

Research Data Management Policy





Version Control

HUMAN RESOURCES

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POLICY AND PROCEDURE



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Policy

1 Introduction

- 1.1. High quality data management and storage is the cornerstone of excellent research and a key aspect of responsible research conduct. The University of Bradford recognises that research data is a valuable institutional asset and should be managed in line with the UKRI's Common Principles on Research Data.
- 1.2. Most research funders, including all research councils under the auspices of UKRI, Wellcome and charity funders have data management and sharing policies, and Data Management Plans (DMPs) are now a key part of most funding applications.
- 1.3. Well managed data enables research data to be securely and reliably stored long term. It enables discoverability, accessibility and reuse where appropriate, and it supports transparency and scrutiny, facilitates collaboration and encourages the ethical re-use of data to maximise the intellectual, social, cultural and economic impact of the University of Bradford's research.
- 1.4. The University supports the <u>Concordat on Open Research Data</u> and <u>UKRI's Common Principles on Research Data</u>.
- 1.5. The aim of this policy is to ensure that researchers manage their research data effectively, enabling them to:
 - Demonstrate the rigour and integrity of their research.
 - Ensure that data are findable, accessible, interoperable, and reusable.
 - Follow university, ethical, legal and funder requirements in relation to research data and the management of research data.

2 Scope



- 2.1 The Policy applies to researchers: any person who conducts research, including but not limited to: an employee; a research supervisor; a visiting researcher; an independent contractor or consultant; postgraduate research students; postgraduate taught students; a visiting or emeritus member of staff; an undergraduate student; a member of staff on a joint clinical or honorary contract, and/or a public contributor to research. The Policy applies to all subject areas of the University.
- 2.2 This Policy applies to all research irrespective of how it is funded.
- 2.3 This Policy supports and complements the Code of Practice for Research, Publications and Open Access Policy, Data Protection Policy, Research Data Management IT Security Guidance, Ethics Code, Ethical Framework, Freedom of Information Policy and the Intellectual Property Policy.
- 2.4 Research and Innovation Committee owns this Policy and oversees research data management policy implementation via an oversight committee for research computing and data management.
- 2.5 The Deputy Vice Chancellor (Research, Innovation and Engagement) is responsible for ensuring that this policy is regularly reviewed and fit for purpose.



Data Management Plan: A Data Management Plan (DMP) is a formal document that outlies how date are to be managed during the lifetime of a project and after the project has been completed. It is the basis of effective research data management.

Data Steward: A data steward is an oversight or data governance role on a research project.

Research: For the purposes of this policy, "research" refers to the definition used by the <u>Research Excellence Framework 2021</u>:

"Research is defined as a process of investigation leading to new insights, effectively shared".

"It includes work of direct relevance to the needs of commerce, industry, culture, society, and to the public and voluntary sectors; scholarship; the invention and generation of ideas, images, performances, artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products and processes, including design and construction. It excludes routine testing and routine analysis of materials, components and processes such as for the maintenance of national standards, as distinct from the development of new analytical techniques. It also excludes the development of teaching materials that do not embody original research."

"It includes research that is published, disseminated or made publicly available in the form of assessable research outputs, and confidential reports¹".

Researcher: The University of Bradford's Code of Practice for Research defines researchers as: any person who conducts research, including but not limited to: an employee; a research supervisor; a visiting researcher; an independent contractor or consultant; a postgraduate research students; postgraduate taught students; a visiting or emeritus member of staff; an undergraduate student; a member of staff on a joint clinical or honorary contract, and/or a public contributor to research.

Research Data: is the evidence that underpins the answer to the research question and can be used to validate findings. This might be quantitative information or qualitative statements

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REF 2019/01 (January 2019) Guidance on Submissions, Annex C: Definitions of research and impact for the REF [online] available at: https://www.ref.ac.uk/media/1447/ref-2019_01-guidance-on-submissions.pdf [last accessed 14 October 2021].



collected by researchers in the course of their work by experimentation, observation, modelling, interview or other methods, or information derived from existing evidence.

Research data may take the form of numbers, symbols, text, images or sounds, including computer code, annotated fieldwork observations, or a descriptive record of a physical sample.

Research Data Management: Research data management is an explicit process covering the creation and stewardship of research data and materials to enable their use for as long as they retain value²

Principal Investigator (PI): A principal investigator is usually a member of academic staff responsible for the administration and conduct of a research project.

Persistent Identifiers (PID): A persistent identifier is a permanent, unique reference to an object independent of storage location. The identifier ensures machine readability and that one can always find the object, even if its name or storage location changes³. Examples of PIDs include digital object identifier (DOIs) and Open Researcher and Contributor ID (ORCID).

