	1,4,5,6	<ul style="list-style-type: none"> Employer environment and practices (Discrimination, lack of understanding of the immigration policy and procedures)
9	Jackson, D., & Pham, T. (2021).	International students and work-integrated learning: Overcoming challenges and looking to the future	<i>Advances in research, theory and practice in work-integrated learning</i> Routledge. Qualitative	Australia	1,4,5,6	<ul style="list-style-type: none"> Employability and WIL Local social networks (social capital) Language fluency and skills Cultural knowledge and adjustment (cultural capital) Immigration policy HE support in WIL Employer and supervisor support in WIL Psychological capital (agency)
10	Tran, L. T., Bui, H., Tan, G., & Rahimi, M. (2022b).	Post-Graduation Work Visas and Loopholes: Insights into Support Provision for International Graduates from the Perspectives of Migration Agents, Universities, and International Graduates.	<i>Evaluation Review</i> , 46(4), 438-464. Qualitative	Australia, Canada, New Zealand, the UK, and the U.S.	1,4,5,6	<ul style="list-style-type: none"> Immigration (permanent residence policies) Language fluency and skills Psychological capital (agency)
11	Alho, R. (2020).	You need to know someone who knows someone': international students' job-search experiences.	<i>Nordic journal of working life studies</i> . Qualitative	Finland	1,4,5,6	<ul style="list-style-type: none"> Immigration Local social networks (social capital) Employer recruitment practices Language fluency and skills Psychological capital (agency)

12	Baron, G., & Hartwig, K. (2020).	Workplace Experience of International Students in Australia	Journal of International Students, 2020 Vol. 10 No. 2, 218.	Australia	1,4,5,6	<ul style="list-style-type: none"> HE support in WIL (culture, support services)
13	Pham, T., & Jackson, D. (2020).	Employability and determinants of employment outcomes	Book Chapter, <i>Developing and utilizing employability capitals</i> (pp. 237-255). Routledge.	Global	1,4,5,6	<ul style="list-style-type: none"> Influence of governmental policies Immigration policy Graduates' employment intention (family) Employers' perceptions of graduate skills Cultural knowledge and adjustment (cultural capital) Psychological capital (agency)
14	Singh, J. K. N. (2020).	Why do Chinese international students studying in Australia repatriate? Australian Chinese graduates tell it all.	Journal of Further and Higher Education	Australia	1,4,5,6	<ul style="list-style-type: none"> Immigration policy Employer recruitment practices (bias and discrimination) Family influence
15	Tran, L. T., Rahimi, M., Tan, G., Dang, X. T., & Le, N. (2020).	Post-study work for international graduates in Australia: opportunity to enhance employability, get a return on investment or secure migration?	Globalization, Societies and Education	Australia	1,4,5,6	<ul style="list-style-type: none"> Immigration policy Local social network (social capital) Language fluency and skills
16	Cameron, R., Farivar, F., & Coffey, J. (2019).	International graduates host country employment intentions and outcomes: Evidence from two Australian universities.	Journal of Higher Education Policy and Management	Australia	1,4,5,6	<ul style="list-style-type: none"> Graduates' employment intention (motivation) Graduate Employability Language fluency and skills (English) Employer recruitment practices (bias and discrimination) HE support in Immigration procedures
17	Khanal, J., & Gaulee, U. (2019).	Challenges of international students from pre-departure to post-study: A literature review.	Journal of International Students, 9(2), 560-581.	Global	1,2,4,5,6	<ul style="list-style-type: none"> Language fluency and skills Financial issues Cultural knowledge and adjustment (cultural capital) Discrimination Personal issues (homesickness, isolation, culture shock, dietary issues - Psychological capital) Local social network (social capital) Immigration policy
18	Pham, T., Tomlinson, M., & Thompson, C. (2019).	Forms of capital and agency as mediators in negotiating employability of international graduate migrants.	Globalization, Societies and Education, 17(3), 394-405.	Global	1,4,5,6	<ul style="list-style-type: none"> Local social network (social capital) Employability skills Cultural knowledge and adjustment (cultural capital) Psychological capital (agency)



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Figure 4. Themes mapped to word count frequency.

