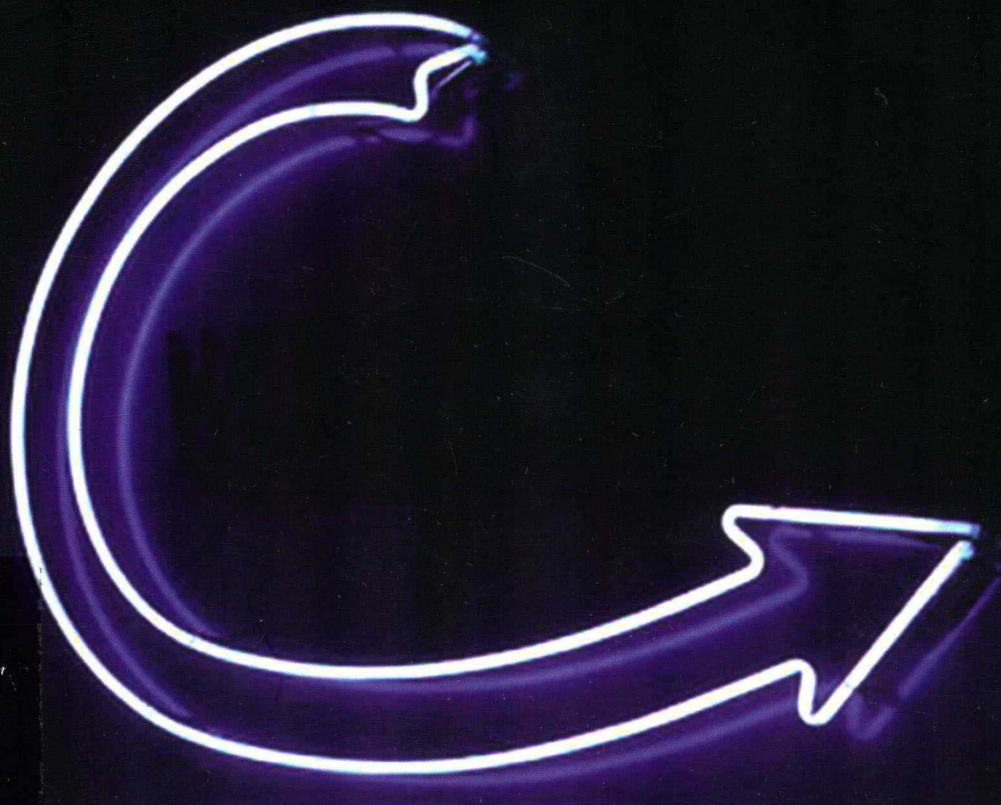


THE ESSENTIAL GUIDE TO

DOING YOUR RESEARCH PROJECT

2nd
EDITION

ZINA O'LEARY

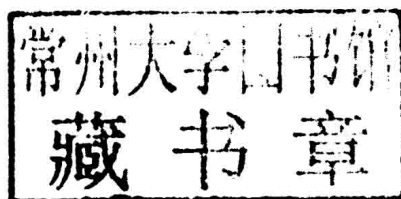


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About the Author

Zina O'Leary is an internationally recognized leader in research methodologies and has a keen interest in the application of research to evidence based decision making in both the private and public sector. She designs and coordinates research units at the University of Sydney (Business School and Graduate School of Government) and the Australia and New Zealand School of Government. Zina also has an extensive history as a consultant and research coordinator for the Centre for Environmental Health Development at the World Health Organization Collaborating Centre. She is the author of *Researching Real World Problems*, and *The Social Science Jargon Buster*.

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Taking the Leap into the Research World

If we knew what it was we were doing, it would not be called research, would it?

Albert Einstein

Chapter Preview

- The challenge of tackling a research project
- So what is this thing called research and why do it?
- Delving into the 'construct' of research
- Getting help along the way

The Challenge of Tackling a Research Project

It's actually quite exciting. Before you lies the opportunity to tackle your own research project! You get to drive the process and make the calls. But I get it – it can also be a bit daunting. After all, you're no expert on research and suddenly you are confronted with a need to manage the entire process: pick a topic, develop a researchable question, navigate your way through ethics, work with literature, develop a methodological approach, design methods, construct a coherent proposal, find respondents, collect data, analyse that data, *and* write it up – all within a timeframe that can seem completely unrealistic! You're not alone if you find yourself asking: How in the world am I going to manage that?

Well, believe it or not, the answer is pretty straightforward. Whether you are tackling a one-semester project at the end of your undergraduate degree or undertaking a PhD, the answer is the same. You do it one step at a time. There is a logic and rhythm to doing research, a logic and rhythm that you need not only to become familiar with, but also to be able to apply with some level of confidence and competence.

