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Making a Critical Choice

Keywords

encyclopaedias; handbooks; Internet resources; readers; reading; research literature; textbooks

What you choose to read in preparing for your assessed written work is as important as how critically you read it. Becoming a critical reader must entail becoming a discerning selector of those texts that promise most centrally to suit your study purposes. There is far too much literature out there, especially with the advent of the Internet, for you to read everything that may be relevant. So making effective choices about what to read is the first step in critical reading.

Our chapter begins with techniques for deciding what to read. We then distinguish between different types of literature that you may come across in the course of your studies. Finally, we consider how the Internet offers you a very potent but sometimes unreliable literature source.

Deciding what to read

Suppose it is time to start reading for an essay or a longer piece of work. Where do you begin? You may have been supplied with an indicative reading list and

perhaps some set texts. If so, someone else has made decisions on your behalf to get you started. But there will still come a point when you have to decide what to read. The more principled you can make your choices, the better.

Strategy is paramount. Apart from planning ahead – getting to the library before the crowd for instance – it is useful to operate a two-stage process when identifying what to read. First, draw up a long-list of texts that look important. Then select those which look most central to your reading purpose (discussed below). An advantage of this approach is that you can easily compensate if an item you had targeted is not available. You can work out from your long-list what other text might fulfil the same function. Drawing up the long-list is relatively straightforward. You might consider any of these tactics:

- Use any recommended reading list for your module or subject area, including those from past years.
- Search the Internet for reading lists posted up for similar modules at other universities, and identify texts that are repeatedly recommended.
- Look up one or two important texts in the library catalogue. Then do a search using their subject code to see what else has been classified as covering the same topic.
- Go to the library shelves and see what is physically stored under the same class mark as the key recommended texts.
- Note how many copies the library has of a particular text. If there are plenty, it has evidently been a recommended text at some point.
- As you begin to read, note texts that are often cited by others, and whether positively or negatively (both may be useful).
- Make a list of the three or four journals most often carrying papers that have been recommended or frequently cited, then check the back and current issues of those journals for similar papers.
- Use abstracts databases to search for papers via keywords and author names that you associate with the topic.
- Look through the catalogues (on paper or on-line) of the leading academic publishers to see what has come out recently.
- Check what books have been reviewed in recent academic journals.

In this way, you can soon build up your list of *possible* reading, from which you can choose what you actually read and in how much detail.

Yet you might reasonably ask why you should consider reading anything that has not been specifically recommended to you. A relevant text may not be included on your reading list for various reasons. There may not have been room for all the possible items. Or your topic may be one of several covered in the module, so it has not been given many entries of its own. By keeping the reading list small, the lecturer may be encouraging you to take some

responsibility for seeking out appropriate literature. In short, it is up to you to find out what else might be worth reading and add it to your long-list.

From long-list to short-list

How should you decide which items on your long-list to prioritize? Your reading has to achieve several aims that your selection of texts must take into account. A convincing essay (or dissertation) is likely to cover some or all of the following in relation to the literature:

- An overview of what the key issues in the field are and why they are important.
- An overview of what has been done and found out, and a summary of where the field of enquiry currently stands.
- Some specific examples of the sorts of methodology, results and analysis reported by individual researchers.
- Answers to one or more specific questions that you have been required, or have chosen, to address.

No single text can support all of these agendas. You may need one set of texts to help you develop your overview, another set to help you interpret the work to date within its wider context, yet another to give you specific information about methodology and analysis, and so on. To target your reading, ensure that you short-list a variety of texts that between them will help you achieve each of your goals. But how can you tell what a particular text is most likely to be useful for? One way is by categorizing texts according to their main purpose.

Support literature

Textbooks

Most students turn to textbooks early on in their academic studies. There are two basic types. Firstly, skills textbooks aim to help you learn such things as how to design a robust investigation or analyse data statistically. They are not usually problematic to use, since it is clear that they are a tool rather than a resource. Secondly, subject textbooks generally introduce readers to a field of academic enquiry, and are explicitly designed to support students' learning. Features of textbooks may include:

- They are relatively cheap compared with research books.
- Words like 'introduction', 'guide' or 'study' appear in the title or the series title.
- They are available in softback, and have an eye-catching cover.

