

GUIDELINES FOR GOOD RESEARCH PRACTICE

Created and Modified:	February 2016
Authors:	Emma Harris and Elizabeth Nolan
Originating Department:	Research, Business and Innovation Directorate
Approved by:	Director of RBI
Links updated:	September 2017
Links updated by:	Angela Davis

DE MONTFORT UNIVERSITY

GUIDELINES FOR GOOD RESEARCH PRACTICE

1. Introduction

De Montfort University is committed to research excellence. These Guidelines set out the principles and the responsibilities to which researchers and the University should adhere. In order to maintain the highest standards of research quality De Montfort University upholds the principles of Universities' UK *Concordat to Support Research Integrity*¹.

All researchers acting under the auspices of De Montfort University are expected to adhere to the highest standards of professional conduct and behaviour and are expected to perform their role with honesty, integrity and respect for their colleagues, students, partners and customers/clients of the university. The University is dedicated to promoting and supporting these standards and this level of performance.

These guidelines should be read in combination with and understood to apply to those listed in other university policies, including, but not limited to: *Code of Conduct for DMU Staff*², *Disciplinary Procedure for Academic/Teaching Staff in Higher Education*³, *Guidance Notes and Application Forms* for applying for ethical approval for each faculty⁴, *General Student Regulations*⁵, *Code of Practice for Research Degree Students*⁶, *Research Degree Regulations*⁷, *Public Interest Disclosure (Whistle-blowing) Policy*⁸, *Statement of Policy and Procedure on Conflict of Interest*⁹, *Research Records Retention Policy*¹⁰.

While the key principles and guidelines in this policy are applicable to research in all subject areas, the guidelines from external bodies on the requirements of different disciplines can be found on the *Research Integrity and Ethics*¹¹ web page of the University website. These should be observed in conjunction with the responsibilities outlined in this document.

All those who are involved in research at the University are expected to read these guidelines. Should you have any suggestions on how the University can further improve our research environment, please contact the Research, Business and Innovation Directorate (RBI)¹². The senior person (the Named Person) responsible for Research Integrity is the Deputy Vice-Chancellor (Research and Innovation).

2. Principles

2.1) Introduction

The research environment at De Montfort University is based on the key qualities of honesty, openness, care, integrity and accountability. The University is committed to developing and nurturing a culture of research integrity. This is achieved through actively supporting researchers and defining clearly how they can comply with ethical guidelines and good research practice. The aim is to create a framework for understanding how to design, manage, conduct, and disseminate research in a conscientious and responsible manner.

2.2) Definitions

'Research' may be defined as: an original investigation undertaken in order to generate new knowledge, understanding, and insight (REF2014). It refers to all aspects of the research process. Research may also be defined by the Frascati classification¹³.

'Researchers' are defined as: anyone who is involved in contributing to research. This includes academic, research and relevant research support staff employed by the University, and other individuals carrying out research under the auspices of the University.

There can be some confusion about the difference between research integrity and research ethics, and how the two interrelate. One of the best explanations comes from the FWO (a Research Foundation):

Research integrity is closely linked but not quite identical to research ethics. Integrity specifically involves those aspects that are linked to the quality of research practice and its results. Ethics is primarily about standards and values to be taken into account by the researcher to protect the well-being of humans and animals involved in research and the results thereof. A researcher may falsify data without immediately putting humans or animals at risk. Such a researcher does not act with integrity, for the results of his research are unreliable, but he does not engage in direct unethical conduct with respect to humans, animals and their environment. However, the fact that the use of such manipulated results may eventually cause harm to humans, animals and their environment, shows that integrity and ethics can never be completely separated. From a broad ethical point of view, falsification of research data or otherwise tampering with research data is, of course, unacceptable¹⁴.

It should be further noted that:

- The standards of research conduct should be judged by the standards prevailing in the country in question and in relation to the time period the research was conducted.
- Poor practice in research does not include differences in the design, execution, interpretation or judgement in evaluating research methods or results, or what might be deemed academically poor research.