Table 2: Overarching themes unpacked.

Overarching Themes	Subthemes	Leading Concepts
Impact of Host Countries' Immigration Policies on International Graduate Students	1. Influence of government policies and employment visa	<ul style="list-style-type: none"> Host countries economic stability and COVID pandemic Employment recruitment practices Higher Education support in immigration procedures
Higher Education Practices for Graduate Employment Readiness	2. Work Integrated Learning (WIL)	<ul style="list-style-type: none"> Multifaceted graduate skills Bridging gaps between employers' knowledge, perceptions of graduates' skills and experiences in hiring international graduates HE career support
International Graduates' Economic and Social Integration Capabilities into Host Countries	3. Psychological capital and integration skills 4. Graduates' employment intentions	<ul style="list-style-type: none"> Local social networks Language skills and fluency Emotional support for personal challenges when considering long-term living in a host country, such as homesickness, isolation and loneliness. HE support of WIL through culture support services Graduates' employment intentions based on financial concerns

- International graduates' economic and social integration capabilities into host countries

Theme 1: Impact of host countries' immigration policies on international graduate students

A host country's international talent pool teeters between the conditions of its immigration policies, growing economic status and the drive for and recognition of the impact which international talent can play on productivity, labor shortages and innovation (Han et al., 2022; Li, 2020). Numerous studies including Singh (2020), Tran et al. (2023), Coffey et al. (2021) and Jackson and Pham (2021), all point to this. However, the data found from these and other studies examined in this paper also indicate the discrepancies which rest between host countries' immigration policies and the challenges they

Figure 4 shows the number and percentage of word occurrences. Words related to external factors, such as employment practices, immigration-related issues, and local social networks, were among the most cited by the authors.

Assessment of quality, reliability and confidence

Pollock et al. (2022) indicated that critical appraisal and assessment of the quality of articles to be included in a scoping review were "not mandatory" (p. 1099).

Phase 5: Collate, summarize and report the results

The collation of data leading to results was gathered through a process of thematic analysis (Clarke et al., 2015). Through this process, patterns, phrases, and concepts were identified in the literature resulting in four subthemes and unveiling several leading concepts, as shown in Table 2. To present the results identified through the subthemes and leading concepts, the data was further summarized into 3 core overarching themes:

- Impact of host countries' immigration policies on international graduate students
- Higher education practices for graduate employment readiness

cause for international graduate students' employment. In this regard, the impact on international graduate students is said to be that of a "competitive disadvantage" when it comes to securing employment in their host countries' labor market (Tran et al., 2023, pp. 2-3).

Tran et al. (2023), Coffey et al. (2021) and AGCAS (2023) have highlighted that a major barrier towards employment opportunities for international graduates is due to their visa status. Immigration policies in many host countries, such as the UK and Australia, cater to various forms of temporary graduate visas, which do not have any security of employment, unlike employment security gained through an employer-sponsored visa (Tran et al., (2023). When reflecting on such policies in the UK, a report by the Association of Graduate Careers Advisory Series (AGCAS) (2023), emphasized the "lack of government support" in this process of visas, creating challenges for international graduates' long-term prospects in their host country. This is seen in the literature through Tran et al. (2022c), Tran et al. (2020) and AGCAS (2023) as having reciprocal effects on the potential of a host country's economic development through a loss in the international graduate labor market.

The results found in the data go further to link such challenges in government policies on international graduate student visas to "broader socio-economic contexts" (Tran et al., 2022a, p. 43). This is evident as shifts in economic growth and migration procedures, largely due to the COVID pandemic, led to no ease in visa policies but rather additional constraints for graduate employment opportunities (Han et al., 2022).

In addition to results indicating international graduates being an integral component in fostering economic growth in their host country, as suggested by Han et al. (2022), it was also found that complications in long-term visas for international graduates create barriers to the recruitment practices of potential employers. Pham and Jackson (2020) underscore this by bringing to light that long-term consistencies in the inability to employ international graduate students can develop into a lack of awareness of the talent which such graduates can bring to the growth of locally based industries, thus creating hesitations in the process for their recruitment. Alho (2020) further emphasizes this by stating that under such circumstances, recruitment patterns become "context-bound" (p. 3). This can leave international graduates vulnerable to loopholes and unethical practices in the pursuit of long-term employment in their host countries (Tran et al., 2022b).