- The title evidently encompasses a field or sub-field rather than a particular research agenda (e.g., *A Short History of the English Language*) or else it covers a particular skill (e.g., *Statistics in the Social Sciences*).
- The cover blurb indicates a student target readership.
- There are multiple copies in academic bookshops and libraries. Also, popular textbooks often run to more than one edition.

While textbooks are crucial for any student, they fall outside the central realm of research activity. At postgraduate level you will be expected to have more on your reference list than just textbooks. They can be an excellent place to start, but inherent limitations mean that they are usually *only* a starting place, and should be used only to gain an overview and to identify front-line texts (see below).

One difficulty with using a subject textbook is that it can be so like a literature review that it is difficult for you to find something new to say. The author appears to have summarized all the important works effectively. Conclusions about the big patterns seem to follow logically, and to capture the situation well. You might also feel it is inappropriate to question the judgements of the author, who is obviously more experienced and knowledgeable. It is important to view the textbook author as just one interpreter of the facts. Expect that there will be other ways of interpreting the facts too, and look for those ways, both in other textbooks and by thinking things through for yourself. If you view a textbook as one commentator's account, rather than a summary of some unassailable truth, it becomes possible to pitch one account against another and discuss the reasons for the differences.

GETTING THE MEASURE OF SUPPORT LITERATURE

In the library, try looking up the same concept or topic in the index of several different textbooks, encyclopaedias and handbooks. To what extent do they all report the same information, make the same claims or interpret the evidence in the same way? For some topics and concepts, there is general consensus. For others there is huge variation, based on differences in assumptions, scope and interpretation. Understanding the range of views can help you decide where to position yourself and recognize which of your claims will be most subject to scrutiny by those reading your work.

A second difficulty with a textbook is that it normally tells you *about* research without you seeing the original research report. You should attempt

to read for yourself anything that you judge to be of central importance. You cannot guarantee that textbook authors have interpreted research in the same way that you would do, or have focused on the aspects that are significant for you. The only way you can be sure is to read the original works. Most textbooks provide full references to their sources, and you should aim to follow them up so that you have had sight of everything you discuss. Occasionally you may have to compromise and simply identify a particular work as 'cited in' some other work – that is, admitting that you have read *about* it but not actually *read* it. But keep such references to an absolute minimum.

A third limitation of some textbooks is that, in the interests of offering the reader a clear story, authors may make strong claims that are not backed up with sufficient evidence and they may over-simplify complicated issues. This is not necessarily inappropriate, given the introductory nature of a textbook. But it can be a hazard for students, who may fail to appreciate the complexity underlying an apparently simple observation, or fail to realize that opinion is divided on a matter that is presented as fact. Again, the solution is to see the textbook as a signpost to information, rather than a fully reliable source, and to read the original works that it cites wherever possible.

Readers, handbooks and encyclopaedias

Readers are collections of classic papers on a subject. While a few papers may have been written especially for the collection, most will be articles or extracts from books already published elsewhere. The editors will have selected what they consider to be the most important work for students to read. But their selection is personal and other academics may not consider it to be fully representative of key works in the field. If a paper in a reader has been reproduced in full, it is acceptable to reference its appearance there and not to have seen the original. However, it is a good idea to give the original date as well as the date of the reader, so that it is clear when the paper was written.

Handbooks and specialist encyclopaedias are like readers, except that the articles will normally have been specially commissioned. Leading academics will have written an overview of research, theory or methodology in their area. Such articles are immensely useful for gaining an understanding of the state-of-the-art in a field. Remember, however, that even top researchers can give only their own perspective and there are likely to be other perspectives that you should also consider.

TELL-TALE SIGNS OF OVER-RELIANCE ON SUPPORT LITERATURE

Watch out for these signs of over-reliance on support literature in your work:

- Referring to ideas and evidence without referring to the original source.
- Giving references to works without having read them yourself.
- Referring just to works mentioned in the support text.
- Using secondary referencing, e.g. 'Jones (cited in Smith, 2009) found ...'.
- Plagiarizing by presenting an identical or slightly rewritten version of the support text, as if you had done the reading and thinking.

'Front-line' literature

This book deals predominantly with the critical reading of *front-line* publications: theoretical descriptions and explanations, reports of original research, accounts of current practice and policy statements. Such works are the direct link between you and a researcher, practitioner or policy-maker. They report what has been done, how, why, what it means and what should be done next.

