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Gasson, Susan, Dillon, Denise, and Redman-MacLaren, Michelle (2026) ***Supervisors' and the Admission of Higher Degree Researchers.*** **In: Winter,Abbe, Gasson, Susan, Blacker, Jillian, and Bruce, Christine, (eds.) Confident Supervisors: Creating Independent Researchers (Vol. 2). Queensland University of Technology and James Cook University, Brisbane, QLD, Australia.**

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https://doi.org/10.5204/qutop/XOCR1950

5. SUPERVISORS' AND THE ADMISSION OF HIGHER DEGREE RESEARCHERS

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Why read this chapter?

This chapter explores the role of the supervisor in the selection of research-ready applicants for HDR awards. The success of this process has significant implications for students, institutions and society (Kurysheva et al., 2023). Changing higher education priorities and demands continue to drive the evolution of graduate research policy, funding and admission processes. Globally, doctoral programs have responded to calls to cultivate high-quality and sustainable educational advancements, and many Western nations are calling for assurances about the employability of graduates. These trends influence our evaluation of applicants for admission to higher degrees. As the decisive initial decision point in the research journey, supervisors are encouraged to play a role in the selection of higher degree researchers for admission. In this chapter, you will come to more deeply understand the implications of the:

- Admission processes and criteria
- The role of supervisors in the admission process
- Factors contributing to the future success of Higher Degree Researchers.

Admission, processes and criteria

Admission processes are determined by a combination of institutional policies, admissions committees, and the supervisors. All these stakeholders contribute to the evaluation of potential applicants' research capacity, fit with proposed supervisors and research environments, and access to funding. The goal of the admission process is to select candidates who can complete within maximum time, produce examinable theses and research outcomes, and become independent and employable researchers (Gasson et al., 2023). Global competition for innovative and groundbreaking research and researchers has resulted in institutions standardising procedures, documentation reviewed, and interviews conducted when assessing doctoral applicants (Inouye et al.,2025). Applicants are routinely required to provide language, personality and

capacity test scores, transcripts, research proposals, personal statements, and letters of reference and participate in interviews.

Factors like state or federal policies, business interests, and professional requirements can also impact diverse admission processes, as evidenced in different nations, institutions, and disciplines (Littleford et al., 2018). A prioritisation of independent knowledge production, as seen in the humanities and social sciences (HASS), sees a deeper interrogation of the research proposal or personal statement. HASS applicants are often evaluated for their fit with the supervisors and research culture of the institution, and the alignment between the applicants' life stories, proposed project, and intrinsic motivations for doctoral studies. Fit and alignment are considered the best predictors of progress to timely completion and realisation of impactful research outcomes.

In contrast, science, technology, engineering, mathematics and medical sciences (STEMM) assessors, with a stronger focus on the potential of applicants' research capacity and careers, prioritise transcripts, test scores and referee reports (Littleford et al., 2018). In the USA, assessment of STEMM applicants often includes consideration of general and subject Graduate Research Examination (GRE) scores. These are claimed to be strong predictors of success in first-year doctoral coursework. For STEMM applicants joining preexisting projects or research groups, little or no attention is paid to the research proposal.

The initial consideration of applications submitted involves an administrative evaluation process, screening out those applications that are incomplete or ineligible. Burford et al. (2024) recommend that all stakeholders would gain from paying further attention to pre-admission communications, currently dominated by email traffic. Generation of more standardised online advice and use of email templates are among the strategies that can be used to refine and enhance communications and ensure equitable consideration and quality engagement at this critical stage.

More effective communications can help in the preparation of complete applications. Complete applications can most easily and accurately be assessed. Initial administrative review will assess if applications meet admission criteria, quality review can determine applicants shortlisted for interview, and ranked for scholarship funding. Deeper and more consistent understanding of eligibility and quality criteria used will inform nuanced academic evaluations. Institutional services can assist with evaluations. Library expertise may be called on to inform a more detailed assessment of the quality of research outputs, including peer reviewed publications. Admissions staff can explain and advice on the equivalences of unfamiliar academic scores and qualifications.

