

The responsible management of research data and materials

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Summary

To varying degrees, all research involves the collection, generation, analysis, reporting, and/or storage of data. In addition to data, there can also be research materials that (at least for some disciplines and research designs) can be necessary basis to understand, and perhaps authenticate, the data (e.g. the lab notes associated with test results). The conduct of researchers with regards to these data/materials are subject to responsible and ethical conduct standards. In many cases, legal standards can also apply to their management.

National and University guidelines

The national guidelines and integrity principles that apply to the retention of research data can be found in the [Australian Code for the Responsible Conduct of Research](#) (2007). The University has implemented, and clarified our implementation of, the [Australian Code](#) with the release of the [Griffith University Code for the Responsible Conduct of Research](#). As per the [Australian Code](#), Griffith University has established policies with regards to the retention of research data and materials. This includes the [Schedule of Retention Periods for Research Data and Primary Materials](#). **These arrangements have been registered as part of the University's disposal schedule and so have legislative force.**

Because Griffith University was established by a Queensland Act of Parliament the management of identified personal data in our research is subject to the [Queensland Information Privacy Act](#) (2009). The University policies on the application of the [Queensland Act](#) are discussed in [Booklet 23 of the Griffith University Research Ethics Manual](#).

Consequently, it is extremely important that researchers understand her/his responsibilities with regards to these matters. The *Research Integrity Resource Sheets* assist with adhering to these guidelines. **These guidelines apply to all Griffith University researchers, including academic staff, students, adjunct appointees, visitors and volunteers and general staff.**

Defining research data and materials

No single definition for research data and materials will fit all disciplinary areas, research designs or traditions. A broad definition of research data might be the collected or generated information that will be analysed/interpreted, with a view to making some sort of contribution to the body of academic, professional or general knowledge. A broad definition of research materials might be the notes, samples or other records necessary to explain the origins of the data or to substantiate the veracity of the data.

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- Retention requirements
- Sharing with third parties
- Regulatory privacy considerations
- University archiving facilities
- Disposal of data
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In some cases (e.g. lab-based physical science work or analysis of language samples), retaining the data alone is not sufficient. Instead research materials (e.g. lab notes or audio recordings of the language sample) will also need to be retained.

Data and materials should be accurate, complete and in sufficient detail to enable verification of research results and to reflect what was communicated, decided or done.

What needs to be retained in a primary form?

An important consideration for researchers is what research data and materials need to be kept in a primary form (e.g. do returned surveys, source documents, the samples, and audio recordings of discussions need to be kept in a primary form)? Generally, the answer to this question will be discipline and methodologically specific (e.g. in the case of a tourism project interested in the reported experience of eco-tourists, it is probably sufficient to retain the transcript of the interviews, rather than the actual audio recordings; but in the case of a linguistic project exploring how the primary language of migrants impacts upon their phraseology when speaking the language of their adopted country, it is probably important to retain the actual recordings).

In most cases, for anonymous surveys, it will be sufficient only to retain the data extracted from the surveys. But in the case of identified surveys, normally the returned surveys will need to be retained. When a researcher uses data that can be verified to be already in the public domain, there is no need to retain the data.

A useful way to approach this question can be, if someone challenged the reported results of the research project (see No10 in this series), what data or materials would be required to credibly respond and authenticate the results?

Hard and digital data must be recorded in a durable and retrievable form, be appropriately indexed and comply with relevant standards.

Who owns the data and materials?

As a general principle, unless they formally agree to a different arrangement (see below), all researchers involved in the collection/generation of the data, and in the analysis of the data (though only when that analysis involves the use of innovative techniques), have an equal claim to ownership of the data / materials.

In the case of identified personal information (see below), the research participants themselves have legislated rights with regards to access to, annotation of, prior approval before the data is provided to third parties, and any new use of, that data. Similar legal requirements apply to the ownership of human biospecimens.

While all researchers are responsible for data and materials management, the Principal Investigator of a research project is responsible for ensuring that data and materials are managed correctly for that project.



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Records Services
Contact

Corporate Archives and Records Management Services

Contact Records Services for further information with regards to the University's disposal schedule, advice with regards to the implications for the data / materials for a specific research project, and making use of the University's central arrangements for the archiving of research data and materials.

Please also refer to [this web site](#).

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Data from limited access databases

When data are obtained from limited access databases, or via a contractual arrangement, written indication of the location of the original data, or key information regarding the database from which it was obtained, must be retained by the Principal Investigator.

Management during the research

It is extremely important for researchers to have an ethically defensible plan with regards to the management of the data (and materials) during the conduct of the research, which addresses the matters discussed in this sheet.