4 Responsibilities

4.1 Principal Investigator

4.1.1. Everyone at the University has a responsibility to ensure that research is undertaken in conformity with the law, in line with funders' contractual terms and conditions, in

² Definition from https://www.dcc.ac.uk/about/digital-curation/glossary#R [last accessed 14 October 2021].

³ Definition from https://library.maastrichtuniversity.nl/persistent-identifiers-doi-orcid/ [last accessed 14 October 2021].



accordance with best current practice and with equality, diversity and inclusion embedded.

- 4.1.2. Primary responsibility for research data management lies with the Principal Investigator (sometimes referred to as Project Lead(s) or supervisor(s)) on any research project, although other project staff may be involved with research data management during and after the lifetime of the project.
- 4.1.3. When University staff participate in collaborative projects, a University of Bradford lead must be identified to take responsibility for the management of data produced by the University of Bradford.
- 4.1.4. Principal Investigators (PI), Project Leads, and supervisors (including Data Stewards) take responsibility to:
 - 4.1.4.1. Manage research data in accordance with the requirements of this policy.
 - 4.1.4.2. Ensure that they and the researchers under their supervision receive appropriate training in all aspects of research data management.
 - 4.1.4.3. Produce, adhere and update a DMP to address university, legal and funder requirements for the storage and retention of data.
 - 4.1.4.4. Ensure that data is accessible by appropriate authorised persons to maintain access.
 - 4.1.4.5. Produce metadata and documentation to describe data, to understand what research data exists, why, when and how it was generated and access restrictions and mechanisms.
 - 4.1.4.6. On completion of the research, ensure all relevant data are archived, deposited or disposed or appropriately, securely and auditability in line with the Research Data Management IT Security Guidance.
 - 4.1.4.7. Ensure if they leave the institution an accessible copy of the data produced under the auspices of the University is deposited before their departure.
 - 4.1.4.8. Ensure that all requirements imposed by funding bodies, regulatory agencies, third party data providers and collaborating partners are met.



- 4.2. Associate Deans (Research and Innovation) will delegate responsibility within faculties (for example, to Data Stewards) to ensure:
 - 4.2.1. Compliance with this policy, with support from Research and Innovation Services staff.
 - 4.2.2. Staff and students engaged with research are trained in RDM procedures, and that the requirements of this policy are adhered to.
 - 4.2.3. Data Management Plans are produced for all research projects irrespective of how they are funded.
 - 4.2.4. Consideration of Data Management Plans, including costing and cost recovery in peer review, and certification of grant applications and proposals.

4.3 The University

- 4.3. The University has a responsibility to ensure that policies, procedures and systems are in place to facilitate good data management practices and support research integrity to the very highest standards. The University is responsible for:
 - 4.3.1. Providing researchers at all levels of seniority with training, support, advice, and guidance on research data management.
 - 4.3.2. Raising awareness of best practice in research data management in terms of legal, ethical and professional requirements review and maintain policies and procedures that are current and fit for purpose.
 - 4.3.3. Providing infrastructure for data management and curation.
 - 4.3.4. Fostering an environment where everyone is trained in data security where individuals understand their responsibilities to identify, report and manage security-related risks in line with the Research Data Management IT Security Guidance.

5 General Principles

5.1 Values

The University is committed to the implementation of this policy in accordance with the University values which are:



- Excellence excellence is at the heart of everything we do.
- Inclusion diversity is a source of strength and must be understood, valued, supported and leveraged.
- Innovation we given invention light and celebrate creativity and innovation.
- Trust trust is the foundation of our relationships, underpinned by integrity in all we do.

5.2 General Principles

- 5.2.1 Researchers must comply with all legal, ethical, funding body and organisational requirements for the collection, use, re-use and storage of data, especially personal data, where particular attention should be paid to the requirements of the Data Protection Act 2018 and UK's General Data Protection Regulation (UK GDPR).
- 5.2.2 The ownership of research data generated by persons employed by the University of Bradford is subject to the <u>Intellectual Property Policy</u>. Researchers and their institutions should apply appropriate licences to clarify ownership and use of data.
- 5.2.3 They should maintain confidentiality where undertakings have been made to third parties or to protect intellectual property rights. Further expectations are elaborated in sections 6.7 and 6.8 of the University of Bradford Code of Practice for Research.
- 5.2.4 Research data should be accurate, complete, authentic and reliable, and made available in a timely way with as few restrictions as possible.
- 5.2.5 Research data should be accompanied by metadata that adheres to appropriate metadata standards.
- 5.2.6 Research data should also be identifiable, and retrievable when necessary. We encourage the use of persistent identifiers (where available) for datasets, for example the <u>Digital Object Identifier (DOI)</u>, as well as <u>ORCID</u> for researchers.
- 5.2.7 Research data and the administrative records accompanying research projects should also be archived. Research data is a legitimate product of research and must be cited as such adhering to scholarly norms; re-used data must be explicitly traceable and original sources acknowledged.
- 5.2.8 All research projects, regardless of funding, will be accompanied by a Data Management Plan (DMP) that addresses how data will be captured, stored, accessed, secured and archived or disposed of. Each DMP must be appropriately costed into the proposal, including resources (for example, staff time, research data storage).