But, yes, it can be intimidating. Even if you do not consciously recognize it, 'doing' research represents a huge shift in your learning journey. Up until this

point you have probably been limited to being a knowledge consumer. The information is already out there – you just need to find it, memorize it, engage it, synthesize it, and, as your skills build, form opinions about it and maybe even critique it. But undertaking research is a whole new world. You move from being a knowledge consumer to a knowledge producer, someone who is charged with capturing and reporting on ‘truth’. And this means taking on a whole new realm of responsibility and gaining competence with a host of new skills. This is the challenge of ‘doing’, and not just knowing about, research.

So What is this Thing Called Research and Why Do It?

It is easy to think you’ve got a broad grasp on this concept we call ‘research’. After all, it’s something you probably do in your daily life on a regular basis. You do ‘research’ when you are deciding what car to buy. You do ‘research’ to help you determine what university you should attend. And, of course, you do ‘research’ when you have to find things out for an assignment.

But there is a distinct difference between this kind of everyday research and the construct of research that you’re about to tackle. The author Zora Neale Hurston said: ‘Research is formalized curiosity. It is poking and prying with a purpose’ (Hurston, 1942). And this is certainly one part of it. Scientific research demands formalization, systemization, and rigorous processes. But ‘formalized curiosity’ is also required in order to make a *new* contribution to knowledge. As the *Oxford English Dictionary* (2007) puts it, research is ‘the systematic study of materials and sources in order to establish facts and reach new conclusions’. So more than engaging in what might be haphazard processes to find out something *you* did not know, ‘scientific research’ is about systematically finding out something not known in the wider world. It is your opportunity to contribute to a body of knowledge.

If you think about it, that’s actually quite exciting. Through research, you have the capability to uncover or discover new knowledge, new knowledge that just might impact on real change. After all, knowledge for knowledge’s sake is a luxury many argue we cannot afford. Rarely is research undertaken simply to satisfy curiosity. Much more often we are after knowledge that can help us tackle pressing problems and issues – and unfortunately, in our world, this is not something we are short of.

The Need for Research Knowledge

I know that for some of you, the main driver for undertaking a research project is simply the requirement that exists within your degree. But beyond requirements, the potential to have your research make a contribution to the betterment of some situation should be a real motivator. As the physicist Richard Feynman said, ‘[w]e are at the very beginning of time for the human race. It is not unreasonable that we grapple with problems ... Our responsibility is to do

what we can, learn what we can, improve the solutions, and pass them on' (Feynman, 1997).

Research can help us improve our world, a world where problems abound. Governments, for example, are riddled with problems – in fact, governments themselves can be a problem. The environment is under stress. Our planet is turning into a giant greenhouse, there is salinity in the soil, and we do not have enough clean and safe drinking water to go around. In fact, we can't find a way to distribute money, food, or medicine so that everyone with a need gets a share. Health care and education are far from adequate and/or equitable, and from the global arena to the local playground we cannot seem to overcome racism, sexism, prejudice, or discrimination. Domestic violence and child abuse occur daily in every corner of the world, and child pornography is a multi-billion-dollar industry.

We also have to deal with the threat of terrorism as well as our fear of that threat. We poison ourselves daily with toxic chemicals – from alcohol, cigarettes, factories, and automobiles. Children are starving – some due to war and political upheaval, some from mass-media-induced anorexia. Meanwhile, schools struggle with violence, drugs, sexual and racial tension.

And then there is the workplace, where more than 6,000 people die every day owing to work-related accidents and disease (International Labour Organization, 2005). Meanwhile, 'survivors' deal with significant stress from the boss, massive bureaucratic inefficiencies, gross inequities, and the need to balance work with a thousand other responsibilities.

The Potential of Research Knowledge

So what is the role of research in solving such problems? Well, research is the process of gathering data in order to answer a particular question and this question will generally relate to a need for knowledge that can facilitate problem solving.

Does this then make research the answer to our problems? Well, unfortunately no – but research can be an instrumental part of problem resolution. Research can be a key tool in informed decision making. It can be central to determining what we should do, what we can do, how we will do it, and how well we have done it. Research may not be the answer to our problems, but it can supply some of the data necessary for us to begin to tackle the problems that challenge us all. Research can help us:

- *understand more about particular issues and problems* – including all the complexities, intricacies and implications thereof;
- *find workable solutions* – vision futures, explore possibilities;
- *work towards that solution* – implement real change;
- *evaluate success* – find out if problem-solving/change strategies have been successful;
- *offer robust recommendations* – as an extension of findings, recommendations can be used to influence practice, programmes and policy.

If you think about it, from local to global levels, all of these activities can be, and should be, informed by research. Research can be the key to finding out more: that is, uncovering and understanding the complexity of the issues that surround us. It can also help us in our quest for solutions. It can be key to assessing needs, visioning futures, and finding and assessing potential answers. It can also allow us to enact and learn from change through the use of 'action research' strategies. And finally, evaluative research can be central to monitoring and refining our attempts at problem solving. In short, research may not be the answer – but it is certainly a tool that can help us move forward.

