Code of Practice

Professional Integrity in the Conduct of Research

ULSTER UNIVERSITY

Code of Practice for Professional Integrity in the Conduct of Research

1. Introduction

1.1 The University expects the highest standards of integrity to be adhered to by its researchers. Under this *Code of Practice* the term 'researcher' applies to all staff and students involved in the research process.

1.2 The University seeks to promote and promulgate good research practice, emphasising integrity and rigour in research, and to create a culture in which the following general principles and procedures can be observed.

1.3 A short course, *Research Integrity*, is available online via Blackboard and it is expected that all staff and students involved in the research process will complete it successfully.

2. Integrity in the conduct of research

2.1 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 experimental design, generating and analysing data, applying for funding, publishing results, and properly acknowledging the direct and indirect contribution of colleagues, research students, collaborators and others.

2.2 All researchers must refrain from plagiarism, deception or the fabrication or falsification of results or any other action that could be interpreted as research misconduct.

2.3 Researchers are encouraged to report cases of suspected misconduct and to do so in a responsible and appropriate manner, in line with the University's Procedure for the Investigation of Allegations of Research Misconduct.

https://www.ulster.ac.uk/__data/assets/pdf_file/0008/123110/Procedures-for-the-investigation-of-allegations-of-research-misconduct.pdf

2.4 Researchers should identify, declare and manage any real or potential conflict of interest whether legal, ethical, moral, financial, personal or of any other nature, so that it does not become a complicating or actionable issue.

3. Integrity in managing and carrying out research projects

3.1 Researchers should take all reasonable measures to ensure they meet, sponsor, institutional, legal, ethical and moral obligations in managing and carrying out projects.

3.2 Researchers are expected to familiarise themselves with the terms and conditions of any research contract or agreement entered into by the University on their behalf.

3.3 Researchers should follow established University financial procedures for expenditure.

3.4 The principal or chief investigator with overall responsibility for an individual research programme should ensure that it runs within its allocated budget, and ensure that no penalties are incurred by failure to meet the funder or sponsor's requirements, eg: submission of reports according to schedule.

3.5 Where research is carried out in association with any part of the DoH/HSC (NI) or of the DoH in Great Britain, the person with overall responsibility for the research programme must ensure that the full agreement of the organisation has been obtained in accordance with their current research governance obligations.

https://www.hra.nhs.uk/planning-and-improving-research/policies-standards-legislation/uk-policy-framework-health-social-care-research/

4. Guidance from Professional Bodies

4.1 The University expects researchers to observe the standards of research practice set out in guidelines published by scientific and learned societies in their disciplines and by other relevant professional bodies. References and web-addresses for a range of guidelines from professional bodies are included in the Appendix.

4.2 All researchers must familiarise themselves with the legal requirements which regulate their work. Researchers are expected to take steps to stay informed of governmental, institutional and any other regulations, standards or policies in proposing, conducting and reporting research.

5. Leadership and Co-operation

5.1 A research community free of discrimination should be promoted and encouraged in line with legislation and the University's policies on equality.

https://www.ulster.ac.uk/__data/assets/pdf_file/0016/122902/EO-Policy-2016.pdf

5.2 Senior academic and research staff should ensure that a research climate of mutual co-operation is created in which all members of a research team are encouraged to develop their skills and in which the open exchange of ideas is fostered.

5.3 In line with the principles set out in the Research Concordat, good practice should include mentoring of young, less senior and inexperienced researchers as a mechanism for the development of research activity.

6. Supervision of Research Students

6.1 The supervision of research students must be carried out as described in the appropriate *Regulations* and associated guidance as set out in the University's *Statutes and Ordinances* and the *Research Studies Handbook*.

https://www.ulster.ac.uk/doctoralcollege/current-phd-researchers/handbooks-and-policies

6.2 It is expected that supervisors of research students will supervise all stages of the research process, including outlining or drawing up a hypothesis, protocol design, data recording, data analysis, preparation of manuscripts for submission and publication, reading drafts of chapters and commenting on these in detail both in writing and verbally and the presentation of research output.

