How To READ & UNDERSTAND EDUCATIONAL RESEARCH

James Williams
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Chapter aims

• Describe how to formulate good search strings
• Gain awareness of different databases of education research
• Understand the benefits of using a bibliographic database
• Know the difference between a bibliography and a reference list
• Learn how to avoid plagiarism and academic misconduct
• Understand how the Harvard referencing system works
How to Read and Understand Educational Research

Introduction

Finding good research that meets your needs is not a simple task. The volume of research being published is immense. Understanding how to search for relevant research and having a way of determining quality are necessary skills that help you avoid wasting time or reading irrelevant literature. Having determined a hierarchy of publications, we are beginning to work out one aspect of quality – how rigorously the work has been reviewed prior to publication. In this chapter we will look at how to find good research, organise it so that it can be retrieved at ease, and then properly reference this when you report on what you have found.

If you have written any type of academic essay, whether it’s for a degree or a higher degree, you will understand that accessing good research that is relevant to the topic you are studying is essential. A common mistake made by undergraduate (and many postgraduate) students is including out-of-date or irrelevant research. In this chapter we will look at how to search for relevant material, at strategies for searches that provide the most relevant literature, and list some of the databases and search engines that will allow you to access research articles. We will then move on to consider how to keep track of the articles you find in order to build up a database of references that can be used to compile a bibliography or reference list.

How will I know what to search for?

The simple answer to this question is that only you can really know what it is you are looking for. If you are embarking on a search for information about a topic, concept or idea it is best to formulate your initial search as a question (or series of questions). Even a simple question will generate a number of keywords that will form the basis of your search. As an example, the box below outlines the process of generating search terms from a simple question about primary teachers’ confidence in teaching science.

Box 2.1 Finding Good Research

To illustrate a search process for finding good research on a particular issue, we’ll use the following question:

What do we know about primary teachers’ confidence in teaching science at Key Stage 2?
From this question we can generate keywords to use in an online search.

Keywords: primary; teacher; science; Key Stage 2; confidence; teaching; learning

There are probably many more keywords that could be used to interrogate databases for research, but we will keep the list relatively short for the purposes of this explainer.

The fact that we are thinking about Key Stage 2 makes this a topic relevant to the UK rather than internationally. However, it would be a mistake to rule out research from other countries at this stage. Insights and research from other countries can help inform us about what we may see or find in the UK. It is also worth noting that the term ‘primary’ may have a specific meaning for teachers in the UK, but overseas the term ‘elementary’ may be more commonly used.

Having sorted out your initial question, it’s a good idea to spend time thinking about as many keywords as you can that may be relevant. How you do this will be a matter of preference – some people like to use mind maps, others simply produce lists.

If you are registered as a student and have access to a university library, this would be the best starting place for your search for good research. If you have no affiliations or professional memberships to access journals, then Google Scholar is the best starting point. You can also link a Google Scholar profile (see Figure 2.1) to your university library to make accessing journals your university subscribes to easier.

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**Figure 2.1  Google Scholar settings to link to your institution library**

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Why Google Scholar?

Using keywords, a simple search can be formulated by putting these directly into a search engine. The problem is that a general Google search using just some of the keywords above will generate over 30 million hits. It is also not specific to articles or books. It will cover anything and everything that could be put on the internet, including videos, sound files and images. To better target research that will be useful, you will need a more specific search engine and some basic rules for generating good search terms. This is where Google Scholar comes into its own: as its description states, ‘it searches articles, theses, books, abstracts from academic publishers, professional societies, online repositories, universities and other web sites’ (Anonymous, 2018). It also pre-screens a lot of irrelevant material out, leaving you to concentrate on finding the best articles to suit your needs.

Basic search rules

There are a number of conventions to be aware of when using a search engine. The following conventions and rules apply to Google Scholar and Google but will be relevant to other search engines as well:

1. Choose as wide a range of descriptive words as you can. Too few words will give poor results. Select nouns to avoid ‘stop words’ (these are words that most search engines ignore, such as ‘is’, ‘isn’t’, ‘him’, ‘her’, ‘and’, ‘an’, ‘any’, etc., as they slow down searches). Be specific, especially if you are using professional terms.

