



Research Writing: Tips and Common Errors

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20.1 Introduction

The most important part of research is to select a topic that you are interested in because it should hold your interest from start to finish [1]. There are several issues that need to be borne in mind when one starts to work on any form of research writing; whether it is a proposal, reporting on what was done, writing a paper for submission to a journal, or an abstract of a paper for a congress. Each of these needs careful planning so that unambiguous sentences address the aim, objectives, and relevance of a research study. Tips on how to avoid common errors in research writing are presented in this chapter.

20.2 Reference Method

It is important that you know which reference method to use. If you write a paper to submit to a journal, make sure that you use the correct reference method. Carefully read the instructions to authors including the reference method that must be used: Vancouver, Chicago, Harvard, or American Psychological Association (APA). Take time to check that each cited author or publication is listed in your references.

In this chapter the Vancouver reference style (author-number system) is used for in-text citation of actual publications because it is used by the publisher: Springer International Publishing AG. The author-number system is used in most medical

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journals/publications; in-text citations are numbered. On the other hand, most universities require students to use APA or the Harvard method when writing up research findings. In view of this the Harvard method is used for fictitious examples of in-text citations in this chapter. The references only list the names of actual cited authors or publications.

20.3 Plagiarism

Plagiarism means to copy the ideas, words, or writing of someone else without citation [2]. It has legal and ethical consequences, thus many universities, peer reviewers, and journal editors use plagiarism detection software. You must cite all your sources, including your own work, to avoid the risk of plagiarism. Each university and journal has its own referencing method, which you must use to accurately present your references.

It is a good practice to paraphrase. In other words use your own words when you discuss published research. Be careful of using verbatim text as if it is your own words. If you use verbatim text you must cite the source of the text; if you use two or more consecutive words you must place the verbatim words in double inverted commas and cite your source. The findings were that “the majority of healthcare professionals in Newcastle” do not know how to keep accurate patient records (Smith 2016, p. 25). Note that this is an example of how to apply the referencing technique when using a verbatim quote.

Many countries have strict copyright legislation for use of information including information on the internet. If you use information on the web, it too must be acknowledged. For example, if you copy a photograph of a MRI scanner from the web, you may be breaching copyright if you do not acknowledge your source.

20.4 Be Consistent

Make sure you use the same spelling for words. Do not use a mix of American and English spelling. Also when you report on your study the same wording for the aims, objectives, research questions, hypothesis, and significance of the study must be used.

Discuss literature chronologically. For example, discuss earlier studies to lead up to current ones. This will allow readers to follow the thread of your argument. Your discussion must be logical. When you summarize refer to key points in the cited literature in terms of the aim and objectives of your study. Keep to the point under discussion. Refrain from using words that may show subjectivity. For example, I was thrilled to discover that the participants’ comments supported my point of view in the study. This should be reworded. The participants’ comments were in keeping with the aim of the study.

20.5 Punctuation

English is a dynamic language. Over the centuries punctuation rules have changed. In many instances there is an ongoing debate in the correct use of commas [3]. Some universities provide punctuation guidelines. There are many good examples on the internet of the correct use of punctuation in academic writing [4–7]. It is beyond the scope of this chapter to discuss all types of punctuation. Note that an exclamation mark (exclamation point) is not recommended in academic writing [8]. The use of an apostrophe is discussed below as it often is not used correctly in research writing.

20.5.1 Use of Apostrophe

A common error in writing is the incorrect use of an apostrophe [3]. An apostrophe has two main functions: to denote possession (e.g., patients' records); to indicate a contraction when an apostrophe indicates missing letters (e.g., let's, can't). The use of an apostrophe before the 's' is to show possession of a single noun (e.g., a patient's records). When a word is possessive and plural, then the apostrophe is placed after the 's' (e.g., two weeks' records were accessed). An apostrophe is placed after the 's' of a noun that ends with an 's' to denote possession (e.g., Jones' study). Do not use an apostrophe to show a plural. The use of an apostrophe in the 1980's is incorrect. It would be correct in the following sentence. What was the 1980's dress code for radiographers? Consider this sentence. We are interested in researching radiographers' dress code in the 1980s. Can you see the different meaning in this example?

