


Academic Integrity

How to do it right



Why it matters

- Virtually everything we know has come to us because someone else has taken the time to think about it, research it, and then share what they have learned.
- All academic research is built on previous research and therefore, accurate, valid information is essential.
- If you wanted to follow up on the previous research, you would need the relevant citations

Imagine

- Imagine what would happen
 - if a new drug therapy was founded on incorrect or false research
 - if research that countered the current results was ignored

Academic culture

- When you become a student, you become part of the academic culture. You are exploring and investigating new areas of interest and locating existing knowledge. This is research even though you may not be contributing new knowledge.
- As part of the academic culture, you have the responsibility to conduct ethical research. Accurate citations and fair acknowledgment of information sources are essential.

The Real World

- Plagiarism matters in the real world
- Reporters - [Jayson Blair](#), New York Times
- Wikipedia – [Use of Images](#) > Key principles
- Web sites – [Plagiarism Today](#)
- Medical profession

From Lancet

Misconduct in medical research
David Evered, Philippe Lazar

Several incidents of scientific misconduct have lately caused widespread concern. The European Medical Research Councils take this issue very seriously and are resolved, as part of their responsibility to governments, the public, and the scientific community, to ensure the scientific integrity of the research that they fund.

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Scientific misconduct broadly falls into one of three categories: fraud, plagiarism, or fraud. The factors responsible for misconduct of fraud are complex and not fully understood. They clearly include the pressure to publish, which may be driven by departmental or institutional pressures (particularly the need to generate grant income), personal ambition (the wish for rapid promotion), and the desire to be first. The factors responsible for plagiarism are also complex and not fully understood. They clearly include the pressure to publish, which may be driven by departmental or institutional pressures (particularly the need to generate grant income), personal ambition (the wish for rapid promotion), and the desire to be first.

Education, training, and standards
Responsibility for setting overall standards in education must rest with the employing institution and its senior staff who are responsible for the supervision and training of graduate students and research staff, and with the relevant professional bodies. The government also has a responsibility for maintaining the highest standards during the period of undergraduate training. The Councils are strongly in favour of each professional body and research establishment drawing up its own guidelines on "good research management" and its own code of good laboratory practice. However, some general principles apply.

- It should be clear who has responsibility for supervising and training individuals involved in research, the numbers supervised by each senior scientist must be limited to ensure that each senior scientist adequate individual attention. The supervisor should ensure that their research projects are followed and personnel should receive guidance in the conduct of the project, data management, and aspects of publication.
- Good record keeping is an essential aspect of good research practice. Records should be kept in a permanent form that is readily understood by others and should remain available and accessible for review for at least five years following publication of the work. It may be necessary to keep source data for much longer periods in some instances. The longitudinal publication of research results in accord with institutional best practice. Original research should be kept securely within the laboratory in which the research was carried out.
- Detailed advice and training should be provided.
- Data should be fully retained and meticulously verified before being submitted for publication.
- Only those who have contributed significantly to the work should be authors of a publication and they should sign a declaration to this effect.
- Behaviour prohibited by others should be properly cited and acknowledged.
- Sufficient experimental detail should be given to allow independent evaluation of the data and replication of the work.

Acknowledgement

- Academic research encourages (requires) an examination and awareness of previous research in order to provide a context for new research
- It is expected that previous research that is consulted should be documented and when it is incorporated into new research it should be acknowledged or cited

Acknowledgement

- Work that has been created by another person and used in the creation of a paper, web page or computer code must be cited even if it is not copyrighted – this does not just mean words, it includes images and code
- Images must be cited even if they are
 - Royalty free or freely available on the web
 - Altered by the user
 - Combined with another image

Questions

- Ask yourself
 - Am I giving people the impression that I created this image when I display it on my web page or in my document?
 - Am I pretending authorship?
 - Am I assuming people will know I didn't create it
 - If yes, then I am also assuming they will know where to access the image where it originally appeared
 - Is the image copyrighted or trademarked?
 - If yes, then I am misusing it if I don't cite the source

Citation for a Web page

- Page Title
- Date of creation or last update
- Author or Company name
- Date it was accessed
- Address of web page

“MySpace launches net music store.” 25 September 2008. British Broadcast Corp. 30 Sept. 2008 <<http://news.bbc.co.uk/2/hi/technology/7635416.stm>>.

Citation for an image

- Artist or company name (if available)
- Title of the work (if available; check alt text)
- Date it was created or trademarked
- Repository, museum, or owner (if applicable)
- Date it was accessed
- Web site address

Python Software Foundation. Python logo. 1990-2008. Accessed 30 Sept. 2008. <<http://www.python.org>>

Paraphrasing

- Goal
 - Provides an understanding of the key points without including exact phrases or maintaining similar order of the original text
 - Avoids over usage of quotes
 - Helps you grasp the full meaning of the original

Paraphrasing

- “Students frequently overuse direct quotation in taking notes, and as a result they overuse quotations in the final [research] paper. Probably only about 10% of your final manuscript should appear as directly quoted matter. Therefore, you should strive to limit the amount of exact transcribing of source materials while taking notes.” (Lester 46-47)

Lester, James D. Writing Research Papers. 2nd ed. New York: Scott Foresman, 1976.

Unacceptable paraphrase

- Students often use too many direct quotations when they take notes, resulting in too many of them in the final research paper. In fact, probably only about **10% of the final copy** should consist of **directly quoted** material. So it is important to **limit the amount** of source material copied **while taking notes**.
- *Same organization, order and length ; some exact phrases; no acknowledgement*

Acceptable Paraphrase

- In research papers students often quote excessively, failing to keep quoted material down to a desirable level. Since the problem usually originates during note taking, it is essential to minimize the material recorded verbatim (Lester 46-47).
- *Maintains the sense of the paragraph without using exact phrases or similar order; shorter; acknowledges source*