Theme 2: Higher education practices for graduates' employment readiness

International graduate mobility, career intentions, employment outcomes and economic growth connect to practices carried out through higher education institutions for their graduates (Cameron et al., 2019). The results found in the literature indicated that to leverage the abilities of international graduates for employment in their host countries, higher education institutions need to be resilient in the development of their programs (Pham &

Jackson, 2021; Baron & Hartwig, 2020; Tran et al., 2023). This encompasses aspects of WIL, along with providing career support and advice; cultivating multifaceted skills; and acting as agents which bridge gaps between employers' knowledge of international graduates' skills and their hiring processes (Baron & Hartwig, 2020). As Cameron et al. (2019) expressed, not only will graduates benefit from this, but such practices are strongly in favor of the universities themselves as they become "an important attraction" in terms of (significant) revenue from international students (p. 550), £42 billion to the UK economy in 2022-23, AUS\$25.5 billion to the Australian economy in 2022. \$33.8 billion to the U.S. in 2022, and \$5 billion to France in 2022.

Data also indicated this nevertheless tends to be restricted to "degrees such as business, education, engineering and health sciences" (Baron & Hartwig, 2020, p. viii). Baron and Hartwig (2020) highlighted that such degrees often set requirements for successful graduation, which include WIL through mechanisms such as internships. This, as Orr et al. (2023) and Pham et al. (2019) suggest, do not necessarily cater towards multifaceted skills and resources for international graduate employability. In this regard, employers may be unable to recognize other essential skills which are not discipline specific. The results therefore pointed to gaps which exist in the practices of higher education, the work readiness of their graduates, and the perceptions of skills attained by graduates for potential employers in host countries (Han et al., 2022).

Theme 3: Graduates' economic and social integration capabilities into host countries

The findings in the literature indicate that although immigration policies and WIL are strong components which impact international graduate students' abilities to secure employment in host countries, graduates' psychological capital, social integration capabilities and economic concerns also play a large role (Khanal & Gaulee, 2019; Han et al., 2022; Jackson & Pham, 2021). Pham et al. (2019) pointed this out to be what they called the development of "key forms of capital" (p. 394). Similar sentiments were echoed by Tran et al. (2022a) and Alho (2020) when highlighting international graduates' integration into host countries' labor markets, with Alho (2020) stating that the process of integration is "embedded in national, cultural and institutional contexts" (p. 3). In other words, long-term stay in the context of host countries requires social integration capabilities, such as local language skills, which additionally aid in building psychological capital by lessening isolation through language barriers and strengthening a sense of belonging to the country (Weilage & Maraz, 2022; Khanal & Gaulee, 2019).

In addition to overcoming language barriers, the links between international graduates' social integration, psychological capital and economic concerns when considering employment in host countries requires multiple facets of support (Cameron et al., 2019; Singh, 2020). An example of this is integration through the development of local social networks. This generates an understanding of cultural diversity both by graduates and potential employers

(Jackson & Pham, 2021). This may also contribute towards emotional and psychological support by easing personal challenges for international graduates (Pham et al., 2019; Jackson & Pham, 2021).

The results suggest that support may also be gained through cultural integration services provided by higher education institutions (Weilage & Maráz, 2022, Baron & Hartwig, 2020; Jackson & Pham, 2021). WIL can be utilized to provide not only an understanding of graduate employment related skills, but also as a means to open another channel for social integration, psychological support, and also easing concerns of economic stability for international graduates (Weilage & Maráz, 2022; Han et al., 2022). Higher education services which increase cultural integration, also opens the window to what Tran et al. (2022a) identified as “interrelated contextual factors”, enabling international graduates to compare host and home contexts and economic strains or leverages which they may incur within both (p. 43). This awareness of economic stability upon graduating in host countries, in turn shapes the intentions of international graduates as to their decision to stay in their host countries or leave.

