

Research – the essential guide

Ways to categorise research and methodology

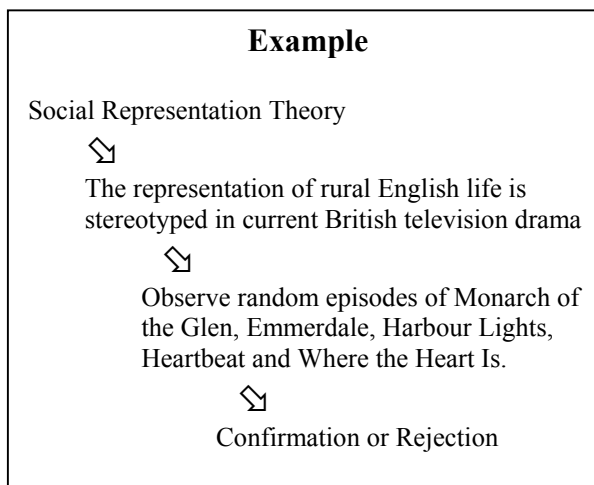
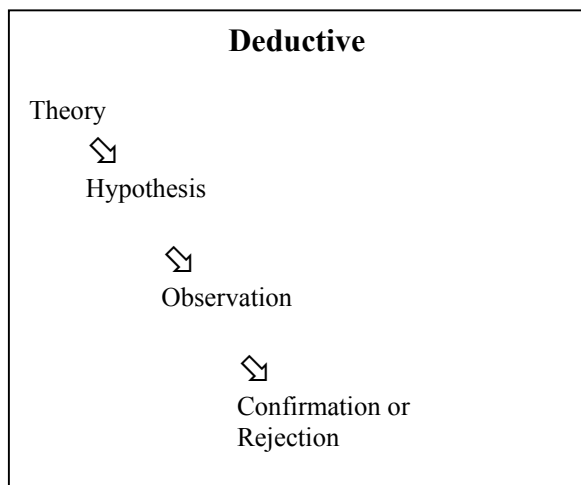
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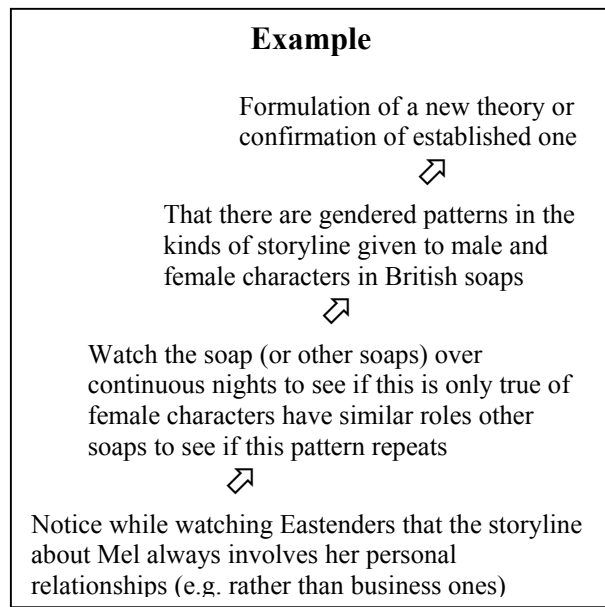
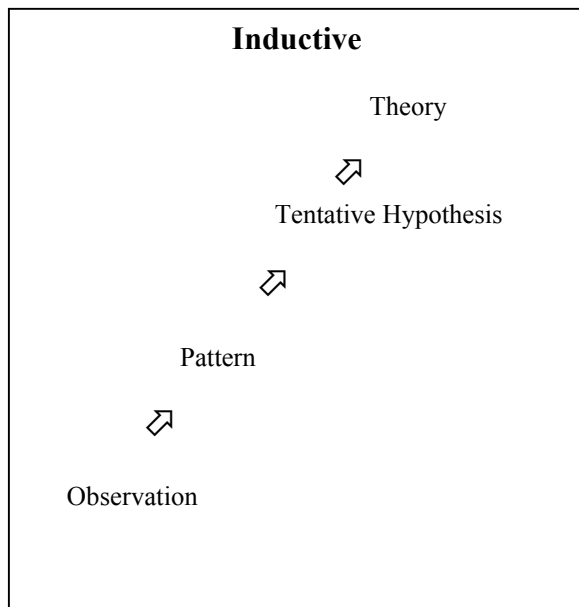
This paper should be used as a guide to research, allowing teachers to select any parts that may be of relevance to the units they are teaching or the projects their students are conducting. It is not intended that this paper be an exhaustive review of research methods or that these are the only ways to conduct research but they have been selected in part for their relevance to the type of projects required in the Research Module of the OCR, AQA and WJEC specifications.