Types of front-line literature

A rough-and-ready distinction may be made between four types of front-line literature: theoretical, research, practice and policy. Most texts are easily identifiable as belonging to one type or another – a journal article reporting an empirical investigation is obviously research literature. But any individual text may feature aspects of more than one literature type. Thus, a journal article which is mainly reporting an empirical investigation may also discuss implications for theoretical development. Here is a brief description of each type, showing how all four can be used to impart one or more kinds of knowledge. (In Part Two, we explore types of literature and kinds of knowledge in more detail.)

Theoretical literature models the way things are (or should be), by using evidence to identify patterns. The evidence may include experiments, observations, experience or ideas, and may not be work that the theorizers have conducted themselves. The patterns, once formalized into a model, may enable researchers to make predictions about what will happen in future scenarios. Such predictions are called *hypotheses* (Figure 2.1).

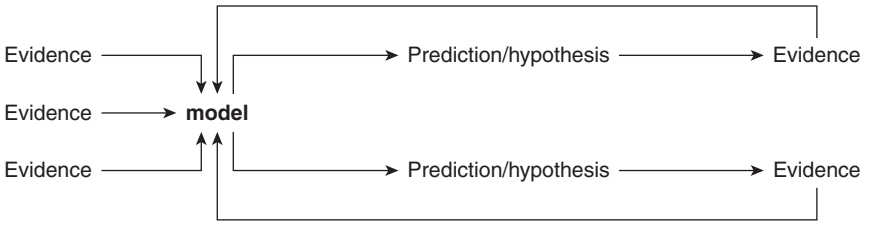

Figure 2.1 How theory and evidence interact through modelling

A model can help readers to deepen their understanding of the social world and to anticipate what things might be observed in the future, and under what circumstances. Theoretical literature can also be used to present the case for a viewpoint or to recommend changes. They might be at an international, national, institutional or personal level and, accordingly, readers may be more or less able to respond directly to them. Consider a journal article putting forward a predictive model about the consumption of the earth's natural resources. The model predicts that, at current rates of consumption, some resources will be used up within fifty years. In itself, such an account is merely a statement of what the facts appear to be. However, it could be used to criticize national or international policy, to underpin recommendations for change, to influence the way people are educated, or to encourage individuals to take greater responsibility for their personal use of resources.

Research, or data-driven, literature reports observations about the real world, often relating them to a prediction or hypothesis derived from a model. Data take two main forms, observational and experimental, though there is some overlap. The major difference relates to whether or not the researcher manipulates the situation. In a classic experimental design, a comparison might be made between two groups or situations that are identical except in one regard determined by the experimenter. Any difference in the outcomes is assumed to be due to that one contrast. In a classic observational design, the researcher might gather data that will indicate how a particular individual or group operates, but without intervening. Between the two lies a range of options, including:

- Observing two contrasting groups or situations that occur naturally (a natural experiment).
- Observation in which the researcher participates in the observed activity or situation (participant observation).
- Detailed observation of one or more individuals or groups with the same, or contrasting, profiles (case studies).

As with theoretical literature, data-driven research may augment a general understanding about how phenomena operate. It can also be used to help explain where things are going wrong, to demonstrate a method that seems to work well (or better than some other method), to try and convince trainers or policy-makers to effect changes in present methods, or to enable individual readers to gain fresh insights into their own behaviour or practice.

Practice literature comprises accounts of how things are done, and will often be written by experienced practitioners who feel that others might benefit from an understanding of how they operate. This type of literature features most strongly in applied fields of enquiry focusing on a domain of practical activity in the social world, such as nursing. An account might, for instance, offer a personal illustration of how a nurse working for a relief agency has learned to cope with the extreme demands of over-crowded refugee camps. But the account might also be used for identifying shortcomings in existing systems, recommending practices that have been found to be effective, training others who will soon encounter similar situations or, at the personal level, influencing readers to reflect on similarities between their own situation and the one reported.

Policy literature (also featuring most strongly in applied fields) emphasizes change to improve practice, according to particular values. This type of literature is mostly produced by policy-makers, those working for them or others whose primary agenda is to influence policy-makers. For example, government ministers might publish a report drawing attention to shortcomings in present practice, proposing an alternative policy that will lead to more desirable outcomes, and outlining how it is to be implemented. A pressure group whose members do not share ministers' values might publish their own report, criticizing the government proposals and setting out their preferred alternative.

