



6 Researching, analysing and noting information

Knowledge is constantly changing as advances are made in science, technology and our understanding of the world in general. New developments emerge in print both in books and on-screen. As a learner, you'll need to interact with this wide range of source material. You'll learn to be selective about the resources you find and then read. Once you're confident about the soundness of the material, which means that it is accurate, honest and reliable, you need to select and record information carefully as you prepare your assignments.

Why is researching, analysing and noting information important to you?

For BTEC study: you'll take a more independent learning approach to your assignments. Although you may be given handouts for certain things, you'll have to find out information for yourself in others. Your projects, assignments and other assessed work will rely on a variety of resources. Knowing how and where to look for that material, and what to do with it in your work will make research, analysis and note-making easier.

For work: your employer is unlikely to give you a list of resources to consult before you write a report, meet a new client, help formulate a bid for a contract or buy a major item. Employees who can search out information from a wide range of sources and can ensure that the data are trustworthy, accurate and up to date will be highly valued by employers, and save a business money.

What can you do to develop your researching, analysing and note-making skills?

Know why you are researching material

You'll have to research in different ways or follow different routes for different tasks. For example, are you preparing to write an essay, make a presentation, create a poster or participate in a debate? All are different; all need relevant material. Your tutor may have given you a list of possible material to start you off but after that you may have to search out material for yourself. You may choose to work with hard copy or online resources. The approach to both is similar.



Know the types of resource available

Hard copy sources can be varied and include:

- **recommended textbooks** specific to your course, may be available in e-format
- **books from the library** relevant to particular assignments, may be able to be borrowed
- **journal articles**, which provide specialist analysis and information, found in academic libraries and sometimes online
- **reference books**, which may further include general dictionaries and thesauri, subject-specific dictionaries, encyclopaedia, year books and directories, found online and in libraries
- **official documents** like Acts of Parliament, government papers, annual reports
- **other specialist media** relevant for some BTEC courses, for example visual media – television and film, newspapers, periodicals catering to particular professions
- **other people** who provide information when you conduct interviews or ask people to respond to a questionnaire. You'll then use their answers as data in your assignment.

Online sources can include material similar to that of hard copy sources but can often also be found on websites. This includes books, journals, government papers, regulations, for example that are publically available. Sometimes viewing material online can involve a fee so you need to be sure what is involved before you download material. Also, in some instances, there is a legal limit on the number of pages that can be printed out. It is best to check this out with your librarian or tutor, if you are in doubt.

As you'll be aware, there is a lot of material on the web that is unreliable. For example an enthusiastic amateur can post articles on the world financial situation, but it will take a professional economist to be able to present an informed and professionally researched analysis. You need to be selective and cautious about what web-based material you should consult.

Important to know

Sometimes for your assignment, you'll be asked to look at a **primary source**. This is a publication presenting information in its 'raw' form – for example the report of a Royal Commission or an academic research paper. From this type of document, you are expected to make your own judgements. A resource that provides someone else's interpretation of such a report or other issue is commonly called a **secondary source**. A book or review covering a particular issue would be an example of this.

When using primary sources, you have to think critically about the content; when using secondary sources, you need to be aware that you may be influenced by the author's interpretation of the content. This means you have to judge carefully whether a point of view expressed in the book is biased one way or another.



Develop the habit of 'mapping' a book or online resource

Knowing how text in hard copy or online is laid out will ensure that you use your reading time efficiently. It will also help you gather publication information for any reference list you need to compile.

Things to look for when you first open a book or a webpage onscreen:

- **title** and **author(s)**: usually found on the first page in the book or at the top of the webpage
- **publication details**:
 - for a book, on the back of title page: date of publication, edition, location and name of the publisher
 - for a webpage, this may be at the end of the article as 'last updated on' or embedded in the URL
 - you'll need these details for citation and referencing (see Activity Sheet 7)
- **contents**: in a book, this page will list the numbered chapters and other components of the book: onscreen, this may appear under 'site map' or as a list on the sidebar of the webpage
- **glossary**: special terms used in the text, listed alphabetically at the end of the book or presented onscreen as a highlighted word that can be clicked to show meaning
- **reference list**: sometimes called a bibliography, gives publication details of source material cited by the author in the text, usually found at the end of a book or at the end of a webpage
- **index**: arranged alphabetically and found at the end of a book. Page numbers in bold indicate topic dealt with in detail: if in ordinary type, then topic only mentioned. In the case of a webpage, clickable links to special terms will be highlighted on screen.