6.3 Experienced members of staff must ensure that those who are less experienced have an opportunity to gain supervisory practice and that their contribution to supervision is formally acknowledged.

6.4 Where there is a conflict of interest between a student and his/her supervisor, the code of practice in the Research Studies Handbook should be followed.

6.5 Supervisors of research students are expected to undertake training appropriate to their role, in line with the requirements of the University.

6.6 Where an individual's record of supervision is poor or where his or her students have regularly failed to submit or complete, the University will consider barring that individual from further supervision.

6.7 Research students must provide their supervisors with all files of raw data, appropriately labelled, before submission of the thesis.

7. Training and Mentoring

7.1 Responsibility for ensuring that students and other new researchers understand good research practice lies with all members of the research community, but particularly with Research Institute Directors, Heads of Schools (including Heads of Research Graduate Schools), Research Group leaders, grantholders, supervisors and principal or chief investigators (to avoid confusion, this term is as used on externally-funded research projects to designate the first - or lead - applicant in a list of applicants in the project proposal). It is expected that the principal or chief investigator will be the line manager of staff employed under a grant and will have overall responsibility for the design, conduct and reporting of the study to the funder and/or sponsor. Staff not employed on an externally-funded research grant or contract should have a formally designated line manager.

7.2 All researchers must undertake appropriate training, for example in research design, regulatory and ethics approvals and consents, mentoring of junior staff, equipment use, confidentiality, data-management, record-keeping, and data protection.

https://www.ulster.ac.uk/staffdevelopment/home

7.3 Line managers/principal/chief investigators must ensure that staff are given time and support to attend appropriate staff development courses.

8. Primary Data/Samples, Equipment and other Materials

8.1 Researchers should clarify at the outset of the programme any issues regarding the ownership of the data, samples, equipment or other materials used or created in the

course of the research and also the results of the work. Any issues regarding ownership should be resolved and appropriate material transfer agreements or similar contracts put in place before the research commences.

8.2 Researchers must keep clear and accurate records of the procedures followed and the approvals granted during the research process, including records of 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 subsequently asked about the conduct of the research, the consent process (for research involving human participants), or the results obtained. It is also important in the process of protecting intellectual property rights.

8.3 Consent forms and data generated in the course of research should be kept securely in paper or electronic format, as appropriate. Personal identification/contact information and codes to access anonymised data should be kept separately from the raw data. Updated back-up records of irreplaceable data must always be kept on a University-based personal computer or secure server accessible to all members of the research team. Please refer to the University's guidance on the handling of research data (available via the University portal)

8.4 Laboratory notebooks should be kept, where appropriate, and each key document and any changes should be signed and dated. Pages should not be torn from the notebooks and writing should not be in pencil. Data should be stored in such a way as to allow a complete retrospective audit and records should be monitored regularly to ensure their completeness and accuracy.

8.5 The University expects such data to be held securely for a minimum period of 10 years from completion of the work; however, research based on clinical samples or relating to public health might require longer storage to allow for long-term follow-up to occur.

8.6 Data or samples should be retained for more than 10 years if stipulated by the funder of the research, eg: The Wellcome Trust and several Research Councils require 10 years; departments of health and similar funders might require 25 years or indefinite retention. An archiving procedure has been put in place for material that is to be held for longer than 10 years.

Please refer to the ISD handbook *Protecting University Information*, available at:

https://www.ulster.ac.uk/isd/staff/protecting-information

8.7 All stored data and samples should be clearly marked with a "do not dispose of before" date. Storage of human samples must comply with the University's licence under the Human Tissue Act. Where refrigeration is required, appliances with functioning monitoring and alarm systems must be used. Staff should be made aware of actions to take if an alarm sounds.

https://www.ulster.ac.uk/__data/assets/pdf_file/0014/123080/Policy-on-Research-using-Human-Tissue.pdf

Please refer to the Standard Operating procedures for studies involving human tissue (available via the University portal).

