

Research Data and Primary Materials Management Procedure

Section 1 - Introduction

(1) This procedure articulates the responsibilities of the University and University Researchers in research data and primary materials ownership, access and management as part of the University's expectation of quality research.

(2) As described in [Management of Data and Information in Research: A guide supporting the Australian Code for the Responsible Conduct of Research](#) (the [Guide](#)), the responsible conduct of research includes the storage, retention, disposal and re-use of data and primary materials to:

- a. justify the outcomes of research and to defend such outcomes should they be challenged;
- b. maximise the potential value of data and primary materials for further research; and
- c. minimise waste of resources that are of value to Researchers and the community.

(3) This Procedure supports the principles of rigor, transparency and accountability governing the management of research data and primary materials at the University of Newcastle (the University), as articulated in the [Australian Code for the Responsible Conduct of Research](#) (the Code) and in [the Guide](#).

(4) This Procedure should be read in conjunction with [the Code](#), [the Guide](#), [State Records NSW – General Retention and Disposal Authority](#), the relevant clauses in any applicable funding documentation, and the following University policy documents:

- a. [Responsible Conduct of Research Policy](#);
- b. [Ethical Human Research Procedure Manual](#);
- c. [Animal Research Regulatory Manual](#);
- d. [Information Security Policy](#);
- e. [Records and Information Management Policy](#);
- f. [Temperature Controlled Environments Policy](#);
- g. [Intellectual Property Policy](#) and [Intellectual Property Procedure](#);
- h. [Privacy Policy](#);
- i. [Open Access Policy](#);
- j. [Privacy Management Plan](#);
- k. [Research Breach Investigation Procedure](#);
- l. [Research Authorship Procedure](#);
- m. [Data Classification and Handling Policy and Standard](#); and
- n. [Indigenous Cultural and Intellectual Property Protocol](#).

Section 2 - Audience

(5) This procedure should be read and understood by all University Researchers, as defined in the [Responsible Conduct of Research Policy](#).

Section 3 - Scope

(6) This procedure:

- a. applies to all University Researchers irrespective of their work location; and
- b. applies to all data and primary materials generated by University Researchers, regardless of format.

Section 4 - Document Specific Definitions

(7) In the context of this document:

- a. research data is facts, observations, images, computer program results, recordings, measurements or experiences on which an argument, theory, test or hypothesis, or other research output is based. Research data may be numerical, descriptive, visual, or tactile. It may be raw, cleaned or processed and may be held in any format or media (Australian National Data Service - What is research data, 2017);
- b. primary materials are physical objects acquired through a process of scholarly investigation from which research data may be derived, including research material as defined in the [Temperature Controlled Environments Policy](#). Examples of primary materials include ore, biological material, questionnaires and recordings;
- c. metadata is information about the context, content, quality, provenance, accessibility, and licensing arrangements that describes a research data set. It provides a structured reference that helps to sort and identify attributes of the information it describes making it easier to find, use, and re-use;
- d. Indigenous data sovereignty is the right of Indigenous peoples to own, control, access and possess data that derive from them, and which pertains to their members knowledge systems, customs, resources or territories;
- e. Open access is the immediate, online, free availability of research outputs without restrictions on use commonly imposed by publisher copyright agreements;
- f. Research data management is all the processes and actions required to manage research data throughout its lifecycle from project inception to permanent disposal or archiving. This includes generation, collection, access, use, analysis, disclosure, storage, retention, disposal, sharing, and re-use of data;
- g. A research data management plan is a document that outlines how and when the research data for a specific project will be collected, organised, stored, backed-up, preserved, shared, archived, and disposed. Research data management plans can be seen as 'living documents' and should be reviewed throughout the duration of the research project and updated as required;
- h. sensitive data is data that needs to be protected from unauthorised access or unwarranted disclosure;
- i. active phase means the period from the commencement of the research project until the research ceases and arrangements are made for the retention of the resulting research data and/or primary materials; and
- j. Chief Investigator means the University Researcher who is leading a project.

Section 5 - Requirements

Ownership

(8) Research data and primary materials acquired through research will be owned by the University.