Evaluate the reliability of material

Provenance

This means the trustworthiness of the book or site.

Who has published the text in hard copy or on the web?

Is it sponsored by a particular group or individual with a special interest in promoting a particular view?

Discriminate between good and flawed material. Is it biased?

Is the content accurate and truthful?

You'll often be able to make a judgement about the quality of a website from the URL (this is short for Uniform Resource Locator but it's easier to think of it as the reference that begins with `http://` or `www`). The source of the organisation publishing the online material may be embedded in the URL or it may appear somewhere on the webpage.

In terms of evaluating books, you may find that the same authors keep cropping up in different sources and this is an indication that their work is highly regarded on that topic.

Date of origin

Sometimes it is difficult to identify how up to date the material is. This can be important if you are checking out regulations that may be updated regularly. Often old material is lurking around on the web as people often don't remove old material. Sometimes a webpage will give the date of the last edit at the end of the item; other times a date will be found embedded in the URL. Books will usually have the date of publication printed on the underside of the title page.

Know where to obtain resource material

Sources of specialist information available include:

- **librarians**, who are expert in resourcing knowledge. They may work in partnership with your BTEC tutors and can direct you to recommended/subject-specific materials
- **reference lists or bibliographies**. These can be a starting point for finding the titles and web details of information and material related to your topic.

Start with reference sources as reading relevant entries in hard copy or online reference books can provide an overview of a topic. This can save valuable time. Then you can go on to more detailed sources to expand your knowledge and understanding. Trusted sites will give you genuine and accurate information. These include: Encyclopaedia Britannica online, the CIA World Factbook and other online reference sources. For meanings and how words are used you could use www.thefreedictionary.com and www.thesaurus.com. Some libraries may have free access to online reference material.

TIP **Note-making from sources.** Developing note-making techniques will be essential so that you do not end up copying out everything in the book. Make sure you keep a note of all the publication details as well as the pages that you read. Activities 6.6 and 6.7 will help you to be more discriminating about what you note down **after** you've completed your reading rather than starting out with a pen in your hand as soon as you open the book or screen page.

Some widely used note-making techniques include spider diagrams, positive/negative grids, numbered notes – use decimal numbers for points beneath a heading to save time. Add your own thoughts to your notes as you create them – do this in pencil and this will identify your ideas later on. For quotations, note exact words from the text and the page number on which these appeared. If you write these in colour, you'll find them more easily when you need them for your assignments (where appropriate).



What can you do to develop other research techniques?

You may find some of your assignments are based less on writing and more on observation, record-keeping and reflection. To research successfully, ensure that

- any interviews you conduct, for example to gather data (often numerical information) are ethically conducted. This means that your interviews are not harmful and are voluntary and the information is anonymised to ensure confidentiality. How you gather information will depend on your subject. You may be given guidance on this aspect, especially on maintaining anonymity of those you interviewed (the interviewees are sometimes called subjects).
- you keep careful notes of what people said, and of countable responses they provided
- your observations are truly accurate and based on what people actually saw/experienced NOT what they **think** they saw
- evidence you select, in whatever format it takes, is sound and supports your assignment.

Checklist for developing your researching and note-making skills

- Be sure that your resources are accurate and up to date
- Be sure to make a note of all the [hard copy or online](#) publication details, including page numbers for citation
- Choose source material that covers different viewpoints, usually from more than one source
- Choose evidence that is beyond reproach and is not biased
- Your records, diaries, logs and other data are kept consistently over the project time.

Learning activities

Case study on understanding researching, analysing and noting information

Omar is doing a BTEC in Construction and the Built Environment. He is an excellent mathematician, but has a little problem with the calculations that form a major part of his course. In addition, he's often told that he can come up with some brilliant ideas in discussion. However, his weakness lies in his inability to provide solid reasoning backed by evidence to support the points at issue. He's not good at working out where to go for information. He tends to rely on Wikipedia or the local newspaper for most of his evidence. This material is not always reliable.

He tends to rely on the first couple of points he reads about. He usually fails to use more professional source material. This lack of expert evidence pulls his potential grade down from a merit to a pass. For his next assignment, he has to make a presentation about regulations relating to railway network expansion in the UK.

Activity 6.1. Using relevant research sources

Using your common sense and general knowledge, suggest two resources from the list below that might be better suited to Omar's research than an incomplete, unverified Wikipedia source.