Being discerning about front-line literature

To a novice researcher, all published front-line research may look impressive. In due course, with your critical reading skills developed, you will be well-equipped to evaluate the claims made. But in the short term, it is worth having a sense of some general patterns that can affect the quality of the front-line texts you consider reading.

The single most important thing to remember is that learning to do good research does not end with the completion of a dissertation. There are many more skills to acquire, ideas to understand and assumptions to challenge. The best researchers will tell you that the learning never really stops. This means that research done at any stage of a career may be pushing at the boundaries of the researcher's knowledge or abilities, and could display weaknesses as a result.

A second thing to keep in mind is that research writing goes through varying amounts of revision before it is published. Papers in the top international refereed journals should be fairly reliable in terms of what they claim, because getting them published is so difficult. Papers from these journals are sent for review and will typically be accepted for publication only after substantial revisions. Therefore, it is helpful to note where a paper has been published. A paper in a less prestigious journal will not necessarily be less good, but it may not have been through such a stringent quality check.

Authors apply their own quality checks too, and a good sign can be when there are acknowledgements in the paper to the helpful comments of colleagues. This usually means the author sent the draft paper to others who have helped improve it. Similarly, multiple authorship usually means that the co-authors have all contributed to maximizing the quality of the paper. Co-authors also discuss the basic ideas and findings of their research, so that the claims made may reflect the combined knowledge of several people.

The quality of books also varies. Some edited collections are the result of selection – as when a few papers from a conference are published. Others may be the outcome of the editor's invitations to particular authors, with minimal quality checks of their texts. The quality of research monographs (books written by a single author or team, without authors' names on the individual chapters) rests largely on the expertise of the author. Most publishers send out monograph *proposals* for academic review, but not all have the final manuscript reviewed. Those that do may require responses to the reviewers' comments before they will accept the manuscript. Books that have undergone this process are likely to be more reliable for the reader.

You are likely to be drawn to the work of 'big names'. But when a famous researcher is just one of several co-authors, how much of the book or article is actually theirs? The order of co-authors' names is a rough guide to the relative contribution of each, though contributions can be of different types and hard to quantify in the social sciences. You can generally assume that the first named author has contributed data or key ideas. If two co-authors have truly contributed equally, albeit in different ways, their next publication will probably swap the order of names round. With books, the first named co-author probably conceptualized the monograph and did most of the writing.

Using the Internet

Opportunities and dangers

Much support and front-line literature is available in both electronic format and hard copy. If you have Internet access, you will also be able to use powerful

search engines directing you to myriad websites and downloadable files. However, care must be taken in using the Internet. On the one hand, it is a huge resource offering enormous opportunities to gather information but, on the other, it carries certain dangers.

There are two major potential pitfalls that you need to know how to avoid. One is using Internet resources as a convenient replacement for the harder work of constructing your own text. Copying and pasting material from the Internet into your own work is regarded as cheating, or *plagiarism*, and usually carries very heavy penalties. Resist any temptation to take this short cut! Your assessors are very likely to spot what you have done and, more fundamentally, you will not learn as much as you would by doing the work yourself. What is the point of postgraduate study if you do not attempt to maximize your learning? Plagiarism is a serious problem in higher education. We recommend that you inform yourself fully about plagiarizing and scrupulously avoid it.

The question of *unreliability* is the other risk-laden aspect of Internet usage and is directly relevant to our key concern with critical reading. However critically you aim to read, it makes sense to favour texts that you have reasonable confidence in. The support literature and front-line publications discussed earlier have been written by people with a commitment to truth and accuracy. In addition, all such texts have undergone some level of scrutiny by others to ensure that they live up to that commitment. The Internet, on the other hand, is a huge, amoral, uncoordinated dissemination forum. On the one hand, it includes some of the support literature and front-line publications whose reliability is ensured by the means we have just described. On the other hand, there are no safeguards to ensure the quality of everything else that can be posted on websites. As a result, the content of the Internet overall, and its reliability, is very variable.