Examples of important considerations are:

- i) who is responsible for maintaining and updating the data/materials;
- ii) where will the data/materials be stored;
- iii) who will have access;
- iv) in what form will they be stored (identified, re-identifiable (coded) or de-identified);
- v) if there is a code key, where will this be stored and who will have access to the key;
- vi) if data/materials are to be transported or communicated between members of the research team, in what form will they be transported/communicated, and what are the security and back-up precautions; and
- vii) is it possible that third parties (e.g. law enforcement) might seek access to the data, and what is the planned response to such attempted access?

The matters above become more significant if the data is sensitive and where there are risks (e.g. commercial, social or legal) if unauthorised third parties accessed the data.

The University has established a secure service for the storage of data during the conduct of a research project. Griffith University researchers (including HDR students and support staff) can use this service without any fee and external collaborators can be provided with access to the stored data. Details of the service (including a FAQ) can be found at <https://research-storage.griffith.edu.au/>.

All Griffith University researchers are urged to use this service, which is hosted by the University.

Management after the research

Many of the same considerations with regards to the management of data/materials during the research also apply after the completion of the research. Additional considerations include:



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GGRS Contactgriffith.edu.au/hdr/services-support-resources

The Griffith Graduate Research School is responsible for implementing the strategic direction for higher degrees by research, research education and training. GGRS assists the academic elements in maintaining distinctive standards of recruitment, admission, candidature management and assessment of research students.

GGRS has developed a new professional development program for HDRs and Supervisors. This program was implemented in early 2014.

For workshop details and resources, visit the URL to the left.

- i) will the data just be retained for the minimum retention period (see below);
- ii) will there potentially be any reuse of the data (see below); and
- iii) is it necessary to have a mechanism to withdraw an individual data from the stored set if needed (e.g. because consent has been withdrawn)?

Agreements with collaborators

Research is frequently conducted by teams, which sometimes can include persons from other universities, hospitals, research institutions, government agencies, private practice, etc. These collaborators might be involved in every phase of the research, or just in specific elements (e.g. the analysis of the data).

It is extremely important that the collaborators have a shared understanding with regards to the matters above (including whether all of the collaborators can access the data, who owns the data, who can publish based on the data, and any privacy or other ethical issues relating to the data).

It is recommended that the position with regards to these matters be confirmed via email, to ensure there is a record which can be referred to later, if required.

Agreements with service providers

The conduct of research can often involve the utilisation of service providers (e.g. a market research company that will conduct the interviews, or an academic who will analyse the data). It is extremely important that the parties have a shared understanding with regards to the matters above, including who owns the data, who can publish based on the data, and any privacy or other ethical issues relating to the data.

Where external service providers are used for a project and identified personal information is involved, the engagement/contract must include adequate safeguards for the security of the data and records and for notification of any breaches of their security. **It is recommended that the position with regards to these matters be at least confirmed via email, but these matters may need to be discussed in a formal contract, to ensure there is a record that can be referred to later, if required.**

For further information about the use of external service providers in human research see Booklet 46 of the Griffith University Research Ethics Manual (GUREM).

Controlling access

When research data/materials include sensitive information, it can often be important to control who can access it. In the case of identified



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GE Contact**www.griffith.edu.au/griffith-enterprise****Griffith Enterprise -
Commercialisation
and Technology
Transfer Office**For enquiries relating
to:

- Consultancy and Commercial Research
- Enterprise Establishment
- Inventions and Intellectual Property

Contacts:<http://www.griffith.edu.au/griffith-enterprise/about-us/meet-our-people>**Email:**griffithenterprise@griffith.edu.au**Web (see URL left)**

personal information, especially when the information is sensitive, there can be significant ethical and legal (see below) imperatives that demand careful control of who can access the data/materials.

There is a range of possible and appropriate strategies to control access. Generally the level of security and in some cases record keeping about access should be proportional to the sensitivity of the data/materials.

Data-banking and the reuse of data

In some cases, data sets will be such a rich or unique source of information that researchers will want to retain them for future reuse. Such an approach can often be valid, and indeed responsible - e.g. if the data has come from participants who live with chronic and relatively rare medical condition, researchers returning to recollect the data for every new project might place an unwarranted burden on the same group of people. In some cases the reuse and archiving of data may also be respectful of participants and/or reflect its historical significance.

Subject to ethical, contractual and legal limitations, researchers are encouraged to make available to other researchers data, records and materials for wider use

When data are retained for future use, the discussion about responsible management of data/materials after the research continues to apply.

When the data relate to human research, if the data are being held in an identified form, either the original consent needs to anticipate the retention and potential reuse, or fresh consent must be obtained for the new uses.

