

A GUIDE TO REFERENCING IN ACADEMIC WRITING

A PABS 'House Style'

Introduction

This document is not a definitive paper on academic referencing. It is produced in response to comments by both staff and students.

Comments by staff tended to emphasise a tendency for students to not know why referencing is done, how to reference consistently through a piece of work, and what kind of references to avoid.

Comments by students suggested that work they did for one lecturer would be corrected, they would adopt that style, only to be told to do something different by another staff member. Some also commented that the various papers available both within the university and externally are contradictory, which is not a surprise because there is no one correct form of referencing, as we will see below.

School Board has suggested that one possible solution is to adopt a 'house style' for PABS, with perhaps two forms, one 'Author-date' (i.e. Harvard) and one 'Author-number' (i.e. Vancouver). This does not mean that this is the only correct form, and a staff member may ask you to do something different for a specific reason, but they must make it clear what they want beforehand. This is a kind of 'default setting'.

Academic or Scholarly writing

Many students do not seem entirely clear about what differentiates scholarly writing from other forms such as journalism; fiction; documentary; advertising, student guide documents, etc. This is not helped by some books which define it in terms of how a research paper is constructed. This is part of it, to be sure, but more fundamentally it is about writing which is based on very reliable evidence which can be verified. We then expect critical analysis and synthesis, but other writers, such as serious journalists for instance, would claim they also do that.

In other fields the nature of this evidence may not be what we are used to. Historians would use documents and artefacts contemporary to the time they are studying, but in science we tend to use three major types of evidence (1) Experimental or survey results (2) Outputs from deductive processes (eg a mathematical model) and (3) the published literature.

It is because we have to show that anything we refer to in the literature is, in itself, very reliable that we reference.

So, how is that achieved?

In all good quality scholarly writing, the work is peer reviewed (see your year 1 lectures). Briefly, the paper, monograph, abstract or whatever, is sent to two or three acknowledged experts in that specific subject who check it through, not just for accuracy, but to see if the experiments were carried out correctly, the conclusions are reasonable and are supported by the results etc, etc. This is partly what gives this kind of publication reliability. Of course, this is then published and other scientists read it, and may criticise it further, or attempt to repeat the work and perhaps fail to do so, giving a further level of reliability to the work.

We therefore, in reality, reference work for more than one reason. Firstly, we do it so that our reader is directed to work they already are aware of, to show we have evidence to support statements we are making; secondly, so that our reader may be able to find the work we are referencing so they can read it themselves and decide whether or not they think it supports our statements; and thirdly (and least often stated) if we are reading a paper, we tend to look at the sources cited, and decide how their quality reflects upon the quality of the work we are reading. For instance, a student's essay may cite only non-academic web pages- charity pages and the like. We are likely to assume this is not well-grounded work when compared with an essay which cites a lot of peer-reviewed papers which we would tend to accept as a well-written essay.

What referencing is not for, is to avoid accusations of plagiarism; although if you do say something directly from the literature and do not reference it (including diagrams) that will be plagiarism.

A brief history of referencing

Referencing as we know it today is a relatively new idea. This is largely due to the massive explosion in knowledge and published papers over the last 100 years or so. It is interesting to read a book such as William Harvey's *De Moto Cordis* (the chap who discovered blood circulates) in which he not only does not reference at all, but refers to previous work in detail in the text. So in referring to Galen's work, for instance, he will describe that work actually in the text. This was largely due to the fact that there were relatively few medically educated people in Europe, and those who were interested would know about the previous work already. Up to the late 19th century referencing was used, but tended to be of a form where various printer's marks such as asterisks etc were put next to statements, and the sources were written as footnotes at the bottom of each page.

The first reference, as we would recognise it today, is supposed to have been used by an anatomy professor at Harvard University, Prof. Edward Mark in 1881. This used the now familiar 'Author-date' format (e.g. [Jones and Smith, 2001]) with a full reference at the end of the paper. This was recognised as being extremely useful by visitors to Harvard, and it gradually

became disseminated across the US, the UK and Europe, and then the world. This is why there is no definitive version of the so-called Harvard system, because it evolved as it spread.

Incidentally, the original paper was about slugs.

Although very useful, the Harvard system has drawbacks. The in-text references tend to break up the flow of the text, particularly if there are several papers to cite in support of one statement. As a result, some authors started to use simple numbers in the text, either as superscripts, subscripts or just in brackets. (e.g. Jones [3] stated that....) Again, this system evolved along a number of paths, particularly in medicine, but a meeting of the International Committee of Medical Journal Editors (ICMJE) in Vancouver, Canada, in 1978, tried to impose a standard system. This was known as the 'Uniform requirements' of which there are now, inevitably, several forms. However, it is generally accepted that the journal JAMA's instructions are the ones people should adhere to in medical and related publishing (AMA system).

