UNIT 1

SETTING YOURSELF UP FOR SUCCESS

Introduction

Generally, students of psychology are required to undertake a project in the final year of their degree. This is often a daunting task, using existing knowledge gained throughout the degree usually with minimal supervision. Therefore the successful completion of the psychology project is often the most challenging academic requirement a student will face during their undergraduate degree. The process involves creativity and innovation, critical thinking, persistence, discipline, independence, and also feelings of uneasiness and insecurity. The good news is that it is possible to approach your final year psychology project with an attitude of confidence, and positive, forward thinking as opposed to anxiety and apprehension.

It is comforting to learn that those students who are most successful in completing their psychology projects are those who have set themselves up for success! These are the students who have put the appropriate structures in place, to aid them during the research process. *Section 1: Setting Yourself Up for Success*, makes it possible for every student to learn how to carefully plan, and lay down, solid and realistic foundation to facilitate successful completion of their research project.

Chapter 1 of this essential guide, *The Psychology Project as a Means of Acquiring Knowledge*, begins by broadly dealing with psychology as a scientific discipline and demonstrates that the essence of science is described as a way of thinking, the systematic logic used in asking and answering questions, and producing more knowledge. The role of the research project is therefore a means of inquiry; through formulating questions and finding answers to them, students add to the knowledge base.

Chapter 2 entitled *Ethics for Research in Psychology* deals with the crucial issue of ethics in psychological research; in the planning, execution, and reporting of both quantitative and qualitative research. The chapter also highlights the codes of ethics, laid down by a number of major professional bodies, to act as a shared moral framework for making ethical decisions.

Chapter 3, *Choosing a Topic and the Research Proposal*, deals with the practicalities of evaluating topics from your potential list of topics, in order to choose the most appropriate one. The chapter also focuses on how to formulate a good research question, and the role of creativity and innovation. The functional importance of the research proposal is also highlighted, which is often neglected by undergraduate students.

Chapter 4, *A Connected and Convincing Argument*, deals with the appropriate style for writing your research project, and describes the importance of your project delivering a convincing and connected argument with an inherent logical structure, in order to produce a seamless piece of work. The importance of clear communication and effective writing is highlighted, and some tips for scientific writing are provided.

Chapter 5, *Self-Management*, deals with the important skills and meta-competencies that can be developed by students in order to successfully endure the research process, from the conception of an original idea to the final write-up of the psychology project. These foundation chapters demonstrate that completing your project is very much a personal endeavour involving the whole person. Chapter five addresses important aspects of self-regulation, as a way of scheduling, being organised, timetabled and self-managed. The importance of goal setting, and the role of short-term wins are highlighted as successful motivational strategies. Building on the theme of self-regulation, different time management techniques, and strategies for overcoming procrastination are demonstrated. Emphasis is also placed on the role of self-management as a very effective mechanism for managing the stress or anxiety of the undergraduate psychology project, for example setting realistic short-term goals and priorities to help reduce anxiety and create a sense of control and accomplishment. Ways to overcome writers block are also included, and the importance of tailoring a system of strategies that meets individual needs will be highlighted, throughout.

Chapter 6, *Maximising Supervision*, deals with this often-neglected area. Students often under-estimate the valuable resource that supervision is. This chapter deals with how to maximise the benefits of supervision, by focusing on the establishment of the student-supervisor relationship, and on practical approaches to maximising feedback.

Chapter 7, *How to Handle the Research Literature*, deals with ways of handling the research literature, from sources of the literature to evaluating it. The role of the research literature for psychology as a science, and the importance of reading academic journals as opposed to popular journals that may not adhere to scientific rigour are highlighted. Students are often intimidated by the vastness of the research literature in psychology and the related social sciences, therefore some of the major sources of the academic literature are provided, in order to give the student some visibility in the literature fog. The main journals in psychology are also dealt with, along with the major

electronic databases that are available. Some tips are also given for using the search engines of the major electronic databases. Finally, the chapter illustrates useful ways to organise the literature you have reviewed, in order to use time as effectively as possible.