- 5.2.9 All published outputs based on data generated by researchers should include a data access statement as standard. This is now a requirement by most funders, including UKRI.
- 5.2.10 The University of Bradford will provide infrastructure and support for the safe storage of research data, as well as training for researchers at all levels that covers data security in line with current legislation, and data management planning.
- 5.2.11 In most cases research data and documentation relating to the development and administration of research projects should be kept for a minimum of ten years after the end of the project. Some medical research has longer retention requirements detailed in the Document Retention and Disposal Policy.
- 5.2.12 The fabrication, falsification, misrepresentation of data; plagiarism or failure to exercise due care in following out responsibilities relating to the collection and storage of data is considered to be research misconduct, and should be reported in line with the Research Misconduct Policy.

6 Implementation

- 6.1. The Policy will be uploaded onto HR ServiceNow so that it is available for all staff.
- 6.2. The implementation of this policy is supported by the Research Data Management IT Security Guidance. Other supporting policies and guidance are listed in 9.1.
- 6.3. Implementation will be supported by training for research support staff and project development staff in Research and Innovation Services, Associate Deans for Research and Innovation in the faculties. Training on Data Stewardship and Data Management Planning will be required for staff and students working on research projects.
- 6.4. An oversight committee for research computing and data management will be established to support research data management and other issues relating to research computing. This committee will be responsible for ensuring delivery of the necessary training and procedures and to prioritise action required to meet University responsibilities summarised in 4.3.



7 Enforcement of this Policy and Sanctions

- 7.1. The approval of the Policy will be communicated through Faculty/Directorate senior management meetings and the ub-research mailing list.
- 7.2. Faculty Research and Innovation Committees are responsible for raising awareness of all new/updated policies through their normal Faculty/Directorate communication channels.
- 7.3. Faculty Research and Innovation Committees and Research and Innovation Services will work with Faculties and Principal Investigators to identify appropriate provision of training, guidance and support on the implementation of this Policy.
- 7.4. This policy was developed to encompass best practice as well as requirements from funders with regards to the storage and sharing of data created during research projects. Non-compliance with these requirements means that the Principal Investigator and the University of Bradford are not fulfilling the requirements of funding. This could result in the PI or University facing sanctions, such as ineligibility to make future grant applications, or suspension of funding to projects that are in progress.
- 7.5. Failure to comply with funder requirements that results in sanctions against the University is classed as research misconduct and may result in disciplinary action in line with the Research Misconduct Procedure and Disciplinary Policy and Procedure.

8 Monitoring and Review

This policy will be monitored by an oversight committee for research computing and data management which will report to Research and Innovation Committee. The committee will implement, maintain and keep under review relevant procedures and training activities.

The impact of this Policy shall be reviewed by Research and Innovation Committee every three years, or sooner if there are significant changes to requirements from Funders.

9 Related Policies and Standards/documentation



Code of Practice for Research

Data Protection Policy

Document Retention and Disposal Policy

Ethics Code

Ethical Framework

Ethics Policy Governing Research Involving Human Participants, their Personal Data or Tissue, and its Conduct

Freedom of Information Policy

Intellectual Property Policy

Research Data Management IT Security Guidance

Publications and Open Access Policy

Research Misconduct Policy.

9.2 External Policies

AHRC Funding Guide [last accessed 15/11/2021]

BBSRC data sharing policy [last accessed 15/11/2021]

Concordat on Open Data [last accessed 15/11/2021]

EPSRC policy framework on research data [last accessed 15/11/2021]

ESRC research data policy [last accessed 15/11/2021]

FAIR Principles [last accessed 15/11/2021]

<u>H2020 Programme Guidelines on FAIR Data Management in Horizon 2020 [last accessed 15/11/2021]</u>



NERC Data policy [last accessed 15/11/2021]

OECD Principles and Guidelines for Access to Research Data from Public Funding [last accessed 15/11/2021]

STFC Scientific Data Policy [last accessed 15/11/2021]

<u>UK Research Integrity Office - Collection and retention of data [last accessed 15/11/2021]</u>

<u>UKRI Open Access policy</u> [last accessed 15/11/2021]

<u>UKRI Guidance on best practice in the management of research data [last accessed 15/11/2021]</u>

UUK Concordat to Support Research Integrity [last accessed 15/11/2021]

Wellcome - Data, software and materials management and sharing policy [last accessed 15/11/2021]