20.5.2 Capitalization

Overuse of capitals (upper case) is very common in writing [9]. A capital letter is used at the beginning of a sentence (e.g., The study was conducted in 2018). Names of institutions have capital letters (e.g., The study was conducted in 2018 at the Smith Hospital). A capital letter is used for names of people (e.g., Jones and Brown conducted a study in 2018 at the Smith Hospital).

It is not acceptable to use upper case for the first letter of a word for emphasis in a sentence. Jones and Brown (2018) reported that Radiographers participated in the study. This is incorrect and should be: Jones and Brown (2018) reported that radiographers participated in the study. Do not use capitals for emphasis. In the following sentence the use of capitals for emphasis is a definite no-no in academic writing. A researcher must obtain INFORMED CONSENT from participants. Informed consent in the sentence should be in lower case. In addition, a capital is not used after a colon (:) unless the word is the name of a person, place, or the beginning of a direct quote.

Capitals are used for names of vendors (e.g., Siemens), for acronyms (e.g., HIV), and abbreviations (e.g., CT, MRI, PET). It is not correct to use a capital letter for the word cancer unless at the beginning of a sentence; this also applies to radiologist, student, team, hospital, and so on. The use of upper case for the first letter of a word in sentences is a common error in academic writing. However, the first letter of a scientific name of a bacterium is in capitals (e.g., *Escherichia coli*) and is in italics.

20.6 Italics

Some writers use italics for emphasis in a sentence. This can be confusing if use is also made of italics for verbatim comments. If emphasis is essential, then add a clause to underscore what is being emphasized. For example, the researcher will investigate patients' perceptions of *quality* service delivery with an emphasis on quality. Use italics for verbatim comments of participants in a study. In addition, the title of a book, journal paper, and newspapers/magazines in a sentence is in italics. *The Sunday Times* covered poor service delivery at the Smith Hospital in 2018; Jones underscores research ethics in his book *How to conduct research*. The scientific names of bacteria are in italics: tuberculosis is caused by *Mycobacterium tuberculosis* as previously mentioned.

20.7 Anthropomorphism

Anthropomorphism is when we ascribe human activities and behavior to non-human objects; research study, data, and findings, for example [10–12]. It is also called personification. You need to be clear about who did the action so that what you state makes sense. Pause and question whether the noun you have used can perform human actions.

For example, does the following sentence make sense? This study investigated how many patients reported that they received poor service delivery. Is it possible for a study to perform a human action? This should be reworded. In this study the number of patients who reported poor service delivery was investigated. It is however acceptable to state, for example, that hospital management reported that the number of patient complaints had increased. Hospital management comprises groups of people; they can report on complaints. The same applies to organizations as they too comprise groups of people. It is also acceptable to use anthropomorphism when referring to the legends of tables and figures in your text. For example, Figure 2 presents the total number of patients who complained about poor service delivery. This chapter does not include figures; Figure 2 was used for discussion of verb tenses. To avoid anthropomorphism be clear who did a human action, or will do a human action.

20.8 Use of Verbs

Verb tenses tell us when something happened in time [13–15]. We can convey this information to indicate whether it still can happen in the future; whether it is currently happening (present time), or whether it has already happened (in the past). We make use of future, present, and past tense verbs. For example, “consent will be obtained from the participants” indicates that this will be done in the future. “Consent is being obtained from the participants” indicates that this is currently happening, thus it is in the present. “Consent was obtained from the participants” indicates it has already occurred: a past tense verb is used.

It is a standard practice in academic writing to use future tense verbs in research proposals. They provide information of what will be done by you. When writing up your research you must use past tense verbs to inform readers about what you did. However, if you include recommendations, then use verbs that indicate what should be done in the future. Be careful in your choice of verbs though. If you state that role-players will use your findings, then in this context “will” means they have to do this as a future action. Bear in mind that they are not obliged to use your findings, thus you should indicate they have a choice. For example, role-players could use the findings. Similarly, if you make recommendations for future research based on the findings in your study, then you should state: future research should (could) be done to address identified problems in this study.

In addition, verb tenses are important when citing literature. When there is one author we need to use the correct verb. For example, Smith (2013) reported that most patients did sign informed consent. According to Jones and Bennett (2019) very few patients in their study had signed informed consent forms.