The paper is divided into 6 sections. Section 1 and 2 provide a broad background to the different ways research can be categorised. Section 3 provides a much more structured plan of how to do research by breaking down the process into a number of steps. Section 4 then provides more detail on two kinds of methodology, qualitative and quantitative. Qualitative methods are explained using interviews as an example and quantitative methods are explained using questionnaires as an example. This section also includes some guidelines for asking questions as this is something that all good researchers need to learn how to do. The next section, Section 5, details ways students can use the internet for doing research, including what kinds of information you can get from the internet, tips for searching effectively for information and how to establish the quality of the site and the information on it. Finally, Section 6 is an example of the kinds of decisions you can make during the research process using one topic from the OCR Media Specification.

1. Deductive versus inductive research

Research can be distinguished as belonging to one of two models - a deductive (or “top-down”) approach or an inductive (or “bottom-up”) approach.





As you can see, the two methods differ in that **deductive** research works from the general to the specific (it is knowledge-driven) whereas **inductive** research works from specific observations to broader generalizations or theories (it is feature-detecting). The reasons for using these different approaches are varied but usually develop from epistemological or theoretical concerns or from the kinds of research question one is asking. By presenting research in this way, it is NOT suggested that only one kind of process necessarily occurs during research. In fact, research frequently involved both processes in a circular sort of way where theory leads to observations which in turn lead to identification of new patterns which lead to the development of new theories.

2. Primary versus secondary

The terms ‘primary’ and ‘secondary’ are often used when discussing research. As seen in the table below, these terms can refer to both the nature of the research itself and to the sources used during the research so it is useful to be clear which you are referring to. It is possible for a source to be primary in one piece of research and secondary in another. For example, if you were researching the documentary style of Errol Morris, the film *A Brief History of Time* would be a primary source. You would watch it (and other films by Morris) and make some first-hand interpretations of his work. However, if you wished to research Stephen Hawking’s contributions to science then this same film would be a secondary source. This is because the film offers an interpretation and analysis of Hawking’s scientific work.

	Primary	Secondary
Definition	This research is data that you collect.	This research is data that someone else has collected.
Sources	A primary source is an original document containing firsthand information about a topic.	A secondary source interprets and analyses primary sources. Secondary sources are one step removed from the event. The most important feature of secondary sources is that they offer an interpretation of information gathered from primary sources.
Source Examples	<ul style="list-style-type: none"> • Diaries • Interviews • Letters • Original works of art • Photographs • Works of literature 	<ul style="list-style-type: none"> • Biographies • Dissertations • Indexes, Abstracts, Bibliographies • Journal Articles • Newspapers

3. A step-by-step approach to research¹

The very first step to make is choosing a topic to research. This is often harder than it appears and students should be directed towards their interests, conversations they've had in class, current events and other things they have been reading. Once a topic has broadly been decided upon, the research process can begin.

1. Define the topic

- What are you being asked to do (ask yourself the “who, what, where, when and why” questions).
- Break the topic down into subtopics or key concepts
- Develop an overview of the topics by browsing encyclopaedias, handbooks etc.
- Become familiar with the terminology – identify appropriate search terms

2. Develop a plan for the research – A research strategy

- What is the scope of the project – how much information and what materials are needed?
- The level of the project – what is the presentation format and how much do you need to write?
- The manageability of the project - how much time do you have to complete the project and what resources are available?

¹ Jean and Charles Schulz Information Centre, University Library, Sonoma State University. This information can be found in more detail at the following address:
<http://libweb.sonoma.edu/research/process/tips.html>

3. Locate and retrieve the information

- Determine what type of information is needed – books, articles, statistics, primary or secondary sources, current or retrospective information?
- Identify the likely and unlikely sources or places to find the information
- Ensure you have all the information you need including the full citation of any references you collect. If you're photocopying, always write the book title and author on the photocopy. Keep track of what terms you've used.

