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DEVELOPING ACADEMIC STUDY SKILLS: TECHNIQUES AND GUIDANCE FOR UNDERGRADUATE STUDENTS

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STANDARDS OF PROFICIENCY FOR NURSING ASSOCIATES (2018)

Relevant Platforms include:

Platform 1:1.7 Describe the principles of research and how research findings are used to inform evidence-based practice.

Platform 1:1.13 Demonstrate the numeracy, literacy, digital and technological skills required to meet the needs of people in their care to ensure safe and effective practice.

Platform 1:1.15 Take responsibility for continuous self-reflection, seeking and responding to support and feedback to develop professional knowledge and skills.

Question everything – identify any assumptions that may have been made including the author’s stance and what an opposing argument may be; whether there is enough evidence to justify their conclusions and investigate alternative views.

Julie Greenslade, BA (Hons) Student

This chapter will introduce you to the skill set needed to succeed as a higher level student, through using the internet to engage in research, how to sift through the research to locate the information you need and then how to use the information gained properly and to reference it to Harvard convention.

Glossary

- **HE** Higher education
- **Referencing** Ensuring that you do not commit plagiarism
- **Reflection** The deliberate consideration of troubling thoughts
- **Theory** A hypothesis that has been tested and a theory formulated

INTRODUCTION

This chapter provides a snapshot of various techniques, skills and concepts required for enhancing quality learning outputs in higher education (HE). Each section contains guidance, review and practice examples for transfer into your own study domain. In the first section, we consider how previously acquired skills can be useful in a variety of HE learning situations. Second, we look at how to conduct effective searches online to maximise your time spent analysing, critiquing and producing. Finally, we revisit practical concepts of referencing works in your assignments. Use this chapter as your mini support guide at the beginning or during your course of study.

PREPARING TO LEARN IN HIGHER EDUCATION

It might seem a little odd, but the best way to learn is to revisit skills you already possess. For example, let's say you can speak a second language, but your learning goal is to master how to write it. In this case, you look at what you have already understood about the language and build a plan for learning how to write it. Understanding the tools for the job through problem solving, personal reflection and development are essential to your success in HE. Recognition of prior learning is key for your plans as you take previously acquired skills and implement them into future learning activities.

One of the problems when we think about learning is the relationship it has with schooling, which may lead to the resurfacing of old nightmares and panic-stricken worry. I include myself in this. You might reflect on a disastrous learning journey; moreover, you might feel unrewarded or unchallenged – hence your interest now in studying for a degree. Lots of neurological research has your back here. When threatened, our brains go into shutdown. The amygdala, which

is in the centre of our brains, is trained in the art of detecting stressful events and determining whether you turn into a Persian Kitten, like me, or a Spartan Warrior, roar!

Fortunately, learning has changed, and HE offers open forums to include discussion, debate and personal reflection, thus enabling you to make your own mind up. One of its strengths is the desire to recognise skills and use them in a variety of academic contexts. We might consider academic reading, writing and presenting ideas as being too challenging, but we all have skills that we can use for academic study. The truth is, we use most of these unconsciously every day, which makes them perfect to be developed for academic study.



You already possess remarkable abilities for making analytical, creative and practical judgements. Consider when buying an item of clothing: you analyse the price, shape and colour. Perhaps you will compare it with another piece of clothing before making a decision. Furthermore, being creative doesn't necessarily mean you will build a robot that writes essays; instead, you will deploy solutions based on personal and professional experiences. Finally, being practical, here you will draw upon skills that have not been taught to you, things you are able to do naturally without pause for thought. Recognise when you can select one (or more) of your superpowers when approaching learning in the HE environment. You may be pleasantly surprised at how well they will serve you. Learning to use your intellectual faculties, such as asking questions of the texts you are reading, is a skill that you will need to develop. Table 1.1 gives you guidance.

Robert Sternberg (1985) has researched intelligence all around the world. He views intelligence in his 'triarchic model', which includes the three classifications shown in Table 1.1.

Table 1.1 Using your intelligence

Analytical	Creative	Practical
Intellectual capability to problem solve, complete tests and make informed judgements	Intellectual capability to tackle unusual problems drawing on pre-existing skills and experiences – the 'thinking outside of the box' approach to problems	Intellectual capability to deploy 'tacit' skills to a unique set of problems. There might not be an exam, course or guidance for such a scenario and it depends on your interaction with the experience first hand

See examples of how you could apply Sternberg's model below to help with your own reflections.

Analytical	George, a second-year degree student is tasked with comparing two academic health diversity journal articles. Using his analytical skills, George reviews each article for underlying themes, messages and emergent discussion points before making a list he will use for critical comparative judgement.
Creative	Noah and James are working together on a project set by their tutor. The task is to produce a digital presentation on evaluating polypharmacy and the risk of adverse health conditions. The digital presentation is open to interpretation and as such, Noah and James must decide how to present their findings. They decide to use their newly acquired digital skills from attending a study skills workshop to develop a Microsoft Sway presentation. They creatively bring together text and media to explain key definitions and current risks associated with polypharmacy.
Practical	Hallie is working on developing her referencing skills. She starts to look at different stylistic ways to reference in-text (e.g. author followed by date and secondary referencing). Hallie realises there are many ways to use and apply references in her academic work. Hallie then writes out several different approaches and highlights them with different colours. Highlighting using various colours has helped Hallie recall and memorise techniques in the past. Hallie uses this skill to help practise her referencing styles, which she intends on using in future written academic assignments.



Activity 1.1

Using Sternberg's triarchic model of intelligence, reflect on your own learning and work experiences, then write down one example for each. See the table above for descriptions and examples.

