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Supervision

A guide supporting the *Australian Code for the Responsible Conduct of Research*

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1. Introduction

This guide supports the implementation of the *Australian Code for the Responsible Conduct of Research* (the Code), which articulates the broad principles and responsibilities that underpin the responsible conduct of Australian research.

In particular, this guide is intended to assist institutions and researchers to adhere to relevant principles of the Code, including:

- Principle 4, 'Fairness in the treatment of others', which requires researchers to treat fellow researchers and others involved in the research fairly and with respect.
- Principle 7, 'Accountability for the development, undertaking and reporting of research'.
- Principle 8, 'Promotion of responsible research practices', which requires researchers to promote and foster a research culture and environment that supports the responsible conduct of research.

The Code and this guide apply to all research conducted under the auspices of Australian institutions. These institutions vary in size, maturity, experience and organisational structure. They range from large and complex universities, to small privately funded institutes. Accordingly, it is acknowledged that different institutional policies and processes are capable of fulfilling the aim of this guide and attempts have been made to ensure that there are appropriate options for flexibility in its application.

2. Research supervision

Supervision plays a critical role in the responsible conduct of research. Although researchers at all levels of experience can benefit from guidance on providing and receiving supervision, this guidance is directed principally to supervision of early career researchers, Higher Degree by Research (HDR) candidates, undergraduate students and other research trainees. Supervision may be provided by one or more individuals associated with a single institution or with multiple institutions.

The responsibilities of supervisors are diverse and include maintaining currency in discipline-specific knowledge and practices, as well as setting the highest standards in research design and methodology to assure high quality, reliable, and reproducible research findings. They also include developing and maintaining a working knowledge of the legal and policy frameworks that underpin responsible conduct of research at the disciplinary, institutional, and national levels. Supervision necessarily involves developing a respectful, culturally aware and professional relationship.¹

A supervisor's duties may include providing mentoring or career advice and assisting those under their supervision to access relevant services.

This guide does not attempt to replace legislation or broader policies or guidance already in place.² Rather, it is aimed at ensuring that institutions, supervisors and research trainees understand their obligations and work together to promote the responsible conduct of research.

1 The *Principles for Respectful Supervisory Relationships* underpin the relationship between postgraduate research students and their academic supervisors.

2 For example, the *Higher Education Standards Framework (Threshold Standards) 2015* sets out minimum acceptable requirements for higher education providers, including minimum standards for staff with supervisory roles for HDR candidates, and for institutions that provide 'supervisory arrangements'. Individual institutions are required to have research supervision policies in place to ensure that they meet the Threshold Standards.

3. Responsibilities of institutions

This section provides guidance on the responsibilities that institutions have in relation to supervision of those conducting research under their auspices.

3.1 Provide support and uphold appropriate standards

Institutions are responsible for ensuring that supervisors have appropriate experience and are supported in providing guidance on the responsible conduct of research.³ Institutions should actively promote supervisory best practice, acknowledging and, as appropriate, rewarding excellence in supervision.

Under the Code, institutions have the responsibility to:

R5 Ensure supervisors of research trainees have the appropriate skills, qualifications and resources.

Institutions should ensure that supervisors have current knowledge of the methods and content of research in relevant fields or disciplines and are engaged in producing relevant research outputs in, or otherwise making original contributions to, fields or disciplines relevant to the research of those under their supervision.

Institutions should ensure that high quality supervision is recognised as an essential element of research roles within the institution, with expectations commensurate with the seniority and experience of the researchers and students in each supervisory relationship. Institutions should recognise that supervision is an important activity that has an impact on the supervisor's workload and status.

In instances where a HDR candidate is enrolled at an institution, but is conducting research at a secondary institution (including a government agency, hospital, or industry partner), it is the responsibility of the primary institution to ensure that the candidate is provided with adequate supervision.

Institutions should ensure that the number of individuals being supervised does not compromise the supervisor's ability to fulfil their role effectively and in a timely fashion.

Institutions should have a mechanism for making and resolving concerns or complaints relating to supervision.

3.2 Provide training and induction

Institutions should provide training and education that promotes and supports the responsible conduct of research and assists researchers to develop their supervisory practice and follow their institution's policies and other relevant disciplinary-specific policies. The knowledge and experience of longer-term supervisors can be leveraged to this end through appropriately structured mentoring and/or team supervision arrangements and programs.