Book (online)	Social capital and the built environment: the importance of walkable routes
Quarterly journal (online)	Built Environment: High speed rail, shrinking spaces, shaping places
Journal (online)	International Journal of the Built Environment: article 'Road versus rail.'
Recommended Book	Architecture for the 21st century
Course textbook	A history of the built environment
Reference book (online)	Encyclopaedic dictionary of landscape and the urban environment
Reference book (online)	Land-use planning encyclopaedia published by 'Green Association'
Official publication (online)	Codes and standards for the built environment



Activity 6.2. Analysing the value of everyday resources

Omar seems to rely on what he reads in hard copy newspapers or online versions as well as on television programmes and Twitter. What advantages/disadvantages can you see in his strategy?

	Advantages	Disadvantages
Newspapers		
Online news		
Television/radio		
Twitter feed		

Activity 6.3. Making notes effectively

Omar tends to make notes from his reading on scraps of paper that he loses later on. Based on your own experience and the suggestions in the information box on note-taking above, list three tips that might help Omar to keep his researched information efficiently.

- 1 _____

- 2 _____

- 3 _____

TIP	<p>Work up your personal glossary as this will help your subject learning. Specialist words are often uncommon rather than difficult. To find out more about words and their use, consult (i) a dictionary or (ii) a thesaurus.</p> <p>Dictionaries are organised alphabetically and will give you information about the part of speech (e.g. noun, verb), the meaning(s) and sometimes sample sentences that use the word(s). A useful online resource is www.thefreedictionary.com</p> <p>A thesaurus can be organised in a number of ways. An alphabetical one is easier to navigate and gives lists of words similar in meaning (synonyms), and those opposite in meaning (antonyms). Online www.thesaurus.com gives a range of alternative words and covers different meanings or uses of the same word.</p>
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Reflective activities

Activity 6.4. Developing your understanding

Your BTEC course will introduce you to many new expressions and words that may be unfamiliar to you. List two new words or expressions that have been introduced to you in your course.

1 _____ 2 _____

Meanings

Work with a partner to compare lists for similarities and accuracy of meaning. Next, consult a standard dictionary or www.thefreedictionary.com to confirm the meanings. If the terms are specific to your subject, then check a specialist dictionary – available in your academic rather than a public library and sometimes available online.

Activity 6.5. Compiling a glossary

Using the Glossary Frame in the appendix to this activity sheet, begin to compile a glossary list for one of the units on your BTEC course. Over a week or so this will build up into a useful checklist and possible revision aid.

Activity 6.6. Mapping a book or online source

Choose **one** book that has been recommended to you. Look back at page 2 of this activity sheet to remind yourself of what to look for. 'Map' the book or website and list three things you like about your chosen source. At this stage don't look at the content, just the mapping points.

1 _____ 2 _____ 3 _____

Write one sentence about why you think this book or website has been recommended to you:



Activity 6.7. Analysing a chapter or section of an online resource

Using the same book or online source as in Activity 6.6, read the first paragraph and the last paragraph of one chapter/section of the webpage. This is a good technique for getting an overview of a text. From this reading, write one or two sentences outlining the aspects covered in that chapter/section.

Next, write down key points that you can now guess might be covered in the main body of the text.

This is a good exercise because knowing what the text is about (the introduction) and what it says (the conclusion) will mean that:

- you have a better understanding of what to expect in the main text
- for this reason, you'll read the main text more quickly.

Now, compare your points with a partner. Take some time to read the whole text to see if your guesses are correct.

Action points

Learning effective researching, analysing and note-making techniques takes time and requires experience. Note below personal action points that will help you to develop these techniques further.

How you can develop your research, analysis and noting-making skills further

1

2

3

4

5

Link

To help develop your Skills for Learning and Work further, look also at:

- Activity Sheet 7 on Citing and referencing to avoid plagiarism
- Activity Sheet 8 on Understanding the writing process.

APPENDIX

Glossary Frame for learning on _____

Add new words as they come up in class or you find when reading. Keep a note of meanings on the other side of the sheet. You could create your own glossary 'app' on your mobile using the 'Notes' function so that your glossary keeps expanding as you learn. This way you could keep checking it in odd moments to help you fix these words in your mind.

A	F	K	P	U
B	G	L	Q	V
C	H	M	R	W
D	I	N	S	X
E	J	O	T	YZ