(9) Intellectual property created by a University Researcher subsequent to the acquisition of the associated research data and primary materials will be subject to the [Intellectual Property Policy](#).

(10) The University recognises Indigenous data sovereignty. Indigenous cultural and Intellectual Property must be respected when determining appropriate ownership and use of primary materials and data resulting from research involving or about Aboriginal and Torres Strait Islanders in accordance with [Indigenous Cultural and Intellectual Property Protocol](#) and the CARE Principles for Indigenous Data Governance (Collective Benefit, Authority to Control, Responsibility and Ethics).

Stewardship

(11) The University will remain the custodian of any research data and primary materials acquired through research, including if a University Researcher leaves the University, unless the research data and primary materials are:

- a. owned by a third party; or
- b. are subject to a formal collaborative agreement.

(12) The Chief Investigator has overall responsibility for the research data throughout its lifecycle.

Collaboration

(13) University Researchers engaging in collaborative activities should come to an agreement on the ownership and access to research data and primary materials. This agreement should be documented in writing prior to the commencement of the research and be regularly reviewed.

(14) Where a project spans several institutions the research team must determine which institution or University Researcher has custody and responsibility for the collation, storage, and eventual disposal of the related research data and primary materials at the outset of the project.

Management

(15) The University and its Researchers have an obligation to care for and manage research data and primary materials in accordance with [the Code](#), relevant legislation and, where applicable, ethical protocols approved by the relevant Ethical Review Body.

(16) For all research, Researchers must develop a Research Data Management Plan (DMP) that includes intentions related to generation, collection, access, use, analysis, disclosure, storage, retention, disposal, sharing and re-use of data and information, the risk associated with any of these activities and strategies for minimising those risks.

(17) The University supports the development and ongoing maintenance of the DMPs through its Data Management Dashboard which enables Researchers to create an electronic DMP to ensure compliance with legal, funding body, and institutional requirements.

(18) The potential value of research data and primary material for further research should be considered, particularly where the research would be difficult or impossible to repeat. The requirements of publishers in relation to the availability of data should also be considered during the planning of research.

(19) The use of third party data provided by other organisations via contractual agreements or research collaborations, or derived from publicly accessible sources such as collections and social media must comply with licensing and copyright considerations, adherence to terms and conditions of access and use, and understanding of the pre-existing data.

(20) All University Researchers should deposit de-identified data arising from a project in an appropriate publicly accessible subject and/or institutional repository.

Storage

Research data

(21) Research data that is subject to an approved ethical protocol must be stored in accordance with the approval.

(22) The University's research data storage system/s are listed on the [Research Data Management page](#), and University Researchers are required to use the system/s provided unless there are specific barriers to use such as insufficient storage capacity.

(23) Wherever possible and appropriate, physical research data and primary materials should be digitised to minimise the risk of loss or damage, and to minimise physical storage requirements. This includes scanning documents such as consent forms and responsibly destroying paper files once the quality of the electronic copies has been verified.

(24) Research data underpinning a publication that is stored outside of the University's provided research data storage system/s must be deposited via the Data Management Dashboard into the University's repository.

Primary materials

(25) During the active phase of the research, the University is required to provide safe and secure storage for primary materials that are temperature sensitive in accordance with the University's [Temperature Controlled Environments Policy](#).

(26) While it may not be practical to retain all primary materials, durable records derived from primary materials (such as assays, test results, transcripts, and laboratory and field notes) must be retained where practicable and be made accessible.

(27) When primary materials are relocated to centrally managed locations, the following processes must be undertaken:

- a. hard copy/paper records and data may be transferred to the University's off-site storage repository for retention until the appropriate disposal time. University Researchers must contact Records Governance Services to arrange this transfer; and
- b. other objects/records (materials which are neither hard copy nor electronic, such as rock or physical specimens) must be retained in appropriate secure storage in the School/Centre.

Metadata

(28) Metadata should be retained for all data collected, generated or collated by Researchers and should accompany the research data to support interpretation, authenticity, and reproducibility.