When reviewing literature make sure that you use the correct verb tenses. Some examples are as follows. According to Smith (2000) the most common examination in imaging is chest radiography. This implies that the statement is generally accepted as being true. According to Smith (2000) the most common examination in imaging has been chest radiography. This implies that this is generally accepted as being true and that chest radiography is still the most common examination. According to Smith (2000) the most common examination in imaging was chest radiography. This implies this was true in the past.

20.8.1 Reporting Verbs in a Thesis/Dissertation

- Abstract and introduction

It is a standard practice to use the past tense in an abstract as it covers what was done by a researcher. The introduction (usually chapter one) tells readers about the study and its relevance. The present tense is used as you need to explain to the readers why your study is important. When you discuss the study in terms of literature you are providing information which you believe is true. If you cite authors,

then what they said, for example, is in the past, thus past tense verbs are used. For example, Smith and Jones (2015) found in their study that most patients were unhappy with service delivery, and, Evans (2016) reported that healthcare professionals had been trained in the management of patient complaints.

If you intend conducting a study on patients' perceptions of the attitude of radiographers while imaging them, then you need to cite relevant studies. For example, most orthopedic inpatients have at least two imaging examinations during their period of hospitalization (Smith and Howell 2016). According to Jones (2017) the majority of inpatients are asked to only comment on service delivery by nursing personnel. Evans (2017) conducted a study on hemiplegic patients' perceptions of physiotherapists. There seems to be a gap in the literature because no studies have been done on patients' perceptions of the attitude of radiographers.

- Literature review chapter

This chapter should cover literature chronologically in terms of aim, research questions/hypothesis, and objectives of the study. For example, Smith (1999) found in his study done in Bristol that most inpatients are not asked their opinion about the attitude of healthcare personnel. James and Jones (2004) did a similar study in Edinburgh and they concur with Smith. It would be incorrect to state that Smith (1999) concurs with James and Jones (2004). The latter is a common error in theses/dissertations. It would not be possible for an author in 1999 to concur with findings in a 2004 study.

- Methods

In this chapter you are reporting on what you did, thus the past tense is used. Also ensure that the discussion is logical so that anyone, who wishes to do a similar study, will be able to use each step of the method you used. Keep to simple language and explain clearly what was done. Passive voice is usually used, but it would not be incorrect to use active voice. For example, twenty inpatients were invited to participate in the study. They were purposively selected. This was a quantitative study; the research tool comprised 15 closed-ended questions.

Refer to tables and figures in the present tense if used to explain your method or what you did (see the discussion on anthropomorphism below). For example, Table 1 illustrates the main questions. Figure 1 shows a pie-chart of the responses of the participants.

- Discussion

In this section you explain the significance of your results; the present tense is used. For example, the participants' responses show that most had negative perceptions in terms of the attitude of radiographers. The present tense is used to explain or unpack the results. Use the past tense when you summarize the findings and results. For example, the majority of participants had negative perceptions of radiographers.

- Conclusion

This is usually a combination of past and future tenses. For example, although the participants had negative perceptions of radiographers, the sample was small and limited to one imaging department. Further studies, with a bigger sample, are needed to determine whether the findings are applicable in all imaging departments in the country.

20.9 Incorrect Words

The incorrect use of words is a common mistake in both formal and informal writing [16–18]. Table 20.1 provides some common mistakes of words used in academic writing. The list is based on my observations of the incorrect use of words in academic writing. The definitions of the words in Table 20.1 in this chapter are not exhaustive; many of the words have several denotative meanings [19].

Table 20.1 Examples of incorrect words in academic writing

Words	Examples	Examples	Comment
A/an versus the	<p>A is an indefinite article. It is used before a consonant</p> <ul style="list-style-type: none"> • A researcher may undertake a qualitative, quantitative, or mixed method study • A patient may need additional tests <p>An is an indefinite article and is used before a word that begins with a vowel</p> <ul style="list-style-type: none"> • An abdominal CT study was performed in this study 	<p>The is a definite article and refers to a specific thing or person. In academic writing it refers to a specific person or object</p> <ul style="list-style-type: none"> • The researcher conducted a study on patient care • The patient in this case report required additional tests 	<p>Use the (definite article) when referring to your study including what you did</p> <ul style="list-style-type: none"> • The questionnaire was handed to the participants by the researcher <p>Use an indefinite article to clearly spell out the person is not you or not a specific person</p> <ul style="list-style-type: none"> • A researcher could use a semi-structured questionnaire to interview a cancer patient
Affect versus effect	<p>Affect as a verb means to influence or act upon something</p> <ul style="list-style-type: none"> • Poor service delivery will affect optimal healthcare 	<p>Effect as a noun means a consequence of something</p> <ul style="list-style-type: none"> • The effect of poor infection control is well documented in the literature 	