DEVELOPING SKILLS AND TECHNIQUES FOR ONLINE SEARCHES

Let's look at some of the basic skills. When researching a topic, it is vital that you are able to locate the information required to fulfil assessment criteria. The following five tips will demonstrate how to effectively navigate along the information highway:

1. **Control 'F'** – The Time Saver! It operates a mini-search function within any web page, article and/or other word processing software. It works by pressing the 'Control' button (Command button if you are using a Mac) followed by the 'F' button on your keyboard. From here, a box

will appear in the top right of the browser. Typing any word into the box and pressing return will automatically search the entire document for your chosen word. This command can be particularly useful if you are reviewing/searching an article for predetermined keywords.

2. **Boolean** searches can enable a specific focus for a keyword and term searches. Type in the following commands separately to narrow down searches:
 - a. OR – you might want to search for two separate terms such as ‘NHS OR Private’ – the OR function will list the number of sites that relate to the first or second term.
 - b. You can combine your searches using phrase and key terms in parentheses, such as ‘Obesity treatment (NHS OR Private)’ which will list sites that relate to ‘Obesity treatment’ on sites containing the words ‘NHS’ and ‘Private’, separately.
 - c. BUT – this allows terms to be specified while limiting other possible connections. For example, ‘Skin cancer BUT NOT melanoma’. Searches will eliminate sites containing ‘melanoma’ skin cancers and concentrate on listings of non-melanoma hits.
 - d. ADJ – this command will look for a term that is positioned within a specified distance (number of words). For example, say you search for ‘Public Health obesity ADJ 4’. The search will retrieve all records of ‘public’ ‘health’ ‘obesity’ within four words of each other.
 - e. Google Advanced Search provides a variety of variables (language, date, region, etc.) for searches and can be found at: www.google.com/advanced_search
3. **Authority** – Published work and material found online comes in a variety of forms, such as traditional academic articles found in journals, newspapers, magazines, blogs and the like. When considering authority in your searches, you must make a judgement on information presented to you. You should ask yourself the following questions:
 - a. Who is the author and how are they the expert?
 - b. Has it been verified by academic peers (known as peer review)?
 - c. How do I know that it isn’t made up?
4. **Evidence** – It’s all about the evidence. It is vital to question everything, unleashing your analytical and evaluative reasoning skills. This means that you must analyse a number of sources before using information in your assignments. Ask the following questions:
 - a. Is the information from opinion or based on studied research material?
 - b. Is there similar evidence that verifies the original claim(s)? Are there other studies, ideas or information that say the same thing?
 - c. Does the article offer a balanced view, that is, the inclusion of counter-evidence?

5. **Time** – As with most things, there is a shelf life. Fortunately, web pages don't smell bad when they go off. The truth is that web pages don't really go off at all, instead, they go into hiding and then reappear when something triggers an associated interest. Fans and users of Twitter will be familiar with trending media; this is essentially the same process. A web page might trend again and accelerate to a higher ranking along the information highway. As Google ranked it highly, you assume that the information is current and decide to use it in your assignment. **WARNING!** You must investigate the publication date as the web page might have resurfaced from years past and be outdated. You will need to check the date of the original source before employing sentences like these in your work:
- a. Recent evidence suggests ...
 - b. The latest statistics show ...

How far back should one go? There's no consensus on this, but as with the terms above – recent and latest – there is an assumption that information is current or is the leading frame of thought at that time. Of course, if your assignment asks that you include historical accounts then you have the licence to trace longer developments but keep these focused. Seminal theories, famous debates/arguments and other historical content should form the basis of your enquiry.

ASSESSMENTS AND THE APPLICATION OF ANALYTICAL, CRITICAL AND EVALUATIVE REASONING

UNDERSTANDING ASSESSMENTS

When developing degree level programmes within HE, course leaders have a wealth of assessment methods in their arsenal to choose from. Course leaders will select assessments based on overall module objectives and the interdisciplinary skills students are required to demonstrate. What is important to understand is that your degree programme is designed specially to accelerate your personal, professional and academic skills and knowledge. Well-planned modules include a broad range of skills and relative assessment methods for subsequent demonstration.

Nightingale et al. (1996) originally suggested eight learning outcomes demonstrable while studying in HE. They include the following:

- Thinking critically and making judgements
- Problem solving and developing plans
- Performing procedures and demonstrating techniques
- Managing and developing oneself

- Accessing and managing information
- Demonstrating knowledge and understanding
- Designing, creating and performing
- Communicating

Activity 1.2

Write down one example for each of the eight learning outcomes that you have demonstrated in the work or school environment. Include a short description of what you did and how you did it.

As you can see from Nightingale et al. (1996), there are broad learning outcomes with some interconnections (i.e. communicating and performing) while others are diverse (critical thinking vs creative outputs). The point is your degree will encompass each one through a range of skill/vocational assessment methods. But which methods are suitable against each competency? Figure 1.1 provides a synthesis of Nightingale et al.'s (1996) taxonomy and provides details on the types of assessments used against grouped skills.

Figure 1.1 is by no means an exhaustive list of core competencies or definite assessments. Instead, it provides a snapshot of the skills/vocational competencies allied to assessment methods that you are likely to face. Course leaders will consider the broader spectrum, so immediate tasks relate to module assessment tasks, tracking your development across the degree programme.