Discussion

Higher education institutions play a key role in improving students’ skills, enhancing companies’ performance, and transforming local societies (Chai et al., 2020). However, these institutions must still improve in several areas, especially in how they fully integrate international students: programs, workshops, internships, and professional opportunities (Dos Santos, 2021). Our results indicate that these students face three main barriers: a) personal issues, b) inefficiencies of higher education institutions, and c) obstacles from public and private organizations.

Personal issues

International students’ motivations to study abroad are multiple: to explore a new country, seek out adventure, experience a new environment, learn about other cultures, learn a new language, socialize and to develop networks (Casas Trujillo et al., 2020). Their main motivation, though, is mostly to boost their employability (Cho et al., 2021). However, international students face several issues when they move abroad (Tran et al., 2022): homesickness, isolation, cultural shock, or dietary issues (Khanal & Gaulee, 2019), as well as other barriers related to their psychological capital (Tran et al., 2022). Our analysis shows that support mechanisms (e.g., pastoral care structures) are vital and need to be put in place (Calonge et al., 2022) to ease an often-stressful transition. This critical support plays a key role in helping students overcome their personal issues when studying overseas (Chai et al., 2020).

Helping students to adapt to a new country is a key element because the challenges of acculturation to the stressors of academic study and everyday life in a foreign environment make these students a vulnerable population: they are more likely to suffer from stress, boredom, depression, and

mental health issues (Minutillo et al., 2020). Universities should provide international students with extensive pre-arrival information and organize orientation sessions on arrival with local students and international students with similar background to prepare them for their new environment (Jamilah et al., 2020). International students’ acculturation modes (assimilation, integration, separation) highly determine their professional career decision-making processes (Li & Lindo, 2022). However, they also face another challenge: the relatively short amount of time they have available to adapt to the new host environment. For example, in Australia, the duration of study is shorter than in other countries, which forces students to keep a high level of academic performance and quickly overcome cultural barriers such as misunderstandings, stereotypes, racial discrimination or conflicts related to lifestyle (Pekerti et al., 2020). In Australia, as well as in other countries, international students face a major issue: their English professional proficiency. Being proficient in English is among the top-sought skills for jobs (Abbas et al., 2021) and highly determines international students’ professional careers (Wang, 2020).

Inefficiencies of higher education institutions

According to our results, we can state that international students face several issues related to higher education’s low performance in different areas: gaps between tertiary institutions’ priorities and industry needs (Orr et al., 2023), lack of support from higher education institutions to help students attend cultural programs about the host country (Baron & Hartwig, 2020), and absence of initiatives to help students adjust to their new environments such as courses, orientation, and procedures (Jackson & Pham, 2021). Whilst international board exam equivalents are, for instance, not often accepted by host country institutions, forcing students to retake courses that they already took in their home country, leading to frustration, anxiety, and disengagement, Lee et al. (2019) spoke about academics’ “perceived burden in supervising international students during placement” (p. 1). Additionally, the disconnect between universities’ research priorities and new academic program development and companies’ needs (staffing, skills) makes it difficult for students to find jobs related to their major (Shams & Thrassou, 2019; Fakunle & Pirrie, 2020).

Obstacles from public and private organizations

With respect to the first research question, we identified some of the most important external barriers affecting international students: host country’s immigration policies (Tran et al., 2023), visa programs (AGCAS, 2023), lack of support from higher education institutions when applying to these visa programs (Han et al., 2022; Cameron et al., 2019), local employers’ recruitment practices (Tran et al., 2022a), employers’ racial discrimination when recruiting international students (Coffey et al., 2021), and the difficulty to develop local networks (Weilage & Maráz, 2022). One of the main challenges is the high level of domestic and international competition for jobs in the local job market. Graduates may also face challenges related to their work

experience (or lack thereof), as many employers require prior industry experience, besides internships and/or (unpaid) Work-Integrated Learning (WIL), before hiring. In fact, a report by Chew (2019) in the Australian context indicated that "employment outcomes" for graduates seemed to "improve for those who have accumulated more professional and life experience" (p. 9). Another challenge highlighted by Berquist et al. (2019) is that employers were often "unclear" (p. 21) or had limited understanding or awareness of international graduates' work rights and entitlements.