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Table 20.1 (continued)

Words	Examples	Examples	Comment
Assure versus ensure	Assure as a verb means to confirm, make sure, or guarantee something <ul style="list-style-type: none"> The researcher assured the respondents that their names would not be shared with others 	Ensure as a verb means to make safe or safeguard <ul style="list-style-type: none"> The researcher ensured that the collected data were password protected 	
Attain versus obtain	Attain means to achieve a task <ul style="list-style-type: none"> The aim of the study was attained 	Obtain means to get or acquire something <ul style="list-style-type: none"> A signed consent form was obtained from the participants 	
Allude versus elude	Allude means to refer indirectly to something <ul style="list-style-type: none"> The researchers alluded to possible causes of poor follow-up visits 	Elude means escape, avoid, or baffle <ul style="list-style-type: none"> The cause of the artifacts on the images continues to elude the researcher 	
Being versus been	Being as a noun means something that exists <ul style="list-style-type: none"> He is a human being It also forms the passive voice of all transitive verbs <ul style="list-style-type: none"> The research is in the process of being conducted 	Been is a verb; it is the past participle of be <ul style="list-style-type: none"> The researcher has been conducting a study at the hospital 	
Complement versus compliment	Complement means a person or object that completes something. Also means a total number of persons in a team, etc. <ul style="list-style-type: none"> The staff complement in the nuclear medicine department is twenty 	Compliment means to express admiration <ul style="list-style-type: none"> The professor complimented the students on their academic results 	
Complementary versus complimentary	Complementary is an adjective and means that things are different from each other but make a good combination <ul style="list-style-type: none"> CT and MRI have complementary roles in brain examinations The study included the role of CT and MRI as complementary modalities in staging of colon cancer 	Complimentary means flattering. It also means given for free as a courtesy <ul style="list-style-type: none"> The outpatients who were rebooked were given three complimentary meals 	

Table 20.1 (continued)

Words	Examples	Examples	Comment
Ethics versus ethical	<p>Ethics is a noun. It is the moral principles that govern behavior. It is a code of conduct</p> <ul style="list-style-type: none"> • The ethics of patient care in radiography include do no harm • An ethics committee of a university assessed the research proposal to ensure that the principles of research ethics would be adhered to in the study* 	<p>Ethical is an adjective and refers to morally acceptable behavior</p> <ul style="list-style-type: none"> • The researcher conducted an ethical study by adhering to patient confidentiality • The ethics committee found that the researcher’s study was unethical as patients were coerced to participate* 	<p>*It is incorrect to state that a study was approved by the ethical committee of the university. The binary opposite of ethical is unethical. Thus the use of ethical committee implies the university may have an unethical committee</p>
Its versus it’s	<p>Its is a possessive adjective and noun and never has an apostrophe</p> <ul style="list-style-type: none"> • Research is complex, hence researchers have used different models to explain its process 	<p>It’s is a contraction, hence the use of an apostrophe to show a missing word. For example, it’s is a contraction of it is</p> <ul style="list-style-type: none"> • It’s cold in the ward 	
Overtime versus over time	<p>Overtime is a noun. It refers to work done outside of regular times</p> <ul style="list-style-type: none"> • The researcher investigated the overtime pay rate of healthcare professionals at the Smith Hospital 	<p>Over time means gradually in a period</p> <ul style="list-style-type: none"> • The patient was assured her mobility would improve over time 	
Prevalence versus incidence	<p>Prevalence is a noun. It means widespread or pervasiveness</p> <ul style="list-style-type: none"> • A quantitative study was conducted in 2017 to determine the prevalence of workplace violence in all imaging departments in Australia • The prevalence of breast cancer worldwide is well documented in the literature 	<p>Incidence is a noun. It means the extent or frequency of occurrence of something</p> <ul style="list-style-type: none"> • A quantitative study was conducted to determine the incidence of workplace violence in an imaging department in London during January and February 2017 	