The current literature explores the potential for selection bias (Posselt et al., 2023) in the assessment of applicants for admission. Knowledge of personal details (e.g., cultural, gender, socio-economic background, country of origin, etc.) can lead to selection and unconscious bias. Difficulty interpreting unfamiliar grading schemas and institutional repute can also result in a preference for applicants with academic profiles aligned with those of their assessors. In some contexts, accounting for GRE scores and university/college ranking can contribute to the over-representation of men, people who are White or Asian and middle and upper-class families in doctoral education programs, and the scientific labour force.

A holistic assessment process is proposed to address these potential biases and ensure balance in collective action and individual judgment (Posselt et al., 2023). Holistic processes include rubrics and criteria for applicant evaluation (Nicholas et al., 2022). Commonly shared, clear and transparent criteria and scoring schemas can potentially reduce unconscious bias, a source of concern in traditional admissions, and demonstrate to applicants that the assessment process will be fair. Scores and weightings of criteria will inform the allocation of available scholarship funding and student places. Increased competition and changes to the quality of applicants each year may also result in applicants receiving – or not receiving – offers compared to previous years or rounds.

Stipends and scholarships, as well as research infrastructure and activities, are used by institutions in attracting and competing for quality applicants (Bortz Wall et al., 2020). Strategies universities can adopt include accounting for students' individual needs (i.e., access to childcare, suitable housing, research and family support, etc.) as well as scholarship top-ups. These strategies can be used to realise attractive and sustainable research graduate programs (Bortz Wall et al., 2020).

Applicants also compete with their peers to gain admission to their preferred research education environment The may feature generousscholarship funding, supportive and accessible communities, high-performing laboratories and renowned professorial supervisors. Admission processes at each university ideally align with available funds, research activities, supervisory capacity and applicant quality.

The role of supervisors in the admission process

If you have access to few or no suitable applications, you may take time to consider where you may source new applicants. Within your institution, teaching into pathway courses, engaging in undergraduate researcher development activities, and participating in academic or research mentorship programs may raise your research profile and student awareness of the potential to work with you.

Outside the organisation, you may have networks that can assist. Discuss with colleagues in business and industry their interest in advancing research capacity within the workforce. Liaise with international higher education partners to explore institutional interest in cotutelle arrangements. Engage with disciplinary and professional bodies about contributing to newsletters, blogs, relevant social media, and professional or disciplinary meetings to raise member awareness of higher degree research possibilities.

Once potential applicants have been identified, and within the constraints of institutional policy and guidelines, supervisors are encouraged to account for the fit and suitability of the applicant, their capacity, and the research education and institutional context (see Figure 5.1):

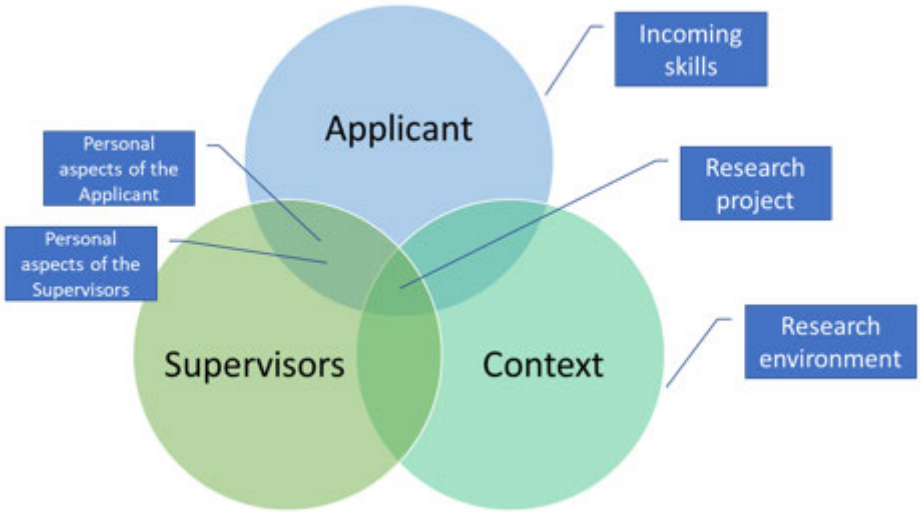


Figure 5.1: Three key elements in the admission of Higher Degree Researchers (Gasson et al, 2022)

Applicant

Applicants are likely to try to contact supervisors for support in submitting a formal application . In consultation with administrative services, you may save time by developing a standardised introductory email you can use in response to inquiries. This email can be used to explain your availability to supervise, describe possible projects (i.e., provide links to available and funded projects), funding and infrastructure available, and details of current research engagements or laboratory group work that may be relevant. The email can also explain or link to information about the admission and scholarship selection processes of the institution or academic group. Details will ideally allow applicants to self-assess their eligibility and plan to meet requirements (e.g., eligibility criteria, deadlines for submission, required documentation, etc.). Including advice for applicants who do not meet the criteria, explaining pathway programs, or alternative supervisors, research groups, or institutions may be helpful.