3. Research Management

3.1) Values and Aims

Honesty and Openness

Researchers should be honest in respect of their own actions and intentions when undertaking research and in their responses and intentions towards the research of others. This applies to all aspects of the research process.

De Montfort University recognises the need for researchers to protect their own research interests in the process of planning their research and obtaining their results. Nevertheless, the University encourages researchers to be as open as possible in disseminating their work. Researchers should consult *Policy for Managing Open Access at DMU*¹⁵ and the *Research Data Management Policy*¹⁶. They should also familiarise themselves with the submission processes for the university's institutional repository (DORA). Any concerns about releasing results that might affect the potential to protect the research at a later date should be referred to the RBI for advice. Researchers are encouraged to make their outputs freely available as soon as possible, in accordance with DMU's Open Access policy.

Care

Researchers should show care and respect for all participants in and subjects of research, including humans, animals, the environment, and cultural objects. Those engaged in research must also show care and respect for the stewardship of research and scholarship for future generations.

Please see subject specific guidance on the *Research Integrity and Ethics* web page for more information.

Integrity

Researchers must be honest about conflict of interest issues, whether real, potential or perceived, at the earliest opportunity and at all stages of research, e.g. when applying for funding, when identifying collaborators and when reporting results. Please see De Montfort University's *Statement of Policy and Procedure on Conflict of Interest*.

Accountability

Researchers must ensure that the research that they are undertaking is consistent with the terms and conditions covered by agreements between the University and external funders, and with the University's *Financial Regulations* (in particular point 21 relating to *Research Grants and Contracts* and the *Anti-Fraud Policy*)¹⁷. This includes, but is not restricted to, ensuring that the research programme carried out is as defined in the original proposal to the funder, unless amendments have been agreed in writing; that all finance is used solely for the research purpose for which it was intended; that reports are both accurate and produced on time; and that conditions relating to publication and ownership of Intellectual Property are adhered to.

3.2) Obligations

Researchers must comply with all applicable laws and statutes relevant to the conduct of research including, but not limited to, the Human Rights Act 1998, the Data Protection Act 1998, the Freedom of Information Act 2005, the Human Tissue Act 2004, the Mental Capacity Act 2005, the Safeguarding Vulnerable Groups Act 2006, the Medicines for Human Use (Clinical Trials) Regulations 2004, the Animals (Scientific Procedures) Act 1986, and the Counter-Terrorism and Security Act 2015.

4. Responsibilities

4.1) Research Environment

The University is responsible for creating a research environment that develops good research practice and supports a culture of research integrity and ethics. This includes supporting researchers to understand and act according to expected standards, making guidelines and policies easily available and having procedures in place to ensure that research is conducted in compliance with the *Concordat to Support Research Integrity*. De Montfort University continuously works toward providing comprehensive training and development on good research practice as well as having appropriate arrangements in place through which researchers can access advice and guidance on ethical, legal and professional obligations and standards.

4.2) Leadership

Within the University it is the responsibility of the Deputy Vice-Chancellor, Pro Vice-Chancellor (Research and Innovation), the Heads of School, Department and the Faculty Heads of Research and Innovation, Faculty Heads of Research Students, Deans, Heads of Schools, Heads of Research Groups, Director of the Graduate School, and the leaders of Research Groups and Centres to ensure the environment of good research practice is created and maintained. The Principal Investigator is

primarily responsible for maintaining good research practice throughout a project.

4.3) New Researchers

4.3.1 The Needs of New Researchers

Researchers who are new to the academic community may face particular difficulties in maintaining good practice. Responsibility for ensuring that new researchers understand good research practice lies with all members of the community, but particularly with the relevant department and faculty, and the Graduate School.

All researchers should receive good supervision appropriate to their experience. Researchers should not be put under unwarranted pressure to produce results. New researchers in particular should receive appropriate training.

More details on issues relating to new researchers and postgraduate students can be found in the *Code of Practice for Research Degree Students* and the *Research Degree Regulations* (in particular 4.8 c relating to student responsibilities).