Under the Code, institutions have the responsibility to:

R4 Provide ongoing training and education that promotes and supports responsible research conduct for all researchers and those in other relevant roles.

³ In some cases, institutions may require formal qualifications or evidence that the supervisor meets a recognised standard – e.g. credentialing.

Each institution must provide induction training on research integrity and the responsible conduct of research for all early career researchers, HDR candidates, undergraduate students and other research trainees, as well as to more experienced researchers who are new to supervisory roles. The training content should, at a minimum, incorporate the following:

- the principles and responsibilities of the Code, including the guides developed to support the Code, and obligations around reporting potential breaches of the Code
- the institution's and relevant funding agencies' policies and procedures relating to the responsible conduct of research and to dispute resolution
- research ethics guidelines and requirements, including:
 - the obligations of researchers undertaking research involving human participants
 - the specific obligations of researchers planning to participate in research with Aboriginal and Torres Strait Islander Peoples
 - the obligations of researchers using animals, and
 - relevant procedures for obtaining, and adhering to, ethics approvals
- the value of, and skills required for, engaging responsibly with research end-users including (as appropriate) governments, government business enterprises, businesses, non-government organisations, not-for-profit groups, and consumer and community organisations
- work health and safety requirements
- environmental protection
- technical matters appropriate to the relevant research field(s)/discipline(s)
- responsible use of intellectual property
- guidance for fostering respectful, culturally aware, engaged and effective collegial and supervisory relationships
- mechanisms for managing concerns, complaints, and breakdowns in supervisory relationships.

Institutions should give this training a high priority, ensuring that supervisors, early career researchers, HDR candidates, undergraduate students and research trainees complete the training as early in their careers as possible. Training should be completed before recruitment of human participants or use of animals in research.

Institutions should also ensure that all supervisors, including those with longer-term experience, receive timely training, as appropriate, in any new legal, policy, or procedural developments as they occur, as well as refresher training. This can be particularly important when any change in circumstance involves new supervisory expectations.

3.3 Support healthy supervisory relationships

Institutions should support supervisory relationships that are in difficulty, recognising that a proactive approach may assist in re-establishing healthy and effective supervisory relationships.

Institutions should support the implementation of alternative supervisory arrangements when established arrangements are affected by, for example, movements in personnel, or are compromised by breaches of the Code or other factors that make continuation of the arrangements untenable.

If termination of a supervisory arrangement is necessary, the welfare of the individual under supervision and the supervisor are key concerns for the institution and appropriate support should be offered.

Institutions should maintain records of supervisory arrangements and offer researchers under supervision the opportunity to discuss any changes to the arrangements as they arise.

3.4 Resolve disputes

Institutional policies should include a mechanism for raising concerns and the fair and timely resolution of disputes about supervision. The policies should include guidance on managing disputes such as those involving power imbalances between supervisors and those under their supervision and between supervisors from different institutions who are jointly supervising a researcher.

The parties to the dispute should maintain records of agreements reached through direct dialogue or mediation.

4. Responsibilities of researchers in supervisory roles

This section provides guidance on the responsibilities that researchers have when providing supervision to other researchers.

4.1 Provide support

Supervisors serve as role models to less experienced researchers and, as such, have obligations to maintain a high degree of professionalism and current knowledge of their field or discipline. Supervisors should reflect on their own competence to provide advice, and seek support where necessary.

Supervisors are obliged to maintain objectivity in their relationships with those whom they supervise. This obligation requires supervisors to appropriately manage any changes in the nature of these relationships (for example, the commencement of intimate or business relationships), which may include a need to inform their institution and/or make alternative supervisory arrangements.

Under the Code, researchers have the responsibility to:

R15 Provide guidance and mentorship on responsible research conduct to other researchers or research trainees under their supervision and, where appropriate, monitor their conduct.

Supervisors should guide and support the professional development of those whom they supervise. This support includes providing guidance on understanding, upholding, and applying the principles, and meeting the responsibilities of the Code.

The supervisor's role should incorporate oversight of all relevant stages of the research process from conceptualisation and planning through to dissemination of outcomes and, as appropriate, publication and follow-up activities. Supervisors also must be satisfied that the research methods and outcomes of researchers under their supervision are appropriate and valid. Supervisors of HDR candidates, in particular, should provide assistance and, where appropriate, co-authorship for publications and other research outputs. Supervisors are responsible for overseeing research proposals developed by those whom they supervise, including providing any necessary advice regarding steps that could be taken to maximise the likelihood that proposed research will be assessed as having academic or scientific merit and as being ethically appropriate.