2. Searches are not case sensitive. Keywords may be entered in lower or upper case or a combination of both, e.g. Mathematics, MATHEMATICS. One exception to this is the Boolean operator OR which can be used to include one or more terms in a search; e.g. with primary OR elementary the OR must be in caps. (NB: A Boolean search uses terms such as AND, OR, NOT, BETWEEN and WITHIN. These are called ‘operators’ and they specify what words the results of your search should or should not contain, and how close your search terms should be to each other. The term comes from the name of the man who invented the form of logic used, George Boole (1815–1864).)

3. When you enter a list of words the Boolean operator AND is assumed; e.g. primary AND teachers AND science is the same as primary teachers science when entered in a search box.

4. The order in which you insert your search terms matters. Google ranks the search terms in order, i.e. the first word ranks higher than the second, the second ranks higher than the third, etc., so primary science will return slightly different results than science primary. Google ignores most punctuation and symbols, but there are exceptions: the use of a hyphen or underscore such as sister-in-law or end_of_file and programming language symbols or musical terms (C#).
WHERE TO FIND GOOD RESEARCH AND HOW TO REFERENCE IT PROPERLY

5. Google uses automatic word stemming.
6. Google does not allow wildcards to be used for variable ends of words, but it does search for all possible word variations.
7. Wildcards can be used in searches to substitute for whole words, e.g. *Wallace would return the following:
   a. Alfred Wallace
   b. Alfred Russel Wallace
   c. Alfred R Wallace
8. Use double quotation marks to search for precise phrases in the order in which you input them, e.g. “primary teachers’ confidence” or “key stage 2 science”.
9. Use a minus sign to exclude words, e.g. primary - elementary (note there is no space between the minus sign and the word to be excluded).

Table 2.1 provides a more complete list of the various search operators you can use to narrow down your search.

<table>
<thead>
<tr>
<th>Operator</th>
<th>What it does</th>
<th>How it changes your search parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>allinurl:</td>
<td>Restricts your search to the terms being found in the URL only</td>
<td>This is a very specific search that will only return webpages that contain your search terms in the web address or URL (Universal Resource Locator)</td>
</tr>
<tr>
<td>inurl:</td>
<td>Searches for your terms in the URL and on the page</td>
<td>This widens the search to include the search terms on the page as well as in the web address</td>
</tr>
<tr>
<td>allintitle:</td>
<td>Restricts the search to the terms being found only in a title on the webpage or document</td>
<td>This is useful if you know one or more words in the title of an article you want to retrieve but may not know the exact title</td>
</tr>
<tr>
<td>intitle:</td>
<td>This restricts the search to all the keywords being present in the title of the article or webpage</td>
<td>This search allows you to be less precise about words in the title</td>
</tr>
<tr>
<td>allintext:</td>
<td>This restricts the search to all the keywords being present in the text of the article or webpage</td>
<td>This is used when you want the text to include all of the specified search words</td>
</tr>
<tr>
<td>intext:</td>
<td>This widens the search to keywords being present in the text</td>
<td>This is used when you want to ensure one or more words are used in the text of an article or on a page</td>
</tr>
</tbody>
</table>