Chapter 8, *How to Write a Good Introduction*, deals with the introduction chapter of your psychology project. It is highlighted how writing the literature review comprises of science and art. This section also deals with practical issues, such as what to include, and how long the literature review should be. It is demonstrated that length should not be used as a substitute for tight organisation and clear writing. Advice from Sternberg (2003) regarding the importance of reliability, validity and internal consistency in the literature review is also given. The chapter also presents five useful strategies to highlight the importance of your study, and focuses on the importance of making your hypotheses very explicit at the end of the introduction.

Chapter 9, *Sampling Considerations*, this brief chapter deals with the important issue of sampling for your research project. Sampling issues are important for both quantitative and qualitative methods of inquiry, but they are considered at different times during the research process. For example, in qualitative research they are generally most important during the simultaneous data analysis and data collection phase, while in quantitative research they are most important during the planning and design stage of the research process. Some popular probability and non-probability techniques are also illustrated.

Chapter 10, entitled *Sourcing Materials and Measures for Psychological Research*, provides useful information on how to source both published and unpublished tests and measures, and therefore to save valuable time for the undergraduate researcher of psychology. The chapter also deals with the very important issue of ethics for test users. Issues of reliability and validity are also dealt with in an attempt to aid the undergraduate student in becoming an objective and knowledgeable consumer of the vast number of psychological materials and measures that are available.
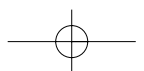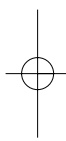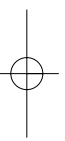
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THE PSYCHOLOGY PROJECT AS A MEANS OF ACQUIRING KNOWLEDGE

Objectives

On reading this chapter you should:

- understand how psychology operates as a scientific discipline;
- understand the role of the undergraduate psychology project as a means of acquiring knowledge; and
- be aware of the usefulness of viewing qualitative and quantitative research situations as opposite ends of a continuum, as opposed to two distinctly separate approaches to inquiry.

Overview

Section 1.1 deals broadly with how psychology operates as a scientific discipline, and demonstrates how science can be viewed as a way of thinking (which involves asking and answering questions) and to produce more knowledge. Section 1.2 goes on to consider the psychology project as a means of acquiring knowledge. Section 1.3 deals with acquiring knowledge in psychology both quantitatively and qualitatively – It is proposed that it is useful to view the two approaches as research situations on opposite ends of a continuum, as opposed to two distinct approaches to research and inquiry within psychology. Finally Section 1.4 gives a brief overview of the importance of your research question in choosing a quantitative or qualitative method of inquiry.

1.1   What is the Purpose of Science for Psychology

Often when people think of the word 'science', the first image that comes to mind is one of test tubes, computers and people in white laboratory coats. Some sciences, such as physics and chemistry, deal with the physical and

material world, for example with chemicals and electricity. These natural sciences or hard sciences are the basis of new technology, and therefore receive a lot of publicity.

The social and behavioural sciences, such as psychology, sociology and anthropology, involve the study of people, including their beliefs, attitudes and behaviours. People do not always associate these disciplines with the word science, and are sometimes referred to as 'soft sciences'. The reference to soft does not mean that these disciplines lack scientific rigour or that they are sloppy or limp it refers to their subject matter. Human behaviour and social life are far more fluid and transient than the tangible composites of chemistry and physics. However, the natural sciences such as physics or chemistry are not made more scientific than psychology by virtue of their laboratory equipment. It is important to note that although many processes of inquiry produce scientific tools and products, it is the process of inquiry or way of thinking that encapsulates the essence of science.