There are other systems of referencing used in other fields of academic writing, but we need not bother with them here, particularly as they are largely based upon the two systems above. For completeness, the other major systems are:- MLA (Modern Languages Association); APA (American Psychological Association); AMA (which is essentially the JAMA system mentioned above), ASA (American Sociological Association) and Chicago style.

To be fair, most of these are really just Harvard or Vancouver, but have published definitive style documents which dictate how the citation should be done. Some are very flexible, for instance, Chicago allows both Harvard and Vancouver types of referencing. The UoB library produces a document ([IS doc 505](#)) which is a guide- but it is based on the MLA system- which has some differences from the style we use in science.

Here we must re-emphasise that no one system is 'correct', and when we publish professionally, we must read the 'Instructions to Authors' which all journals provide, to establish exactly how that journal likes its referencing done.

Direct Referencing

This is a matter which we are starting to see cause some difficulty amongst students. Direct referencing is when you copy a whole sentence or paragraph from the literature, usually putting it in quotation marks, and referencing it. This is used a lot in disciplines such as sociology and philosophy because the point is then to dissect and analyze the quoted statements, often phrase-by-phrase.

Direct referencing is not for stating, in another author's words, a point you are trying to make, as if to give it authority. You must state the point in your own words and then reference it. Direct referencing is very rarely used in scientific writing.

An example where it would be acceptable might be if you quote a paragraph from a television website, and then you are going to dissect it to show why it is particularly good or poor reporting of a science issue. However, using the same paragraph simply to make the same statement as the website is poor practice.

So, which sources should I use as references, and which should I not use?

This is a surprisingly difficult question to answer. Many of us would say simply that you should use only peer-reviewed material - papers, reviews (although many of these are not strictly speaking peer reviewed, but do review peer-reviewed papers), and reviewed abstracts, conference proceedings etc. But then what should you do about patents, international standards etc? Generally, these are reliable, and are often reviewed by more reviewers than ordinary papers. ASTM Standards are sent out to 100 reviewers for ballot, for instance. The big question is what to do about websites. These are hugely variable: some with very good information; others which are very convincing, but contain complete rubbish. This is a real problem, so I have devoted a section to it below.

The nuts and bolts of referencing

Note: if you cite the same reference more than once in a piece of work, you use the same reference in the text each time (so, in Vancouver, you would use the same number each time, rather than assigning a new number to the same reference each time you use it).

1. Referencing research papers; reviews in academic journals; books, conference proceedings and similar:-

In the text (a) Harvard would require name and date, eg

Alcohol has no biological activity in this system (Jones and Smith 2010).

Or, Jones and Smith (2010) have stated that alcohol has no activity in this system

If there are more than two authors, it should be written thus:- Jones, Smith et al. (2010)

If you have two or more papers by the same authors in the same year, use lower case a's and b's to distinguish, eg Jones (2008a, 2008b) has stated.....

In the text the (b) Vancouver system would read:-

Alcohol has no biological activity in this system [1]; or

Jones and Smith [1] have stated that alcohol has no activity in this system.

In the reference list at the end of the piece of work, references should be written thus:-

Harvard system- In alphabetical order of first author name (Thanks to Mike Lethem)

- Journal articles: Pensole GL, Gissi C, Lanave C, Saccone C (1995) Glutamine synthetase gene evolution in bacteria. *Mol Biol Evol* 12:189-197.
- (>7 co-authors): Wilson R, Ainscough R, Anderson K, *et al.* (1994) 2.2 Mb of contiguous nucleotide sequence from chromosome III of *C. elegans*. *Nature* 368:32-38.
- Books: Ingram VM (1963) *The hemoglobins in genetics and evolution*. New York: Pubs. Columbia University Press.
- Book chapters:/monographs Hall BG (1983) Evolution of new metabolic functions in laboratory organisms. In M Nei, RK Coehn, eds, *Evolution of genes and proteins* (1983) Sunderland, MA: Sinauer Associates, pp 234-257

Note: in a book ref we use:- Author(s), year, title, place of publication, publishers. If the book is edited by someone, and other authors have written the chapters, it should be written as the last reference above, with both the editors and authors shown.

Vancouver system.- In numerical order. (otherwise- as above)

[1] Pensole GL, Gissi C, Lanave C, Saccone Glutamine synthetase gene evolution in bacteria. *Mol Biol Evol* 1995 12:189-197.

[2] Wilson R, Ainscough R, Anderson K, *et al.* 2.2 Mb of contiguous nucleotide sequence from chromosome III of *C. elegans*. *Nature* 2005 368:32-38

(Note- technically the year goes in a different place in Harvard and Vancouver- this kind of trivial difference we do not care much about- just so long as you are consistent throughout a piece of work)

What if I was told something by my supervisor/tutor, which they did, but has not been published (yet)?

