Responsible Research

Rebecca Halligan
Director of Research Integrity
What is responsible research?

Principles:
- honesty and integrity
- respect for human research participants, animals and the environment
- good stewardship of public resources used to conduct research
- appropriate acknowledgment of the role of others in research
- responsible communication of research results.
Why do we need a code for responsible research?

Originally developed following:
Exploitation of the participants – Tuskegee study of untreated syphilis in the African American male (1932-1972)

› 399 African Americans were studied to observe the natural progression of the disease

› Participants not required to give informed consent nor informed of the diagnosis

› Penicillin available by 1947 but these scientists withheld it to continue studying the progression of the disease
“Our finding suggest that US scientists engage in a range of behaviours extending far beyond falsification, fabrication or plagiarism”

(They anonymously surveyed 3,250 scientists)

<table>
<thead>
<tr>
<th>Behaviours</th>
<th>All</th>
<th>Mid-career</th>
<th>Early career</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falsification</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Unauthorised use of confidential information</td>
<td>1.7%</td>
<td>2.4%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Failing to present data that contradicts one’s own previous research</td>
<td>6.0%</td>
<td>6.5%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Changing design, methodology or results in response to pressure from a funding source</td>
<td>15.5%</td>
<td>20.6%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Inappropriately assigning authorship credit</td>
<td>10%</td>
<td>12.3%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Dropping observations or data points based on gut feeling</td>
<td>15.3%</td>
<td>14.3%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Inadequate record keeping related to research projects</td>
<td>27.5%</td>
<td>27.7%</td>
<td>27.3%</td>
</tr>
</tbody>
</table>
Human Research Ethics

IT and Engineering

Dr Margaret Faedo
Research Integrity: Human Ethics Manager
National Statement on Ethical Conduct in Human Research (2007)

› Values and Principles of Ethical Conduct (Section 1)
  - Respect
  - Research Merit and Integrity
  - Justice
  - Beneficence

› Ethical Consideration specific to research methods or fields (Section 3)

› Ethical Consideration specific to participants (Section 4)

› Process of research governance and ethical review (Section 5)
National Statement on Ethical Conduct in Human Research

› Values and Principles of Ethical Conduct

› Ethical Consideration specific to research methods or fields (Section 3)
  - Qualitative methods
  - Databanks
  - Interventions and therapies *
  - Human tissue samples
  - Human genetics *
  - Human stem cells *

› Ethical Consideration specific to participants (Section 4)
National Statement on Ethical Conduct in Human Research

› Values and Principles of Ethical Conduct

› Ethical Consideration specific to research methods or fields (Section 3)

› Ethical Consideration specific to participants (Section 4)
  - Women who are pregnant *
  - Children and young people *
  - People in dependent or unequal relationships
  - People highly dependent on medical care *
  - People with a cognitive impairment, an intellectual disability, or a mental illness *
  - People who may be involved in illegal activities *
  - Aboriginal and Torres Strait Islander Peoples *
  - People in other countries
Main ethical considerations and types of research

- Method of recruitment
- Informed consent
- Privacy
- Protects rights and welfare of research participants
Tips for getting an “A” in ethics....

› Allow time to prepare your application
› Seek advice
   - Contact us
   - Sydney University Website (Templates, Guidelines)
   - National Statement on Ethical Conduct in Human Research
› Make it easy to review your application
   - Supporting documents
   - Detailed explanations
Responsibilities of Researchers

› Maintain high standards of responsible research (respect the truth, use appropriate methods, ensure the safety of those involved etc.)
› Report research responsibly
› Respect research participants
› Respect animals used in research
› Respect the environment
› Report research misconduct
› Aboriginal and Torres Strait Islander peoples
› Consumer and community participation in research
Research Data Management

› Consider professional standards, legal requirements, contracts
› Make data available to others
› Hold data for at least 5 years following publication.
   - 15 years for clinical trials
   - 20 years if environmental or human long term impact
   - Forever in some cases (genetics, historical or cultural significance)
› Clear and accurate records
› Keep safe and secure
Publication and dissemination

› Disseminate findings to colleagues and the wider community
› Ensure accuracy
› Cite others correctly
› Multiple publications not acceptable without reference
› Disclose research support
› Manage confidentiality
› Responsible publication in the public arena
Authorship

Who gets it?