4. Evaluate the information

- Establish authority – who is the author and what is their credibility? Have they written on the topic before? Are they well-reviewed by others?
- Determine scope of the work – is it comprehensive? What is its purpose?
- Evaluate accuracy and relevance – are facts verified in footnotes/references, is this the most recent version?
- Recognise bias and/or point of view

5. Determine whether there is enough information

- Look at the length and focus of your project, whether you have any unanswered questions, whether it only represents one point of view and whether you could add any other information (e.g. charts, images etc)

6. Organize, cite, and present the information

- Arrange information in sensible blocks and make sure you cite all the references you used

Teaching Tips

- Consider establishing deadlines for turning in bibliographies, rough drafts, etc
- Identify high quality, reliable, and authoritative Internet-based guides and links.
- Teach students to know when to stop.

4. Methodology

Quantitative research methods were originally developed in the natural sciences. Examples of quantitative methods now well accepted in the social sciences and media studies particularly survey methods and trend analyses.

Qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena. Used more regularly in film and media studies. Examples include action research, case study research, textual analyses and ethnography. Qualitative data sources include observation and participant observation (fieldwork), interviews and open-ended questionnaires, and documents and texts.

Some guidelines.

Example 1. A Survey (Quantitative)

The purpose of a survey is to gauge opinions or attitudes or to collect information on people's reports of their behaviours. There are several important factors to keep in mind when designing a survey.

- 1) The sample: Who are you surveying? Do you want them to represent the larger population or do you want them to belong to a particular group (for example, young women aged 16-24)? Remember, a project would have to be fairly large in scale to generalize the findings to the wider population.
- 2) The questions: There are several ways of asking questions. Open questions usually require the respondent to write a response (this can vary in length from a couple of sentences to paragraphs or even pages). More commonly, closed questions are used because they are quicker to complete. These include checklists (yes/no, true/false) and likert scales (rating opinions on a scale e.g. from 1 (very dissatisfied) to 5 (very satisfied)).
- 3) The problems: Two common problems to avoid when writing surveys include assuming everyone has an opinion (always make sure you have a neutral category) and response order bias, where an earlier question can influence responses to later questions. **Always** get someone to read through your survey to make sure it is clear and they understand what it is you are asking.

Example 2. An Interview

The interview differs from a survey in that you get a lot more detailed or rich data. As such, it is a much more time consuming process (particularly when you are trying to extract your findings from the data you collect). In order to form your interview questions, you should have undertaken some background research or reading. There are a few factors to keep in mind when conducting interviews:.

- 1) The importance of having an open mind – Because you have done some preliminary background work in order to form your questions you may already have some ideas about what you are expecting to find. This is fine but you should always remember that the interviewee can sometimes digress from what you intend and that this can raise important questions or issues that you hadn't considered.
- 2) How to ask questions – avoid leading the interview by asking questions like “*Tom Cruise is one of the best actors in Hollywood today, don't you agree?*” An alternative would be “*Who do you think is one of the...etc*”
- 3) The topic of the interview and its timing - Start with easy factual questions and move later to any touchy or controversial material after you both are more relaxed.

More structured interviews	Less structured interviews
Are standardised	Are informal and conversational
+ Have greater reliability (less interviewer bias because you're asking the same questions of each interviewee)	+ Allow for pursuing unexpected directions
- Can be too rigid (doesn't allow for spontaneity in conversation)	- Are less reliability (more interviewer bias)

Guidelines for asking questions

Open-ended Questions

The term "open" describes your interviewee's options for responding: they are open. The answer can be two words or two paragraphs. The major advantage of this more natural discussion is the greater detail and variety that the respondent can provide. You are also more likely to discover all sorts of information you hadn't anticipated. The down side might be that the mass of detail may be difficult to sort through, especially when you are trying to collate responses of multiple interviews. An example of an open question:

What was your response to the violence in "Straw Dogs"?

Closed Questions

With a closed question the possible responses are closed to the interviewees, since they can only reply with a finite number or limited choice. Multiple choice exams are the obvious example. You have to choose one answer from, for example, five options. A variation is the "bipolar" question where the respondent must choose yes/no, true/false, or agree/disagree. The obvious benefits of these questions are ease, speed and concrete data which you can readily collate and tabulate. An example of a closed questions:

Do you agree or disagree that "Straw Dogs is a violent film?"