Language proficiency and cultural barriers, or discrimination, can also be a significant obstacle, particularly in countries where the official language or cultural norms differ from the graduate's native language and culture, as international graduates, even after having spent three or four years studying, may not have the "same level of local knowledge, understanding of local workplaces, and sustaining connectedness with Australia as those who hold PR or are local citizens" (Berquist et al., 2019, p. 21). In the United States, nativism, for instance, affects international students by restricting them to low-paid jobs (Allen & Bista, 2021). In the United Arab Emirates, there are Emiratisation targets, which relate to the number of UAE Nationals employed at that company. Pertaining to the private sector, there is a penalty for companies not meeting targets. In Finland, Anttila (2022) argued that many local employers refused to recruit foreign students because of their level of Finnish or/and because of stereotypes. Additionally, as post-study work visas are somewhat limited (number and time, 2-4 years), graduates often decide to either return home post-graduation (Song & Kim, 2022), or extend their stay by opting to study for another degree, if financial resources allow. For some students whose related family support is back in their home countries, upon graduation, this can lead to a lack of financial and housing support, if this has previously been awarded by the educational institution. In the context of the United Arab Emirates (UAE), aside from the recently launched 10-year Golden Visa, there can be visa challenges for certain nationalities, which may have a knock-on effect on certain candidates successfully being hired. Upon graduation, international students' visas expire after a 60-day grace period unless the family is resident in the UAE. If this is the case, male students over the age of 25 can stay on their parents' sponsorship, although they must register for another educational course of at least one year's duration. For females, this can continue until married, but it must also be for study purposes. The German Academic Exchange Service (DAAD, 2023) estimates that only one-third of international students (around 25,000) remain in Germany each year post-graduation. Australia has recently announced (July 2023) the extension of post-study work rights available to international students who graduate with selected degrees in health and medical fields, teaching, engineering, computer science, and agricultural fields (according to the 2022 Skills Priority List), linked to labor skills shortages in the Australian economy (Parkinson et al., 2023).

On the other hand, and with respect to the second research question, graduates may also encounter opportunities such as networking with professionals in their field, gaining exposure to new industries and work cultures, and accessing

specialized training or education programs not available in their home country. International graduates may have a unique advantage of providing new perspectives, diversity in backgrounds and cultures, as well as a global perspective to employers in the host country, as "attracting higher skilled migrants can improve productivity by bringing skills that take years to develop and are in relatively short supply (Parkinson et al., 2023).

Higher education institutions interested in keeping international students should therefore work with public authorities and industry to develop policies aiming to help these students enter the local labour market to gain local experience in industries with high talent shortages: health services, accommodation and food services, schools, family services, employment training, networking services, etc. (Mathies & Karhunen, 2021). These policies should include initiatives against discrimination in the hiring process, as there is tremendous potential in having international students stay post-study for a country's development (Zhao et al., 2022). In contrast, Chew (2019) highlighted a lost opportunity when he argued that Australia did "not benefit from the full productivity and participation benefits of this young, well-educated, globally competent and highly motivated cohort of graduates" (p. 11).

Limitations

This scoping review has several limitations. First, more than half of the studies included (55.56%) focus on the Australian context, which may give, to a certain extent, a skewed representation of the phenomenon. Employability is a global issue in higher education, with common approaches to enhancing graduate employability used. However, future research looking at non-western approaches, particularly visa limitations and work restrictions, could be useful. The barriers to employment identified in the scoping review are shown to be consistent across disciplines at undergraduate and graduate levels. To understand any nuances, a further research project could include identifying variations using methods such as longitudinal employment outcome data. Another limitation refers to the theoretical framework adopted for this study. HCT's limitation is that it oversimplifies the connection between education, skills, and compensation. Education can provide the market with a signal that the graduate is employable and potentially productive. However, it does not always consider the market requirements, technological advancements, and the broader social and economic aspects of the macro-environment (Herrmann et al., 2023).