(Continued)
# HOW TO READ AND UNDERSTAND EDUCATIONAL RESEARCH

## Table 2.1 (Continued)

<table>
<thead>
<tr>
<th>Operator (where present, colons should be used and search terms should have no space after the colon)</th>
<th>What it does</th>
<th>How it changes your search parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>filetype:</td>
<td>Allows you to search for particular filetypes by specifying the filetype extension, e.g. docx, pdf, pptx, xlsx (older documents may have the extension doc, xls or ppt)</td>
<td>This will allow you to narrow your search to files that you can download easily - it is useful for searching for copies of research papers placed on university websites by authors</td>
</tr>
<tr>
<td>site:</td>
<td>This narrows the results to a particular site</td>
<td>This allows your search to be restricted to a particular site, e.g. a university website: primary science teacher confidence site:sussex.ac.uk or a domain: primary science teacher confidence site:ac.uk</td>
</tr>
<tr>
<td>Define:</td>
<td>Provides a definition of a specified word</td>
<td>This is a quick way to access a dictionary definition - it will also provide searches of online dictionaries, so you can use your preferred dictionary</td>
</tr>
<tr>
<td>Author:</td>
<td>Specify a particular author to search for</td>
<td>This option allows you to find anything written by a specific author - use whole names rather than just a surname</td>
</tr>
<tr>
<td>Double quotation marks “ ”</td>
<td>Search for a precise phrase</td>
<td>Only articles or pages with the precise phrase contained within the double quotes will be returned</td>
</tr>
<tr>
<td>Minus sign (−)</td>
<td>Excludes the word immediately after the minus sign</td>
<td>This is helpful to exclude articles that are irrelevant, but which may contain other search terms that you want to include, for example Primary science −mathematics will return only results that contain primary science - if the article or page has the word ‘mathematics’, it will be excluded from the results</td>
</tr>
<tr>
<td>OR</td>
<td>Alternatives</td>
<td>This allows you to search for a range of words or alternatives, for example (Primary OR elementary OR key stage 2) science This returns results for science articles that have one or more of the search terms in brackets - brackets can be used to group search operators</td>
</tr>
</tbody>
</table>
WHERE TO FIND GOOD RESEARCH AND HOW TO REFERENCE IT PROPERLY

<table>
<thead>
<tr>
<th>Operator (where present, colons should be used and search terms should have no space after the colon)</th>
<th>What it does</th>
<th>How it changes your search parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numrange (.)</td>
<td>Search for a range of numbers</td>
<td>This is useful to specify a date range, e.g. 2010..2012</td>
</tr>
<tr>
<td>Asterisk (*)</td>
<td>Stands for a word or a few words</td>
<td>This is a wildcard that can be used to return a search with some unknown words, e.g. Alfred * Wallace would return pages that list the following combinations of names: Alfred Wallace Alfred R Wallace Alfred Russel Wallace</td>
</tr>
<tr>
<td>AROUND (n)</td>
<td>Proximity search</td>
<td>This is an advanced search operator that allows you to look for terms that feature near to another term, e.g. primary AROUND (5) science would return results where the word ‘primary’ is found within 5 words of the term ‘science’ – you can vary the proximity by increasing or decreasing the number (n)</td>
</tr>
</tbody>
</table>

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Once you have your basic research question(s) and you have generated some keywords there are several ways you can gain access to research. Open Access research is becoming more common. This means that there are no restrictions on who can access and download copies of the research articles. A lot of research, however, is still found behind ‘paywalls’. If you are affiliated with a university, then generally you can access the journals to which the university subscribes for free. The Chartered College of Teaching, as noted in Chapter 1, has also come to an arrangement with many journals for free access for its members. It is possible to buy a copy of the research article from a journal, but this can be expensive. Some journals will also allow access for a short period of time for a small fee. Often, a pre-published copy of the article can be found by visiting the website of the academic who wrote the research. It is also not uncommon for academics to receive requests for a copy of their article by e-mail; many will oblige, but you may have to wait for a reply.

Developing good searching habits and using search operators is essential for cutting down on time wasted trawling through irrelevant search results on the internet. It also helps to keep you focused on what you should be looking for rather than going off at a tangent when you spot something that may be ‘interesting’ but is not relevant.
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Google Scholar

Google Scholar allows you to search for academic and scholarly material, including books, journal articles, conference papers and proceedings, book chapters and theses, on a wide range of subjects. The results are sorted by relevance based on several variables, including full-text matching, place of publication, author(s), and how often the article has been cited by other authors.