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Table 20.1 (continued)

Words	Examples	Examples	Comment
Principal versus principle	Principal is a noun. It means main or chief <ul style="list-style-type: none"> The principal granted the researcher permission to interview the teachers 	Principle is a noun. It is a standard of conduct, rule, or code <ul style="list-style-type: none"> The study adhered to the four principles of medical ethics: respect for autonomy; non-maleficence; beneficence; and justice 	
To versus too	To can be used in a sentence as a preposition before a noun/pronoun It is part of an infinitive verb: to run, to conduct, to go, for example** <ul style="list-style-type: none"> The researcher handed a questionnaire to him The objective of the study was to determine the incidence of reported downtime of the PET scanner from June to December 2017 	Too is an adverb. It means also or excessively <ul style="list-style-type: none"> A researcher should pilot a questionnaire to check that it will not take too long to answer The researcher invited more teachers to participate in the study because several were too busy and could not commit to spending time answering the online survey 	**Guard against splitting infinitives The specific objectives of this study were to: <ol style="list-style-type: none"> Identify factors that cause poor service delivery at the Smith Hospital Determine appropriate strategies that could be used to reduce poor service This is an example of splitting infinitives. It is preferable to use to at the beginning of each objective. To identify... There are other uses of to in English. For example, to show equality: convert inches to centimeters Tip to check the use of to in a sentence. If to can be replaced with, for example, also, as well, or very, then use too and not to
Were versus where	Were is a verb <ul style="list-style-type: none"> The participants were randomly selected The findings of this study could be tested if future research were to be conducted 	Where is a adverb and means, for example, what place <ul style="list-style-type: none"> Smith Hospital is where the study was conducted 	We're is a contraction of we are

Table 20.1 (continued)

Words	Examples	Examples	Comment
Which versus that	<p>Which is a relative pronoun and is normally preceded by a comma</p> <ul style="list-style-type: none"> The hall, which has a high ceiling, was selected for the study site 	<p>That is a demonstrative pronoun</p> <ul style="list-style-type: none"> The hall that has a high ceiling was selected for the study site 	<p>It is incorrect to use which and that interchangeably. If the clause's meaning will not be affected, then use which as a non-restrictive element [17]. Thus in the sentence "the hall, which has a high ceiling, was selected for the study" the meaning will not change if the clause "which has a high ceiling" were to be removed. A non-restrictive element is an aside [18]. Whereas in the sentence "the hall that has a high ceiling was selected for the study site" use is made of that: a restrictive element. It limits the meaning to a specific hall being selected</p>

20.10 Circumlocution, Tautology, and Clichés

Effective academic writing is precise; therefore use words sparingly. In this point in time is an example of circumlocution: several words are used to discuss something instead of being precise. Use now instead of in this point in time. Tautology is the repeated use of words or clauses in a sentence that mean the same thing. I personally interviewed the participants is an example of tautology. If personally is removed in the sentence the meaning does not change. Another example, "the participants' comments on service delivery problems were an added bonus." "Added" is redundant because bonus is something additional. Guard against using clichés in your writing. These are overused phrases. They lack original critical thinking, which is the foundation of academic writing. The researcher used Smith's (2018) questionnaire in order to not reinvent the wheel. The interviews were put on the back burner while waiting for permission to conduct the study. The pilot study led to going back to the drawing board. These sentences all include clichés: reinvent the wheel, put on the back burner, and back to the drawing board.

20.11 Proof Reading Is Essential

Two common errors are the incorrect use of another, and concur. Can you identify the errors in the sentences below?

- In their study among 30 radiographers in Germany, Tomas et al. (2013) found that only 30% could demonstrate proper handwashing methods. This figure increased to 53% at the first follow-up and was 47% at the second follow-up (Smith 2010). Another study of 100 radiographers found that only 15% confirmed they did use soap for handwashing (Evans 2018).

