

UNIVERSITY OF MALAYA RESEARCH DATA MANAGEMENT POLICY

1. INTRODUCTION AND OBJECTIVES

1.1 Universiti Malaya (UM) recognizes that research data is a research output on its own and is an important part of all research and scholarly work carried out in UM. Research data does not only support research findings and discovery. It also contributes to scientific advancements through its availability for sharing.

1.2 The proper management of research data is necessary to ensure that the integrity of research work carried out in UM is beyond reproach.

1.3 This policy aims to ensure that research data generated in the conduct of research projects at UM are managed in a systematic and comprehensive manner to ensure integrity, accountability, long term availability, appropriate sharing and compliance with the requirements of funding agencies.

2. OTHER RELEVANT POLICIES AND GUIDELINES

This policy will operate in conjunction with other related UM policies and guidelines, the Malaysian Laws, and government policies and guidelines.

3. POLICY IMPLEMENTATION

The Research Management Office is responsible for the promulgation and implementation of the policy.

4. POLICY APPLICATION

4.1 This Policy shall apply to:-

- (a) all UM staff, researchers, students and any other persons involved in the design, conduct, administration, or reporting of research performed at or under the auspices of UM including consultants, and visiting researchers.
- (b) all research conducted at UM, regardless of whether or not the research is externally funded including contract research.
- (c) all stages of data life cycle- before, during and after

4.2 The Policy shall not apply to:-

- (a) consultancy services.
- (b) services conducted for third party organisations using UM research facilities.

5. REQUIREMENTS FOR RESEARCH DATA MANAGEMENT

5.1 **Ownership**

- (a) UM owns all research data produced by research projects conducted at or under the auspices of UM regardless of funding source.
- (b) All new contractual agreements for joint projects, studentship agreements and any other type of collaborative agreements with external bodies must comply with this policy.
- (c) In the following circumstances, modification /exception to 5.1.(a) may be made:
 - (i) Where the research funder retain ownership of the research data, UM may enter into an agreement with the funder in relation to rights to access, use, and publish the research data.
 - (ii) In joint projects, the research data management plans (DMP) shall address the creation, management, confidentiality, retention, and publication of data both digital and non-digital.
- (d) The rights of the Principal Investigator (PI) and his/her designated researchers to use and publish research data arising from their project shall be subjected to the guidelines that contain approval procedure based on different level of security; PI leaves UM; grant condition; age of the data.

5.2 **Data Management Plan (DMP)**

- (a) All funded research must include a DMP that records how the research data arising from the research project will be handled during and after the project is completed, describing what data will be shared and/or made open, and how it will be curated and preserved.
- (b) DMPs must comply with relevant laws which regulate access to and use of data.

5.3 **Deposit**

- (a) The final research data used in establishing and validating research findings must be deposited in UM Data Repository no later than the publication of the article.
- (b) Where relevant, the final research data may also be deposited in a recognized data repository which comply with the FAIR principle (DOI: 10.1038/sdata.2016.18). The URL link and access method to the dataset must be registered with UM.

5.4 **Data Sharing**

The final research data from projects carried out at UM shall be made available for sharing (via UM Data Repository) unless there are prior formal agreements with external collaborators, funding bodies and other parties on nondisclosure or proprietary use of the data.

5.5 **Retention**

- (a) All research data shall be stored in locations or devices owned and maintained by UM. Under specific circumstances/conditions data may be stored, wholly or in parts, in a different locations or devices.
- (b) Reasonable steps shall be taken to ensure the security and integrity of all research data under retention.
- (c) All research data related to a research project shall be retained not more than ten (10) years after publication or after the completion of the project or last access to the dataset, whichever is later. A longer period of retention may be specified by an external research funder. Under both circumstances, the period of retention is subject to legal and regulatory requirements.

5.6 Disposal/ Archive

Beyond the period of retention specified here, all research data must be archived. Any destruction of the research record, either whole or part shall follow the guideline.

5.7 Costs Of Managing Research Data

- (a) Researchers should include the direct cost of managing research data at the earliest stage of funding application.
- (b) The costs associated with managing and publishing data include, but not limited to:
 - (i) Storage
 - (ii) Data publication, where there is a charge associated with deposit in a data archive.
 - (iii) Transcriptions
 - (iv) Recruitment of specialist staff to support the management of complex datasets and the preparation of these data for archive and publication.

