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Beyond aspirations: A Qualitative Study of the Structural and Procedural Challenges Faced by International Doctoral Applicants

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ABSTRACT

This research investigated the challenges encountered by international doctoral applicants (IDAs) during the PhD application process at a research-intensive university (RIU). Following ethics approval, this qualitative study drew on the experiences of 68 IDAs via questionnaires and 26 semi-structured interviews. Grounded in Bourdieu's capital theory, the unequal distribution of economic, social, cultural, and symbolic capital, and how variations in access to these capitals influence IDAs' application experience were analyzed. Four key themes were constructed: i) challenges during enrollment in PhDs and identifying suitable supervisors, ii) challenges in making applications unique and inconsistent within the application system, iii) cultural or language challenges, and iv) digital and emotional challenges in doctoral interviews. Mature IDAs experienced balancing financial stability against passion for research and effective time management as challenges. Among the cultural disparities, perceptions of favoritism in domestic universities led IDAs to seek merit-based

opportunities abroad. Overall, this paper highlights the diverse challenges faced by IDAs and offers insights for universities seeking to develop more inclusive and equitable PhD admission processes.

Keywords: challenges, doctoral positions, Global South, Global North, international applicants, research-intensive universities

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INTRODUCTION

Pursuing a PhD at a research-intensive university (RIU) is a dream for many international doctoral applicants (IDAs), yet only a small percentage succeed (Brailsford, 2010; Soysal et al., 2024). The RIU in this article refers to a higher education institution that has a strong academic and research focus, strong global reputation, and international outlook; it supports high-impact research, consistently ranks in top global university ranking systems (QS and Times Higher Education rankings) and attracts a substantial number of IDAs (Ramachandra et al., 2024). These RIUs, often, though not exclusively, located in the Global North, offer outstanding research environments, strong career prospects, and opportunities for global academic contributions (Aggarwal et al., 2025; Brooks et al., 2012; Kivinen et al., 2017). Although global data on the percentage of IDAs securing doctoral positions at RIUs are limited, the overall doctoral admission rate at RIUs is approximately 6–15% (C. U. G. School, 2024; University, 2024) and is even lower for IDAs in some RIUs (Cambrige; N. T. G. School, 2024). This highlights the intense competition among IDAs for doctoral positions at RIUs, driven by structural constraints such as limited funding and a shortage of doctoral supervisors(Hancock, 2019; Neumann, 2007). In response to these constraints, RIUs prioritize seeking IDAs who are hard- working and competitive and support them by offering scholarships, as IDAs often demonstrate a strong ability to complete their doctoral studies within the designated timeframe, with low attrition rates (Kim & Spencer-Oatey, 2021). They also frequently produce multiple high-impact publications and significantly contribute to the university's research output, thus enhancing the university's global reputation and ranking (Horta, 2009). Moreover, recruiting international students aligns with the university's internationalization strategies, adding valuable diversity to the academic community (Horta, 2009). Additionally, governments continue to promote doctoral education as a strategy to support knowledge economies and foster economic growth (Sarrico, 2022).

Applying to doctoral programs at RIUs is rigorous and demanding, as IDAs are evaluated in terms of academic achievements, research experience, publications/conference presentations, grants, and collaborations (Jung et al., 2023; Syed Mohamed et al., 2020). This process requires time, persistence, and dedication, often resulting in IDAs managing multiple submissions to various universities under different supervisors. Some IDAs may also need to balance employment obligations, extending their efforts beyond regular work hours. Consequently, securing admission to an RIU is not only competitive but also challenging (Syed Mohamed et al., 2020). The challenges faced by international doctoral students, such as adapting to a new environment and managing anxiety and uncertainties related to completing their doctorate within the stipulated timeframe, have been reported (Dang & Tran, 2017; Gao, 2021; Kaya, 2020). A recent study highlighted the paucity of literature and the need for further research on preapplication doctoral communications (Burford et al., 2025). Questions persist regarding the procedural challenges, cultural differences and communication gaps faced by IDAs during the PhD application process. Therefore, a comprehensive study exploring the communication gaps, cultural differences, and procedural challenges experienced by IDAs during the PhD application process is warranted. Therefore, the present study aims to examine the experiences of IDAs during the doctoral application process, specifically with respect to procedural challenges, cultural

differences and communication gaps. The objectives also included highlighting the obstacles faced during PhD admission interviews.

Research question:

How do global inequalities and differences in access to economic, social, cultural, and symbolic capital shape the experiences of IDAs during the doctoral admissions process at RIUs?

LITERATURE REVIEW

The scientific literature has explored isolated aspects of the pre-PhD journey of IDAs and has investigated the specific challenges faced by IDAs leading to up to doctoral positions at RIUs.

Doctoral Readiness and Rigorous Selection Criteria:

The presence of doctoral-level thinking, such as the ability to create novel knowledge, argue, critique concepts, and analyze data, was considered a challenge (Syed Mohamed et al., 2020) nbased of Kiley's major conceptual challenges (Kiley, 2009). Deliberations on selecting doctoral supervisors and navigating the application process were the other key challenges reported by eight Malaysian PhD students (Syed Mohamed et al., 2020). Existing research indicates that doctoral readiness is assessed through a combination of academic and personal characteristics, although the relative emphasis given to these factors varies across institutions. For instance, top research institutions in China tend to prioritize academic achievement, whereas doctoral programs in European institutions often consider a more comprehensive range of criteria, including research experience, communication skills, and personal qualities (Jung et al., 2023)(Mantai & and Marrone, 2022). For medical doctoral aspirants, key motivational factors include early encouragement, peer support, viewing PhD as a symbol of competence, and employing resilient strategies, particularly in the journey to becoming clinician-scientists (den Bakker et al., 2024).

Communication challenges:

Effective communication between applicants and institutions during the predoctial application stage is challenging (Burford et al., 2025; Hunter-Johnson, 2021). Social media posts by Korean postgraduate students in the United Kingdom (UK) highlight the lack of clarity and transparency in the application process presented on university websites (Kim & Spencer-Oatey, 2021). Another study further reaffirmed the complex functions of doctoral admission webpages and highlighted the potential information gaps regarding specific PhD projects (Dangeni et al., 2024). Henderson et al. highlighted inclusivity concerns during preapplication doctoral communication, pointing out that supervisors were caught between their personal principles and institutional constraints, hindering inclusivity efforts (Henderson et al., 2025) and aligning with Posselt's findings on doctoral admission dynamics (Posselt, 2016). Additionally, cultural and social challenges posed significant obstacles for Latino doctoral applicants, particularly in terms of gaining admission to domestic Latin universities (Ramirez, 2011).