The cited fictitious studies are not listed chronologically. The study by Smith (2010) preceded the 2013 study by Tomas et al. Another study of 100 radiographers means that Evans had conducted a previous study of 100 radiographers. The use of another is often incorrectly used to mean a study by someone else.

Can you identify the error in the sentence below?

- Only two (20%) hospitals, one in an urban area and another in a rural region have operating theaters.

This needs to be revised. Only two (20%) hospitals have operating theaters: one is in an urban area and one is in a rural region.

Can you identify the errors in these sentences in this fictitious 2018 thesis?

- The findings of the current study concur with those of a study done among Australian healthcare professionals that revealed that nearly all respondents had never undergone infection control training (Smith 2003). The findings from this study also concur with Higgins and Murray (2010) who stated that most healthcare professionals do not undergo infection control training. Another study conducted by Khan (2013) also concurs with the findings of this study; most healthcare professionals had not received training in infection control.

How can a current study concur with the findings of a study done in 2003? This would only be correct if the objective was to use the 2003 results as a baseline to compare with the results of the current study. This also applies to the study by Higgins and Murray (2010). The use of another study means that Khan had done a similar study before the one in 2013.

Careful proofreading should be done for all drafts of your document to ensure that the meaning of the text makes sense.

20.12 Answer the Research Question

Not answering your research question, or leaving it up to a reader to decide whether you have achieved this, is another common pitfall. This could happen by losing focus during the course of your study and not maintaining clear communication with your

supervisor. The conclusion chapter of your dissertation (as mentioned in Chap. 17) is where you should pull together your findings and summarize them in light of the aim and objectives of your study. The conclusions drawn from this summary should enable you to adequately answer your research question. It is possible that you may not have been able to answer all of your questions by the end of your study. Be overt about this, as research is seldom perfect. You may need to make recommendations for further work (see Chap. 18). Recommendations for further work can then be picked up as a master's level study. It may even lead to a doctoral thesis.

20.13 Time Management

Many of you may ask the following question. What about time management? Universities today have diverse student populations and many students have other responsibilities: part-time employment, and families to care, for example. Your study therefore has to be carefully organized and well managed.

Time management is a valuable skill and an attribute to develop. Once you have it well established, it becomes a transferable skill that can be applied in all situations. Time is something we often take for granted. It is said to be human nature to leave things to the last minute. However, while you may be able to write up a 1000 word essay in a few days, you will have difficulty applying this strategy to a 10,000 word research project. The importance of a carefully planned study, which has been divided into small manageable chunks, mapped against a definitive time scale, cannot be overemphasized. Even a small-scale study involving just a few participants needs careful time management.

As you will have read in previous chapters, undertaking a piece of research requires a systematic approach. The merits of a completed study depend on your commitment to the steps within that process. A good practice measure is to draw up a study plan or keep a research diary that has dates indicating practical time scales according to how you envisage moving your study along. This plan then becomes a working document. It can act as a monitor to show which tasks you have completed. There are time management templates on the internet if you need some guidance on creating your own plan. Ticking off completed tasks has an added therapeutic benefit of a 'feel good' factor that says 'Well done!' at each stage throughout the process. It is important to reward yourself for these little accomplishments along the way; in so doing this helps to keep you self-motivated and focused on your next target.

Keeping a well-designed study plan also helps to identify additional time constraints: for example, deadline to apply for ethics approval from a relevant committee if your study requires this. Ethical approval is required for all projects that involve the use of human participants (see Chap. 6). These include academic or clinical staff, students, patients, the general public, and written or visual records that potentially allow identification of individuals. Remember that ethics, in a nutshell, is a critical reflection on morality. It is considered poor research practice to recruit participants in close contact with a researcher, such as good friends or family members. It is, however, considered acceptable practice as part of a course, in the interests of the

experience of the research process. Writing up an ethics application form, and gathering supporting documentation, can take several weeks, depending on the nature of your study: allow yourself ample time to get this done properly if you are going down this route. Pay attention to the dates on which committees meet; target a meeting early in the year to allow enough time for data collection. You (the researcher) must consider the ethical implications for the research participants (see Chap. 6 for more information on ethical considerations). Diarize hand-in deadline dates of your work. Make sure you visibly display these dates so that at a glance you will be able to note deadlines. Set aside ample time for putting your dissertation together, including organizing appendices, printing, and binding of the final document.