6. ROLES AND RESPONSIBILITIES IN DATA MANAGEMENT

6.1 UM Management:

- (a) Responsible for making themselves familiar with and adhering to legislation, regulatory requirements, contractual obligations, ethical approvals, funding bodies' policies, and other licenses and terms of use of research data.
- (b) Ensure effective communication processes to manage research data and research records in accordance with UM policy and related Malaysia rules and regulations, or as otherwise determined by other statutory requirements, funding agency guidelines, or contractual arrangements with research partners by providing service support.
- (c) Ensure up-to-date and secure facilities for the safe and secure storage of research data by providing infrastructure support.
- (d) Ensure that all UM staffs and centres of responsibility are informed about the Research Data Policy and any subsequent changes.

6.2 IT Centre

- (a) Responsible for making themselves familiar with and adhering to legislation, regulatory requirements, contractual obligations, ethical approvals, funding bodies' policies and other licences and terms of use of research data.
- (b) Providing or securing approved IT infrastructure for the safe and secure storage of research.
- (c) Ensuring backup, archival and monitoring processes are in place to prevent loss of research data.
- (d) providing access to services and facilities for the storage, backup, registration, deposit, curation and archiving of research data.
- (e) Provide technical support to maintain all systems (such as UM data repository and DMP submission system) required for compliance with the research data policy.

6.3 Research Management Office

- (a) Implement, coordinate, and review the execution of the Research Data Policy.
- (b) Provide software to support effective research data management.
- (c) Responsible for making themselves familiar with and adhering to legislation, regulatory requirements, contractual obligations, ethical approvals, funding bodies' policies and other licences and terms of use of research data.
- (d) Ensure that the Research Data Policy is updated on a regular cycle to take into account the latest funder requirements, and national research directives and guidelines.
- (e) Providing training, support, advice and guidelines that promote a best-practice approach towards Research Data management.
- (f) Monitoring compliance of its researchers with this policy and associated procedures.
- (g) Supporting researchers to plan for data management and write data management plans for grant applications.

6.4 Academy, Faculty And Centres

- (a) Responsible for making themselves familiar with and adhering to legislation, regulatory requirements, contractual obligations, ethical approvals, funding bodies' policies and other licences and terms of use of research data.

- (b) Ensure that all research projects include a DMP and that is attached to the relevant record in UM research information management system.
- (c) Ensure that their PIs adhere to their obligations as detailed in this policy.

6.5 Principal Investigators (PIs) And Researchers

- (a) PIs and researchers are responsible for making themselves familiar with and adhering to legislation, regulatory requirements, contractual obligations, ethical approvals, funding bodies' policies and other licences and terms of use that pertain to their research data.
- (b) Have overall responsibility for the proper and effective management of research data generated during the research project, in accordance with UM policy and guidelines.
- (c) Ensuring research data are accurate, complete, authentic and reliable.
- (d) Keeping clear and accurate records of the research methods and data sources, including any approvals granted, during and after the research process.
- (e) Prepare a DMP using either UM DMP template or that provided by the funding agency and submit it online onto platform specified by UM. PIs and researchers shall provide an updated version whenever there are substantive changes to the research project.
- (f) Submit the final research data to UM Data Repository or external open access repository no later than the first online publication of the article.
- (g) Any data which is retained elsewhere, for example in an international data service or domain repository should be registered with UM Libraries at time of deposit.
- (h) Ensure that formal agreements are reached with external collaborators and parties, if any, on the ownership, rights, use and sharing of research data arising from the research project before commencement of project.
- (i) Provide statement and justification (in the DMP) if there is a strong need to deviate from UM research data policy including sharing of final research data.
- (j) Exclusive rights to reuse or publish research data should not be handed over to any external organisation without retaining the rights to make the data openly available for re-use, unless this is a condition of funding.

6.6 Library

- (a) Responsible for making themselves familiar with and adhering to legislation, regulatory requirements, contractual obligations, ethical approvals, funding bodies' policies and other licences and terms of use of research data.

- (b) Develop, revise and maintain UM DMP template and other data management tools in collaboration with relevant departments.
- (c) Develop and manage UM Data Repository for submission of final research data and maintain the Registry of UM research data deposited in external open access data repositories.
- (a) Responsible to provide guidance and training for UM's researchers in good data management practice, including data deposition and related metadata description, and good data governance in compliance with relevant legal and ethical obligations.
- (b) Maintaining an institutional metadata catalogue of research data.
- (c) Facilitate the curation and preservation of data.

Prepared by Taskforce on Research Data Management
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