Personal Statements and Common Institutional Concerns:

At the institutional level, committee chairs of graduate research schools (GRSs) have identified common shortcomings in doctoral applications. These include negative recommendation letters, vague descriptions of academic programs, weak writing skills, critical remarks about previous institutions and poorly written personal statements (Appleby & Appleby, 2006). Compelling personal statements has a positive effect on the doctoral position selection committee (Jernudd, 1993). Applicants often construct personal statements with a clear rhetorical structure, designed to facilitate direct communication with potential supervisors reflecting their stance and engagement with academic writing (Hyland 2005). Studies have shown that doctoral applicants integrate personal narratives and self-references, highlighting their achievements in personal statements (Li and Deng, 2019), aligning with Ivanic's framework of writer identity construction (Ivanič & Camps, 2001) and Hyland's concept of stance and engagement in academic writing (Hyland, 2005).

Prior research highlights a broad range of criteria that shape doctoral admissions, from academic merit and personal motivation to communication, application quality, and cultural context. During interviews, weightage is often placed on applicants' reasons for applying, career aspirations, proposed research and personal attributes (Bavel, 2019). Taken together, these studies offer valuable insights into institutional expectations and applicant strategies. However, IDA's experience of navigating these processes is also influenced by systemic and structural challenges across different global contexts.

Conceptual framework:

The literature demonstrates that IDAs face a range of challenges during the PhD application process, including supervisor identification, funding security, communication, and institutional expectations. These factors can be understood through the lens of Bourdieu's theory of capital, (Bourdieu & Richardson, 1986) which offers a useful conceptual framework for analyzing the challenges faced by IDAs. This theory is categorized into four forms of capital: cultural, social, economic, and symbolic capital. Disparities in language, hesitancy to clarify doubts or approach potential supervisors during conferences/workshops, and limited communication skills are common among IDAs (Ramachandra et al., 2024), mostly originating from the Global South. Their aspirations to secure a doctoral position at an RIU align with Bourdieu's notion of 'cultural capital'. The lack of a family member or known person with international learning experience and access to academic mentors/support networks to discuss ideas are common concerns. This forces IDAs to rely on a trial and error approach, reflecting limited 'social capital' (Bourdieu & Richardson, 1986). IDAs may work in institutions that do not actively promote high-quality research, which adds to financial constraints such as publishing in open-access journals, attending international conferences, and engaging in self-funded exchange programs or visiting scholarships (Dimova, 2020). These challenges align with 'economic capital'. IDAs from the Global North, or those holding degrees or having established collaborations with research-intensive universities in the Global North, may be highly valued. IDAs may perceive that securing recommendation letters from professors at RIUs in the Global North could add strength to their applications, providing legitimacy and perceived merit in global academia (Pinheiro et al., 2017). These examples illustrate the influence of 'symbolic capital' in shaping access to doctoral opportunities at RIUs. The application of this theory advances this article beyond a mere list of challenges, enabling a critical investigation of the supremacy, prestige, and institutional norms of higher education that IDAs must navigate. Additionally, it highlights that access to RIUs is determined not solely by competence but also by access to valued forms of capital. The four forms of capital and the access to which international doctoral admissions are shaped at RIUs are summarized in Figure 1.

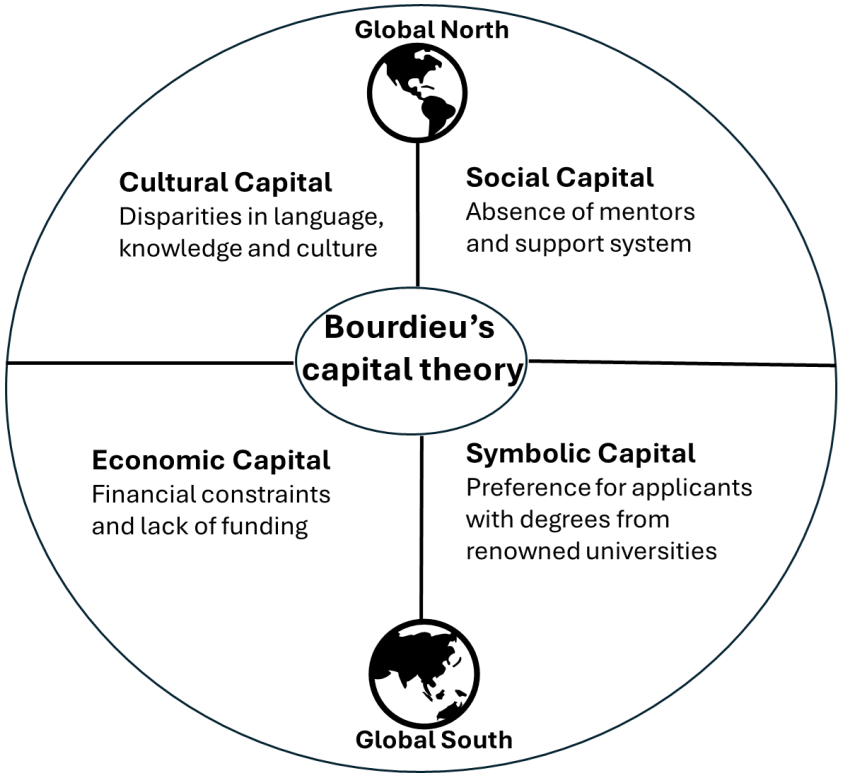


Figure 1: Schematic of Bourdieu's capital theory, which aligns with the challenges encountered by international doctoral applicants who typically originate in the Global South and apply for doctoral positions at research-intensive universities in the Global North; **Source:** Authors' own creation/work.

RESEARCH METHODOLOGY

Ethics Approval and Participants:

After ethical board approval, data were collected through open-ended questionnaires and semi-structured interviews. The challenges faced during the application process from IDAs were captured as initial insights via the questionnaire. Further IDAs offered deeper accounts through semi-structured interviews, providing clarification of complex experiences. This approach helped us gain deeper insights into a range of related topics, with both methods complementing each other to generate rich data. Participants were identified through a review of ResearchGate profiles (McNelis et al., 2023) and selected according to inclusion and exclusion criteria. Eligible participants included current IDAs applying to RIUs, current international doctoral students at RIUs and individuals who had completed their PhDs at RIUs within the past five years (PhD holders). With these criteria in mind, ResearchGate profiles were screened, contacted and requested to participate in this study. Those who were willing were provided with a link to the online questionnaire, followed by interviews (if interested). The ongoing experiences of current IDAs were gathered, while PhD students and graduates recalled their application journeys, resulting in a mixed-participant approach. Given that current IDAs may be difficult to identify, this approach was utilized to ensure a sufficient sample size. Continuing applicants and those who applied for doctoral studies at the same university where they had obtained their master's degree were excluded.