When publishing / reporting on the basis of banked and reused data, this should be made clear to the editor and probably to the readers/audience.

Retention requirements

As per the [Australian Code](#), Griffith University has established the [Schedule of Retention Periods for Research Data and Primary Materials](#). This describes different categories of research, and circumstances, and **specifies a minimum period of time during which the data, and any appropriate materials, must be retained.**

These arrangements have been registered as part of the University's disposal schedule and so have legislative force. The destruction of data before the end of the retention period may constitute both a breach of Queensland law and potentially research misconduct - both of which could have serious consequences.

The data may need to be retained longer if there is ongoing discussion about the results, there additional regulatory or sponsor requirements, or if the data is of historical or archival value.



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Web site

On the site
you will find:

A link to the
Australian
Code

A link to the
Griffith Code

The
Information
Sheet series

Links to animal
ethics and
welfare
resources

Links to
human
research
ethics
resources

Other
resources

Contacts

Further resources
are being
developed so
check this site
regularly

www.griffith.edu.au/research/research-support
select 'Research Integrity'

It may be possible to retain data beyond the specified retention date, but in the case of identified personal information from human research, this will only be possible with the consent of the identified individuals.

Sharing with third parties

In nearly all cases, research cannot be considered complete until the results of research are disseminated in the form of some sort of publication or report (see Information Sheets No.2 and No.3 for more about the research integrity issues relating to the dissemination of the results of a research project).

In some cases, researchers may wish to share data/materials with academic and other colleagues. When this is the case, and the data/materials contain identified personal information, there must be careful consideration of the regulatory privacy requirements (see below) and whether there is research participant consent for this sharing with colleagues.

Perhaps the most difficult issues arise when researchers are faced with legal, moral and/or contractual obligations to communicate identified data to the authorities or other third parties.

Regulatory privacy considerations

All research involving identified personal information (note: opinion has been defined as personal information) that is conducted under the auspices of Griffith University is subject to the [Queensland Information Privacy Act](#) (2009) and the Commonwealth Privacy Act ([1988](#), [2001](#) and [2012](#)). This is the case even when the context or jurisdiction where the research will occur is not otherwise subject to either Australian or Queensland privacy regulation.

These regulations cover matters such as: the generation of, or access to, existing identified personal information; the storage and security of the information; the publication of the information, and sharing it with others; an individual's right to access and annotate identified personal information about them; and related consent issues.

Refer to Booklet 23 of the GUREM for more about regulatory and ethical privacy considerations.

University archiving facilities

Between the date on which a researcher stops using the data and the end of the required retention period, the data must be appropriately stored.

It is essential that if it is needed (e.g. to respond to a challenge of the published results), the data can be readily located and retrieved. There must also be arrangements (e.g. access controls and security) to ensure that any privacy, contractual or in-confidence requirements are met. Ordinarily (see **Retention requirements** above) the data will be disposed of on the specified date.



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OR Contacts

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After the completion of a project data in eligible data formats can be archived to a third party off-site storage provider - ensuring appropriate recording and tracking of the records. This facility should only be used after data analysis and write up are complete. See **Management during the research** (above) for information about the University's free data storage arrangements that can be used during the conduct, analysis and write-up of a project.

Further information on how to arrange for off-site storage of your research data is available from the Records Services website at <https://intranet.secure.griffith.edu.au/records-management/team-resources/business-processes/businessprocesses/offsite-storage-of-research-data>.

Also see the Research Data Management and Storage web page: <https://www.griffith.edu.au/information-services/service-catalogue/research-services/research-data-management-and-storage>

Disposal of data

Once the end of the retention period has been reached (see **Retention requirements**), and unless the data are to be banked for reuse (see above), the data / materials should be disposed of.

If the data / materials are sensitive (e.g. because they are identified personal information relating to a sensitive matter - such as illegal conduct), commercially significant (e.g. proprietary information relating to a patent), or otherwise require confidentiality, the disposal method must preserve the confidentiality and security of the data/materials. In some cases, this will require the use of a commercial secure service, but in many cases a crosscut shredder will be sufficient.

When data / materials have been archived using the University's archiving arrangements, the secure disposal of the data on the due date is an element of these arrangements.

Scope of these guidelines

These guidelines apply to all forms of research data and materials arising from research by Griffith University researchers, regardless of whether the results will be reported in refereed or non-refereed publications, online or offline, books, conference proceedings, internal reports, formal or more informal publications.

The guidelines also apply to all research, irrespective of whether it requires animal ethics or human research ethical clearance, or how the work was funded (if at all).

