

POLICY FOR THE EFFECTIVE MANAGEMENT OF RESEARCH DATA

Contact Officer

Director of Research

Purpose

This policy sets out the responsibilities of researchers in managing research data from the planning stage through collection and storage of research data, to the longer term archiving of this data. It starts from the position that research data should be made openly accessible to others subject to legislation, ethical considerations, intellectual property rights and limitations set by any sponsor. The policy also establishes the responsibilities of the University in enabling the effective management of research data and for the longer term curation of this data.

The University seeks to align its approach to research data management with [RCUK's Common Principles on Data Policy](#) and the [Concordat on Open Research Data](#).

Overview

This document is intended to set out how researchers should conduct themselves in managing their research data. It focuses on 6 key stages in the data management process: research data management planning; data generation/collection; data processing; data storage; data preservation; and data access. For each stage it establishes clear responsibilities for the researcher but also for the University to enable effective management and curation of research data.

In terms of the University's responsibilities as set out in this Policy, these are aspirational. A separate implementation plan will set out how it will meet these aspirations and the timescale for this. Further, in line with the policy, detailed guidance will be separately provided for researchers on each of the 5 stages drawing on good practice in the sector and the detailed guidance provided by the [Digital Curation Centre](#), the [UK Data Service](#) and the [UK Data Archive](#).

Scope

The policy applies to all staff and research students at the University engaged in research, and any individual who is not a member of staff or student at the University but is undertaking research using University premises and facilities, and/or in the University's name. For the purpose of the policy, these groups are referred to collectively as "researchers".

The Policy

1. Introduction

- 1.1 The University of Worcester recognises research data as a valuable institutional asset, and the role of research data management in underpinning research excellence and integrity. The University endorses the RCUK *Common Principles on Data Management* and the *Concordat on Open Data*.
- 1.2 Research data will be managed in line with funder requirements as well as University policy and other relevant regulations and legislation.
- 1.3 The ownership of data generated by researchers at the University will normally be determined by the University's Intellectual Property Policy unless the terms of research grants or contracts determine otherwise.
- 1.4 Research Data are defined as any datasets, texts, images, recordings or artefacts generated through the research process which underpin the findings of a research project.
- 1.5 Research data should be:
 - Generated subject to the highest standards of integrity;
 - Accurate, complete, authentic and reliable;
 - Stored securely and safely during the lifetime of the project in a manner that is compliant with legal obligations, relevant University policies and guidelines, and where applicable the requirements of funding bodies or collaborators;
 - Retained or securely disposed of at the end of a project in accordance with University policy and any legal, ethical, funder or collaborator requirements – the normal expectation is that research data will be retained for a minimum 10 year period;
 - Made identifiable and accessible for others, where it is retained beyond the lifetime of the project, and where this is appropriate and practicable.

2. Responsibilities

- 2.1 This policy establishes the responsibilities of the researcher and of the University in 6 key stages of the data management cycle:
 - Data Management Planning
 - Generating data
 - Processing data
 - Data Storage
 - Data Preservation
 - Sharing data
- 2.2 Responsibility for research data management lies with the Principal Investigator(s) or project lead on any research project.
- 2.3 Where research is undertaken by a student it is the responsibility of the staff member supervising their project to ensure that the student has a clear understanding of appropriate research data management practice in line with this policy.

Data Management Planning

2.4 Many funders now expect researchers to produce a data management plan as part of any application. It is good practice for *all* researchers to develop such a plan, whether applying for funding or not, although the scale and detail of the plan may vary dependent on the nature of the research.

2.5 Researchers are expected to:

- Produce a data management plan which as a minimum identifies
 - what data is to be collected
 - how it will be collected
 - how it will be stored during the project and in what form(s)
 - ethical issues relating to collection and storage of the data (and how these will be addressed)
 - what will happen to the data at the end of the project, i.e. what will be retained, what will be disposed of
 - ethical issues relating to retention of data (and how these will be addressed)
 - how retained data will be stored and in what form
 - how others may gain access to retained data
- Share the data management plan with other researchers on the project for comment and revision as appropriate
- Incorporate details of the data management plan into Participant Information Sheets
- Keep the data management plan under review through the lifetime of the project and beyond.

2.6 The University will:

- Provide training for researchers on developing a data management plan
- Provide written guidance for developing a data management plan (to include data management plan templates for different funders and for UG and PG students).

Generating Data

2.7 Data is generated by a range of methodologies, often dependent on the subject area. This data may be primary (i.e. data collected by experimentation, survey, observation, interview or generated through creative work) or it may be data derived from a larger existing dataset, document archive or collection of texts.