The essence of science is this way of thinking. Science therefore encompasses a process of formulating specific questions, and finding answers to these questions, in order to gain a better understanding of phenomenon. These gains in our understanding produce and increase our knowledge base. This is reiterated by Chalmers' (1990) statement that science aims to produce knowledge of the world. Therefore, scientific research in psychology involves posing a question and then initiating a systematic process to obtain valid answers to that question. This process is carried out utilising the scientific method, which serves the basis for scientific inquiry. The overall goal of psychology as a science is to understand behaviour and phenomenon. Using the scientific method, understanding comprises of four important goals of being able to *describe*, *predict*, *understand* and *control* behaviour or phenomenon.

1.2   The Psychology Project as a Means of Acquiring Knowledge

The psychology project is an integral component of the undergraduate student's curriculum. Psychology departments continue this long tradition of inquiry, through the requirement of the final year project. The role of the research project is therefore a means of inquiry; through formulating questions and finding answers to them, students add to their knowledge base. Figure 1.1 depicts the cyclical recursive nature of the research process, and reflects the thinking process whereby new information results in new knowledge and understanding.

Through this process of inquiry, the primary purpose of the undergraduate psychology project is to provide the student with practice in asking and answering questions. In carrying out your project, you gain valuable experience and training in planning, conducting, analysing and presenting an independent
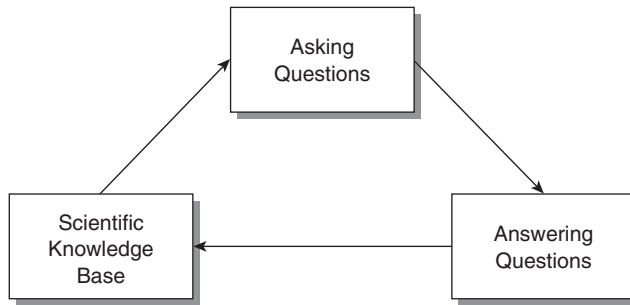
Figure 1.1   The scientific process of inquiry

research project. More specifically, you will develop the necessary skills involved in conducting library research, academic writing, designing research, collecting, analysing and interpreting data. Also, on a more general level, you will learn about the conventions and requirements of psychological research, which will equip you for post-graduate level research, and for communication within the scientific field of psychology.

1.3   Quantitative and Qualitative Methods of Inquiry

A method is a systematic approach to a piece of research. Psychologists use a wide range of methods of inquiry. There are a number of ways in which the methods used by psychologists are classified, the most common being between quantitative and qualitative methods. Camic, Rhodes, and Yardley (2004) note that it is time to abandon the view that what separates quantitative and qualitative approaches is whether to count or not to count, measure or not measure, sample or not sample. This view is supported by Shweder (1996, p. 179) because all social science research counts and measures in some way or another, the true difference is what to count and measure, and what one discovers.

It can therefore prove useful to view the quantitative and qualitative approaches to research in psychology as situations on opposite ends of a continuum representing the field of psychological research. Figure 1.2 illustrates that at one polar end of the continuum, there is pure quantitative research, apparent by clearly defined variables, theories and hypotheses. On the opposite end of the continuum is pure qualitative research in psychology, which relies on the subjective interpretation of cases and events. The qualitative and quantitative research undertaken by undergraduate students generally falls away from the polar ends of such a continuum. Quantitative research aims at having external as well as internal validity. Students also recognise the implications of very sterile laboratory conditions which are not transferable to real life settings, while qualitative research aims at making some contribution to

Research undertaken
by undergraduate
psychology students

Pure
Quantitative
Research
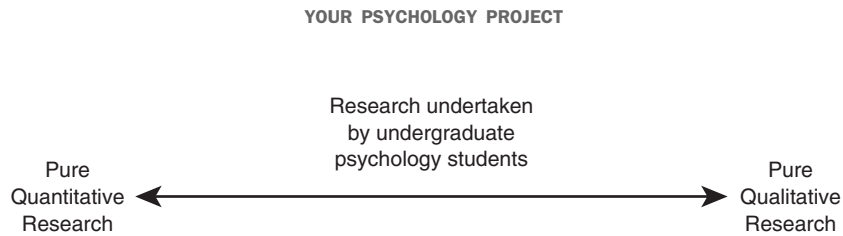
Pure
Qualitative
Research

Figure 1.2   Continuum of qualitative and quantitative research

theory and application in general as opposed to developing a new theory for
each case.