Conclusion and implications

In considering country-specific human capital, which considers the context of applications and provides a slight adaptation of the original theory to a specific country, international students who are graduating from the host country may face challenges in securing employment and face disadvantages due to barriers in language, differences in culture and limited local networks. Furthermore, various factors, such as immigration policies and regulations, pose

a challenge for international graduates. The lack of support from higher education institutions in navigating these regulations and procedures adds to this difficulty. This may be due to the institution's limited resources or unfamiliarity with the requirements. Providing adequate immigration support may encourage international graduates to remain in their host country.

In addition, employers' perceptions of graduate employability and skills are influenced by their internal requirements as well as the market demands that continuously change over time. For instance, depending on the major the student has graduated from, previous experience may be needed for certain roles in the UAE job market, which is reactive to global technological changes and the UAE's ambitious aim to be a global leader.

Therefore, higher education institutions have an opportunity to enhance graduates' skill sets so they can better meet current market needs. It is evident that there exists a complex interplay between educational decisions and migration choices when considering all these factors holistically (Hurley, 2023).

The findings of this study have several important implications for future practice. There is a need to:

- a. Strengthen the cooperation between universities, government, and industry: such as the Victorian Government 'Study Melbourne' program that offers international students free career workshops and work experience opportunities with Australian companies. In South Australia, a partnership between government agencies, Regional Development Australia, and Study Adelaide provides the opportunity for international students to tour regional areas with the aim of promoting regional towns as a place to work and live and addressing skill and workforce gaps.
- b. Provide more industry-relevant internships and placements: Whilst Nachatar Singh (2023) argued that "South Asian graduates" in Australia were often employed below their skill level, had "experienced unequal opportunities in accessing employability-related programmes" (p. 7), "skewed towards domestic students" (p. 6) and not relevant to their degree, the Review of the Migration System report (Parkinson et al., 2023) indicated that temporary graduate visas "inhibit students' opportunity and ability to show they can succeed in the Australian labour market" (p. 32).
- c. Provide more relevant opportunities to develop entrepreneurial skills and social enterprises are required: Many universities have a focus on including entrepreneurial skills in the curriculum and have on-campus business 'startup' hubs and entrepreneurial challenges which are generic and open to the student cohort, which could result in international students experiencing barriers

to participation. A suggestion is to increase the relevance of opportunities to develop entrepreneurial skills and social enterprises by learning from the careers office's approaches to tailoring, mentoring, networking, and projects to account for "diverse prior learning" (Ray & Woodier-Harris, 2012, p. 640) and to overcome the "lack of recognition of different experiences, perspectives and background knowledge" (p. 642). Additionally, Rae and Woodier-Harris advise that there should also be support for academics "in designing and running programs for international students" (p. 653).

- d. Develop stronger connections with career office and alumni office: such as specialized units in university career offices with staff who are knowledgeable on issues impacting international student employability. Examples of this include the University of Adelaide 'China Career Ready+ Program' which connects Chinese students with both Chinese and Australian employers and offer opportunities for students to be mentored by experienced people from industry who have cross-cultural experience and knowledge. The University of South Australia partners with the Australian business Bupa to offer work experience to international students with the purpose of building social networks and an understanding of Australian business practices and etiquette. In the UAE, Career offices organize, in collaboration with industry and government, interdisciplinary hackathons to tackle global challenges impacting on society.

An example of providing information on evolving labor market needs is the 'Employable You' interactive web guide designed by the International Education Association of Australian (IEAA) and Australian government department, Austrade. Programs such as the University of Sydney Business School's 'Job-Smart' program help to articulate the specific skills the labor market is seeking. However, there would be benefits in universities, governments and industry collaboratively creating 'one stop shop' websites and resources to make it easy for international students to access information to assist with understanding, evaluating, and articulating their transferable skills as related to the labor market.

- e. Tap into "Cultural capital and 'soft-power' for host countries – Australia", for instance, "gains great international relations value from international students having an unambiguously positive experience while in the country" (Parkinson et al., p.105), thus willing to recommend their host university to future international students based on their academic experience.

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