There are several advantages to using Google Scholar over a straightforward Google search:

1. It excludes millions of websites and blogs which, as discussed in Chapter 1, are not necessarily the best source of research or scholarly material.
2. It will allow you to directly access open access papers to download (usually as pdf documents).
3. It can be linked to a university library (see Figure 2.1) to allow you to access journals for which your university has subscriptions. Google Scholar will also allow you to add search results to your own online library to access at a later date.
4. You can download citation files that can be added to bibliographic databases (see below) or you can copy and paste some already formatted citations directly into a bibliography or reference list.

Google Scholar also has an advanced search option which is another way of narrowing your search parameters (see Figure 2.2). However even this will still return a large

Figure 2.2  Google Scholar advanced search

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number of potential articles (see Figure 2.3), so it is worth understanding the anatomy of the Google Scholar page (see Figure 2.4) in order to easily identify ways of locating, saving and accessing research.

<table>
<thead>
<tr>
<th>Articles</th>
<th>Any free</th>
<th>Demographic Factors, TPACK Constructs, and Teachers’ Perceptions of Constructivist-Oriented TPACK.</th>
<th>public_semanticscholar.org</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since 2016</td>
<td>Since 2017</td>
<td>All articles, same title as above</td>
<td>public_semanticscholar.org</td>
</tr>
<tr>
<td>Since 2016</td>
<td>Since 2017</td>
<td>All articles, same title as above</td>
<td>public_semanticscholar.org</td>
</tr>
<tr>
<td>Custom range...</td>
<td>2012 — 2018</td>
<td>All articles, same title as above</td>
<td>public_semanticscholar.org</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Figure 2.3  Search returns using the advanced search from Figure 2.2

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<table>
<thead>
<tr>
<th>Articles</th>
<th>Any free</th>
<th>Developing technological pedagogical content knowledge in pre-service science teachers: Support from blended learning</th>
<th>public_semanticscholar.org</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search returns</td>
<td>Since 2016</td>
<td>Developing technological pedagogical content knowledge in pre-service science teachers: Support from blended learning</td>
<td>public_semanticscholar.org</td>
</tr>
<tr>
<td>Since 2017</td>
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<td>public_semanticscholar.org</td>
</tr>
<tr>
<td>Since 2017</td>
<td>Since 2016</td>
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<td>public_semanticscholar.org</td>
</tr>
<tr>
<td>Custom range...</td>
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<td>public_semanticscholar.org</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Figure 2.4  Anatomy of a Google Scholar page

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Locating research using online databases

While Google and Google Scholar will deliver a wide range of research, there are a number of other databases and search engines that specialise in locating scholarly and academic work. Table 2.2 lists some of the databases and sources of materials (articles, video streaming services) that relate to education. This is not a comprehensive and complete list, but it does set out some of the more common and widely accessible databases.

Table 2.2  Selected education-related databases (source: University of Sussex Library guide for education)

<table>
<thead>
<tr>
<th>Education related database name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSIA (Applied Social Sciences Index and Abstracts)</td>
<td>An indexing and abstracting tool covering health, social services, psychology, sociology, economics, politics, race relations and education. Updated monthly, a comprehensive source of social science and health information for the practical and academic professional.</td>
</tr>
<tr>
<td>British Education Index (BEI)</td>
<td>Provides information on research, policy and practice in education and training in the UK.</td>
</tr>
<tr>
<td>Digital Theatre Plus</td>
<td>Offers streamed films of leading British theatre productions for educational use in schools, colleges and universities. Each production is supported by additional content, including interviews with the creative and production teams and written study guides.</td>
</tr>
<tr>
<td>Education Endowment Foundation</td>
<td>Summaries of education evidence, offering teachers 'best bets' of what has worked most effectively to boost the attainment of disadvantaged pupils.</td>
</tr>
<tr>
<td>Education-line</td>
<td>A collection of free full text documents which are relevant to the study, practice and administration of education at a professional level.</td>
</tr>
<tr>
<td>Educational Resources Information Center (ERIC)</td>
<td>Provides extensive access to educational-related literature. The ERIC database corresponds to two printed journals: Resources in Education (RIE) and Current Index to Journals in Education (CIJE).</td>
</tr>
<tr>
<td>JSTOR</td>
<td>Contains a trusted archive of important scholarly journals, primarily in the humanities and social sciences.</td>
</tr>
<tr>
<td>Project Muse</td>
<td>Access to high-quality humanities, arts, and social sciences journals from scholarly publishers.</td>
</tr>
<tr>
<td>SAGE Journals online</td>
<td>Search function for all SAGE journal articles.</td>
</tr>
<tr>
<td>SAGE Research Methods online</td>
<td>A research methods tool created to help researchers, faculty and students with their research projects.</td>
</tr>
<tr>
<td>Scopus</td>
<td>Abstracts and citations for over 22,000 peer-reviewed titles from more than 5,000 international publishers in the scientific, technical, medical, and social sciences.</td>
</tr>
<tr>
<td>Web of Science</td>
<td>Access to the Science Citation Index, Social Sciences Citation Index and Arts &amp; Humanities Citation Index.</td>
</tr>
</tbody>
</table>
WHERE TO FIND GOOD RESEARCH AND HOW TO REFERENCE IT PROPERLY