Probe Questions

A probe, or "follow-up" question, goes beyond an initial answer to get more meaning, to clarify, and to draw out and expand on the interviewee's point. A probe is often necessary to get beyond an initial superficial or opinionated response. Follow-up probes come quite naturally after a closed question. Probes can be taken by your interviewee as a sign that you are listening to what's being said, thinking it through, and responding appropriately. Some examples of probe questions:

Why? Can you give me an example? Will you elaborate on that for me?

1. Make questions clear and keep them short.
2. Remember the purpose of the research.
3. Avoid biased words and/or terms.
4. Avoid leading questions.
5. Do not use questions that ask for highly detailed information or that are potentially embarrassing unless absolutely NECESSARY.

5. How to do Research on the Internet

Using the internet, you can find information on a huge number of topics and in many formats including:

- trends and statistics (e.g. number of independent production companies in the UK)
- company reports and financial information (e.g. the BBC's annual report)
- conference proceedings (e.g. abstracts of papers presented)
- contact details for research centers, schools, universities, libraries etc
- laws, government announcements and parliamentary debates
- news and current affairs (e.g. via www.guardian.co.uk, www.thetimes.co.uk)
- databases of reference material
- places where you can discuss topics, and ask for help (e.g. discussion lists)

Remember: quality and relevance are important and there is a lot of information that isn't available on the Internet at all.

Before you begin searching the Internet you should consider the following:

- Is the information likely to be available for free? (many sites are subscription-based)
- Would a printed source be quicker or more appropriate (e.g. an encyclopaedia that is available in the library)?
- Would it be better to use a search engine or a subject directory (see below)?
- What is the exact question you are trying to answer? Keep this simple when searching

Choosing a searching tool

Your choice of searching tool should be determined by the sort of material you are looking for. However, within each category, personal preference also plays a part. Experiment to find a tool that works well for you.

There are two primary ways of searching the Internet for documents and webpages, although the distinctions between them are often blurred.

	Search Engines	Subject Gateways
How do they work?	A computer program is constantly searching the Web. As it does, it sends information about what it finds (i.e content and addresses) to a central database. When you enter a search term, you are actually looking in this central database.	Human beings search the web, locate pages they think are useful and then sort them into categories to make them easier to find. When you search in a gateway you are usually only searching in the pages organised by people, although some will switch to a search engine if they can't find anything in their own database.

Advantages	Very wide coverage of the Web, therefore you should find more material.	Less likely to get sites that are no longer available.
	Many try to sort material by how relevant it is to your query.	Organisation makes finding material on a topic easier.
	Offer the opportunity to refine and enhance your search.	Information is likely to be more substantial and relevant.
	Many offer links to useful related material	
	Many offer a directory listing of popular sites	
Disadvantages	Can often return too much material	Smaller coverage of the web
	Minimal sorting of material returned, particularly of similar material at the same address	Less likely to have very new sites.
	Different engines cover different pages, so you need to search in more than one	Subject organisation and categories not always clear.
	All engines have slightly different rules for refining a search	Maintenance is very dependent on the amount of human input available.
Examples	Google, AltaVista, HotBot, Excite	Yahoo, LookSmart, Snap

What do my results mean?

Once you have done a search, you will be confronted with a list of webpages, and a (often very high) number of "matches" for your search. This can seem daunting at first, but remember:

- The most relevant pages should appear at the top of the list
- There is often some information to help you decide which pages to look at in detail
- You can always refine your search to reduce the amount of material you get back

How can I improve my search results?

Your initial searches may not be successful, or might return too much information. Some ways of refining or improving your search:

- Use more search terms to get fewer, more relevant records. (e.g. film AND female directors AND identity)
- Search for phrases (i.e. words next to each other in the order you specified) by enclosing search terms in "" (e.g. "ken loach").
- Choose search engines that allow you to refine your search results (e.g. AltaVista)
- Limit your searches to British sites by using local search engines, or local versions of international search engines or by limiting your searches to sites with .uk at the end.
- Use Boolean operators to refine your search. For example “AND” or & or + (an essential term), “OR” or | (either of these terms), “NOT” or - (a term that should be excluded), “NEAR” or w/5 (where the first term appears within 5 words of the second term) specify.

For more information on how to use Boolean operators see:

<http://www.austlii.edu.au/austlii/help/boolean.html>

Remember to evaluate the web site or page you are interested in:

Web pages require the same (and sometimes more) caution as any other source. Anyone with access to a server can put material on the web. Do not assume statements are true.