Now as someone about to tackle a research project, it is important for you to keep in mind that while you might like to save the world's children from hunger, do away with the evils of terrorism, or put a stop to religious persecution, not many of you will be in a position to fully address these types of problems through your research processes. Generally speaking, conducting a research project will often see you engaged in issues, or aspects of issues, that, while still important and significant, are local, grounded, and practical. Even more so than projects that are overly grandiose and theoretical, there can be real value in projects that respond to real and tangible needs. Your goal should be to do what you can to add to a body of knowledge.

Delving into the 'Construct' of Research

Now that you have some sense of what research is and why you might be motivated to take it on, it is time to delve a bit deeper into the philosophical underpinning of the research game. You know, you're not alone if you are someone who questions whether or not this is really necessary. For many, the words 'philosophical underpinning' conjure up a place you simply do not want to go. But necessary it is – research is a fluid construct that potential researchers need to grapple with.

Only a few decades ago, the construct of research was without too much contention. Research was a technical enterprise that followed the rules of scientific method. The object of scientific inquiry might differ – i.e. chemistry, biology, physics, the social, etc. – but research was united by common objectives, logic, presuppositions and general methodological approaches. Social science fell under the scientific paradigm of the day (positivism) and worked within its assumptions.

Enter the latter half of the twentieth century, however, and many of the assumptions related to the production of knowledge, and therefore research, began to be questioned, critiqued, and even denigrated. The implication has been a shift from sole reliance on approaches that follow 'positivist' rules of scientific method reliant on hypothesis testing to more 'post-positivist' approaches that can be participative, collaborative, inductive, idiographic, and exploratory.

Ontology and Epistemology

Much of this shift can be understood through the exploration of two more words plenty of students would like to avoid. But here they are anyway. It is important to become familiar with these terms since they help us understand debates and diversity related to the production of knowledge, and consequently, the research processes you are about to engage in.

GLOSSARY TERMS

Ontology

The study of what exists, and how things that exist are understood and categorized.

Epistemology

How we come to have legitimate knowledge of the world; rules for knowing.

All right, so let's break this down. The main question addressed by ontology is 'What types of things actually exist?', while the main question addressed by epistemology is 'what are the rules for discovering what exists?' Now these two questions actually work in concert and have a tendency to lead to great debate. Because there are different rules for knowing (epistemologies), there can be quite varied conceptions of what exists or what is 'real' (ontology).

Consider the following. 'Empiricists' believe that all knowledge is limited to what can be observed by the senses (their epistemology). They therefore have a difficult time acknowledging anything that cannot be measured (their ontology). But there are other ways of knowing (competing epistemologies) which lead to differing conceptions of 'real' (alternate ontology). For example, those with religious epistemologies based on faith (rather than measurement) would say God is real even if you cannot physically touch Him or Her. Similarly, those with indigenous ways of knowing would accept myths and legends as truth. Postmodernists, however, may question whether there is any way we can find 'truth', and might suggest that 'truth' is a slippery concept that is always political.

In the world of social science research, the tension and debate between competing epistemologies and ontologies requires researchers to consider their own orientation to knowledge and truth. Even new researchers need to consider their positioning. For example, do you have an 'empirical' epistemology, which leads you to believe that the only things we can know are external and physically observable, i.e. that the truth is out there? And as a researcher, what limits will this put on your research? Or maybe you have a more 'postmodern' epistemology in which you believe that people play a large part in the 'construction' of knowledge, and truth is actually ambiguous, fluid, and relative. Certainly, holding that belief system will impact on how you go about 'fact finding'.

Okay, so let's say the Department of Education is reviewing its indicators for educational success of third-graders. Are you in the empiricist camp ready to review and measure traditional indicators of mathematical and English literacy? Or are you from a more postmodern camp ready to delve into the world of third-graders to get a genuine feel for experiences of worth, contentment, creativity and ingenuity?

Within social science research the debate that rages between such differing ways of knowing is enormous, leading to an overly defensive, emotive, and often unproductive divide between empiricists and more postmodern researchers. Both camps believe they hold the key to legitimate knowing, which unfortunately lessens the potential for them to work together down a path of holistic knowing.

Competing Positions

Let's pause here and have a quick look at some of the ways in which we can come to have an understanding of our world, and how a particular way of knowing might influence research processes. Now it would be nice if these terms were mutually exclusive – but given their varied disciplinary roots, many overlap, which, I know, can be confusing. I will give a brief overview here, but if you really want to get into the nitty-gritty of each of these 'isms', have a look at the readings recommended at the end of this chapter.

GLOSSARY TERMS

Realism

The view that the external world exists independently of perception. In other words, the truth is out there whether we can see and understand it or not.

Empiricism

The view that all knowledge is limited to what can be observed through the senses. The cornerstone of scientific method.

Positivism

The view that all true knowledge is scientific, and is best pursued by scientific method.

These three terms present relatively straightforward approaches to knowing in which the world has a single truth. In the conduct of research, they suggest that what we can know comes from sensory experience best served through scientific method. These three terms arguably represent the unquestioned landscape of research since the Enlightenment.