(29) Researchers should follow a metadata standard that uses controlled vocabularies, such as the examples provided by [Research Vocabularies Australia](#), to ensure the data is optimised for future use.

Access

(30) The University supports an open scholarship approach to sharing research outputs, including research data, as outlined in the [Open Access Policy](#).

(31) Research data and primary materials should be as available as possible and private as necessary, and conform to the FAIR principles where possible (findable, accessible, interoperable, reusable).

(32) Research data and primary materials should be made available for re-use by other Researchers unless precluded by privacy, safety and/or confidentiality requirements. Preclusions include formal confidentiality agreements, where research is focused on developing protectable intellectual property, or existing agreements or protocols approved by an Ethical Review Body.

(33) Researchers interested in re-using research data or primary materials should consult the owner of the data or materials, or the owner's supervisor or Head of School should the owner not be available. Acknowledgement of the source of the data must comply with the University's [Research Authorship Procedure](#).

(34) Access or re-use of data or information used in or generated by research involving Aboriginal and Torres Strait Islander peoples and communities will be subject to consultation with those peoples and communities prior to access or re-use, as per Clause 10.

Confidentiality and security

(35) University Researchers who have been given access to confidential information must maintain that confidentiality. Sensitive records or data must be appropriately protected from unauthorised access in accordance with the [Data Classification and Handling Policy and Standard](#) and [Privacy Management Plan](#).

(36) Research data must be secured in accordance with the [Information Security Policy](#).

(37) University Researchers must comply with the [National Statement on Ethical Conduct in Human Research](#) for tissue and data relating to human participants. Approval must be sought from the Human Research Ethics Committee or College Human Ethics Advisory Panel, before any changes to the Research Data Management Plan are enacted.

(38) University Researchers must abide by the [Defence Trade Control Act](#), when providing information and primary materials regulated under this Act, such as software, technology, training, and non-fundamental research outputs.

Retention

(39) The retention period for research data and primary materials is determined by the provisions of the [State Records Act 1998](#) or the requirements of a funding body or external agency, where the latter stipulates a longer period than that nominated in the [State Records Act](#).

(40) University Researchers must determine which research data and primary materials should be retained based on conventions in the relevant discipline or by legislative requirements, and in accordance with the provisions of this Procedure.

(41) For short-term research projects undertaken for assessment purposes only, such as research projects completed by students, retaining research data for 12 months after the completion of the project may be sufficient.

(42) Research data and records that need to be retained permanently as State Records at the conclusion of the research must be transferred to the [UON Archives](#), a regional repository of State Records New South Wales. Records Governance Services must be contacted to arrange the transfer.

(43) In general, University Researchers will be guided by the provisions of the [State Records Act 1998](#) as detailed in

the [State Records NSW - General Retention and Disposal Authority GA47 - Higher and Further Education](#).

(44) Research data and primary materials should be retained for sufficient time to allow them to be referenced by other Researchers and interested parties. In the event that results from research are challenged, all associated research data and materials must be retained until the matter is resolved.

Disposal

(45) Research data and primary materials must be disposed of in accordance with the relevant legislated minimum retention period. This approval is sought via completion of the [Request to Destroy form](#). University Researchers are required to seek endorsement from the Head of School/Centre prior to submitting the Request to Destroy form. It is unlawful to dispose of records without meeting the mandatory retention requirements.

(46) Disposal of research data or records and/or primary materials from any central storage repository must not occur without the endorsement of the relevant University Researcher/s and School/Centre and approval by an authorised delegate.

(47) Permission to dispose of copies and duplicates of research data and primary materials is not required, however due care must be taken to ensure that disposal is secure and takes account of the privacy, confidentiality, and possible sensitivity of the research data or primary materials.