Questionnaire and Semi-Structured Interviews:

The questionnaire was developed by SRS and SA on the basis of a review of the literature (Appleby & Appleby, 2006; Burford et al., 2025; Syed Mohamed et al., 2020). An expert (VK) in

graduate education subsequently provided detailed feedback on the clarity and relevance of the questions and the alignment between the questionnaire and semistructured interviews. Revisions based on expert feedback were incorporated into the final questionnaire as well as the interview questions, thereby establishing content validity. Participants (n=68) first completed a structured questionnaire (Appendix I, supplementary document) that collected demographic data and examined key doctoral application challenges. The questionnaire, which was pretested with a small sample, was refined and distributed via Google Forms.

Following questionnaire completion, participants who expressed their willingness to participate in semistructured interviews (Appendix II, supplementary document) via Zoom (n=26) were invited (Archibald et al., 2019). Videorecordings capture nonverbal cues and body language, which are often missed in audio recordings/transcripts (Penn-Edwards, 2015). They enable multimodal analysis and promote researcher reflexivity on positionality and power dynamics. A narrative inquiry approach was employed during the semistructured interviews, which enabled the participants to share their experiences and struggles during the pre-PhD period chronologically (Duff & Bell, 2002). To gain in-depth information and clarity, follow-up questions were asked as needed, with additional members checking to ensure accurate interpretation after each response. The interviewees responded positively, reflecting on their challenges, eventual successes (in the case of PhD students and PhD holders), and adaptability in demanding situations. Potentially, these interviews provided the interviewees with a chance to be vocal about their "moment of glory". A trained researcher conducted all the interviews and obtained consent for audio and video recording. Two researchers collaboratively transcribed the audio recordings into text (McMullin, 2023). Data from the questionnaire and interview transcripts were thematically analyzed by generating initial codes and grouping related codes into categories, followed by the construction of themes. To preserve the authentic voices of the interviewees and minimize the influence of the authors' interpretations, as many direct quotes as possible have been included in the findings (Clandinin & Connelly, 2000). A flow chart illustrating the research methodology and participant recruitment process is provided in Figure S1 (see the supplementary document).

FINDINGS

Demographics:

The online questionnaire was distributed to 110 potential participants, of whom 68 responded, for a response rate of 62%. The respondents were primarily aged 25–45 (85.3%), including 55.9% females. Among the participants, 53.7% were PhD holders, 32.8% were current doctoral students, and 13.4% were those who had applied for PhD positions in RIUs. Among the 68 questionnaire respondents, 26 agreed to participate in the interviews. Among the 26 interviewees, nine were categorized as mature IDAs who began their PhD after the age of 35 years or after spending significant time in their professional careers, which is consistent with the concept of mature learners as described in the literature (Leonard * et al., 2005; Templeton, 2021). The interviewees' gender; age when they applied for a PhD, their nationality, their country of residence, the country in which the PhD was completed or applied to, the highest level of education of parents (father/mother), whether the IDA was the first in the immediate family to pursue higher education abroad, the medium of instruction in school, and any family responsibilities are summarized in Table 1.

Table 1: *Showing interviewee's demographics with education history of the family and the IDA.*

Interviewees	Gender	*Age	Nationality	#Resident country	Subject/Field	Country in which PhD completed/applied at	Highest level of education of IDAs parents	**First in your immediate family	##Medium of instruction	Family responsibilities
IDA1	Male	28	India	India	Biotechnology	Australia	Preuniversity	Yes	Malayalam	No
IDA2	Male	37	India	Libya	Dentistry	Netherlands	Bachelors/Bachelors	Yes	English	No
IDA3	Male	30	China	China	Dentistry	Australia	Masters/Masters	Yes	Mandarin	No
IDA4	Male	46	India	Malaysia	Dentistry	United Kingdom	High school/high school	Yes	English	Yes
IDA5	Male	27	India	India	Biotechnology	Australia	Postsecondary, non university education/High school	yes	English	No
IDA6	Female	27	India	India	Biotechnology	Australia	Masters/Bachelors	Yes	English	No
IDA7	Male	30	India	Saudi	Dentistry	Hongkong	Bachelors/Bachelors	Yes	Hindi	No
IDA8	Female	39	India	Malaysia	Dentistry	New Zealand	Secondary education/NA	Yes	English	No
IDA9	Male	39	India	Malaysia	Dentistry	Australia	Masters/Bachelors	No	English	Yes
IDA10	Male	41	India	India	Dentistry	Australia	Bachelors/Bachelors	Yes	English	No
IDA11	Female	26	Canada	Canada	BA in political science	New Zealand	Masters/Bachelors	No	English	No
IDA12	Female	25	Australia	Australia	Biophysics	United Kingdom	PhD/Bachelors	Yes	English	No
IDA13	Male	28	Pakistan	Malaysia	Dentistry	New Zealand	Bachelors/Bachelors	No	Urdu	Yes
IDA14	Male	27	Nigeria	Nigeria	Dentistry	Australia	Bachelors/Bachelors	No	English	No
IDA15	Male	29	India	UK	Dentistry	Australia	Masters/PhD	No	English	No
IDA16	Female	32	India	UK	Dentistry	Australia	Preuniversity	Yes	English	No
IDA 17	Female	42	India	India	Dentistry	Amsterdam	Masters/Bachelors	Yes	English	No
IDA18	Female	27	India	India	Biotechnology	Australia	Masters/Masters	Yes	English	No
IDA19	Male	25	China	China	Political science	New Zealand	Bachelors	Yes	Mandarin	No
IDA20	Female	35	Libya	Libya	Dentistry	Portugal	postgraduate diplomas after bachelor's for both parents	No	Arabic	No
IDA21	Male	38	India	Saudi Arabia	Dentistry	New Zealand	PhD/PhD	Yes	English	Yes
IDA22	Female	27	France	France	Biotechnology	Australia	PhD/Bachelor	Yes	French	No

IDA23	Female	29	India	Singapore	Biotechnology	Australia	Postsecondary non university education/	Yes	English	Yes
IDA24	Female	31	Malaysia	Malaysia	Pharmacy	New Zealand	High School	Yes	English/Bahasa Malaysia	
IDA25	Female	28	India	Saudi Arabia	Biochemistry	New Zealand	Masters/Masters	Yes	Arabic medium	Yes
IDA26	Male	34	United States	United States	International relations, Peace and global affairs	New Zealand	Bachelors	Yes	English	No

*Age while applying for PhD

**Were you the first in your immediate family to pursue higher education abroad?

#Resident country while applying for PhD

##What was your medium of instruction in school?

