

University of Hertfordshire

Guide to Good Practice in Research

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Guide to Good Practice in Research

1. Introduction

- 1.1. Good practice in research should be carried out methodically and with professional integrity within the bounds of ethical and legal considerations. In this document the University sets out its position with regard to good research practice in all its research activities.
- 1.2. The following internal documents should be read in conjunction with this guide:
 - Policy and Regulation on Research Misconduct (UPR RE02)
 - Code of Good Practice for the Supervision of Research Degree Students
 - Code of Good Practice for the Recruitment and Role of External Supervisors
 - Policy and Regulation on Studies involving the Use of Human Participants (UPR RE01)
 - Policy and Regulation on Intellectual Property (UPR CA04)
 - Equal and Diversity Policy (UPR EQ03)
- 1.3. External documents that may be relevant are listed in Appendix 1.

2. Integrity and Self-Regulation in Research

Principles of Good Research Practice

2.1. Structure

The University is not prescriptive about individual approaches taken by researchers to solving particular research problems. However, it seeks to ensure that there are adequate structures to promote and promulgate good research practice, emphasising integrity and rigour in research, and to create a culture in which the following general principles can be understood and observed.

2.2. Integrity

Researchers should be honest in respect of their own actions in research and in their responses to the actions of other researchers. This applies to the whole range of research work, including for example experimental design, generating and analysing data, applying for funding, publishing results, and acknowledging the direct and indirect contribution of colleagues, collaborators and others.

Plagiarism, deception or the fabrication or falsification of results is regarded as a serious disciplinary offence. Researchers are encouraged to report cases of suspected misconduct and to do so in a responsible and appropriate manner (see *Research Misconduct*, section 2.1).

Researchers must declare and manage any real or potential conflicts of interest. Declaration should be made in the first instance to the relevant immediate line manager.

Researchers must maintain professional standards where appropriate, document results accurately and question their own findings and attribute honestly the contribution of others.

2.3. Openness

While recognising the need for researchers to protect their own work the University encourages them to be as open as possible in discussing their work with other researchers and with the public.

Once results have been published, the University expects researchers to make available relevant data and materials to other researchers, on request, provided that this is consistent with any ethics approvals and consents which cover the data and materials and any intellectual property rights in them.

The University recognises that publication of the results of research may need to be delayed for a reasonable period pending protection of intellectual property arising from the research and to exploit the results, eg patent applications. However, any such periods of delay in publication should be kept to a minimum. Anonymity of subjects must be protected.

2.4. Health and Safety

All research will be carried out in accordance with current University policy on health and safety (UPR HS08).

2.5. Guidance from professional bodies and sponsors

Where available, the University expects researchers to observe the standards of research practice set out in guidelines published by learned societies and other relevant professional bodies.

All researchers should be aware of the legal requirements that regulate their work.

The University also expects research to be conducted in accordance and with the good research practice guides and the framework agreements with public sponsors such as Research Councils and the NHS (see appendix 1).

3. Implementation of the Principles of Good Research Practice

- 3.1. All relevant University Policies and Regulations (UPRs) and Codes of Good Practice (see section 1.2) are binding on all staff at the University and will, therefore, be a key element in staff development and student training.
- 3.2. A culture of honesty and integrity in research should be fostered and maintained and young researchers and students (see *Code of Good Practice for Research Students*) should be inculcated in this culture. As with the procedures for inquiry into cases of research misconduct, it is important that the University's procedures are widely disseminated and understood.
- 3.3. The University operates a system for considering the ethical implications of all research involving human subjects and for approving such studies, (see *Studies Involving the Use of Human Participants*, UPR RE01).
- 3.4. Responsibilities for implementation of the principles set out in this document rest with individual researchers, relevant line managers with direct responsibility for those engaged in research, principal and co-investigator, academic managers with specific responsibilities for research (eg in the Research Institutes) and supervisors of research students.

4. Leadership and Organisation

- 4.1. The Research Committee of Academic Board and the Research Institutes have particular responsibility for research leadership in compliance with this guide.
- 4.2. Sound management practices exist to ensure that honesty and integrity in research can exist. It should be possible to challenge and test research without loss of face. Commercial pressures must not impinge unreasonably on the normal processes of intellectual inquiry. Those with a supervisory role must play a key role: they should ensure that good practices are learned and followed.