4.3.2 Supervisors

To ensure that all research, especially that undertaken by new researchers, is in accordance with best practice, supervisors must undertake appropriate training. DMU academic colleagues who wish to act as supervisors for research degree students are required to complete the University's Certificate in Research Supervision course on good practice and student monitoring. This requires attendance at three sessions and must be updated every three years. See *Professional Development Activities*¹⁸ web page for more information.

5. Designing Research

5.1) Ethical Guidelines

All research must be designed and carried out with the necessary ethical approval and review. The overriding principle must be that no harm should be caused by the research investigation or the dissemination of its results. More details on the University Research Ethics policies and processes can be found within the *Faculty Review Guidance Notes and Forms*.

Before research begins Lead Researchers / Principal Investigators should make all those involved in the research aware of the relevant legal and ethical requirements, appropriate methods of record keeping, data management, including storage and disposal relevant to the discipline, and the importance of recognising and reporting unforeseen results or incidents.

5.2) Collaborations

In the instance of a research project that is based on collaboration with other countries and organisations, researchers based in the UK should comply with the legal and ethical requirements existing in the UK and in the countries where the research is conducted. Similarly, organisations and researchers based abroad who participate in UK-hosted research projects should comply with the legal and ethical requirements existing in the UK as well as those of their own country.

5.3) Health and Safety

Where appropriate, researchers, with the support of the University, should conduct a risk assessment of the planned study to determine whether or not there will be any potential risks to the organisation, the research, or the health, safety and well-being of researchers and research participants; and to ascertain what legal requirements are governing the research.

All research must be designed in accordance with the University's health and safety procedures. Details of these can be found in the new *Health and Safety Policies*¹⁹ and the *Code of Conduct for DMU Staff*.

6. Conducting Research

6.1) Research Involving Humans and Animals

In addition to designing research in accordance with ethical guidelines and health and safety policies, special care must be taken to ensure that research projects that include human participants or animals comply with the highest standards of research conduct:

- Research involving human participants, human material or personal data must comply with all legal and ethical requirements and any other applicable guidelines. Appropriate care should be taken when research projects involve: vulnerable groups, such as the very old, children or those with mental illness; and covert studies or other forms of research which do not involve full disclosure to participants. The dignity, rights, safety and well-being of participants must be the primary consideration in any research study. Research should be initiated and continued only if the anticipated benefits justify the risks involved.
- Research involving animals must adhere to all legal and ethical requirements and other applicable guidelines. The opportunities for reduction, replacement and refinement of research involving animals in research projects must always be considered.

For specific subject guidelines on research involving humans and animals see the *Research Integrity and Ethics* web page.

7. Documenting and Disseminating Results

7.1) Critical Approach

Researchers should always be prepared to question the outcomes of their research. The University expects all research results to be checked before being made public. It is important that research ideas can be challenged and tested once published.

7.2) Research Data

The University and researchers should comply with all legal, ethical, funding body, and organisational requirements for the collection, use and storage of data, especially personal data, where particular attention should be paid to the requirements of data protection legislation. They should also maintain confidentiality where undertakings have been made to third parties or to protect intellectual property rights. The University and researchers should ensure that research data relating to publications is available for discussion with other researchers, subject to any existing agreements on confidentiality.

Where applicable, researchers should also ensure they comply with terms and conditions set by external funders and any contractual obligations to outside parties relating to data management.

Data should be retained by the University for a minimum of 5 years following publication of the research (10 years in the case of EPSRC-funded data-sets). It should be kept in a form that would enable retrieval by a third party, subject to limitations imposed by legislation and general principles of confidentiality.

Any subject-specific requirements for the retention of data must be complied with; for example, certain disciplines, such as health and biomedicine, may require research data to be retained for a considerably longer period.

If research data is to be deleted or destroyed, either because its agreed period of retention has expired or for legal or ethical reasons, it should be done so in accordance with all legal, ethical, research funder and organisational requirements and with particular concern for confidentiality and security.