Assessing the suitability of the applicant involves consideration of the admission application, as well as assessing and evaluating the research readiness and fit of the applicant. You may look to the applicant's GPA scores, perhaps in particular subjects or year levels, to assess suitability. A written proposal may assist in the evaluation of academic writing, thinking capacity, and command of the literature. Test scores (e.g., English language, personality, GRE, etc.) may assist in verifying capacity. As supervisors, consider engaging with the applicant virtually or in person to discuss their application and research.

Informal discussions or interviews with applicants who meet the criteria may reveal additional information that can inform the selection process. This may involve discussing applicants' readiness and motivation for attending doctoral studies. Inviting mutual sharing of expectations may reveal consistency or conflict in research practices and potential compatibility of approaches. These discussions can also be used to identify and address expectations about funding, family or work commitments, and other life circumstances that may require consideration (e.g., health and well-being, etc.).

Describing the demands of the program and common hurdles may assist applicants in understanding more fully the commitment required. Discussion of research, theory, methods or literature may reveal common interests and passions, as well as validating levels of researcher development. In this context, applicants may more fully reveal their academic language or analytical capacity to further assist you in evaluating their potential. In some disciplines and in fields where there are large numbers of applicants, supervisors may set written tasks or short quizzes to more easily evaluate and compare applicants' levels of knowledge and research capacity.

For example, consider a health professional working full-time who contacts you as a potential research supervisor about completing a PhD following a recommendation by their work supervisor. It would be important to discuss motivations for higher degree studies, managing work commitments and the role of the PhD in pursuing career goals. A work-related topic, and familiarity with methods and methodologies suitable for the proposed research would build your confidence in the likely success of the candidate. This type of discussion would also provide an opportunity to discuss the realities of successfully completing research studies part-time while meeting work and family commitments.

In search of the most promising applicants, you may rely on your trusted networks (Posselt, 2018). Individual and institutional relationships provide trusted networks that augment existing sources of information. Difficulty in interpreting and comparing prior grades and lack of familiarity with referees can reduce confidence in predicting applicant success, resulting in weighting more highly applicants who come from quality institutions and with letters of recommendation from known academics. Complementing the use of trusted networks with consideration of the fit of applicants to your research can offer a richer and more complete picture.

Supervisor

As a supervisor, key considerations prior to selecting a new student are your current workload, student supervisory capacity, and teaching, research and service commitments. If you already have three students all in their first year or final years, are writing a book or leading a large research grant, designing a new course to be launched in the coming year, or taking on new committees or leadership roles you may not have capacity. Consider your priorities and research plans, and if they are complementary or compatible with the interests, capacity, and potential of applicants.

Consider the composition of the potential supervisory panel, and capacity of others to commit time and resources required for the applicant and their research. Engaging with a supervisory team can be a critical and informative experience in higher degree researchers' development of collaborative skills. Trust and respect are fundamental to building successful collaborations (Gasson & Bruce, 2019). Consider the alignment between your ways of working and research perspectives and those of your potential applicants. Explore your ability to work together and build a sustainable relationship. Use discussion to seek out mutually beneficial areas of interest. Here are a few questions to consider. Can you see mutual levels of confidence growing? Are you able to negotiate when alternative views and perspectives emerge? Can you

envisage introducing them to your networks into the future? Do you see potential for you to inspire them to innovate in areas of expertise aligned with yours in the future?

Context

Institutional-level planning and policy are key factors in the research education context. Consider again the alignment of your work and that of your applicants with institutional expectations. There may be professional or disciplinary-level factors that equally may inform your thinking. Consider how these may open or limit access to funding, resources, or research opportunities. More recent interest in inter- and trans- disciplinary research has led supervisors to pivot their research to ensure the eligibility and relevance of their work in a changing higher education and research context. Attendance at leadership forums or discussions with Deans or Heads of academic units may keep you up to date about shifting research and funding priorities.