2.8 Researchers are expected to:

- Generate data using robust and appropriate methods;
- Ensure that data is generated subject to the highest standards of integrity;
- Ensure that appropriate consents are gained from participants;
- Ensure that necessary permissions are gained from owners of existing data.

2.9 The University will:

- Provide support, guidance and training for researchers (appropriate to their experience) in methodology, ethics and integrity.

Processing Data

2.10 The “raw” data generated through research is normally subject to some form of processing. It may be entered into a database, digitised, transcribed, transliterated or translated. During this process it may be checked and cleaned; it may be subject to annotation and in some instances anonymisation.

2.11 It is essential that data is processed to the highest possible standards to ensure the integrity and quality of the data.

2.12 Researchers are expected to:

- Produce processed data that is accurate, complete, authentic and reliable;
- Process data ensuring that all ethical requirements are met.

2.13 The University will:

- Provide support, guidance and training for researchers (appropriate to their experience) in processing data.

Data Storage

2.14 All data generated in the course of a research project, both processed and unprocessed, should normally be stored securely and safely. This is a legislative requirement for personal data but it is recommended that all data is treated in this manner to ensure the integrity of that data. However, there may be contexts where this is neither practicable nor desirable, e.g. where the “data” generated are artefacts such as sculptures or paintings presented in a public space.

2.15 Researchers are expected to:

- Store all data, unprocessed and processed, whether digital or in some other form, securely and safely for the lifetime of the project unless there is a clear rationale why this is not possible or desirable
- Use digital storage that is fit for purpose, both in terms of its security and its size - for this reason the robust, managed storage provided by the University is the recommended option
- Back up *all* digital data and hold copies of data in other forms as far as that is possible and practicable on a regular basis

2.16 The University will:

- Provide appropriate digital storage options and where appropriate hard storage options for researchers
- Provide detailed guidance on legislative requirements for storage of data
- Provide detailed guidance on storage options

Data Preservation

2.17 High quality research data are a public good and therefore should be preserved and made accessible

to others unless there is a clear reason not to. Reasons include but are not limited to:

- Consent for participation was subject to data not being preserved
- Ethical considerations, such as need to ensure anonymity, argue against preserving the data
- The data is insufficiently robust or meaningful to warrant preservation
- The data does not have long-term value

2.18 The length of time data must be preserved may be determined by a funder; where this time period is not defined by the funder or the research is unfunded, it is recommended that data is preserved for a minimum of 10 years.

2.19 It may not be practicable or appropriate to preserve all data generated or processed in the course of a project and decisions will need to be made as to what data should be preserved. This decision should be in accordance with any legal, ethical, funder or collaborator requirements. Keeping these requirements in mind, preserved data should allow a clear assessment of any published work arising from the research.

2.20 Researchers are expected to:

- Identify if, how and for how long data will be preserved at the planning stage and communicate this to participants;
- Preserve appropriate data that belongs to the University (subject to any legal, ethical, funder or collaborator requirements and the exclusions in 2.17);
- Preserve appropriate data that belongs to the funder (subject to any legal, ethical, funder or collaborator requirements and the obligations set out in the contract or research agreement);
- Transfer digital data to a suitable file format to ensure that it is accessible in the long term; this will often mean using non-proprietary file formats
- Migrate data to a suitable repository; this may be a University repository and/or an external data repository (general or subject-based).

2.21 The University will:

- Provide detailed guidance on data preservation including information about appropriate file formats
- Develop systems to enable its researchers to preserve data for the required period

Data Sharing

2.22 Research data are preserved so that outputs from the research can be assessed against this data but also so that this data can be re-used by others.

2.23 It is important that preserved data is easily discoverable and that it is accompanied by sufficient metadata to enable other researchers to understand the research and re-use potential of the data.

2.24 Researchers are expected to:

- Produce metadata and documentation to describe the data (sufficient to understand what research data exists, why, when and how it was generated), to identify who owns the data

and where it is archived, and to set out how the data can be accessed and any restrictions on access.

2.25 The University will:

- Create a catalogue of data produced by its researchers including this metadata, to include a direct link to this data where this is appropriate and possible (e.g. through a digital object identifier).

3. Oversight and implementation

3.1 The Director of Research will have oversight of this Policy.

3.2 The Research Committee will approve and annually review an implementation plan for this policy, taking advice as appropriate from the Ethics and Research Governance Committee.

Date Approved	10 th February 2016
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Related Policies, Procedures, Guidance, Forms or Templates	Ethics Policy Guidelines and Procedures for Good Research Practice
Policy/Policies Superseded by this document	None