Researchers should consider how data will be gathered, analysed and managed, and how and in what form relevant data will eventually be made available to others, at an early stage of the design of the project. Researchers should collect data accurately, efficiently and according to the agreed design of the research project, and ensure that it is stored in a secure and accessible form.

Further information on De Montfort University's policy on using data in research can be found in the *Research Records Retention Policy*²⁰. The University is working on a *Research Data Management Policy* which will be published shortly.

7.3) Publishing

7.3.1) Authorship

The issue of authorship is important in the context of good research practice, and the University expects the matter to be taken seriously. The University expects anyone listed as an author on a paper to accept personal responsibility for ensuring that they are familiar with the contents of the paper. The COPE (Committee on Publication Ethics) report on *How to handle authorship disputes: a guide for new researchers*²¹ can be found in the appendix of this document. It is a useful reference point for all those publishing research.

It is advisable to address publication and authorship issues at an early stage of the project, and to document agreed decisions. PIs must ensure that where appropriate all researchers have the opportunity to contribute to the publication process.

Researchers should clearly acknowledge all sources used in their research and seek permission from any individuals if a significant amount of their work has been used in the publication.

Researchers should be aware of the issues regarding text recycling, otherwise known as self-plagiarism. 'Text recycling, also known as self-plagiarism, occurs when sections of the same text appear (usually un-attributed) in more than one of an author's own publications' (*How to Deal with Text Recycling*²², COPE). A full discussion of what constitutes text recycling can be found in the COPE guidelines cited here.

7.3.2) Publishing Conduct

In order to ensure a high standard of publication, researchers should, where appropriate, submit their work for peer review prior to publication.

Researchers should adhere to any conditions set by funding or other bodies regarding making their research and findings open access within a specified period. They should familiarise themselves with DMU's *Policy for Managing Open Access at DMU* and *Research Data Management Policy*.

Researchers should declare any potential or actual conflicts of interest in relation to their research when reporting their findings at meetings or in publications. Please see the University's *Statement of Policy and Procedure on Conflict of Interest*.

The University and researchers should accept their duty to publish and disseminate research in a manner that reports the research and all the findings of the research accurately and without selection that could be misleading. If an error is found that diminishes the worth of the published results, the researcher should discuss the matter with the lead researcher and notify any co-authors. A correction should be published as soon as possible setting out the basis of the reservation. Where the findings are found to be in serious doubt, a retraction should be published speedily. For further details on retractions and corrections please see UKRIO's new

guidance.²³

Where applicable, the University should ensure that sponsors and funders of research: respect the duty of researchers to publish their research and the findings of their research; do not discourage or suppress appropriate publication or dissemination; and do not attempt to influence the presentation or interpretation of findings inappropriately.

Researchers should also be aware of the University policy on political neutrality which can be found in the *Code of Conduct for DMU Staff*.

7.4) Intellectual Property

The University recognises there are instances where the potential for exploiting intellectual property (IP) generated by research is important both to improve economic competitiveness and to generate revenue. The potential to exploit IP should be considered at the application and contract stages and certainly before data are submitted for publication or presented in any other public forum including the internet. Assistance and advice with these matters, including confidentiality and collaboration agreements, can be found via DMU's Legal Services²⁴, and through ProspectIP²⁵, located in the Innovation Centre.

8. Research Misconduct

8.1) Definition

The definition of unacceptable research conduct is based on the *Concordat to Support Research Integrity* and the *RCUK Policy and Guidelines on Governance of Good Research Conduct*.

The definition includes, but is not limited to, the following:

Fabrication

This comprises the creation of false data or other aspects of research, including documentation and participant consent.

Falsification

This comprises the inappropriate manipulation and/or selection of data, imagery and/or consents.

Plagiarism

This comprises the misappropriation or use of others' ideas, intellectual property or work (written or otherwise), without acknowledgement or permission.