Take time to understand the policies of your institution. Be aware of the resources offered to research students by the graduate school, learning and teaching advisors, library, research office, etc. In discussion with applicants and higher degree researchers, you can use this knowledge to answer concerns or questions they raise. Also explore, if available, the guidelines and advice offered by national authorities (e.g., the Council of Graduate Studies, Department of Education, Industry or Innovation), professional bodies and disciplinary bodies. Knowledge of the scholarship in the area provided by conferences, publications and networks may provide a broader and richer awareness of the context and how it is evolving. Awareness of these may support you in approach to supervision, supporting applicants, and the admissions process.

Use existing institutional tools to inform your networks and engagements to find, access and attract suitable applicants and co-supervisors. Perhaps there is funding to form a cohort, an internship or mentoring program, or an existing industry, professional or international funding agreement that you could access to enrich your research culture and actively attract preferred applicants.

Predicting the potential for success of future higher degree researchers

The first point to clarify is the current definition of success. Today's graduates are expected to demonstrate research competence, problem-solving skills, and leadership in interdisciplinary and intersectional contexts. They are expected to innovate and generate high-quality, impactful outputs. These expectations have affected the nature of the research education environment.

Admission processes that value high coursework GPAs and strong links to your institution can no longer be used to predict the success of the next generation of applicants (Zhao, 2024). Prior work experience and industry experience can bring a richness to the research education environment, giving access to

experienced leaders, problem solvers, collaborators, and critical thinkers. They can inform research processes, enable researcher development and promote cross-sectoral engagement. We are now looking to nurture researchers to make cross-sectoral, cross-disciplinary, and international contributions, which necessitates a diverse student body featuring a broad range of ages, experiences, socio-economic origins, genders, and ethnicities.

The availability and validity of tools available to enable prediction needs also to be critically examined. A literature review of the validity of selection criteria (Kurysheva et al., 2023) found that:

- While GRE predicted first-year GPA in graduate studies, it was weaker in predicting completion and productivity in terms of research publications, with potential bias against some equity groups.
- Letters of recommendation required interpretation by assessors with mixed views on their potential to predict performance and completion reliably.
- Interviews, while costly and time-consuming, were reported by some committees as vital in identifying and validating rejection of unsuitable candidates.
- Personal statements while providing student background were not considered valid indicators of personal qualities or ability with concerns for the validity of self-reports.
- Intelligence assessments correlated with prior experience and performance.
- Personality assessments were challenged because they were coachable and could involve false self-reports.
- English language tests with closely managed standards were considered controversial with concerns that standards were set too low, tests did not assess academic language capacity, and there was potential for results to be falsified due to inadequate administration.

The advice provided to admission committees by Kurysheva et al., (2023) is to:

1. exclude invalid selection instruments;
2. determine and account for criteria relevant to your program;
3. use valid selection methods to predict predefined criteria;
4. show accountability by reporting to your organisation selection outcomes for analysis and evaluation.

For additional assistance consider:

- GPA scores, and different grading schemas: check with your admission administrators who can provide advice on equivalence.
- Applicants' language and research capacity: engage them in discussion, and set tasks that evaluate their research, ability to work with the team, and capacity and potential; and
- Funding needs of potential applicants: check with your scholarship administrators or encourage applicants to conduct online searches to source funding within and beyond the institution (e.g., business, philanthropic, government, etc).

Demonstrate and document your admissions expertise

Having read this chapter, you are now more able to engage in the sourcing and selection of applicants. If you have experience of selection processes, consider how you may seek to refine your evaluation processes. Some questions to consider:

- What are the key qualities you require in applicants?
- Does your current admission process account for these?
- Could you propose refinements to the criteria, scoring or weighting of the criteria based on your experience of admission outcomes?

If you are new to admission, here are some questions for you to consider:

- How can you begin seeking out potential applicants?
- Can you prepare an admission template to send to applicants?
- What documentation would help you in evaluating applicants' eligibility?
- Is there a more experienced supervisor whom you could talk to about the admissions process?

Conclusion

As supervisors, you have a key role to play in the creation of the next generation of scholars. Through your engagement in the admissions process, you can more actively and directly inform those joining research studies and contribute to their progress toward careers as independent researchers.

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