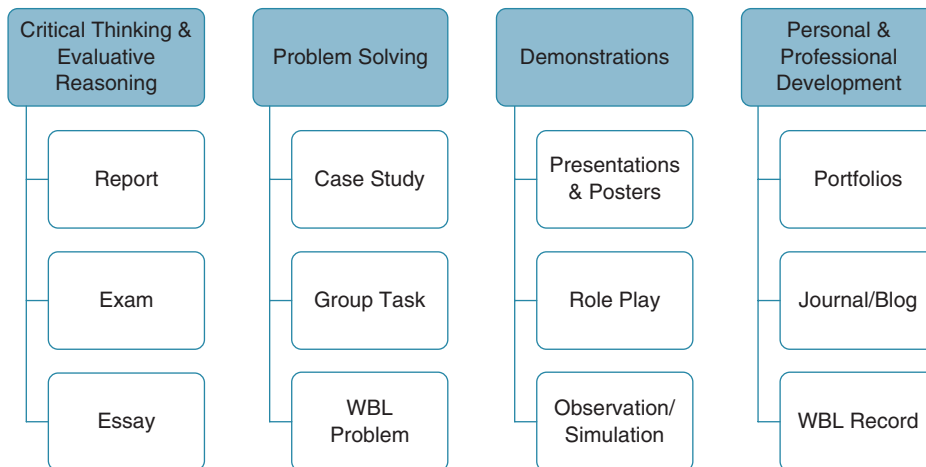


Figure 1.1 Grouped skills and assessment methods

ESSAYS

Essays are perhaps the most common assessment type in HE. They can vary in length and require time for researching themes, sorting notes, creating arguments and summarising main points. Essays are intended to inform your lecturers as to how well you have understood salient theories, arguments and themes about a studied topic. Let's consider the following essay question from a Healthcare Practice course:

Justify what is meant by quality of care? Critically appraise the theoretical dimensions of organisational cultures in a chosen UK healthcare provider.

To approach the question, it is easier to break down what it is asking us to present for assessment. We can do this in a variety of ways. Firstly, we recognise the keywords, which are usually the verbs as they ask us to do something. In the question above, we note the following verbs and their meaning as:

- Justify – to provide evidence for a claim in knowledge
- Appraise – to evaluate the quality of something through assessing its worth

We use the terminology to help navigate our research about the topic and start to plan the structure of our essay. Remember that an essay is like a story, with a beginning, a middle and an end, you use the essay title to guide how the story (the narrative) goes. Always consult your college's style guide and ask to see samples of previous students' work so you have a clear idea of what is expected of you. Some colleges do not allow the use of Google; although Google Scholar is a good place to search for journal articles or books, you should learn to use your internal platform (Moodle, Blackboard, NHS database/digital services). Ask for help in the library, someone there will support you to use the system.

For the question above, we might adopt the following structure:

Introduction

- To outline how the essay is structured – signposting to core themes such as key policy care documents and legislation. We might consider introducing specific theories that will be referred to, and the organisation chosen as our case study. Essay introductions should offer a sequence to improve the transitions between themes, concepts and major ideas.

Middle paragraphs

- Definitions and legal representations of quality of care from a UK perspective
- Salient arguments and key academic debates on future directions of quality of care

- Description of chosen healthcare provider and how they implement/ challenge the above (using your placement as a physical reference)
- Examine chosen provider by linking theory to practice in relation to organisational culture

Conclusion

- A summary of the main findings and themes throughout the essay. This will include a brief recap of how you answered the essay question followed by concluding remarks. No new ideas or theories should be introduced here, only a summary of what was investigated and interpreted through your careful analysis.

Essay questions and learning outcomes/objectives arrive in various formats. Module guides illustrate what is required for assessment and these will be indispensable when you start to plan your essay. Below are some of the common directive terms, as adapted from Lewis' (1999: 42) comprehensive list of words (and associated meanings) used in essay questioning:

- Analyse – look at multiple parts of something (theme, argument, idea) and examine each in detail
- Describe – provide a detailed account of your subject/topic – usually, answers the what of something
- Discuss – investigate various accounts of something – multiple views or using various arguments giving reasons for each angle
- Compare – look for the similarities and differences of something
- Explain – an interpretation followed by an accurate account of something
- Evaluate – supported by valid evidence, an appraisal of something which might include your own reflections (if related to work placement or learning journeys)
- Identify – recognise an important part of something and include brief descriptions
- Interpret – understanding the reality of something, making clear and informed judgements
- Justify – make a clear argument for something supported by valid and justifiable evidence



Activity 1.3

Look at the following passages and detect the descriptive, critical and explanation voices. Choose only one for each passage and note down the differences for each.

(Continued)

1. Cystic fibrosis is a condition that is inherited that affects the performance in the lungs and kidneys due to the presence of thick and sticky mucus (NHS, 2016). In the UK, statistics show that one in every 2500 babies are born with the disease. It is suggested that improvements that relate to newborn screening tests have a better clinical condition when compared to patients diagnosed clinically within the first 10 years of life (Dankert-Roelse and Vernooij-van Langen, 2011).
2. Cystic fibrosis is a condition that is inherited that affects the performance in the lungs and kidneys due to the presence of thick and sticky mucus (NHS, 2016). In the UK, statistics show that one in every 2500 babies are born with the disease.
3. Cystic fibrosis is a condition that is inherited that affects the performance in the lungs and kidneys due to the presence of thick and sticky mucus (NHS, 2016). In the UK, statistics indicate that one in every 2500 babies are born with the disease. It is suggested that improvements that relate to newborn screening tests have a better clinical condition when compared to patients diagnosed clinically within the first 10 years of life (Dankert-Roelse and Vernooij-van Langen, 2011). However, this is not universally agreed due to complications, following screening, leading to a course of treatment when there are no physical signs of respiratory problems (Dankert-Roelse and Vernooij-van Langen, 2011). The arguments are multifaceted, but studies have identified parental factors in screening decisions. One study found parental preference for early diagnosis even if it led to untreatable outcomes (Plass et al., 2010). However, other studies report increased anxiety levels when waiting for additional diagnostic testing (Dankert-Roelse and Vernooij-van Langen, 2011). In summary, parental factors alone cannot sway this argument; further clinical evidence is required and discussed as a major theme of this report.