If the paper is written and accepted by a journal, but not yet published, in the text -reference as above, and in the list put:-

Jones. K and Smith. M (2011) The effect of alcohol on ring tailed lemurs. J. Amus. Expts. In press.

If it is just a result not yet written up in a paper, in the text put- (Jones K. Pers Comm)

2. Patents

A source of information often neglected by students, but often contains good information, such as synthetic pathways for drugs etc, methodologies and so on. However, be careful as you can write things in a patent which have not necessarily been tested experimentally, so are not so reliable. But, in a patent you have to write a 'state of the art' section with refs, so you can often find some good

references there if you are looking for a review on some subject. See, for example, www.freepatentsonline.com for structure. Just put something interesting in the search box.

Referencing- In the text, as above. In the reference list at the end, of the form

Kolobow T, Bassi G, Curto F. (2009) US patent:7503328. Mucus slurping endotracheal tube.

3. Dissertations and Theses

Again, sometimes there is information in a PhD thesis or dissertation which is useful, but has never been published. You can request such theses via inter library loans, and search via EthOS at <http://ethos.bl.uk/Home.do>

Ref as :- James S.L. Mechanical haemolysis in a constant shear field. PhD Thesis. University of Surrey, 1981.

4. Web references

This is where we hit trouble; web referencing has not been around for long, and is constantly changing to meet new demands. However, you first need to grasp some principles.

(a) Web resources are dynamic - unlike a book or journal, they can change or even disappear with time. Therefore, you must always put in the date accessed if you quote a website.

(b) Web of Science, Pubmed, etc are not sources; they are search engines to find publications in response to keywords. Do not reference the WoS or Pubmed website URL as your reference.

(c) Many papers are available as electronic files (usually pdf) either in addition to hard copy, or instead of hard copy. These may be found on services such as Science Direct, Highwire etc, or sometimes on the journal's own pages, often released free to web after a length of time. Of course, there are also some journals we can access electronically because the University subscribes to them. In these cases the general approach is to reference the paper in the usual way, but add that it is available from the source used, but do not add the source URL (see below). For journals found only as electronic pages, obviously you have to reference the URL (and doi if available).

(d) What is a doi? This is a digital object identifier which is essentially a more permanent web address than the URL. The URL of a document can change, but if such an update happens, the publisher is supposed to re-link the new URL to the existing doi so that it can still be found. This system is an international standard, but the downside is that people have to pay to be part of this system, so not everything has a doi. However, with the spread of its use, it is becoming commonplace to use it in references. (it will look like:- doi:10/1000/186). To be a little more precise - the doi can point to a number of URLs, depending upon how the system is interrogated. For instance, if you Google the above, you will get to a page explaining the doi handbook - on that page is the same doi again - but this time it points to a pdf of the actual handbook itself.

(e) Be very careful about referencing actual websites - remember what has been said above about reliability - most websites have no peer review or any form of ensuring correctness. It is best to limit or exclude websites, especially in year 3 or later.

(f) What about Wikipedia? This actually gets a bad press, and some of it is poor (biographies of celebrities for instance) However, the science pages are generally good, but they are really useful for looking up words and ideas you are unfamiliar with, or to find a fact which you have forgotten. Most pages have a lot of proper references so you should look for those as primary sources- **do not reference Wikipedia in an academic piece of work.**

(g) Diagrams - if you download a diagram, it must be referenced - usually underneath the diagram as a full reference with web address.

(h) There are a lot of guides on the web for referencing electronic material - it is still very flexible, with several sources all claiming to be definitive. If you have something not covered below, have a look on the web to see how other universities suggest you reference it. Most publish referencing guides on the web.

Some examples:-

A paper you found on Pubmed - then got a full-text version from Science Direct:-

Cone R. (2009) Barrier properties of mucus. *Advanced Drug Delivery Reviews* 61 75-85. Accessed 10/1/2011 (Available at Science Direct full text database. doi:10.1016/j.addr.2008.09.008)

A paper in an online journal:-

Chen E, Garnica M, Wang Y, Chen C, Chin W (2011) Mucin Secretion Induced by Titanium Dioxide Nanoparticles. *PLoS ONE* 6(1): e16198. doi:10.1371/journal.pone.0016198 Accessed 10/1/2011

A website:-

United Nations Web Services (2006) History of the Charter, The United Nations. Accessed 1/10/2010. < <http://www.un.org/aboutun/charter/history/> >

Wikipedia:-

No, don't

Lecture slides:-

No, really, don't. Better to take the fact and find a primary source which confirms it.

If you get really stuck, try asking your Project Supervisor or Personal Tutor for advice.

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