In between these two polar extremes, therefore, are numerous different
approaches to research. With this in mind it is easier to see how both
approaches may share some common ground with regard to psychology as a
science. Qualitative research that investigates cases, which may be utterances,
narratives, attitudes, phenomenon, events etc., are comparable to quantitative
research that investigates variables and constructs. This derivation arises from
the idea that cases have the same analysable features as variables, and hence a
shared scientific foundation exists. For example, cases can have varying charac-
teristics, just like characteristics of a variable can vary. Therefore it is possible to
investigate similarities and differences among such cases.

The debate as to whether quantitative and qualitative research methods can
be complimentary is ongoing. Although the two styles share basic principles of
science, the two approaches differ in significant ways. Each has its strengths
and weaknesses, I myself agree with King (1994) in that the best research
often combines features of both approaches, in order to build a more complete
picture of the phenomenon. For example, there may be two stages in the same
piece of research, with a qualitative approach yielding initial ideas which can
then by investigated via a quantitative approach. This also coincides with Todd,
(2003) who have also noted that although the two approaches have tradition-
ally been seen as competing paradigms, in recent years researchers have begun
to argue that the divide is artificial. That the distinction between quantitative
and qualitative can be a false one, is obvious when they are viewed as two
approaches to studying the same phenomena. However, the problem arises
when they provide different answers (Clark-Carter, 2004). Nonetheless, the
distinction can be a convenient device for classifying methods.

1.4   How to Choose the Appropriate Method of Inquiry: Quantitative or Qualitative?

Your choice of method of inquiry for your psychology project will largely rely
on your research aims, and your research question. The role of the research

question will be dealt with in more detail in later chapters, however, it is beneficial at this point to briefly deal with the issue. For example, if you have developed a research question that addresses causes of behaviour, it will be appropriate to carry out an experimental research project in order to answer your research question. On the other hand, if your aims are to describe a phenomena from the participant's own frame of reference, then qualitative methods would usually be appropriate.

Imagine your goal is to refine an area within psychology that has already been thoroughly researched, in this situation you might want to use a tightly controlled experimental design to investigate a cause and effect. However, if you are researching a new area within psychology, you might decide on a more exploratory qualitative method. Also, if you are interested in people's behaviour, but not in their beliefs and intentions, an experiment might be appropriate. Or if you want to know the meaning that the behaviour has for the participant, then you may want to employ a qualitative method of inquiry.

Undergraduate students often use quantitative methods of inquiry, such as the true experiments, quasi-experiments, correlational and differential research. The common qualitative methods of inquiry are semi-structured interviews, grounded theory and interpretative phenomenological analysis.

Summary

The essence of science is the systematic logic used in asking and answering questions, and producing more knowledge. The role of the research project is therefore a means of inquiry: through formulating questions and finding answers to them, students add to their knowledge base. It is useful to view quantitative and qualitative approaches to research as situations on opposite ends of a continuum, as opposed to two distinct approaches to research and inquiry in psychology. Whether you use a qualitative or quantitative method of inquiry for your project will largely depend on your research aims and your research question.

Further Reading

Camic, P., Rhodes, J., and Yardley, L. (2004) (eds) *Qualitative Research in Psychology: Expanding Perspectives in Methodology and Design*. Washington: APA.

Chalmers, A. (1990) *Science & its Fabrication*. Buckingham: Open University Press.

Ragin, C. (1987) *The Comparative Method: Moving Beyond Qualitative & Quantitative Strategies*. Berkeley & London: University of California Press.

Todd, Z., Nerlich, B., McKeown, S., and Clarke, D. (2004) (eds) *Mixing Methods in Psychology*. Hove & New York: Psychology Press, Taylor & Francis.