20.14 Research Supervision

All undergraduate and postgraduate student projects are supervised by staff who are academic tutors, or clinical tutors, or both, depending on the research topics. The role of a research supervisor is to provide guidance and support throughout a research process. Your research supervisor is the first point of contact in all research project-related matters and is there to answer any query you may have in that regard. Once you have been allocated your supervisor, do not hesitate to contact him or her and arrange your first meeting. This first meeting is the most important of all of those to come. It allows both you and your supervisor to mutually set the ground rules for communication and the manner in which supervision will proceed. More importantly it gets the ball rolling. Your supervisor would normally expect you to have a proposal of your intended study at hand for discussion at this meeting. It is a good practice to keep a log of meetings and a recording of the proceedings, again with target dates. These can then be used to inform and update your own personal action plan, as recommended above. Also to inform your supervisor of your progress.

All too often students meet with their respective supervisors at the beginning of the year, get advice, and then do not get in touch until the very last minute when the hand-in date looms. Do not let this happen to you. Be sure to schedule regular meetings with your supervisor for a steady drip-feed of guidance throughout your study. This will ensure that any problems or errors are picked up and dealt with efficiently and effectively and do not hinder the development of the final project. When you arrange to meet with your supervisor, ensure that it is at a mutually suitable time. It is your responsibility to initiate and maintain contact with your supervisor. Supervisors act as mentors and motivators; they will not undertake the work for you. You have to be committed to follow their guidance and work to set targets within agreed timeframes. It is a good practice to submit some work prior to a meeting. You could do this either electronically or drop off a hardcopy. This will give your supervisor some time to read through the text and note points for discussion. Your dissertation is unlike any other work you have undertaken for your course; it provides a unique opportunity to actually work with your supervisor.

Make sure that you also prepare for each arranged meeting with your supervisor. Draw up a list of questions, and have writing material to write down notes. Do not rely on your memory. You may prefer to record the proceedings of the meeting

using a voice recorder. Ensure that this is agreed with your supervisor beforehand. Supervision guidance should be reflected on and used in a positive and constructive manner to improve your work. Using feedback positively should also ‘snowball’ into other aspects of your work so that you do not make the same mistakes over again. In this way you will begin to ‘work smart’ rather than work hard.

A research process has a certain degree of flexibility within it and the various stages are merely offered as guidelines to follow. These have been produced by experts in the field and are tried and tested recipes that have yielded successful outcomes. Find your own measure among them, but be careful of deviating too much from the straight and narrow. It is a good practice to read the guidelines after every little bit of literature searching or writing that you have completed. This helps you to keep focused on the aims and objectives for your research project.

Remember to use the guidance you receive from your supervisor, no matter how intelligent you deem yourself to be. Even experienced research students need assistance. If stumbling blocks appear in your research process, do not be disheartened. Modify your work and carry on. Very little research is conducted exactly as it was envisaged.

20.15 Key Points

- Verb tenses are important. A research proposal is used to inform readers what will be done by a researcher. A research report includes what was done, hence past tense verbs are used.
- Discuss literature in a logical manner: early studies to current studies. Use the aim and objectives of your study to link to your discussion of literature. If an objective includes comparing the results of your study with those of a previous study, then you can use concur or disagree in your discussion, for example. If not then consider using the following: in keeping with, similar to, or in accord with. The use of synonyms adds to the richness your text.
- Read your drafts carefully to check spelling and grammar.
- Refrain from excessive use of adjectives to reduce the risk of being subjective.
- Be consistent in your use of words, and citing of sources.
- Keep a log of meetings with your supervisor.
- Plan for each meeting with your supervisor and act on feedback.
- Time management forms the backbone of your study as you need to remain on track and meet deadlines

20.16 Conclusion

In this chapter tips on how to avoid common errors in research writing are presented. Effective academic writing is precise [20, 21]. Good grammar and correct spelling underpin a well written proposal, report on a study, or journal paper. Research requires careful planning and rigorous proof reading to ensure the text is error-free. Strict management of each step in research is important to ensure that deadlines are met. Did you notice the incorrect use of both American and English spelling for some words?

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