Answers are at the end of the chapter.

REPORTS

Often confused with essays and vice versa, reports might contain various different ideas within specific sections. This is the distinction between the traditional essay and a report. Table 1.2 details a typical report structure with supporting explanations of each section.

It is important to check your module guide, as specific guidance will be presented on stylistic measures for assessment. Reports come in all shapes and include different elements. You should always refer to the guidance as set by your HE provider.

Table 1.2 Report structure

Structure	Explanation
Introduction	<ul style="list-style-type: none"> Includes an abstract or executive summary situated at the beginning and provides a descriptive account of the main findings
Main body	<ul style="list-style-type: none"> Presents the main ideas and arguments in different sections (these might be numbered) Multiple sections can be used to bring together a variety of ideas that interlink with the main topic, for example: <ul style="list-style-type: none"> 1.2 Malaria <ul style="list-style-type: none"> 1.2.1 Malaria Prevention 1.2.2 Malaria Diagnosis The above example showcases the topic of malaria followed by its constituent sections. Each relates to the overarching topic (malaria) but provides further details on prevention followed by diagnosis
Conclusions	<ul style="list-style-type: none"> A comprehensive conclusion drawing upon each section of the report May include a personal reflection section or recommendations
References	<ul style="list-style-type: none"> Inclusion of all source types – academic/non-academic
Graphical	<ul style="list-style-type: none"> May include diagrams, charts, tables and other graphical illustrations

BLOGS/REFLECTIVE DIARY

Throughout your academic and vocational learning journeys, you will be required to reflect on particular tasks that you undertake. These might be assessed through a diary/blog or as part of classroom exercises such as role-playing. Reflection is a key part of your ability to understand your previous and new experiences. Jasper (2003: 2) describes the process of being reflective as ‘the way that we learn from an experience in order to understand and develop practice’. In this regard, you will learn from an experience before redesigning it for practice based on newly acquired skills. The process is continuous and spirals, as new experiences will arrive, and the process is repeated. Documenting this in your studies can be tricky as you are developing skills, knowledge and vocation concurrently throughout a lifelong learning process. Therefore, it is more about taking a snapshot of skill acquisition rather than a description of polished mastery. Fortunately, there are various models and cycles that can help you to capture your development. The two you might come across in your programme are Kolb’s (1984) Experiential Learning Cycle and Gibbs’ Reflective Cycle (1988) (see Figure 1.2), which improved on Kolb’s work in educational reflection theory. Both provide a conceptual framework that you can use in reflective tasks you undertake.



Go Further 1.1

See Chapter 2, Personal and Professional Development, for in-depth detail on how to engage in reflection. You can find more about Kolb's Experiential Learning as it relates to public health practitioners by following this link to a free article which demonstrates the use of the cycle as an aid to research: 'Reflection as part of continuous professional development for public health professionals: a literature review' at: <http://jpubhealth.oxfordjournals.org/content/early/2012/10/16/pubmed.fds083.full>. It is typically presented to students in a cyclic format to help construct deeper, more meaningful reflections.

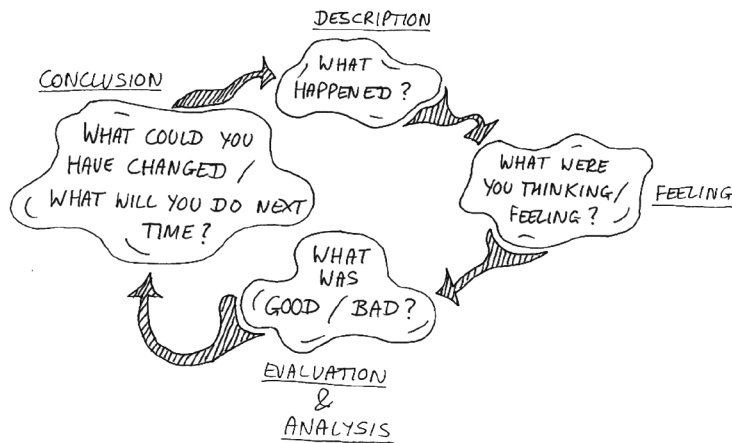


Figure 1.2 Gibbs' Reflective Cycle (1988)

It is not uncommon for students to receive feedback stating the need to be more critical and to bring counterarguments or differing perspectives into their work. Perhaps the reason behind this is to do with the negative connotations of taking a critical approach. You might think of criticality as the protagonist in provoking or upsetting someone. It is a falsism to criticise personally and act without justification or evidence in any domain, not least academic study. The other factor is to do with learning new material. It is impossible to write critically if we do not have all of the information to hand. This requires an analytical approach because we need to locate, appraise and evaluate material before including it in our work. For example, you might be writing about health and wellbeing – which is a broad area covering many categories, perspectives and actors. Taking the analytical approach requires careful synthesis of all associated parts, identifying crossover relationships and trends when researching material. One way to achieve this is through a concept map. This is a visual method for connecting themes and investigating trends

and relationships. Not to be confused with mind maps, they are more structured – looking in detail at how (and why in some cases) themes are connected. Figure 1.3 illustrates a basic concept map that investigates health and wellbeing.