To improve the clarity of participant references (e.g., we have cited multiple participants together), we have clarified the participant notation: questionnaire respondents (n=68) are denoted as "P" and interview participants (n=26) as "IDA" throughout the findings. In certain instances where several participants held a similar view, multiple participants have been cited together (e.g., P1,2,3 or IDA1,2,3). Predoctoral application challenges extend beyond academic qualifications, encompassing logistical, cultural, and procedural challenges. The analysis of responses led to the construction of four key themes. The codes and themes constructed along with their groundedness are listed in Table 2. A word cloud generated using ATLAS.ti is provided in Figure S2 (see the supplementary document).

Table 2: *Shows the four main themes and the corresponding codes with their groundedness.*

Themes	**Codes**	**Groundedness**
Challenges faced by IDAs during enrollment to PhD at RIUs	Identifying a suitable supervisor in alignment with research interests	25
	Complex documentation requirements	25
	Repeated rejections, emotional toll, and uncertainty	20
	English Language Requirements	16
	Time management	12
	Finances	11
	Limited guidance at home universities	8
Challenges in making applications unique and inconsistencies within the application system	Complex application portals and a lack of detailed guidelines	23
	Novelty within the research proposal	13
	Disparities in Grading Systems	9
Cultural differences or language challenges posed during the application process	Hierarchical challenges	20
	Communication challenges	19
	Favoritism versus meritocracy	14
Digital and emotional challenges in doctoral interviews	Digital poverty	18
	Challenges related to in-person interviews	9
	Anxiety	7

Theme 1: Challenges faced by IDAs during PhD enrollment at RIUs:

In the initial phase, a directionless IDA may randomly apply for PhD positions at RIUs worldwide, often meeting with limited success. Subsequently, the IDA needs to identify a suitable supervisor with relevant research interests and manage complex documentation, time and financial constraints and limited guidance at home institutions.

A. **Identifying a suitable supervisor in alignment with research interests:**

A common concern was finding a suitable doctoral supervisor at RIUs (P5,12,24,33,61,65), aligning with the research interests of the IDA, and this can be a lengthy process (IDAs18, 23).

As IDA17 reported, "If your research interests are not aligned with the supervisor, then the process of searching the supervisor is like hitting the nail in the dark."

After sending multiple e-mails to various professors to finalize a potential supervisor, the IDAs felt dejected. IDA subsequently doubted the strength of his CV (IDA1). IDA23's speculated nonresponsiveness could be linked to their background.

IDA5 mentioned, "I was directionless and experienced feeling lost during the initial search period."

B. **Complex documentation requirements:**

Organizing extensive documentation was a daunting task involving attesting several documents and translating original documents from local languages to English (if required) (P12 and P5).

IDA7 quoted "All these documentations, novel research proposal, research statements, motivation and recommendation letters; I refer to them together as the 'application package'. Organizing and arranging them takes time, effort and expenses".

Participants from developing countries often face bureaucratic delays in acquiring essential documents.

IDA10 shared his frustrations: "There were several layers of red tape to obtain master's degree transcript, and lack of a format for the master's degree transcript was challenging."

Some IDAs (8, 9 and 10) were unaware that the referees should be former supervisors and stressed the importance of planning such requests in advance, as referees may be busy. Few referees may not highlight applicants' critical thinking and organisational skills, undermining applicants' chances (IDA7). Many RIUs streamline the enrollment process by sending a direct link to the referees for recommendation letter submission, creating logistical challenges if the referee is unfamiliar with the system.

IDA7 stated that "my referees *were submitting recommendation letters for the first time through an online link. Till the last minute, I was unsure of its submission."*

C. **Repeated rejections, emotional tolls, and uncertainty:**

A lengthy waiting period for application outcomes led to uncertainty and an emotional toll on the IDAs. P65 stated that the outcomes are unpredictable, demanding strong emotional resilience.

IDA3 stated, "I was perseverant with my goal, and I advise any serious candidate to start early and be persistent. Even well-qualified candidates might face rejection."

IDA15 reported that "I was feeling anxious about the outcome, and the prolonged uncertainty made long-term planning more difficult."

IDA20 from Libya stated that "Conducting research and communicating during the period of internal war (in Libya) was difficult".

D. **English Language Requirements:**

Many applicants failed to secure the required English proficiency scores on their first attempt, necessitating retakes with further investments of time and money (IDA4). While US and UK universities mandate high scores, European universities often require proficiency in additional languages such as French or German, which poses further challenges (IDA4). IDA26 highlighted the confusion faced by native English speakers regarding English proficiency tests, with few cases provided with waivers and others not, often leading to delays.

E. **Time management:**

A significant challenge, specifically for mature IDAs, was effective time management while juggling employment/academic responsibilities and family commitments (IDAs3, 8, 9). Mature

IDAs (IDAs 4, 8, 9, 17, 20 and 21) note that full-time academic positions are demanding, with little time to focus on PhD applications and highlighting the need for support systems for mature IDAs aspiring to pursue PhD.

F. **Finances:**

US universities often mandate Graduate Record Examination (GRE) scores (IDA21) and application fees (IDA4 and 14). Faculty with well-paying jobs and family commitments were in the dilemma of leaving stable employment for a PhD with a minimal stipend [as scholarships mandate a full-time studentship] (IDAs7, 8, and 21). In contrast, completing a part-time PhD may take several years (IDA7), with the applicant navigating both work and study simultaneously.

IDA7 stated, "It is difficult to sail in two boats", or, as the saying goes, never sail on two boats."
IDA21 stated, "The decision to leave a stable job and join PhD was a leap of faith. I was confused on whether to pursue my passion for research or choose the safety and security of a well-paying job."

G. **Limited guidance at home universities:**

Another challenge for the IDAs was the lack of guidance for preparing a PhD application at their home universities, which left them unsupported. For instance, IDA3, from China, was the first among his peers to apply to RIUs and thus was looking for guidance.