The same rules for searching databases apply as for searching Google Scholar. Keywords are crucial and the operators will also be useful to narrow down your search parameters.

When you use various search engines, if you are logged on using either an institution account or, for Google, a Google account, many databases and search engines will allow you to save your searches. If you are accessing literature over a period of time, it is easy to forget which keywords and combinations of terms you have used to conduct searches. Keeping a record of your searches is a good move as this prevents you from duplicating work and wasting time repeating searches.

Whichever method you use to source research material, you are likely to have many more articles and search results than you can easily manage. At this point you will need to use further criteria to narrow your search. If your search engine or database allows you to gather together relevant literature into an online ‘library’, make use of this to have an easily accessible list of articles. Chapter 7 will provide advice on how your articles can be initially sifted and then considered in more depth using critical analysis. At this stage, good record keeping is essential.

Record keeping and citations

At noted above, keeping a record of your searches and the articles, books or chapters you want to read is simply good housekeeping. Another habit to get into when accessing research is making sure you keep a bibliographic record of all your research so that, at a later point, when you use material from it in an essay or report, you can provide a proper citation. This is particularly important when writing assignments, essays or your own research articles so that you avoid any possible charges of plagiarism.

There are many ways of creating a database of references for use in citations. They range from using commercial programs to free open source software, or just keeping a list in a word document or spreadsheet (the latter two methods are not advised for maintaining large numbers of records). Commercial programs such as Endnote can be costly for individuals, but free if you are affiliated to an institution that subscribes; but alternatives such as as RefMan, RefWorks, Mendeley or Zotero are also available, some for free. For users of Microsoft Word (MS Word), there is an inbuilt bibliography database that you can populate and use. To access this, go to the ‘references’ tab. The options ‘Manage Sources’ and ‘Style’ will allow you to enter details of the reference and choose which reference style to use.

The benefits of using a reference management system are clear. It keeps a record of what you have consulted and read. In many systems, you can also add notes about what you have covered. Some of the more sophisticated ones, such as Endnote, also allow you to attach a pdf or Word copy of the article to the reference entry.
The databases will also allow you to insert a reference within your own essay, assignment or thesis using a free plug-in program for word processors like MS Word. From this you can create a properly formatted bibliography or reference list. If you are writing an article for publication in a journal, different journals may have different requirements for their bibliography/reference lists. A reference management database allows you to reformat a list easily and quickly to conform to a journal’s ‘house style’.

Using a database to store and format your references saves a lot of hard work and can cut down on mistakes when compiling bibliographies and reference lists. This leads to an obvious question – what’s the difference between a bibliography and a reference list?

**Bibliographies and reference lists**

If you compare a bibliography and a reference list, the difference between them may not be apparent. Both list articles, books, reports, websites etc., usually in alphabetical order, using authors’ surnames, or in number order according to the order in which they appear within the text of the article. The crucial difference is that a bibliography contains all the works cited in an article or essay, and may contain other works consulted but not specifically quoted or cited in an essay. A reference list contains only those works actually cited in the article or essay, and no other works that may have been used for background reading.