The connected arrows indicate the relationship between different parts and the theme. The theme lifestyle has links to exercise, diet and sleep. The visual aspect of creating a concept map helps us to arrange complex information. Our brains are very good at deciphering complex visual material and arranging them into meaningful categories. There are a number of good references online for creating a concept map, but the process usually considers the gathering of themes (brainstorming) and organisation – you might use sticky notes to write out themes. Then, a drafting process of laying out material, exploring connections. Finally, these are written to show which themes connect to main and sub-themes. Going through this process enables us to understand important components and their relationship to the topic we are researching. It is a useful starting point for consolidating ideas and preparing for the next step of critical and evaluative writing.

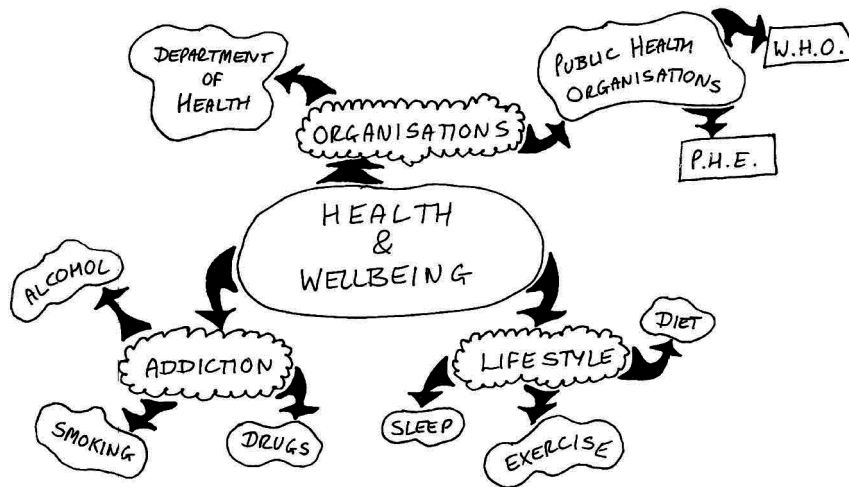


Figure 1.3 Health and wellbeing concept map

After completing a concept map and subsequent investigation into relationships and trends, the next stage will be to write about them, thus moving from the descriptive to the critical and evaluative stages of your assignment. Using the search tips we discussed earlier, you will locate a bank of pertinent scholarly evidence in preparation for writing your assignment. It might be useful to extend your concept map to bridge between the

positive and negative arguments about something. A good critical analysis will be balanced and reflective before leading to an overall summation of a topic. In this way, you should remain independent and impartial to what is being said. Your focus is bringing attention to the key arguments and perspectives on said phenomena. Only when a reasoned and justifiable conclusion has been made can it be considered critically approved.

ANNOTATING ACADEMIC ARTICLES

After conducting initial searches, you will have selected one or two academic articles you think are appropriate to your topic. One useful technique to use when narrowing down articles is skim reading. Fortunately, academic articles include an abstract – which is a summary of what the article contains. You will be able to do keyword searches and apply techniques as discussed earlier to highlight anything of importance and focus on the details required.

Think of academic articles as a sales pitch. Recall a time when someone was trying to sell you something. Think about their approach and the language they used. Academic articles won't sell you a car, or anything tangible for that matter, but they will offer you an idea. Authors will use convincing language to grab your attention and get you on their side – so to speak. This isn't a trick or a mind control attempt; instead, articles go through a process of falsification, where other academics review and question the scientific rigour of what is presented and discussed. Personal beliefs will always need support from evidence of studied phenomena. Keep this in mind when developing your own critical concepts.

Thinking critically can springboard you to write critically. Sounds simple, but you need to know what you are looking for. Critical annotation can help, so let's start with the following article by Fujii (2021), who researched the sleep quality and personality traits of patients with Parkinson's disease pre- and post-diagnosis to determine how these factors affected patients' quality of life. Like all good science, the article explains the problem area, introduces us to methods and procedures of how they collected their data, presented results and discussed their findings. Generally speaking, this is how all academic articles are presented. We start to analyse the present article by understanding its main headlines. Let's consider asking the following questions:

- What is the main problem area(s) the article specifically addresses?
- Who were the participants in the study?
- How did the author(s) go about collecting their data?
- What were the final results and were these positive/negative?

The above will help to shape a descriptive overview, which we include in our final essay. It might be written like this:

Fujii (2021) researched the subjective sleep traits and personality pre- and post-Parkinson's disease (PD) diagnosis to determine the implications of these traits for multiple home care strategies. Using a cross-sectional survey research design, results suggest patients with PD reported a post-diagnosis decrease in sleep time but this increases during nap time. Other findings included the study subjects reporting becoming tense easily but they did not report feeling irritated or angry. The subjective assessment suggested a post-diagnosis worsening of sleep quality in patients with PD.

Following the description part, we then move into the critical stage. To help us, let's consider asking the following questions:

- What types of methods did the author(s) use? Were they appropriately performed?
- Was each method viable for each of the results presented? Could there be another way? Provide details on improvements, if any.
- Did the author(s) interpret results accurately through an informed discussion?
- Was there mention of the limitations of the study? What were they? How does this affect the overall results?
- What other evidence is out there to contest/agree with these findings?

The above are some questions that we may ask ourselves when applying criticality. It is useful to make notes in the margin of the paper or use digital markers if preferred. Annotating each section will no doubt throw up further questions, thus it is important to keep the focus on what it was that originally drew your attention to the paper. Always ask yourself – 'how will this article feature in my final assignment?'