The key challenges faced are outlined in a network diagram (Figure S3, supplementary document). Upon successfully identifying the supervisor and receiving approval, the IDA may need to draft a novel research proposal.

Theme 2: Challenges in making applications unique and inconsistent within the application system:

To be successful, PhD applications need to be unique, and in the process, the IDA may face further challenges, such as complex application portals, a lack of detailed guidelines, a lack of novelty within the research proposal, and disparities in grading systems.

A. **Complex application portals and a lack of detailed guidelines:**

In some universities with multiple advertised PhD positions, the exact role of a PhD candidate is unclear, further complicating proposal drafting.

As IDA17 quoted, "Some PhD advertisements did not specify the detailing needed for comprehensive research proposals, creating further confusion."

Thus, the IDA may face cognitive challenges in formulating a PhD-level research proposal because of insufficient detailed PhD advertisements.

B. Novelty within the research proposal:

Deciding on a research topic and developing a novel research proposal were forthcoming challenges. IDA1 noted that owing to minimal guidance, applicants might create a research proposal by simply combining older articles, lacking novelty.

IDA9 also stated "identifying a unique research niche with novelty took lot of time for me."
IDA7 quoted "mine was a clinical master's with limited research component. I struggled to draft a strong research proposal for doctoral application."

IDA8 noted that the finalization of a research topic can occur in two ways: either the supervisor approves the IDA's proposed topic or suggests one. In the latter case, the IDA may lack sufficient understanding of the suggested topic to draft a well-detailed proposal.

C. Disparities in Grading systems:

IDAs encounter challenges because of disparities in grading systems and academic benchmarks across countries. For instance, IDA13, who completed a research-based master's degree in Malaysia, had a "pass-or-fail" evaluation system without a CGPA. To address this, his potential supervisor arranged for reassessment of his master's thesis by a New Zealand-based professor to meet application requirements.

Certain RIUs mandate the evaluation of overseas qualifications by international evaluating agencies involving the conversion of transcripts into a universally accepted grading scheme that takes up to

two to three months (P17). This process involves evaluating agency, the awarding university, without the applicant's involvement to ensure credibility (P47).

IDA9 quoted "My degree had to be verified by an international agency for authenticity, precluding my involvement. I was worried about meeting the deadlines."

Another disparity involves ease of scoring in "for-profit" universities compared to prestigious universities. Similarly, students from French public universities generated fewer publications than their counterparts from other countries did, which may place them at a disadvantage (IDA22).

IDA22 stated that "Securing a CGPA of 70% is considered exceptional in France public universities, whereas in some parts of the world, achieving a CGPA of ≥ 80% may be relatively easier."

The key challenges faced under this theme are outlined in a network diagram (Figure S4A, supplementary document).

Theme 3: Cultural differences or language challenges:

Hierarchy, cultural and communication differences between host institutions and RIUs can result in challenges categorized into the following codes (Figure S4B-supplementary document).

A. Hierarchical challenges:

IDAs from China and the Asian subcontinent consider the potential supervisor to be superior (hierarchy), following their instructions/orders without question. In contrast, in Western culture, IDAs need to be proactive and take onus of their project. This is a significant cultural difference between the Global South, where most IDAs originate, and the Global North, where most RIUs are situated (although RIUs may be located in the Global South as well). For instance, IDA, which addresses potential supervisors as 'Sir' or 'Madam', highlights the hierarchical mindset (IDA4 and 17).

B. Communication challenges

Communication delays could be due to supervisors being busy (IDA3), differing academic schedules between countries such as UK universities following the semester system, while Australian universities operate on a term-based schedule (IDA12). These communication delays affect coordination between universities and immigration departments.

C. Favoritism versus meritocracy:

IDA4 reported that in some developing countries, PhD positions are doled out to influential doctoral aspirants on the basis of personal connections, with senior professors displaying bias or favoritism. In contrast, RIUs follow meritocracy, where an unbiased panel selects international PhD students on the basis of specified criteria such as the CGPA and publications/presentations, thus ensuring a level playing field.

IDA4 quoted "I waited for two academic years, hoping I would be able to secure a PhD position as I was promised at my university in my home country. However, at the last minute, some people with connections or students from high societal positions were favored. That's when I decided, I should search for PhD positions abroad in RIUs."

Theme 4: Digital and emotional challenges in doctoral interviews:

Following document scrutinization, IDAs may be invited to an interview (in person or online), either with the supervisor or a PhD panel. Our data suggest that 58% of the participants (n=35) were asked to participate in online interviews, whereas 45% (n=29) were not. IDA9 highlighted that interviews with supervisors are informal and focus on assessing the applicant's attitude over their theoretical knowledge.

P65 reported that "my interview was a casual chat between me and my potential supervisor, which reduced my anxiety."

The following codes were constructed for interview-related challenges.

A. **Digital poverty:**

Unstable or slow internet connections in countries such as Nigeria (IDA14) and Libya (IDA20) hindered application submissions. For instance, IDA20 from Libya failed to upload large documents on the application portal within the deadline because of an unstable internet. These challenges highlight the need for more accessible and flexible application systems.

B. In-person interview challenges:

IDA12 attended an in-person interview on short notice, with only partial financial support provided by the university, covering additional travel and accommodation costs herself and further increasing her financial strain.

C. Anxiety:

Anxiety and apprehension around interviews could be due to concerns about being outdated with recent research and lacking published articles due to a career break (P17), the use of a Skype application (P25), unstable internet connections (P17, 23, 45 and 47) and interviews scheduled at inconvenient hours (IDA 4).

IDA4 stated, "During my PhD interview with the panel, the questions of panel members sitting at the other end of the table were not clearly audible. It was embarrassing for me asking pardon again and again. Maybe I did not pick up their accent."

The key challenges faced under this theme are outlined in the network diagram in Figure S5 (see the supplementary document).

DISCUSSION AND CONCLUSIONS

This paper explored the challenges encountered by IDAs during the PhD application process at RIUs. The choice of institution or country and the choice of a supervisor whose research interests align with those of the IDAs are some of the most important initial challenges (Kim & Spencer-Oatey, 2021), which are factors also highlighted by our respondents. IDAs were terminated following rejections or lack of response. Similarly, (Jaremka et al., 2020), reported rejections may have a demotivating effect, burnout and a sense of loneliness. These experiences of IDAs indicate that the early stages of doctoral admission are influenced not only by supervisor and IDA's research alignment but also by the applicant's ability to effectively navigate an application process that is characterized by uncertainty and limited feedback (Woo et al., 2022).