As a critical user you should consider:

- who is responsible for the site
- its rationale or purpose
- the date it was last updated
- whether the information is recent or part of an archive
- whether the site is permanent or part of a permanent organization or, if online only, whether it has received any awards

Domain names contain clues to the organisation hosting the webpage. Domain names can help you decide if a webpage will be helpful to your research.

A domain name is made up of sections: e.g. www.bfi.org.uk

Organisation types	Some countries
Com or co – Commercial	au - Australia
edu or ac – Educational	de - Germany
org - Non-profit Organizations	fr - France
net - Networking Providers	hk - Hong Kong
mil – Military	my - Malaysia
gov – Government	uk - United Kingdom

EXAMPLE

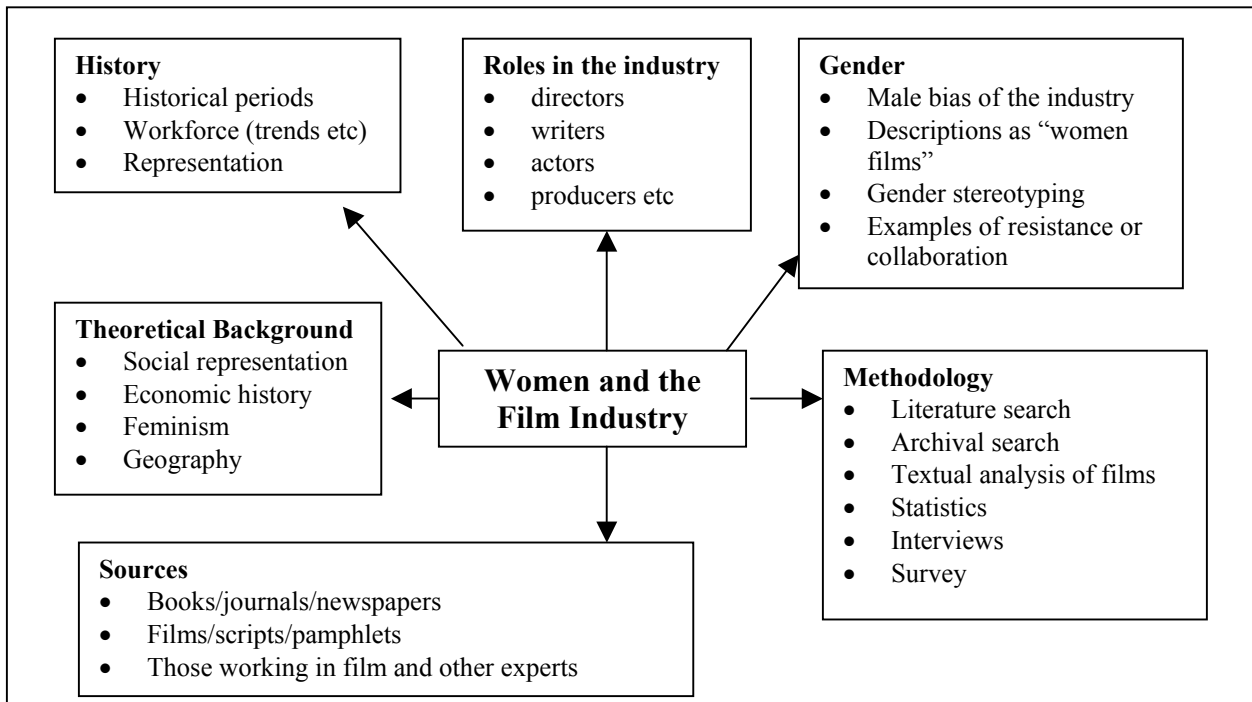
Topic One: Women and Film (OCR Media).

Question 1

Give an account of the methods and examples you used to investigate the relationship between women filmmakers and the film industry

Question 2

With detailed reference to the findings of your investigation, discuss the degree to which your research suggests that their contribution is influenced by their gender.



EXERCISE:

Using the first 3 steps of the research process, come up with a research topic that fits under the broad heading “Representation and Media”. Begin by narrowing down the focus of the research topic before planning the research and choosing the methodology you will use.

Some useful media websites

<http://www.bfi.org.uk/>

<http://allmovie.com/>

<http://vos.ucsb.edu/shuttle/media.html#theory>

<http://www.aber.ac.uk/media/Functions/mcs.html>

www.skillset.org

<http://imdb.com/>

<http://www.britmovie.co.uk/>

www.bbc.co.uk/

www.channel4.com/

www.filmeducation.org/