

Introduction: The Research Process

KEY POINTS IN THIS CHAPTER

- Research tells a story.
- Research raises questions as well as answering them.
- There is a vigorous debate within psychology about what constitutes legitimate research.
- This text takes a stance of methodological pluralism: of fitting the research method to the research question.
- The research process can be divided into four main stages: groundwork, measurement, design, and analysis/interpretation.

Research tells a story. Ideally, it resembles a detective story, which begins with a mystery and ends with its resolution. Researchers have a problem that they want to investigate; the story will reach its happy ending if they find a solution to that problem.

In practice, however, things aren't quite that simple, and the actual picture is closer to an adventure story, with many unexpected twists and turns. Often, the resolution of a research project is uncertain: it doesn't answer your initial research question, rather it tells you that you were asking the wrong question in the first place, or that the way that you went about answering it was misconceived. You struggle with discouragement and frustration; perhaps you come out of it feeling lucky to have survived the thing with your health and relationships (mostly) intact. So, if you enjoy research and are determined to make a contribution, you organize a sequel, in which you try out a better question with a better designed study, and so it goes on. Another way of putting

it is that there are stories within stories, or a continuing series of stories. Each individual research project tells one story, the series of projects conducted by a researcher or a research team forms a larger story, and the development of the whole research area a yet larger story. And this progression continues up to the level of the history of science and ideas over the centuries.

Another way that things are not so simple is that not all researchers agree on what constitutes a legitimate story. The situation in psychology is analogous to developments in literature. On the one hand is the traditional research story, rather like a Victorian novel, which has a clear beginning, middle, and end, and is expected to provide a more or less faithful reflection of reality. On the other hand, in this modern and postmodern age, we encounter narratives that do not follow an orderly chronological sequence or tie up neatly at the end. Furthermore, they may not claim to represent, or may even reject the idea of, reality.

These developments in literature and psychology reflect general intellectual developments during the last century, which have ramifications across many branches of European and English-speaking culture, both artistic and scientific. Our own field of interest, psychology in general and clinical psychology in particular, has been going through a vigorous debate about the nature of research – that is, which of these narratives we can call research and which are something else. Scholars from various corners of the discipline of psychology (e.g., Carlson, 1972; Driver-Linn, 2003; Gergen, 2001; Rogers, 1985; Sarbin, 1986) have questioned the validity and usefulness of psychology's version of the traditional story, which has been called "received-view" or "old-paradigm" research: essentially a quantitative, hypothetico-deductive approach, which relies on linear causal models. These and other critics call for the traditional approach to be replaced, or at least supplemented, by a more qualitative, discovery-oriented, nonlinear approach to research.

This debate, as Kimble (1984) pointed out, is a contemporary manifestation of William James's (1907) distinction between tough-minded and tender-minded ways of thinking, which is itself a translation into psychological terms of the old debate in philosophy over empiricism (Aristotle) versus rationalism (Plato). However, it is simplistic to view this debate as two-sided, with researchers being either in one camp or the other. It is better viewed as reflecting multiple underlying attitudes, for example, preferences for quantitative versus qualitative methods, attitudes towards exploratory versus confirmatory research questions, experimental control versus real-world relevance, and so on (Kimble, 1984).

One consequence of the lack of consensus about acceptable approaches to research is that people who are doing research for the first time may experience considerable anxiety – rather like the existential anxiety that accompanies a loss of meaning (Yalom, 1980). Undertaking a research project without being clear about what standards are to be used to evaluate it is an unsettling experience. Furthermore, there is a political dimension, since people in powerful positions in the academic world – journal editors, grant reviewers, and university professors – often adhere to the more traditional models.

This anxiety is exacerbated because the rules are not always made explicit, which may make beginning researchers feel, like Alice in Wonderland, that they are in a strange country with mysterious and arbitrary rules that are continually being changed. Researchers are constantly reminded, in various ways, to behave themselves properly in

accordance with these scientific rules; as the Red Queen said to Alice, “Look up, speak nicely and don’t twiddle your fingers all the time!” This experience can be understandably off-putting for people trying to enter the research wonderland for the first time.