Section 6 - Roles and Responsibilities

University Researchers

(48) University Researchers are required to:

- a. create and maintain full and accurate records of the research methods and data sources used;
- b. provide the same level of care and protection to raw research data and primary materials as to analysed research data;
- c. produce a research DMP which includes all data types relevant to the project and is updated as required throughout the lifecycle of the project;
- d. where applicable, manage research data and primary materials according to protocols approved by an Ethical Review Body and legislative requirements;
- e. retain research data where practicable, including electronic data, in a durable, indexed and retrievable form;
- f. ensure that research data and primary materials are kept safe and secure in the storage provided during the active phase of research where practicable, even when not in current use;
- g. maintain a catalogue of research data in an accessible form;
- h. ensure that where projects involve several institutions, an agreement is developed at the outset covering the access and storage of research data and primary materials within each institution; and
- i. ensure that adequate backup, archival and monitoring strategies are in place to prevent the loss of research data and primary materials and delays in the completion of research;
- j. authors of published research must complete a [Statement of Authorship and Location of Data Form](#) and store it with the data underpinning the research publication as stated in the [Research Authorship Procedure](#);
- k. be able to produce on request all relevant approvals, such as ethics and financial approvals, authorisations and consent forms;
- l. report any inappropriate use or access to, or loss of data that may constitute a breach to [the Code](#), to be managed according to the [Research Breach Investigation Procedure](#). This includes:
 - i. falsification and/or fabrication of research data or primary materials;

- ii. failure to retain accurate, secure and complete records of all research data;
- iii. failure to adhere to the conditions of project specific approvals that relate to the retention, sharing or destruction of research data or primary materials; and
- iv. selective retention of research data that hinders the verifiability of a research output.

Chief Investigators

(49) Chief Investigators are required to ensure that research data and primary materials acquired during research are managed in accordance with the provisions of this Procedure. Where more than one Chief Investigator is involved in research, agreement should be reached on which Chief Investigator will be the data custodian prior to the initiation of the research.

(50) Chief Investigators are responsible for ensuring that each member of the research team, including students, is aware of and complies with the Research Data Management Plan and this procedure.

The University

(51) The University will provide:

- a. safe, secure and sustainable facilities and appropriate infrastructure for the physical and digital storage of research data and primary materials;
- b. research data management planning information and tools such as the Data Management Planning Toolkit and Data Management Dashboard, available through the University Library;
- c. accurate information to Researchers on capability, security, confidentiality, safety and integrity of available tools, programs and systems; and
- d. an open access repository infrastructure and support for Researchers submitting metadata and research outputs to the repository serviced by the University Library.

Status and Details

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Glossary Terms and Definitions

"University" - The University of Newcastle, a body corporate established under sections 4 and 5 of the University of Newcastle Act 1989.

"Risk" - Effect of uncertainty on objectives. Note: An effect is a deviation from the expected, whether it is positive and/or negative.

"Confidential information" - All information which is disclosed to a party by, or on behalf of, the other party, or which is otherwise acquired by a party from the other party, or any adviser engaged by the other party, which: (a) is by its nature confidential; (b) is designated by the other party as being confidential; or (c) the party knows or ought to know is confidential, but does not include information which: (d) is or becomes public knowledge other than through a breach of confidentiality; (e) was already in the possession of a party and not subject to an obligation of confidentiality; (f) is lawfully received from a third party; or (g) is independently developed by a party.

"Student" - A person formally enrolled in a course or active in a program offered by the University or affiliated entity.

"Intellectual property" - Intellectual property (IP), as defined by the World Intellectual Property Organisation, refers to creations of the mind: inventions; literary and artistic works; and symbols, names and images used in commerce. Intellectual property is divided into two categories: Industrial property includes patents for inventions, trademarks, industrial designs and geographical indications; and Copyright covers literary works (such as novels, poems and plays), films, music, artistic works (e.g. drawings, paintings, photographs and sculptures) and architectural design. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and broadcasters in their radio and television programs.

"Research" - As defined in the Australian Code for the Responsible Conduct of Research, or any replacing Code or document.

"School" - An organisational unit forming part of a College or Division, responsible for offering a particular course.

"Third party" - A person or group other than the University or any of the University's partner institutions.

"Delegate" - (noun) refers to a person occupying a position that has been granted or sub-delegated a delegation of authority, or a committee or body that has been granted or sub-delegated a delegation of authority.