Misrepresentation, including:

- Misrepresentation of data, for example suppression of relevant findings and/or data, or knowingly, recklessly or by gross negligence, presenting a flawed interpretation of data
- Undisclosed duplication of publication, including undisclosed duplicate submission of manuscripts for publication
- Misrepresentation of interests, including failure to declare material interests either of the researcher or of the funders of the research
- Misrepresentation of qualifications and/or experience, including claiming or implying qualifications or experience which are not held
- Misrepresentation of involvement, such as inappropriate claims to authorship and/or attribution of work where there has been no significant contribution, or the denial of authorship where an author has made a significant contribution

Breach of duty of care, whether deliberately, recklessly or by gross negligence:

- Disclosing improperly the identity of individuals or groups involved in research without their consent, or other breach of confidentiality;
- Placing any of those involved in research in danger, whether as subjects, participants or associated individuals, without their prior consent, and without appropriate safeguards even with consent; this includes reputational danger where that can be anticipated
- Not taking all reasonable care to ensure that the risks and dangers, the broad objectives and the sponsors of the research are known to participants or their legal representatives, to ensure appropriate informed consent is obtained properly, explicitly and transparently
- Not observing legal and reasonable ethical requirements or obligations of care for animal subjects, human organs or tissue used in research, or for the protection of the environment
- Improper conduct in peer review of research proposals or results (including manuscript submitted for publication); this includes failure to disclose conflicts of interest; inadequate disclosure of clearly limited competence; misappropriation of the content of material; and breach of confidentiality or abuse of material provided in confidence for peer review purposes

Improper dealing with allegations of misconduct:

- Failing to address possible infringements including attempts to cover up misconduct or reprisals against whistle-blowers
- Failing to deal appropriately with malicious allegations, which should be handled formally as breaches of good conduct.

8.2) Investigation Procedure and Points of Contact

Allegations of research misconduct will be investigated to ascertain if any misconduct has occurred. The process for doing so is outlined in the *Misconduct in Research – Investigation Procedure*²⁶. This procedure is compliant with the principles outlined by

the *Concordat to Support Research Integrity*, and it sets out a process to enable all allegations of research misconduct to be investigated thoroughly, fairly and efficiently, and with due care and sensitivity.

Any member of the University who has concerns about research conduct may discuss these matters in confidence with Director of the Graduate School. Any member of the University who genuinely believes that an act of research misconduct has occurred or is occurring should submit their concerns to the Deputy Vice-Chancellor in writing where possible, accompanied by any supporting evidence that is available. The University takes seriously any allegation of research misconduct and will investigate any such allegations in accordance with the appropriate stage(s) of the procedure.

In formulating these guidelines, the University has been informed by:

- Code of Good Practice in Research, University of Glasgow
- Research Governance and Integrity Policy, University of Bristol
- Guidelines on Good Practice in Research, University of East Anglia
- The Universities UK Concordat to Support Research Integrity
- Code of Practice for Research, UK Research Integrity Office
- RCUK Policy and Guidelines on Governance of Good Research

¹ The Universities UK Concordat to Support Research Integrity (2012):

<http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/research-concordat.aspx>

² Code of Conduct for DMU Staff (2013): <http://www.dmu.ac.uk/documents/dmu-staff/pod/people-management-handbook/codeofconductfinal.pdf>

³ Disciplinary Procedure for Academic/Teaching Staff in Higher Education (1999)

<http://www.dmu.ac.uk/documents/dmu-staff/pod/people-management-handbook/working-for-dmu/performance-improvement-and-staff-conduct/disciplinary-procedure---academic-staff/disciplinaryprocedure-academicstaff.pdf>

⁴ Ethical Approval Faculty Navigation Page: <http://www.dmu.ac.uk/research/ethics-and-governance/faculty-specific-procedures/faculty-specific-procedures.aspx>

⁵ General Student Regulations (Chapter 2 Student Discipline): <http://www.dmu.ac.uk/documents/dmu-students/academic-support-office/2016-17-student-regulations/chapter-2-16.17.pdf>