We will reconsider these issues in Chapters 2, 4, and 5, which address the conceptual underpinnings of research. However, it is worth stating at the outset that our own stance is one of methodological pluralism. We don’t think that any single approach to research (or, indeed, that psychological research itself) has all the answers; thus, we believe that researchers need to have at their disposal a range of methods, appropriate to the problems being investigated. We have considerable sympathy with the critics of the received view, but are not convinced that the consequence of accepting their criticisms is to abandon traditional quantitative methods, or even research in general. Indeed, we feel that to do so would be a disaster for psychology and for society. Fortunately, we see increasing signs that it is possible to articulate a synthesis of the old- and new-paradigm traditions, that there are general principles common to rigorous research within whatever paradigm, and that it is possible to lay out an overall framework which organizes different approaches to research and clarifies the ways in which they can complement one another. Learning to do psychological research is partly a process of learning disciplined enquiry according to these principles within this general framework.

At the same time, there are rules of good practice specific to each type of research. We will base our methodological pluralism on a principle of appropriate methodologies (by analogy to the catch phrase “appropriate technology” in the economics of development). By this, we mean that the methods used should flow out of the research questions asked. Different questions lend themselves to different methods. To resume our literary analogy, like the different literary genres (mystery, romance, science fiction, autobiography, etc.), we can think of different research genres, such as survey research, randomized clinical trials, systematic case studies, and in-depth qualitative interview studies. Each of these research genres has different stories to tell and different rules of good practice.

We will attempt to clarify these general principles and specific rules of good practice, so that you will be in a better position to appreciate other people’s research. We hope that this will help you feel less intimidated about the prospect of conducting your own research. Also, there is value in making the rules of research explicit, so that one can challenge them more effectively, and thus contribute to the debate about how psychological research should be conducted.

Research is demanding: it does require clear and rigorous thought, as well as perseverance and stamina, but it is also fascinating and exciting, and, we hope, beneficial to the public that psychologists ultimately profess to serve.

The Research Process

This book is structured around a simple chronological framework, which we call the *research process*: that is, the sequence of steps that researchers go through during a project. The steps can be grouped into four major stages. Like all such frameworks, it is idealized, in that the stages are not always distinct and may interact with each other. However, we find it a useful way of thinking about how research is conducted, both one’s own and other people’s.

1. *Groundwork* (Chapter 3). This stage involves both scientific issues – choosing the topic, reviewing the literature, specifying the conceptual model, formulating the research questions – and also practical issues – resolving organizational, political, financial, or ethical problems. Sometimes researchers give the groundwork short shrift, being anxious to get on with the business of running the project itself. However, we will argue that devoting careful thought at this stage repays itself with interest during the course of the project.
2. *Measurement* (Chapters 4 to 7). Having formulated the research questions, the next step is to decide how to measure the psychological constructs of interest. We are here using the term “measurement” in its broadest sense, to encompass qualitative as well as quantitative approaches to data collection.
3. *Design* (Chapters 8 to 11). Research design issues concern when and from whom the data will be collected. For example: Who will the participants be? Will there be an experimental design with a control group? How many pre- and post-assessments will there be? What ethical concerns need to be addressed? These design issues can usually be considered independently of measurement issues.

The research questions, measurement procedures, and design together constitute the *research protocol*, the blueprint for the study. Having gone through these first three stages, researchers will usually conduct a small pilot study, whose results may cause them to rethink the protocol and possibly to conduct further pilots. Eventually the protocol is finalized; the last stage then consists of implementing it.

4. *Analysis, interpretation, and dissemination* (Chapter 12). The data are collected, analyzed, interpreted, written up, possibly published, and, let us hope, acted upon.

These stages in the research process constitute our framework for the book. However, we will also examine some key philosophical, professional, and political issues that are central to thinking about the whole research enterprise (Chapters 2, 4, and 5). Although following these arguments is not necessary for learning purely technical research skills, it is important to understand the wider context in which research is being conducted, as doing so will lead to more focused, coherent, and ultimately useful research programs. It is also important to keep in mind that doing research is much more than the exercise of a set of techniques; carrying out research involves imagination and empathy, problem-solving skills and critical thinking, and ethical reflection and social responsibility.

The first part of this background material is given in the next chapter, which analyzes the meaning of some of the terms we have so far left undefined, such as “research” itself. We will also discuss why anyone might want to engage in research at all.