Difficulty in drafting a novel research proposal, internal strife, family commitments and lack of time were significant challenges reported by our respondents. This finding is in agreement with the findings of other studies suggesting that unstable political environments, wartime (Tsybuliak et al.), lack of time and motivation (Younas & Ali, 2020) and funding (Horta et al., 2018) are challenges to graduate education. Within our data, the lack of specific information in advertisements for large research projects was a concern. Providing clarity on individual PhD research roles may attract the best talent during international PhD recruitment (Taylor & Cantwell, 2015). A referral letter from a referee who has not directly supervised the applicant and lacks mention of IDAs' critical thinking skills and motivations may negatively impact the application (Appleby & Appleby, 2006). These findings emphasize the importance of effective guidance and mentorship in helping IDAs develop innovative research proposals, secure strong referral letters, and submit compelling applications. Viewed through Bourdieu's theory of capital, this demonstrates the interplay between cultural capital, which is reflected in IDA's ability to develop a proposal aligned with institutional expectations, and the social capital provided through academic guidance and referee support that IDAs receive.

CGPA is among the critical factors for graduate school recruitment (Verostek et al., 2021). Our data highlight that the CGPA at "for-profit" universities may be inflated compared with that at prestigious universities. As reported (Bachan, 2017; Baird et al., 2019), grade inflation is a worrying trend in "for-profit" universities, providing students with an unfair advantage in securing admissions, which has far-reaching ramifications in higher education. Our data indicate that some master's degrees by research are graded on a 'pass or fail' basis, without the CGPA, which may not be accepted by RIUs. Previous literature suggests that programs with a "pass or fail" grading system have several

inconsistencies, such as a minimum pass percentage between 70 and 90%, overall class rank, qualitative comments and different periods for postcourse remediation (Gold et al., 2015; Spiess et al., 2022), which explains why RIUs prefer CGPA.

English language proficiency tests evaluate English proficiency, thus promoting equality among diverse applicants who apply to RIUs, thus streamlining the evaluation process (Dimova, 2020). A lack of online communication skills and e-mail etiquette was also reported, which is consistent with previous literature (Ramachandra et al., 2024). Moreover, unstable and slow internet connections may cause difficulty in uploading application-related files and hinder the smooth conduct of online interviews (Ramachandra, 2023).

Few IDAs reported bias based on personal connections, elitism and societal status rather than on their merit and qualifications while they awarded PhD positions in host countries. This ultimately drove them to RIUs, where merit and academic excellence were recognized. Similarly, concerns of favoring elitism and sidelining meritocracy were highlighted in the recruitment of graduates in Chinese national oil corporations (He & Makarchev, 2019). Owing to these cultural disparities, Chinese international doctoral students likely relied primarily on merit-based scholarships at research-intensive universities worldwide (Yang et al., 2023). Within our cohort, mature IDAs with families reported transitioning from well-paying jobs to challenging PhD student life. Similarly, Fung et al. identified four key concerns among mature-aged students: risk-taking ability, passion for research and career success, financial instability, and maintaining a balance between life and study (Fung et al., 2017). These findings suggest that access to PhD opportunities may be shaped by interactions between symbolic capital, as embodied in an institution's reputation and academic status, and social capital, including personal and professional networks.

Doctorate completion in Russian universities is often based on factors such as motivation and passion for research; hence, selecting students solely on marks may be a disadvantage (Maloshonok & Terentev, 2019). Therefore, the PhD admission panel often conducts interviews to assess the applicant's motivation and passion for research, which are factors that are not apparent in academic records (Maloshonok & Terentev, 2019). However, this step presents interview-associated challenges such as anxiety to the IDA, as reported. While interview-associated anxiety is common, a moderate level of anxiety may actually motivate increased preparation and ultimately enhance performance (Yerkes & Dodson, 1908).

By assessing the communication gaps and cultural and administrative challenges that shape the IDAs' experience through the lens of Bourdieu's capital theory, this study contributes valuable additional literature on the underexplored area of preapplication doctoral communications. It also demonstrates how IDAs acquire and negotiate different forms of capital during the doctoral application process at RIUs. Additionally, the heterogeneity of our sample offers further insights. Current applicants voiced procedural and emotional challenges most acutely, whereas doctoral students and PhD holders recalled these challenges retrospectively. Mature and first-in-family applicants seemed to rely more on trial-and-error and often weighed financial security against research aspirations. As such, we argue that these challenges were unevenly distributed across the sample, shaped by differing access to social and economic capital.

Significance of the study:

By assessing the communication gaps and cultural and administrative challenges that shape the IDAs' experience through the lens of Bourdieu's capital theory, this study contributes valuable additional literature on the underexplored area of preapplication doctoral communications. It also demonstrates how IDAs acquire and negotiate different forms of capital during the doctoral application process at RIUs. Some of these challenges have constantly been discussed on academic social networking sites; however, these challenges have largely remained fragmented and anecdotal. By systematically examining and presenting these experiences within a research article, this study provides scholarly legitimacy to the voices of IDAs, transforming their experiences into credible evidence rather than isolated anecdotal accounts. This legitimacy may encourage universities to strengthen their communication strategies and support mechanisms to promote equitable access to international doctoral admissions.

Limitations:

This study includes participants who plan to apply for PhD programs and who are currently pursuing PhD in Australia, New Zealand, and Europe. However, it does not explicitly cover challenges related to the US PhD application process, which differs from other regions and would require separate studies. Most interview participants were from Asian countries, with a smaller representation from Canada and the U.S. Future research should aim for a more diverse participant pool. Data concerning mature PhD candidates are limited, and further studies need to be carried out with larger sample sizes.

Conclusion:

This study demonstrates that access to doctoral positions at RIUs is determined not only by academic competence but also by unequal access to economic, social, cultural, and symbolic capital. IDAs lacking one or more of these forms of capital are disadvantaged even if they possess strong academic competence. Further analysis explains how these forms of capital interact with each other, ultimately influencing the outcome of international doctoral admissions. From the perspective of universities, this study may help identify challenges and redesign the admission process to enhance transparency, strengthen mentoring opportunities and reduce financial obstacles for international applicants. By addressing these structural challenges, RIUs can attract a broader and more diverse pool of hard-working PhD aspirants, thus promoting more equitable access to doctoral education.