Under the Code, researchers have the responsibility to:

R26 Acknowledge those who have contributed to the research.

All supervisors, including those who are engaged in research with those whom they supervise, must ensure that the more junior researchers receive appropriate credit for their work. The *Authorship: a guide supporting the Australian Code for the Responsible Conduct of Research* (the Authorship Guide) contains further information about when appropriate credit might amount to authorship/co-authorship.

Under the Code, researchers have the responsibility to:

R16 Undertake and promote education and training in responsible research conduct.

Supervisors should engage with relevant training and education provided by or through their institution and should seek out other relevant training opportunities when they perceive a knowledge gap.

Supervisors should strongly encourage the individuals whom they supervise to undertake and complete induction training as early as possible, as well as to undertake appropriate ongoing and refresher training.

4.2 Supervisory arrangements

Supervisors must work cooperatively with those whom they supervise, and with any co-supervisors, to establish and maintain an appropriate level of engagement.

Supervisors and those whom they supervise should agree, in writing, on:

- expectations related to progression and development
- the appropriate level of oversight of the development and conduct of the research
- expectations related to work product or deliverables, if relevant
- expectations related to the involvement of the supervisor in the work of the individual/s under supervision, or vice versa, if relevant
- arrangements related to any planned co-authorship
- any necessary training for the individual/s under supervision (beyond that provided per section 3.2)
- the frequency and format of meetings
- expectations related to contact between meetings
- the nature and format of feedback
- how any disputes will be resolved
- when and how the agreement will be reviewed during the supervisory relationship.

Where remote supervision is provided, supervisors should ensure that the individual/s being supervised are not disadvantaged because of these arrangements and should consider the use of appropriate technology.

4.3 Engage in relevant training

Supervisors should enrol and actively participate in all appropriate ongoing and refresher training, take an active role in their own professional development and actively seek out relevant training opportunities.

5. Responsibilities of researchers under supervision

This section provides guidance on the responsibilities that researchers have when under the supervision of other researchers.

When being supervised, researchers should:

- demonstrate a professional attitude towards their research
- work cooperatively with their supervisors
- complete all training in a timely manner, and induction courses as soon as possible after they commence their research roles.

Researchers under supervision should also take an active role in their own professional development by enrolling and participating in all appropriate ongoing and refresher training, and by seeking out other relevant training opportunities.

6. Breaches of the Code

Institutions should manage and investigate concerns or complaints about potential breaches of the Code in accordance with the *Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research* (the Investigation Guide).

Examples of breaches of the Code that are related to supervision (see also Section 2.1 of the Investigation Guide) include, but are not limited to:

- Failure by a supervisor to provide adequate guidance or mentorship on the responsible conduct of research to researchers or research trainees under their supervision.⁴
- Demanding or accepting authorship of a research output on the basis of supervision, where the individual does not also satisfy the authorship criteria in the Authorship Guide.

Additional Resources

- Australian Council of Graduate Research
 - Principles for Graduate Research Supervision, in Graduate Research Good Practice Principles <http://www.acgr.edu.au/good-practice/graduate-research-good-practice-principles/>
 - Guidelines for Quality Graduate Research Supervision <https://www.acgr.edu.au/good-practice/best-practice/>
 - Good Practice Guidelines for Aboriginal and Torres Strait Islander Research Education <https://www.acgr.edu.au/about/key-initiatives/indigenous-graduate-research/>
- Department of Education and Training 2017, Research Training Implementation Plan <https://docs.education.gov.au/system/files/doc/other/implementationplan.pdf>
- Lowitja Institute, Supporting Indigenous Researchers: A practical guide for supervisors <https://www.lowitja.org.au/page/services/resources/health-services-and-workforce/workforce/Supporting-Indigenous-Researchers>
- Tertiary Education Quality and Standards Agency 2011, Higher Education Standards Framework <https://www.legislation.gov.au/Details/F2015L01639/Download>
- Universities Australia et al, Principles for Respectful Supervisory Relationships <https://www.universitiesaustralia.edu.au/wp-content/uploads/2018/10/Postgraduate-Principles.pdf>

⁴ To determine whether there has been a failure by a supervisor to provide adequate guidance or mentorship, institutions should consider the nature of the issue, the seniority of those involved, discipline-specific expectations, the workplace and supervisory arrangements (e.g. remote supervision), and the level of institutional support available to the supervisor.