Given the potential benefits, we strongly advocate using the Internet if it is available. But you need to be critical in sorting the good material from the bad. Since this is not always easy, you need techniques for ensuring that your use of the Internet only enhances, and never diminishes, the quality of your academic work. These techniques include applying all the standards of critical reading that we describe, and not assuming that the confidence with which something is said is a reliable guide to how true it is.

When you are learning about a new topic, it is often difficult to evaluate the quality of an argument or of evidence. You may feel uncertain whether a claim you find on the Internet is reliable. A technique for avoiding this difficulty is to think of the Internet not as a repository of knowledge but as a catalogue. When you find something on the Internet, try to avoid making that the end point of your search. Use the information you have gathered to locate another kind of material in which you can have more confidence.

For instance, you might find on a web page the following claim: 'Metaphors are central to how we navigate the world (Lakoff and Johnson)'. Rather than accepting this claim without any further investigation, it would be much safer to check out who Lakoff and Johnson are, and to see if they have written an academic paper or book making the claim. (Indeed they have: Lakoff, G. and Johnson, M. (1980) *Metaphors We Live By*. Chicago: University of Chicago Press.) If so, obtain the text from the library and use that as your resource. In this instance, then, the Internet has been a springboard, much as your supervisor might be when advising you to read a particular text.

The dangers of over-reliance and unreliability can be well-illustrated in relation to one very valuable resource that should be used with care: Wikipedia, www.wikipedia.org. Whether Wikipedia is sufficiently reliable as a source of information, since anyone can contribute to it, has been much discussed. See http://en.wikipedia.org/wiki/Reliability_of_Wikipedia for Wikipedia's own article on this topic. It cites empirical studies and also indicates which aspects of its coverage are least likely to be reliable. This article indicates that perceptions of reliability are dependent on beliefs about the nature of 'correct information', and that it is always wiser to find an additional independent source of evidence for a claim, rather than accepting just one. Using Wikipedia as a springboard means finding out what is claimed about a topic there, and then following up the ideas using the reference list, names and keywords. It is never appropriate to copy text from Wikipedia directly into your own essay.

Internet resources for research

More resources are continually becoming available on the Internet, and you will probably be familiar with using general search engines such as Google. If you are trying to track down a copy of a published paper or conference presentation, simply typing in the title, inside inverted commas, will often lead you to an electronic version. However, researching a whole topic using a search engine, in the hope of finding relevant and reliable publications, is more hit-and-miss. Searches are usually prioritized on a commercial rather than knowledge basis. General searches may lead you to materials that are less trustworthy than the academic sources you need, so it is useful to employ more specifically academic searching methods. These include a range of major publication databases such as Web of Science, to which your university should hold a subscription. You should be able to obtain instructions from your library.

In addition, a highly significant recent change is the digitization of texts, images and other materials for open access to scholars worldwide. Many

international research libraries have offered their resources for digitization, making available thousands of items that previously had to be viewed by travelling to that institution. A primary interest of libraries has been to offer materials that are rare and out of copyright. Such materials may be of more relevance for your original research than for the literature reviewing aspect of your work. However, libraries also hold many items that are more recent and that constitute part of the research literature. Usually they are still in copyright, so legal questions have arisen (yet to be fully resolved) over making these items available electronically to all. Currently, the copyright issue is resolved by displaying only sample pages from the work. Yet this can often be enough for scholars to establish whether an item is of primary importance to their research. Digitized works are searchable, and those sources collecting items from many different sites will tell you where you can find hard copies.

Major open access e-resources relevant to researchers include:

- Google Library project (http://books.google.com/googlebooks/library.html) is the largest such project, and contains digital versions of works from many university and national libraries. The searching facility for Google Library is Google Books, at http://books.google.com
- Google Scholar (http://scholar.google.com) provides powerful searching of a huge number of academic journals, though often only the abstract can be read, because access is restricted to individuals and institutions with a subscription to the journal. Good university libraries usually subscribe to huge bundles of journals. So once you have identified the paper you want, it's worth checking if your university has access to it. If you can't access it that way, try a general Google search on the title to see if there is a copy elsewhere on the Internet (often on the author's web page). Some authors will send a copy if you email them with your request.
- Internet Archive (http://www.archive.org) includes texts, audio, moving images, software and archive web pages from the Library of Congress and the Smithsonian, amongst others.
- Europeana (http://europeana.eu) offers access to millions of digital images, texts, sounds and videos from European museums, galleries, libraries and archives.
- Gallica (http://gallica.bnf.fr/), the digital library of the Bibliothèque Nationale Française, provides access to items from its own collection, including texts, images, musical scores, maps, manuscripts and audio material.