Once we have analysed the article we come to add in our critical points. All academic articles will have a limitation section or some reference to how they would either do the study again or some justification on the issues surrounding data collection/analysis. If we run a Control-F search for limitations in our article we locate a section dedicated to the study's limitations. Staying with our example, we note the study reports several limitations that we could use for the basis of a critique. One example is where it is suggested the 'data obtained from the questionnaire could be limited by poor memory of experiences prior to PD diagnosis' (Fujii, 2021: 152). This is rightfully a limitation, as the survey is self-reporting, which means people who present as having PD may find it challenging to recall pre-diagnosis memories. Building in our critical element from the descriptive could read like this:

Fujii (2021) researched subjective sleep traits and personality pre- and post-Parkinson's disease (PD) diagnosis to determine the implications of these traits for multiple home care strategies. Using a cross-sectional survey research design, results suggest patients with PD reported a post-diagnosis decrease in sleep time but increases during nap time. Other findings included the study subjects reporting becoming tense easily but they did not report feeling irritated or angry. The subjective assessment suggested a post-diagnosis worsening of sleep quality in patients with PD. However, there are several limitations to the study. One of them linking to the study design – a self-reporting survey. Patients reporting on survey item questions prior to PD diagnosis might be considered unreliable as participants may have poor recollections prior to PD diagnosis. This threatens the validity and reliability of the inferences and conclusions drawn.

The critical element uses information in the article to draw attention to the limitations of this type of research. Indeed, all articles will have their limitations, and this enables us to explore critically what exactly is going on. To take this one step further is to review similar studies and compare findings. Here you will build up a better picture of analysis, patterns and trends before offering a well-informed critical appraisal.

INVESTIGATING REFERENCING: STUDENTS' ANATHEMA

Before we start, consider the following syllogism (deductive reasoning in which a conclusion is derived from two premises – Definitions.net, 2016):

I provide references in my work,
References in my work lead to better quality,
Better quality equals better grades, all because I provided references.

To get to its core, referencing deals with the proof and acknowledgement of others' work used in a specific context within your own. When searching for anything, you will select appropriate material to help build an answer against your assignment goals. This takes time, as you will need to search, read and select appropriate literature or other media. Indeed, referencing others' works serves a dual purpose and in its literal sense requires you to show support of a claim by providing a reference from an appropriate source. Consider the following claims and note the differences before selecting the one you think is more trustworthy:

1. Cystic fibrosis has improved over the years mainly due to early diagnosis, targeted therapies and specialised units.

2. There has been an improvement in the diagnosis, treatment and specialised care for cystic fibrosis patients in recent years (O’Sullivan and Freedman, 2009).

Although written differently, both put out the same idea and seem genuine, both make bold claims about something but only one can be classed as being credible. You should have selected the second claim, as it is supported by an in-text reference. Adding academic references will significantly improve the quality of your work and showcases your knowledge. Again, option two starts this process by including a credible source from a peer-reviewed journal – in this case, *The Lancet*. It will need improving, bringing in alternative views (using and extending upon additional sources) and summarising before moving on. Let’s investigate the styles of referencing you will need to master.

REFERENCING: THE BASICS

Most HE courses will follow the Harvard referencing system to stylise your citations and lists. There are other systems, and it is best to read your course handbook or speak to your lecturer should your institution follow a different system. The internet and bookstores are ablaze with guidance on how to develop your referencing skills. One thing to note here is the layout of different media sources (e.g. book, blog, video, audio) that have different reference layouts. This goes beyond this chapter, but there is further guidance in the Further reading section at the end of this chapter.

There are two important steps to remember when using references. Firstly, references that include the author’s name, date of publication, title and publisher are located at the back of your work. This is known as your reference list. Secondly, references that are used within your work (known as in-text references or citations) include only the author(s) name(s), the date of publication and a page number if you use a direct quote. These simple rules are the basics of using and applying references in your work. It’s a good idea to practise stylistically to get used to different ways to integrate citations into your own work.

IN-TEXT REFERENCES

Let’s look at this more closely with examples of how in-text references can be shaped to fit your style of writing and improve its flow. As we have seen previously, writing essays and reports requires various techniques to enable the transition between descriptive, critical and explanatory voices. The following are different in-text styles, the first one suggests a descriptive approach:

- Counihan (2015) suggests that universal peer learning originated in India as a pedagogical package before being shipped worldwide.

The descriptive style might be useful when introducing a new theme or perspective. Alternatively, it can be written with the author's name at the end, but notice the different arrangement with the brackets:

- Universal peer teaching was a pedagogical package that was developed in India before being sent worldwide (Counihan, 2015).

Lastly, we might reference a direct quote. A quotation is used to emphasise a specific point or show support for one of our arguments and it looks like this:

- As Counihan (2015: 291) suggests, 'At the height of its popularity, the method garnered interest from kings, tsars and early educational reformers who were keen to raise standards, particularly access to education for the poor.'

As before, the reference can go at the end of the paragraph or sentence. It depends on the flow of your work and whether the quote is long enough to break away from the main body of text, or short enough to remain as part of the same sentence. There is no universal agreement here so do check course handbooks; but generally, anything longer than three sentences requires indenting and separating from the main body of text. When referencing a direct quote, that is, when you have used exactly the same words as the author(s), you must provide a page number, as can be seen in the parentheses above.

SECONDARY REFERENCES

Some colleges do not allow secondary referencing and expect you to find the original research, and where possible, you should do this to ensure accuracy. Secondary sources mean that the original authors' work may be misinterpreted or misquoted – you will only find out if you read their words yourself. In some cases, the original work may be in another language, and you have to read it in translation, or the original is out of print (this is especially true of sociology or psychology books and journal articles). Also, sadly, some works are behind paywalls, and you cannot freely access all of the article or research. Always ask the librarian if they can access or obtain work for you; they have mystical skills in getting hold of original work. In the event of using secondary referencing, ensure you acknowledge who you are citing; examples are given below.