Different publishers have different ways in which they would like works to be cited. One of the most commonly used systems is the Harvard reference system that uses an ‘(author-date)’ system of in-text referencing, also called ‘parenthetical referencing’. The resulting bibliography or reference list uses authors’ surnames in alphabetical order. Contrary to popular belief it is not called Harvard after the US university. There is no connection between the two. The system is reputed to have been invented by the zoologist Edward Laurens Mark (1847–1946), who would have used the library at Harvard’s Museum of Comparative Zoology (Chernin, 1988). The books and articles in the library were catalogued using an ‘author-date’ system. In an article on slugs in 1881, Mark used the ‘(author-date)’ system for the first time. It is assumed, though not proven, that Mark copied the library system as a handy way of referencing the works he consulted when writing his own article.

The Harvard system is widely used across the sciences and social sciences and in many humanities. Other popular systems include MLA (Modern Languages Association), APA (American Psychological Association), Chicago, Vancouver, and the numerical style. A number of good books on academic writing skills will cover the basics of good referencing and citations, such as Osmond (2016) and Pears (2016). In this book, the Harvard system is used.
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Creating a reference database

When you read an interesting book or article, there are some basic steps you can take to make sure you keep at least the basic information necessary for referencing and citations.

The three key pieces of information you need are the name of the author, the title of the book or article and the publisher. For reference database software, like Endnote or Mendeley, much more information can be collected to make your citations and references as accurate as possible. For books, the edition, the place of publication, and sometimes the imprint, provide useful data. A location is used for referencing as editions published in different countries may differ, e.g. a book first published in the UK and then subsequently published in the USA may have been edited and changes made to suit a different audience.

**BOX 2.2 USING BIBLIOGRAPHIC DATABASES**

Endnote, a reference or bibliographic database, allows you to store a wide range of different types of publications, from webpages to books, book chapters, journal articles and government documents. It’s worth noting that the system requires more information than you would normally use within a reference list. This is because the system has hundreds of templates for different types of publications, and different journals require different bits of information in their references.

In essence, the more information you can store, the better. If you are storing information about online sources, articles or webpages, it is important to put the latest date on which you accessed the material. Webpages, blogs etc. are regularly archived or even deleted. While it is possible to view deleted pages through systems such as the ‘wayback machine’, using an access date allows the reader to know when the page was last freely available. If your chosen reference management system has a function that allows you to store a pdf or word copy of the article, it makes sense to do this when you collect the citation data.

How you organise your reading will very much depend on how you prefer to work. Whether you organise in themes, chapters, concepts, authors or chronologically is for you to decide. Chapter 3 will help you develop a methodology for your research reading. How you read and analyse research is a skill that can be learned, and with practice this will improve your ability to spot defects and flaws in published work as well as recognise well-constructed and designed research studies (see also Chapters 7 and 8).
Avoiding academic misconduct with good citation practices

Correctly citing your work is essential if you wish to avoid charges of plagiarism. Plagiarism is using the work or ideas of someone else without credit. Being systematic about how you cite the work of others is essential. It is good academic practice and avoids possible charges of academic misconduct, if you are on a degree or award-bearing course, or simply breaching copyright if you are writing online.

Universities will have guidance on how to properly cite the articles, books etc., and you should follow their guidance where possible. What is set out below is general guidance for citation.

How to reference

Good referencing and citation show academic integrity and will provide an indication of the hard work you put into understanding research. All of us are at some point influenced by the ideas and thinking of others. Good referencing just acknowledges this and sets apart your original ideas and opinions from the ideas and opinions of others.

Generally, when writing a report or assignment people will summarise or paraphrase the work they have read. This still requires a reference to the original work. Where direct quotations are used this must be made clear, and where possible any reference or citation must also include a page number. In effect, what you are doing in referencing and citing the work of others is substantiating any knowledge or theoretical positions you are using in your own writing. It also shows the breadth of reading you have undertaken. One of the most common ways of referencing, as noted above, is the ‘(author-date)’ system of in-text referencing. Box 2.3 shows how referencing and citation works in practice.