Transfer of data and research materials

8.8 All data and research materials generated in the course of research are important to the University as they might contain intellectual property of significant value or be relevant to ongoing or future studies.

8.9 Originals of all data must be transferred to the researcher's line manager or supervisor at the end of the period of employment or study, and the whereabouts of all other materials or samples must be clearly indicated.

9. Ethical and Regulatory Approval

Research involving Human Participants and Human Material

9.1 Approval from the appropriate research ethics committee(s) must be sought for all research involving human participants, samples or data in accordance with the University's policies and procedures.

https://www.ulster.ac.uk/__data/assets/pdf_file/0003/331878/Policy-Human-Research-V5.pdf

Approval from other regulatory bodies such as the Human Fertilisation and Embryology Authority or the Gene Therapy Advisory Committee in the UK should also be sought where necessary. Further information is available at:

https://mrc.ukri.org/research/policies-and-guidance-for-researchers/

9.2 Research which requires ethical approval must not commence until this approval has been obtained, nor deviate from the approved protocol without new ethical approval; i.e. ethical approval must be sought and obtained prior to implementing any amendment to or deviation from the protocol originally approved.

9.3 Researchers shall carry out investigations or interventions only with the valid informed consent of participants, having taken all reasonable steps to ensure that they have adequately understood the nature of the investigation or intervention and its anticipated consequences.

9.4 In line with GDPR and the Data Protection Act 2018, researchers must ensure the confidentiality of personal information relating to the participants in research, and that the research fulfils any legal requirements such as those of the Data Protection Act 1998, the Health and Safety at Work Act (NI) 1978, the Human Tissue Act 2004 (see 8.7 above) and EU Recommendation No.R (90)3.

https://www.ulster.ac.uk/about/governance/compliance/gdpr
http://www.ulster.ac.uk/hr/healthandsafety/

Research involving Animals

9.5 Research involving animals requires approval under the Animals (Scientific Procedures) Act 1986 (revised Jan 2013 to transpose EU Directive 2010/63/EU) and researchers

must ensure that appropriate personal and project licences are in place. Stringent safeguards on animal pain and suffering and other legal requirements to ensure the care and welfare of animals must be put in place and observed.

9.6 At an early stage in the research design researchers should consider opportunities for the reduction, replacement and refinement of animal involvement.

10. Openness

10.1 While recognising the need for researchers to protect their own research interests, and to seek protection for any intellectual property identified during the course of the research, the University encourages openness. Researchers should be as inclusive as possible in discussing their work with other researchers and with the public to promote a culture of communication and transparency.

10.2 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.

10.3 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 or the due process that may be required by a sponsoring or funding organisation. However, any such periods of delay in publication should be kept to a minimum and the duration should be agreed in advance with a sponsor or other funder.

10.4 Researchers must adhere to the requirements of the University and research funders regarding the publication, availability, handling, preservation and deposit of research data.

11. Intellectual Property Rights and Ownership

11.1 Intellectual property includes patents, registered designs, copyright, design rights and know-how. Creative work, including research and development, can lead to intellectual property rights (IPR) and some of these can be protected under one or more headings.

11.2 In patent law, the intellectual property created during an employee's normal or specifically assigned activities belongs to the employer. This means that the IPR arising from the activities of university staff usually belongs to the University. Where work is being carried out under contract with an outside agency, specific provisions about IPR may apply. For instance, the University may be requested to assign its rights to the funder or sponsor, usually in exchange for some benefit.

11.3 Researchers who identify IPR should follow the University's Intellectual Property Policy and Procedures

https://www.ulster.ac.uk/__data/assets/pdf_file/0007/331882/ip_policy.pdf

12. Publication Practice

12.1 The agreement of all co-authors/contributors must be sought as to the convention of authorship and the order of names to appear on publications resulting from work as early as possible and prior to any submission for publication.

