

UNIVERSITY OF PRETORIA

POLICY FOR THE PRESERVATION AND RETENTION OF RESEARCH DATA

1. INTRODUCTION

Data and records are an essential part of all research projects. Disputes about intellectual property, data authenticity and data ownership have highlighted the need for all researchers at a University but in particular those involved in experimental work and other scholarly evidence based research, to take steps to secure the maintenance and storage of the raw data on which publications, theses, reports, patents and other forms of published material are based. These data need to be stored in a secure environment, in as far as possible in tamper-free form and in sufficient detail to enable the principal investigator or an independent body of experts to address all enquiries having to do with accuracy and authenticity of the research and the data on which it is based.

The policy applies to all researchers and individuals at the University involved in conducting or reporting of research, irrespective of the funding source. It is aimed at the protection of students, researchers, principal investigators and ultimately, the University against a variety of disputes concerning published or patented research. Some of the more important of these issues can be summarized as follows:

- 1.1 The protection of intellectual property (IP) and disputes with regard to proposed or completed patents. It is of particular importance that the time of discovery, the nature of the discovery and the individuals involved are clearly recorded.
- 1.2 A detailed research data record will help to resolve conflicts between students, UP researchers and external funding bodies about IP contributions if such issues are not already clearly defined in contracts.
- 1.3 Disputes concerning the reproducibility of research claims, accusations of falsification of the data and all other issues in which the authenticity of the published research is questioned.
- 1.4 Disputes between supervisors and students about research progress and the contribution made by individual students and co-workers to published and patented research. This also applies particularly to students who terminate their studies before the completion of a degree.
- 1.5 Keeping a detailed research data base reduces the risk that important research data may get lost because its significance was not realized at the time when it was produced. Principal investigators or new researchers will have the opportunity to review unpublished data in a new light, following new discoveries.

2. DATA PRESERVATION

2.1 REQUIREMENTS FOR DATA PRESERVATION

- 2.1.1 All students and researchers should be aware of the fact that research data belongs to the institution. The University needs these data in order to comply with project agreements, securing intellectual property rights where applicable, protecting the rights of staff and students regarding access to data, and facilitating any investigation of charges of misconduct or conflict of interest.
- 2.1.2 The principal investigator of each project is charged with the responsibility of securing these data for future use. This responsibility is transferred to the School or Faculty or a duty appointed research successor if the principal investigator should leave the University.

- 2.1.3 Procedures should be in place to protect data from alteration and loss, including from fires or other emergencies.
- 2.1.4 Data is required to be stored for a minimum of ten years after the completion of the original project but if intellectual property is involved, or if there are particular statutory or contractual requirements, a longer period may well be required. Special consideration about the length of storage should also be given to cases where a potential conflict of interest or misconduct is involved. In some cases, and in particular where experiments with humans are concerned, funding bodies may require that all raw data be kept indefinitely.
- 2.1.5 Principal investigators have the responsibility to obtain and secure the research data from postgraduate students before degrees are awarded and especially in cases where students have abandoned the work.

2.2 MAINTENANCE OF RESEARCH DATA

There are a number of ways in which raw research data may be stored on a day to day basis but the most important of these are probably hard copy research note books and the large selection of ways and formats in which digital data can be stored on computers

- 2.2.1 **The note book:** The key to recording research data in a well-organized project, is the research note book. This should provide a permanent dated record of all completed research and new discoveries. The record should provide the necessary facts pertaining to the methods used, observations made and results obtained. The principal investigator will have to play an important role in guiding students and other researchers as what has to be provided in terms of experimental detail. This detail should be sufficient to be able to address disputes with respect to patents, processes and designs, and deal with questions about the accuracy and authenticity of the research work. The note book remains the property of the Institution and if the principal investigator should leave the University, a copy of the note book may be given to the investigator. The original note book remains with the University. The storage of note books as PDF files on computers should also be considered. Guidelines for recording research data in a relatively tamper-proof way so that it is available for long-term storage and future inspection is provided by the University library.
- 2.2.2 **Electronic data storage:** The storage of research data as files on computers is already an essential way of storing large amounts of important research data and it will become increasingly more important in future. It currently complements the research note book, but in the future it may well replace it. Guidelines of how to secure and consolidate computer data that are often distributed among a range of different computers need to be developed by research groups and approved by the Faculty Research Committee.

3. DATA REPOSITORIES

- 3.1 Data that is in digital form or which can be converted into a digital format will be stored and curated on the digital repositories created by the University library.
- 3.2 All non-digital research material must be retained in appropriate repositories which are maintained and curated within the academic departments where the material was generated by research activities.
- 3.3 A report on the management of data repositories should be made annually by faculties to the Vice-Principal (Research and Postgraduate Studies).