Attribution of authorship depends to some extent on the discipline, but in all cases, authorship must be based on substantial contributions in a combination of:

› conception and design of the project
› analysis and interpretation of research data
› drafting significant parts of the work or critically revising it so as to contribute to the interpretation.

› The right to authorship is not tied to position or profession and does not depend on whether the contribution was paid for or voluntary. It is not enough to have provided materials or routine technical support, or to have made the measurements on which the publication is based. Substantial intellectual involvement is required.
External interests policy

› Disclose interests

› Make a plan to manage conflicts – must be approved by manager.
Collaborations

› Formal agreement required.
Research Misconduct

From the Code of Conduct for Responsible Research

› What is research misconduct?
  - Fabrication
  - Falsification
  - Plagiarism
  - Other academically dishonest practices that seriously deviate from those that are commonly accepted within the scientific and scholarly community. In includes the misleading ascription of authorship.

› Other unacceptable research practices
  - Breach of ethics approval
  - Not using funds for the purpose for which they have been provided.
  - Etc.
New Technologies - Plagiarism

The internet now makes it easy to find thousands of relevant sources in seconds, and in the space of a few minutes plagiarists can find, copy, and paste together an entire term paper or essay. Because much of the material online is produced by other students, search engines can be useful for tracking down suspect passages, but even they have their limitations, given the number, variety, and password-protected nature of many websites. Even where search engines do prove useful, manually searching the internet for

Matching text is blocked out and highlighted for easy identification. Short non-matching sections are easily identifiable within larger passages

Refresh any report at a later date to include the most recent content in your results

Investigate suspect sources either all together or one at a time

View results without including quoted material or the student’s bibliography

75% match (live internet)
http://www.craigslist.org

The Direct Source Comparison window appears whenever you click on a matching passage in the paper body

12% match (live internet)
http://www.craigslist.org

Live internet pages can easily be viewed in their original context

The internet now makes it easy to find thousands of relevant sources in seconds, and in the space of a few minutes plagiarists can find, copy, and paste together an entire term paper or essay. Because much of the material online is produced by other students,

All matching sources are listed in order of percentage match and referenced to matching passages in the paper body

Click on any matching passage to open the Direct Source Comparison window to the right where the match is shown in context within the suspect source

The rating of any one paper is calculated based on the percentage of the total number of words that matched the sources, as well as the number of words found in the paper. For instance, a word in the student’s paper may be found in five of the shared sources, but only once in the invalid sources. The system recognizes that a word in the student’s paper is more likely to be a true match when it is found in several of the shared sources and fewer of the invalid sources. It applies this logic to every word in the student’s paper, calculating an overall similarity index and a rating for each document.
Manipulation of images
› 2009 – Research Integrity unit formed by DVCR; Director of Research Integrity and Animal Welfare Manager appointed.

› 2010 - Research integrity subcommittee formed – a team of 12 senior academics supported by the Deans and the VC

http://sydney.edu.au/research_support/integrity/index.shtml

Vision

To promote high quality research by supporting researchers (staff, students) and assisting them to achieve their full potential through:

- Fostering and sustaining an environment of responsible research.
- Developing and communicating policy and guidelines on standards for research.
- Providing training in responsible research practice.
- Guiding and advising on research integrity issues.
1. Australian Code for the Responsible Conduct of Research

2. The University Code of Conduct for the Responsible Conduct of Research and Guidelines for Dealing with Allegations of Research Misconduct
What to do if you suspect a problem

In general
1. Raise the issue with your supervisor, if not desirable or possible -
2. Raise the issues with your head of dept/school, if not desirable or possible -
3. Report the issue to the ‘designated person’ VC, DVCR, (DRI)

If you are unsure;
› Consider contacting a Research Integrity Advisor to seek advice and discuss the case
› Check the Code of Conduct for Responsible Research

If misconduct is suspected;
- Allegations from outside the University to be referred to the VC
- Allegations from within the University to be referred to the DVCR (VC’s delegate)
- Or report them to the Director Research Integrity and they will be referred appropriately.
Questions