⁶ Code of Practice for Research Degree Students <http://www.dmu.ac.uk/research/graduate-school/current-research-students/code-of-practice/code-of-practice.aspx>

⁷ Research Degree Regulations (2013): <http://www.dmu.ac.uk/documents/research-documents/graduate-school/cop-2013/regulations/cop-2013-introduction-1.pdf>

⁸ Public Interest Disclosure (Whistle-blowing) Policy (2013): <http://www.dmu.ac.uk/documents/dmu-staff/pod/people-management-handbook/raising-concerns/raising-serious-concerns-whistleblowing-policy.pdf>

⁹ Statement of Policy and Procedure on Conflict of Interest: <http://www.dmu.ac.uk/documents/dmu-staff/pod/people-management-handbook/conflict-of-interest-policy-v6-final.pdf>

¹⁰ Research Records Retention Policy (2007): <http://www.dmu.ac.uk/documents/about-dmu-documents/quality-management-and-policy/records-management/research-records-retention-policy.pdf>

¹¹ Research Integrity and Ethics Web Page: <http://www.dmu.ac.uk/research/ethics-and-governance/research-integrity-and-ethics-training-and-resources.aspx>

¹² RBI Web Page: <http://www.dmu.ac.uk/research/research-support/research-business-and-innovation-directorate/research-business-and-innovation.aspx>

¹³ Frascati Manual (2002): http://www.tubitak.gov.tr/tubitak_content_files/BTYPD/kilavuzlar/Frascati.pdf

-
- ¹⁴ FWO <http://www.fwo.be/en/the-fwo/organisation/research-integrity/>
- ¹⁵ Policy for Managing Open Access at DMU: <https://www.dmu.ac.uk/documents/research-documents/research-support/final-de-montfort-university-open-access-policy.pdf>
- ¹⁶ Data Management Policy: <https://www.dmu.ac.uk/documents/research-documents/research-support/dmu-guidelines-on-rdm-march-2016.pdf>
- ¹⁷ Financial Regulations (Available on Intranet) (2007): <https://sites.google.com/a/myapps.dmu.ac.uk/finance/home/financial-regulations> and Anti Fraud Policy (2014): <https://docs.google.com/a/myapps.dmu.ac.uk/viewer?a=v&pid=sites&srcid=bXlhCHBzLmRtdS5hYy51a3xmaW5hbmNlfGd4OjMwYjl2ZDFiMjlyYmNkNjA>
- ¹⁸ Professional Development Activities Web Page: <http://www.dmu.ac.uk/about-dmu/professional-services/academic-professional-development/professional-development-activities/certificate-in-research-supervision.aspx>
- ¹⁹ Health and Safety Policies (Available on Intranet): <https://sites.google.com/a/myapps.dmu.ac.uk/hr-intranet/home/health-safety-new>
- ²⁰ Research Records Retention Policy: <http://www.dmu.ac.uk/documents/about-dmu-documents/quality-management-and-policy/records-management/research-records-retention-policy.pdf>
- ²¹ 18 How to handle authorship disputes: a guide for new researchers, COPE: http://publicationethics.org/files/2003pdf12_0.pdf
- ²² How to deal with text recycling, COPE: http://publicationethics.org/files/BioMed%20Central_text_recycling_editorial_guidelines_0.pdf
- ²³ Good practice in research: Guidance for researchers on retractions in academic journals (<http://ukrio.org/wp-content/uploads/UKRIO-Guidance-for-researchers-on-retractions-in-academic-journals.pdf>).
- ²⁴ IP Guidance Pages, Legal Services, DMU: <http://www.dmu.ac.uk/research/research-support/intellectual-property/intellectual-property-advice.aspx>
- ²⁵ Prospect IP: <http://www.prospectip.com/resources.htm>
- ²⁶ Misconduct in Research - Investigation Procedure: <http://preview.dmu.ac.uk/documents/research-documents/ethics-faculty-procedures/misconduct-in-research-investigation-procedure-final.pdf>