As with in-text references, the same process of including a source and placing it near content you have written remains the same, the only

difference being the style it is presented in. Sometimes when researching material, we might come across sources we are unable to access, or that information is missing. Let's assume we have come across interesting material in a book and want to use it. However, we cannot gain access to the citation, thus, we think about discarding it. Don't do it! We can still use it by following the basic rules of secondary sourcing.

Let's now look at this in more detail with a worked example. Starting with an extract from an essay we are developing on cystic fibrosis, a secondary reference will be styled like the following:

- In 1959, Gibson and Cooke pioneered a method that revolutionised the diagnosis of cystic fibrosis (cited in Filbrun et al., 2016).

Notice the similarity of providing an author's name and date, the same as we did for our in-text reference in the previous section. However, let's dissect the above into two sentences to master secondary referencing styles.

The first sentence refers to a study completed in 1959 by Gibson and Cooke, and this is what we want to use in our essay. Usually, we would cite it following the *in-text* rules, as before – (Gibson and Cooke, 1959). However, we are unable to find the complete source for our reference list but still want to include it. Therefore, if we consult the second sentence from our example above, we will notice the (*cited in*) reference style. This is because Filbrun and her colleagues (the *et al.* part, note that the first time you use a reference, you should include the names of all the authors, and use *et al.* each time thereafter) have written about the method pioneered by Gibson and Cooke in their own publication. Thus, we are able to acknowledge (and use in our essay/report) the material we want (i.e. Gibson and Cooke) by citing Filbrun and colleagues' book. Finally, you will not need to include the Gibson and Cooke citation in your reference list. Instead, you only include information related to the Filbrun publication. The Further reading section of this chapter has helpful interactive links and information on how to create a reference list incorporating both in-text and secondary referencing styles.

Referencing will take some time getting used to. Remember to paraphrase sentences into your own words, unless you use a direct quote. Some students consider using multiple quotes to eat up word counts. This won't do, because assessors will want to know what you have understood and whether you can synthesise major arguments, themes and perspectives required at this level of study.

Paraphrasing (also *précising*, or summarising) is an important skill to learn if you want to avoid charges of plagiarism (stealing someone else's work). In its most basic form, plagiarism is passing off ideas or content developed by others as your own and without direct reference or permission to do so. Plagiarism can take many forms and it's useful to know how

to avoid common pitfalls. A useful educational tool developed for nursing students is provided by Goodwin and McCarthy (2020), who explain plagiarism for nurses, and this article provides an overview with workable examples. Full reference for this article is in the reference section.

If you go back and look at the Counihan quotes, you see the first two are paraphrases and the last is a direct quote; if you are quoting you must use 'quotation' marks. HE assignments are usually submitted through a plagiarism checker such as Turnitin: this system recognises quotation marks and disregards the words between. Thus, if you do not use quotation marks, the system will flag the words up as plagiarised, and this will have implications for your grading.

DOING EVIDENCE-BASED RESEARCH

Evidence-based practice helps to fill the theory-to-practice gap in nursing. Undergraduate nurses engage in research as part of developing their professional practice; it is part of what makes the nursing profession current and up-to-date. Nurses contribute to and access evidence-based research which informs practice. For instance, Mulhall (1998) considers that nurses caring for patients with cannulas would want to understand why infection and thrombophlebitis occurs, therefore they would research randomised controlled trials showing the various ways in which cannula sites are cleansed and dressed to ensure best safe, effective practice. According to Nieswiadomy and Bailey (2018: 2), nursing research is a 'systematic objective process of analysing phenomena of importance to nursing' designed to develop new knowledge and skills that ultimately lead to better practice.

Research nearly always begins with a question or an idea (this is called a hypothesis): you want to find something out. Evidence-based practice finds out what works and, equally importantly, what doesn't work. The main medical research database is hosted by the Cochrane Library, where researchers conduct meta-analysis: this looks at the grouping of previous research in specific areas and draws conclusions using statistical methods of analysis. Whilst conducting a meta-analysis during your undergraduate programme of study is unrealistic, nurses will need good levels of numeracy skills to retrieve meaning from meta-analytical review findings. Meta-analytical reviews follow a rigorous methodological structure and studies present their findings quantitatively, e.g. using descriptive and inferential statistics. More generally, nurses must make effective use of their numeracy skills in sometimes challenging and fast-paced situations. For example, understanding conversion between decimals and fractions, calculating dosages for use in prescribing medication and working with time calculations are all part of the job in the practical sense.

Back to research. Nurses ask many questions, and there are many ways of engaging in research; the type of questions will guide the types of research paradigm used to explore answers. Nurses use the scientific method, ethnography, grounded theory, cohort studies and randomised controlled trials and all other spectrums of options suitable for research. Nurses who are research orientated are more likely to implement the findings within their practice and to disseminate them through their workplace, leading to improved evidence-based praxis.

Research is always conducted to a specific formula. The first step is ensuring your project is legal and ethical, especially when researching with children and vulnerable adults. You must demonstrate how you will protect your participants from harm. All universities and trusts have an ethics committee, and you should submit your proposal for review before conducting any research. Next you must recruit your research participants; they will have to give you written permission and you have obligations of confidentiality and safeguarding under medical research rules. Your participants also have the right to withdraw at any time during the life of the research, if they choose to do so, you must remove and destroy all their data. Your participants also have the right to see the data you hold and to read the completed research documents.