BOX 2.3 IN-TEXT, HARVARD STYLE REFERENCING

The following excerpts show how in-text referencing works in practice. The first example acknowledges that a brief summary of an idea comes from another author.

Example 1:

The nature of science is a difficult concept and one that promotes debate and disagreement among scientists, philosophers and historians of science (Williams, 2011).
The second example shows how an author can be cited as part of the narrative.
Example 2:

Should we ‘believe’ in evolution, or just accept it? This is the basic premise Williams (2015) puts forward in a paper examining the nature of accept- ance and belief, from a philosophical perspective.

The third example cites a webpage (blog) rather than a published article.
Example 3:

The Grammar school debate has just been re-ignited with the recent decision of Nicky Morgan, Secretary of State for Education, to allow an ‘annexe’ to be built for the Weald of Kent Grammar school. Whilst many argue that this is about social mobility, in an online blog, Williams (2015a) argues that it’s more about social stability than mobility.

The final example shows how a direct quotation should be referenced.
Example 4:

Many evangelical Christians ask why scientists believe in evolution. In an article on belief versus acceptance, it was postulated that science is about the acceptance of evidence, rather than a belief system:

It would be preferable to accept evolution, rather than believe because of the weight of scientific evidence in its favour. Gravity is accepted because of everyday experiences of it; people drop things and they always fall downwards. People also accept the existence of atoms even though they are unable to see them in any detail. (Williams, 2015 p.329)

Notice that the dates of some of the items referenced in the above examples are from the same year, 2015, and in Example 3 the date is followed by the letter ‘a’ to differentiate it from the previous entry with the same date.

The three articles would appear in a reference list or bibliography as follows:
Example 5:


(Continued)
HOW TO READ AND UNDERSTAND EDUCATIONAL RESEARCH


The bibliography or reference list is ordered alphabetically, by author surname. Note that it is a mixture of italics and non-italics. This is a source of confusion for many people – which bit is italicised and why? The short answer is what you take off the shelf in a library if the item was printed is italicised. For a book, it’s the name of the book; for a journal article, it’s the name of the journal. For websites, as noted above, the date you last accessed the website, before you complete the assignment or report, is given.

Summary

There is a lot of good research available, but it is a case of not seeing the trees due to the forest. Much of what is written online can be a distraction, and looking for research online does not always quickly or easily deliver good, high-quality research. Knowing which are the reliable and useful databases, and then discovering how to effectively and efficiently search these to screen out the unnecessary articles, is a matter of practice and experience. Over time, you will get to know and understand the various journals and what they deliver, as well as developing a feeling for the level of intellectual rigour of the articles they publish.

It is worth experimenting with the various search operators to understand how they can be used to narrow down the field of available articles. The better your keywords are, the better the information you will retrieve from the databases. A widely used and freely available search engine, Google Scholar is one of the best ways to start a search.

Keeping abreast of research also means keeping a database of what you have read. The more organised you are about this, the easier it is to retrieve the information you want quickly. The better your record keeping, the less likely you are to be accused of misconduct. One problem many people encounter is ‘cut and paste misconduct’ – you cut and paste a useful quotation or passage into a file but forget to note where it comes from. Eventually, you may even forget that it was a cut and paste to begin with. If you then incorporate this into your work without proper attribution it is plagiarism – regardless of your intent, you are still guilty of misconduct.
WHERE TO FIND GOOD RESEARCH AND HOW TO REFERENCE IT PROPERLY

How you reference articles, books etc. is down to the institution you are producing an assignment for. They will normally specify the system to use. In this chapter and throughout this book, the Harvard system is used as it is a widely adopted system.

Further reading

This useful guide shows you how to improve the quality of your work at university fast by identifying and using the correct use of English grammar and punctuation in your academic writing.

This is a comprehensive, easy-to-use guide to referencing. It promotes the skills of identifying and referencing information sources and avoiding plagiarism.

Bibliography