12.2 Results should be published in an appropriate form, such as papers in refereed journals, authored books, etc. Researchers should make all reasonable efforts to disseminate their research results as widely as possible to the academic community through papers, books, presentations or other suitable media and, where appropriate, to the public. Where a study has involved research participants, they should normally be informed of the outcome of the study and thanked for their participation.

12.3 The lead author on any paper must ensure that all co-authors are familiar with, and approve of, the contents of the paper and can identify their contributions prior to submission for peer review.

12.4 Anyone listed as an author on a paper should accept responsibility for ensuring that he/she is familiar with the contents of the paper and can identify his/her contribution to it. The practice of honorary authorship is unacceptable.

12.5 The contributions of formal collaborators and all others who directly assist or indirectly support the research should be properly acknowledged.

12.6 The University's guidance on authorship is available via the University portal and further guidance can be found in the Committee on Publication Ethics guidelines "Good Publication Practice"

http://publicationethics.org/resources/guidelines

13. Review and audit

13.1 To ensure studies comply with all legal, regulatory, procedural and other requirements, they may be subject to review or audit at any time.

APPENDIX

Please note that the following references and links are examples of guidance and regulation; this is not a complete or exhaustive list. Researchers must ensure that they are aware of all regulations appropriate to their particular area of work or study.

American Psychological Association (2010). *Ethical Principles and Code of Conduct*.
http://www.apa.org/ethics/code/index.aspx

BBSRC/DEFRA/NERC *Joint Code of Practice for Research*

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/413154/pb13725-research-code-practice.pdf

British Computer Society (2011). *Code of Conduct*.
http://www.bcs.org/server.php?show=conWebDoc.1588

British Psychological Society, The. *Code of Ethics and Conduct*
https://beta.bps.org.uk/news-and-policy/bps-code-ethics-and-conduct

British Sociological Association. *Statement of Ethical Practice*.
https://www.britsoc.co.uk/media/24310/bsa_statement_of_ethical_practice.pdf

Chartered Society of Physiotherapy, The. *Rules of Professional Conduct*.
http://www.csp.org.uk

General Medical Council *Good practice in research*. General Medical Council, London.
http://www.gmc-uk.org/guidance/index.asp

Human Fertilisation and Embryology Authority, http://www.hfea.gov.uk/

Human Tissue Authority, http://www.hta.gov.uk/

International Committee of Medical Journal Editors. 2013.
Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals
http://www.icmje.org/

Market Research Society (MRS). *Code of Conduct*.
https://www.mrs.org.uk/standards/code-of-conduct

Medical Research Council (2012). *Good Research Practice*.
http://www.mrc.ac.uk/news-events/publications/good-research-practice-principles-and-guidelines/

Medicines and Healthcare Products Regulatory Authority, *How we regulate*
http://www.mhra.gov.uk/Howweregulate/index.htm

Public Health Agency (Health and Social Care) Research & Development
http://www.research.hscni.net/

UKRI, Research Integrity
https://www.ukri.org/about-us/policies-and-standards/research-integrity/

Royal Statistical Society, The. *Code of Conduct*.
http://www.rss.org.uk/Images/PDF/join-us/RSS-Code-of-Conduct-2014.pdf

UK Research Integrity Office *Code of Practice for Research*
http://www.ukrio.org/what-we-do/code-of-practice-for-research/

UK Research Integrity Office
https://ukrio.org/

Universities UK *The Concordat for Research Integrity*
https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/the-concordat-for-research-integrity.aspx

Wellcome Trust, The (2005). *Guidelines on Good Research Practice*. The Wellcome Trust, London.
http://www.wellcome.ac.uk/About-us/Policy/Policy-and-position-statements/WTD002753.htm