You must then consider your method of doing the research. This will be driven by the knowledge you are looking for and the participants; so, for instance, if you wanted to know how effective a particular day surgery is, you might consider examining readmission rates. Your participants will initially be selected from medical records, and you might then want to interview a representative sample of patients drawing on the knowledge gained from the records. You would also engage in a literature review, reading what previous researchers have found; this then would give some comparisons with your own setting. Your methodology states why you have chosen a particular research method and why it is the most suitable for your research; your findings or results are the data you have generated during your enquiry, and you would then discuss what these mean for future practice. Dissemination is sharing your work with a wider audience, try to get your work published by a reputable journal such as the *British Journal of Nursing* or *The Nursing Times*; you could also attend conferences and give seminars to nurses working in the same field, or seminars to your ward staff if it is something that purely relates to your setting; and finally you could use social media and blogging to get your message out.

There are many good textbooks which offer full guidance for engaging in research, some more specialist than others; look for one that most meets your research needs. Most university libraries have a good selection to choose from.



Activity 1.4

When nurses critically reflect on their own practice it will lead them to think about questions. To help construct evidence-based practice research, clarifying key aspects as part of a systematic/critical review of studies is necessary if the outcomes are to be of any reliable and valid use in practice. The PICO (population, intervention, comparator and outcome) model provides a useful strategy to bring together key aspects to help answer the research question:

- Population – researchers will identify relevant participants (e.g. patients) who are included in the study. This may include patient characteristics linked to the primary problem or specific research question.
- Intervention – what are the details of the intervention and what is being considered? Researchers will locate different types of interventions (e.g. testing a specific drug) and provide information about included interventions relevant to the problem area.
- Comparator – what will researchers compare the intervention to? Researchers will offer details on the comparator (e.g. drug A vs drug B – which is more effective?).
- Outcome – the results are important but what do we think the outcome will be? How will it affect the patient positively? Researchers will provide further details.

The study by Louie et al. (2021) takes an evidence-based practice approach to identify programmes that were effective in providing care in drug and alcohol settings. They followed systematic review research principles and suggested outcomes of programme effectiveness using the PICO model. The study is available here via open access link: www.ncbi.nlm.nih.gov/pmc/articles/PMC7931583/

Read the study and then answer the following questions:

Q1: In the Population and Intervention sections – identify what is meant by ‘inclusion’ and ‘exclusion’ criteria. Write a few sentences on why these are important at the early stages of the research enquiry.

Q2: Write down a few sentences on how you think Louie et al.’s (2021) study contributed to the development of future practice.

CHAPTER SUMMARY

- You have recognised the transparency in personal skills and how they can be utilised in academic contexts.
- You have investigated, developed and applied techniques for conducting contextualised searches for online material.
- You have understood the assessment processes involved in HE and developed an awareness of descriptive, explanatory and critical voices to be used in academic writing and relative assignments.

- You have taken an in-depth practical look at referencing, its various styles and how it can be applied to academic assignments.



Answers to Activity 1.3

- 1 = Explanation
- 2 = Descriptive
- 3 = Critical



Answers to Activity 1.4

Q1: Stating the inclusion and exclusion criteria in a systematic or critical review used in evidence-based practice is extremely important. Inclusion criteria helps to identify the specific characteristics/traits of a study population that must be fulfilled for their 'inclusion' into the review. Similarly, identifying specific characteristics/traits that are not required for the review should also be explained. For example, if you wanted to review evidence of a specific drug used to treat a specific age group this would need to be justified through the inclusion and exclusion criteria.

Q2: Any answers relating to the key findings of the review that offered the following to advance practice:

- Clinician beliefs and attitudes
- Modes of learning – possibly modified to levels of education
- Awareness of the influence of patient and clinician gender on the implementation outcome



FURTHER READING

WEBSITES

These websites will help you with your research skill development:

- The *British Medical Journal* has an excellent resource for reading and researching different types of academic articles and how to read them. It is available at: www.bmj.com/about-bmj/resources-readers/publications/how-read-paper
- See Julian Treasure detail how to give an excellent presentation in his TED talk, which can be found at: www.ted.com/talks/julian_treasure_how_to_speak_so_that_people_want_to_listen?language=en

- Review your referencing skills with *Cite Them Right: The Basics of Referencing*, available at: www.citethemrightonline.com/Basics
- Academic phrasebank found at www.phrasebank.manchester.ac.uk/

VIDEOS

- See how to create an end-of-text reference list by viewing this useful YouTube video: www.youtube.com/watch?v=QtfXN8QYJik
- How to write a nursing essay: www.youtube.com/watch?v=aScAV3C_F3w
- How to write a reflective essay: www.youtube.com/watch?v=whKS AKSMFs8

BOOKS

These texts will all support your study skills development:

- Burns, T. and Sinfield, S. (2016) *Essential Study Skills: The Complete Guide to Success at University* (4th edn). London: Sage.
- Jasper, M. (2003) *Beginning Reflective Practice*. Cheltenham: Nelson Thornes.
- Kolb, D.A. (1984) *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice-Hall.
- Lewis, D. (1999) *The Written Assignment: A Guide to the Writing and Presentation of Assignments*. Kelvin Grove: Queensland University of Technology.

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- Plass, A.M., Van El, C.G., Pieters, T., et al. (2010) Neonatal screening for treatable and untreatable disorders: prospective parents’ opinions. *Pediatrics*, 125: 99–106.
- Sternberg, R.J. (1985) *Beyond IQ: A Triarchic Theory of Intelligence*. Cambridge: Cambridge University Press.