IMPLICATIONS

Despite the overflow of PhDs, demand for doctoral programs remains high (Horta et al., 2024). Highlighting these challenges may raise IDAs' awareness of the difficulties of securing a PhD position at RIUs. Universities in the Global South may develop pre-PhD preparatory programs that highlight global opportunities for doctoral positions. RIUs should encourage proactive engagement with potential supervisors prior to applications. The GRS may consider supporting mature IDAs by fostering more inclusive admission policies and providing feedback to unsuccessful applicants. Leveraging technological advancements, RIUs may develop application portals that extract the required information from a standardized CV, thereby streamlining the application process.

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Appendix I: Questionnaire

Insights into the Challenges Faced by International Candidates in Doctoral Enrollment and Scholarship Applications

Information for the participant: This questionnaire aims to evaluate the challenges faced by international doctoral applicants while they are applying for doctoral enrollment. We acknowledge that you may have completed your PhD some time ago (in recent years) and applied for doctoral study several years ago. We kindly request that you share your insights by completing this questionnaire. Please be assured that all information provided will be treated with confidentiality and solely utilized for research purposes. Surveys should not take more than 10 minutes to complete.

Age

- 25–35 years
- 36–45 years
- 46-55 years
- I do not want to disclose

PhD undertaken in which University and Country

How do you identify yourself?

- International doctoral applicant
- International doctoral student
- PhD holders (previous international doctoral students with PhDs completed within the past 5 years)

Challenges faced during enrollment:

1. What challenges did you encounter during your doctoral application process?

2. **Who provided assistance to you during your doctoral application?**

3. **What kind of support did you receive during your doctoral application?**

4. **Did your supervisor request an online interview?**

5. How did you prepare for the interview, and what challenges did you face during the process?

Appendix II: The semi-structured questions used for the interviews are listed below:

1. Can you describe your experience with the application process for international universities? What were the major challenges you faced?
2. Were there any specific requirements or procedures you found challenging to navigate during the application process?
3. How did you perceive the communication and information flow during the application process? Were there any gaps or areas where you felt more support was needed?
4. Can you share any instances where cultural differences or language barriers posed challenges during the application and acceptance procedures?

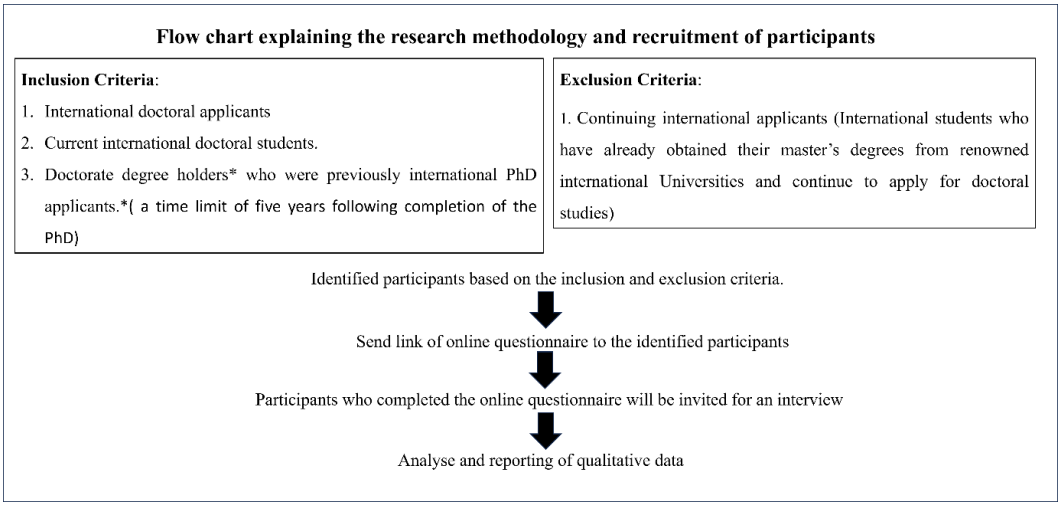


Figure S1: Overview of the research methodology and participant recruitment process.
Source: Authors' own creation/work



Figure S2: Word cloud generated from the text prepared for ATLAS.ti 8, illustrating the most frequent terms from interviews with international doctoral aspirants about their experiences and challenges in doctoral enrollment at renowned international universities. Larger words represent higher frequency, emphasizing central themes such as research, supervision, applications, and challenges.
Source: Authors' own creation/work using ATLAS.ti 8.

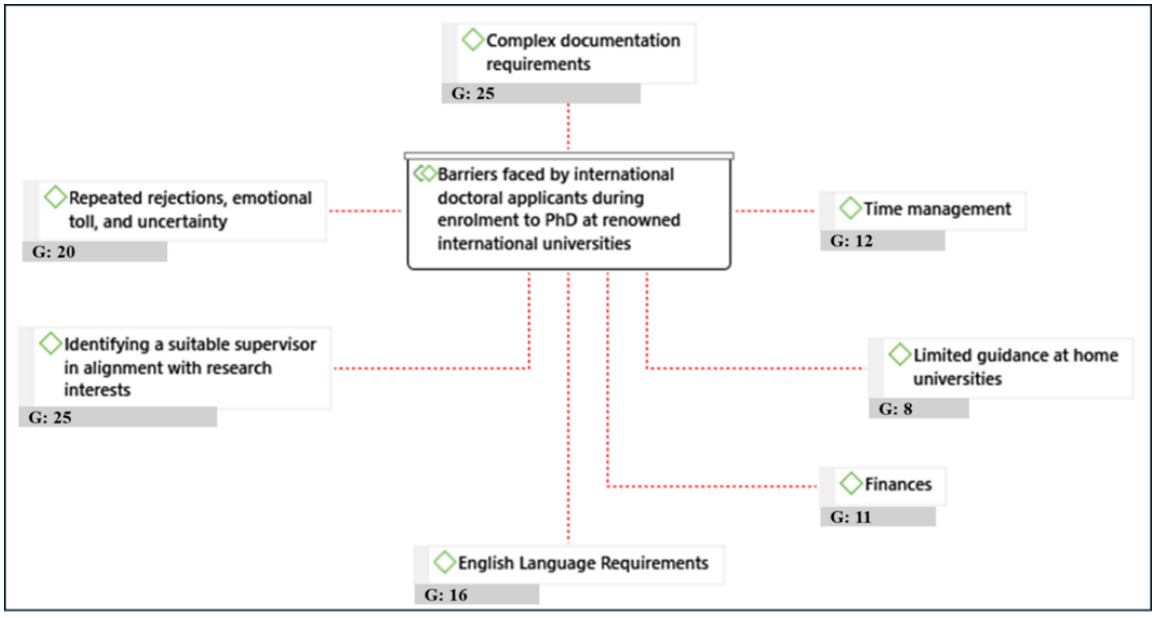


Figure S3: A network diagram generated using ATLAS.ti 8 illustrating the following theme: "Barriers faced by international doctoral applicants during enrollment in PhD at renowned international universities". The diagram also shows the various codes constructed from the main theme and their groundedness (G), such as complex documentation requirements (G=25), identifying a suitable supervisor in alignment with research interests (G=25), repeated rejections, emotional tolls and uncertainty (G=20), English language requirements (G=16), time management (G=12), finances (G=11) and limited guidance at home universities (G=8). **Source:** Authors' own creation/work using ATLAS.ti 8