The texts you can access through these resources are as reliable as the hard copy equivalent you would find in the source library. All the requirements for critical reading described in this book in relation to books and journal articles apply also to electronically accessed texts.

INTERNET MATERIAL – THE GOOD, THE BAD AND THE UGLY

Likely to be very reliable:

1 Peer-reviewed journal articles that are also published in an academic journal. These should be referenced according to their paper details, rather than as an Internet resource.
2 Peer-reviewed journal articles published in genuine electronic journals. These should be referenced using their volume number and date, plus the full web address. It is possible that they will not have page numbers.
3 Already published journal articles and book chapters that have been posted, usually in PDF format, on an academic's home page. Check, however, that it is the published version. If it says 'submitted to' a journal, or 'draft', it has yet to be peer-reviewed. You could then check if it has since been published.
4 Electronically readable books written by subject experts.
5 Official materials published on a recognized institutional website, e.g., the British Museum site, or the Institute of Linguists' site. You can find out what site you are on by going to the home page.

Likely to be fairly reliable:

1 Pre-peer-reviewed material, as described in (3) above – but track down the published version if possible.
2 Lecture or research notes on the site of an academic working at a recognized institution.

Likely to be unreliable:

1 Material on the home pages of individuals.
2 Material on organization websites that is written by enthusiasts rather than experts.
3 Free-for-all post-your-views sites (unless restricted to a recognized set of academic contributors).
4 Web-logs (blogs), chatroom pontifications, etc.

REFERENCING INTERNET SOURCES: GOLDEN RULES

Internet sources are subject to two common problems. First, it may be unclear who wrote the material (and so what their credentials are for writing reliably). Second, web pages may disappear or move location, making them difficult to find in future. Therefore, it is always advisable to try tracking down a more permanent reference (to a book or journal article, for instance). Where you do have to reference an Internet source:

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1 Attribute the material to a person if possible, not just a web address. Giving the web address alone is like referencing a book by describing where you found it in the library.
2 If (and only if) no author is named, give the institutional details instead. If you can't find an author or an institution, do you really want to trust this material?
3 Give the date when it was posted or last updated, if available, otherwise the year in which you saw it.
4 Indicate the date on which you last accessed it.
5 Check that the URL you have given will indeed take someone to the exact material you are citing.

An example of how to reference an Internet source:

In the text:

... there is no single satisfactory definition of formulaic language (Wray, 2010) ...

In the reference list:

Wray, A. (2010) 'What is formulaic language?', www.cardiff.ac.uk/encap/research/networks/flarn/whatis/index.html (accessed 5 January 2010).

Academic authors who aim to convince a critical reader that their work is robust will *only* reference Internet sources where:

- The material is robust and reliable.
- There is no equivalent published paper version.
- The Internet resource has been the legitimate end of the line, not the means to finding a published paper resource.

Varying your reading strategy

Three useful reading strategies are:

- Scanning – looking through a text to find specific sections or key words and phrases indicating where the information you are seeking is located.
- Skimming – reading quickly through those parts of a text that can give you an overview of the content.
- Intensive reading – carefully reading every word of a text from beginning to end.

Some students feel nervous about employing the full range of reading strategies. They fear that while scanning and skimming could save time, so more

material is covered, vital information or subtle messages could be missed. So they play safe, reading everything intensively. Other students go too far in the opposite direction, failing to read any texts intensively or reflect adequately on what they read, leading to an overly descriptive written account. Or worse, they engage critically without having checked the detail or considered the implications of the claims. Such students may make sweeping statements and generalizations based on inaccurate reading.

Efficient and effective reading involves compromise between reading deeply and broadly, engaging fully with only those texts most central for your reading purpose. Skimming and scanning help you to find out which these are, enabling you to reduce the risk of missing what matters. Thus you have the best possible chance of learning what you need to learn – without also wasting time on things you don't need to know.

What next?

Once you have identified a text as important, how are you to read it not just intensively, but also critically? That is the focus of the next chapter.