5. The Central Role of Data

- 5.1. There should be clarity at the outset of the research programme as to the ownership, where relevant, of data and samples used or created in the course of the research and the results of the research.
- 5.2. Researchers should keep clear and accurate records of the procedures followed and the approvals granted during the research process, including records of the interim results obtained as well as of the final research outcomes. This is necessary not only as a means of demonstrating proper

research practice, but also in case questions are asked subsequently either about the conduct of the research or the results obtained.

- 5.3. Data generated in the course of research must be kept securely in paper or electronic format, as appropriate (UPR CA04 *Intellectual Property* refers).
- 5.4. Back-up records should always be kept for data stored on a computer.
- 5.5. Researchers must comply with the guidelines for the storage and disposal of data and samples as set out in agreements with sponsors.
- 5.6. As a guide, the minimum time that data is kept after a project has come to an end is normally five years. Some sponsors, such as the Medical Research Council recommend that data relating to clinical studies or public health should be kept for at least 20 years after a project has concluded.

6. Allegations of Research Misconduct

In the event of research misconduct, the University's policy and procedure for inquiring into misconduct will be invoked. Categories of misconduct are listed in the UPR RE02, *Research Misconduct*, and further information is in appendix 2.

7. Integrity in Submitting Proposals for Funding Support

- 7.1. All reasonable measures should be taken to ensure the accuracy of information which is contained in applications for funding and that they are fully costed. All applications for research funding must go through the required University procedure (including having a fully signed R1 form processed through the Research Grants Office in good time before the application deadline).
- 7.2. Approval for research grant applications must be sought from the appropriate Head of Department and Dean of School.
- 7.3. The University and principal investigators in receipt of funding must comply with any codes of practice from the relevant funding body.

8. Monitoring of Procedures in Relation to Good Practice in Research

The Research Committee of the Academic Board will monitor the implementation of this Guide and will make references to issues arising in its annual report as appropriate.

9. Monitoring of Research Degree Programmes

Application of University policies to ensure good research practice will be monitored by the Research Degrees Board of the Academic Board in relation to research degree study and will include reference to any issues arising in its annual report.

10. Further guidance

Concordat to Support Research Integrity

Developed in collaboration with the funding and Research Councils, the Wellcome Trust and various Government departments, this Concordat was published by Universities UK in July 2012.

(<http://www.universitiesuk.ac.uk/highereducation/Pages/Theconcordattosupportresearchintegrity.aspx>)

UK Research Integrity Office Code of Practice for Research: Promoting good practice and preventing misconduct, plus recommended checklist for researchers

The UK Research Integrity Office (UKRIO) published this Code of Practice in September 2009. It includes a checklist for researchers which lists the key points of good practice in research for a research project. It is applicable to all subject areas. You are strongly recommended to make use of this checklist.

(<http://www.ukrio.org/what-we-do/code-of-practice-for-research/>)

RCUK Policy and Guidelines on the Governance of Good Research Conduct

This Policy and Guidelines was published in February 2013 by the Research Councils UK (RCUK). Staff and students are strongly encouraged to read this RCUK document.

(<http://www.rcuk.ac.uk/Publications/researchers/Pages/grc.aspx>)

APPENDICES

Appendix 1: External documents regarding Good Research Practice

- RCUK Policy and Guidelines on the Governance of Good Research Conduct, February 2013
(<http://www.rcuk.ac.uk/Publications/researchers/Pages/grc.aspx>)
- Research Governance Framework for Health and Social Care, 2nd edition, April 2005
(<https://www.gov.uk/government/publications/research-governance-framework-for-health-and-social-care-second-edition>)
- QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Section 1: Postgraduate Research Programme – September 2004
(<http://www.qaa.ac.uk/AssuringStandardsAndQuality/code-of-practice/Pages/default.aspx>)
- European Code of Conduct for Research Integrity, July 2010
(<http://www.esf.org/coordinating-research/mo-fora/completed-mo-fora/research-integrity.html>)

Appendix 2: Categories of misconduct

Research misconduct can take many forms, including:

- **fabrication**: making up results or other outputs (eg, artefacts) and presenting them as if they were real
- **falsification**: manipulating research processes or changing or omitting data without good cause
- **plagiarism**: using other people's material without giving proper credit
- **failure to meet ethical, legal and professional obligations**: for example, failure to declare competing interests; misrepresentation of involvement or authorship; misrepresentation of interests; breach of confidentiality; lack of informed consent; misuse of personal data; and abuse of research subjects or materials
- **improper dealing with allegations of misconduct**: failing to address possible infringements such as attempts to cover up misconduct and reprisals against whistleblowers.

This list is not intended to be exhaustive.

[From *The Concordat to Support Research Integrity*, Universities UK, July 2012]