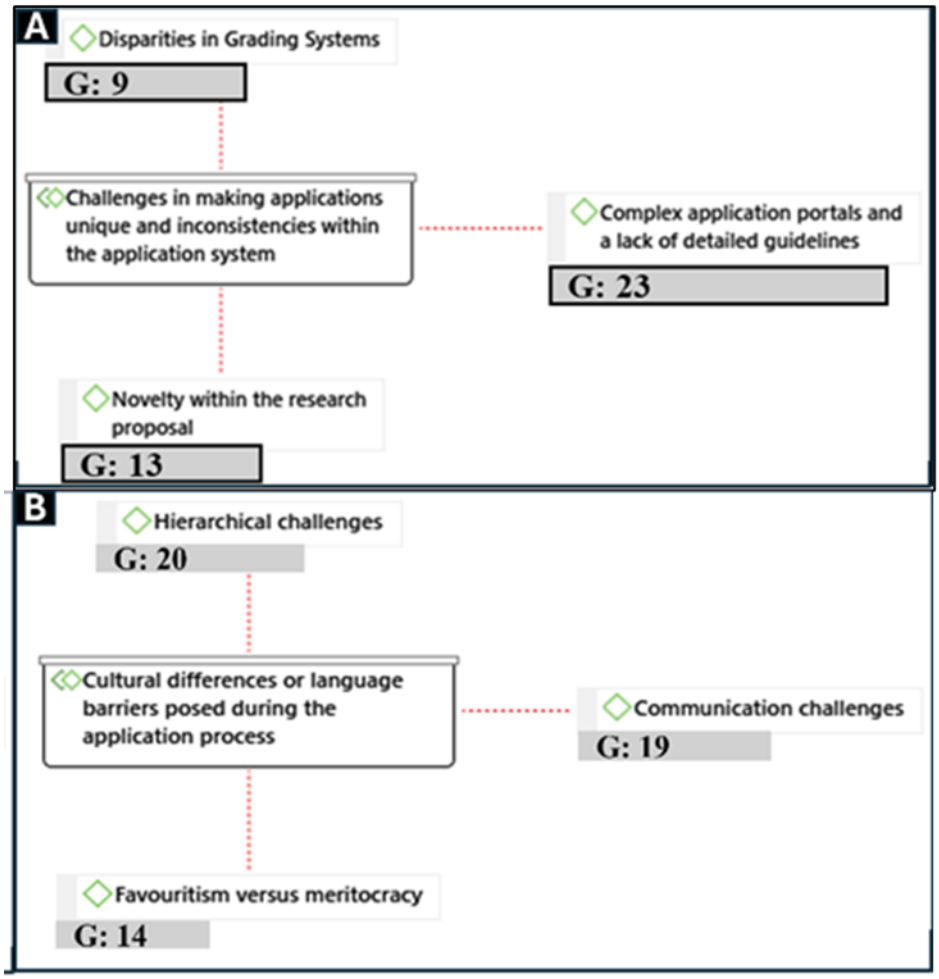


Figure S4A and B: A network diagram generated using ATLAS.ti 8 illustrating theme 2 “challenges in making applications unique and inconsistencies within the application system”. Codes constructed from theme 2 and their groundedness (G) are complex application portals and a lack of detailed guidelines (G=23), novelty within the research proposal (G=13) and disparities in grading systems (G=9). For theme 3, “cultural differences or language barriers posed during the application process”, the codes and their groundedness (G) were hierarchical challenges (G=20), communication challenges (G=19) and favoritism versus meritocracy (G=14).
Source: Authors’ own creation/work using ATLAS.ti 8

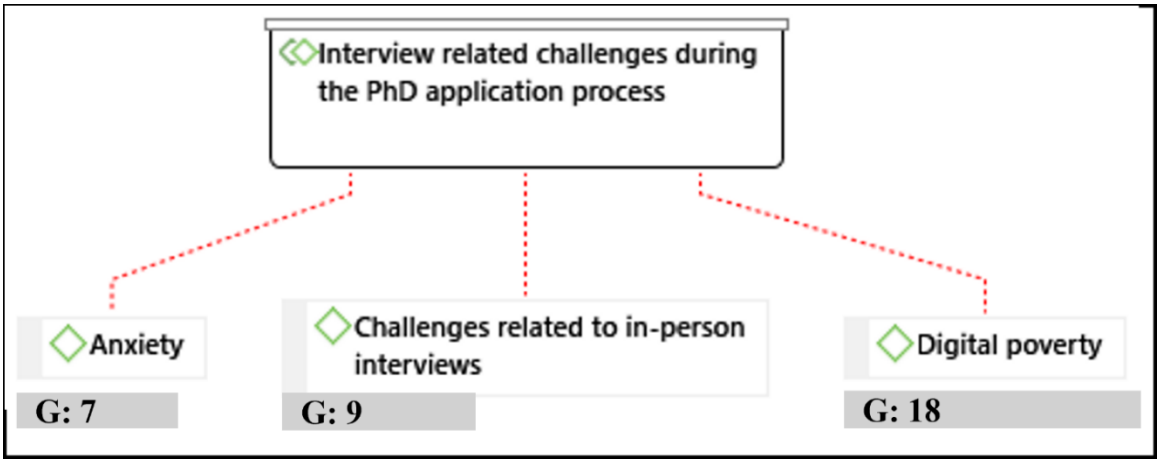


Figure S5: A network diagram generated using ATLAS.ti 8 illustrating the theme 4 "interview-related challenges during the PhD application process". The diagram also shows the various codes constructed from the main theme and their groundedness (G), such as digital poverty (G= 18), challenges related to in-person interviews (g=9) and anxiety (G=7).
Source: Authors' own creation/work using ATLAS.ti 8