

RESEARCH METHODS



The Skills You Need Guide for Students

BOOK 4

RESEARCH METHODS

Skills You Need

This is one of a series of eBooks
by Skills You Need available for sale at:

www.skillsyouneed.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law.

Cover Illustration by Freepik Storyset

ISBN: 978-1-911084-32-7

Published by Skills You Need Ltd

© 2021 Skills You Need Ltd

This version was published in February 2021

CONTENTS

INTRODUCTION	5
1 AN INTRODUCTION TO RESEARCH METHODS	6
THE BASIC PRINCIPLES OF RESEARCH DESIGN	7
2 DESIGNING RESEARCH	18
APPROACHING RESEARCH: FIVE QUESTIONS	19
3 SAMPLING AND SAMPLE DESIGN	24
PRINCIPLES BEHIND CHOOSING A SAMPLE	25
SELECTING A SAMPLE	28
4 QUANTITATIVE AND QUALITATIVE RESEARCH METHODS	32
QUANTITATIVE RESEARCH	33
QUALITATIVE RESEARCH	35
ANALYSING QUALITATIVE DATA	37
5 SURVEYS AND SURVEY DESIGN	38
TYPES OF SURVEY	39
PRINCIPLES OF SURVEY AND QUESTIONNAIRE DESIGN	41
6 OBSERVATIONAL RESEARCH AND SECONDARY DATA	46
COLLECTING OBSERVATIONAL DATA	47
USING SECONDARY DATA	49
7 INTERVIEWS FOR RESEARCH	51
LEVEL OF STRUCTURE	52
FACE-TO-FACE OR TELEPHONE?	53
SKILLS NEEDED FOR EFFECTIVE INTERVIEWING	54
8 FOCUS GROUPS	56
USING FOCUS GROUPS	57
ORGANISING A FOCUS GROUP: SOME PRACTICAL THOUGHTS	58
ON THE DAY: RUNNING A FOCUS GROUP	59
POSSIBLE PROBLEMS	60

9	ANALYSING QUALITATIVE DATA	61
	SYSTEMS FOR ANALYSIS OF QUALITATIVE DATA	62
	COMPUTER-AIDED ANALYSIS	65
10	QUALITATIVE DATA FROM INTERACTIONS	66
	REPERTORY GRID ANALYSIS	67
	COGNITIVE MAPPING	69
11	ANALYSING QUANTITATIVE DATA: UNDERSTANDING YOUR DATA	71
	TYPES OF DATA	72
	SUMMARISING DATA: GROUPING AND VISUALISING	77
	MEASURES OF SPREAD: RANGE, VARIANCE AND STANDARD DEVIATION	82
	SKEW	83
12	ANALYSING QUANTITATIVE DATA: RELATIONSHIPS BETWEEN VARIABLES	84
	DEFINING ASSOCIATIONS	85
	THE DIFFERENCE BETWEEN CORRELATION AND CAUSATION	86
13	ANALYSING QUANTITATIVE DATA: HYPOTHESIS TESTING	102
	HYPOTHESIS TESTING	103
	TESTING RESEARCH HYPOTHESES	105
	CHOOSING THE RIGHT TEST	107
	ONE—OR TWO—TAILED TEST	108
	CALCULATING THE TEST STATISTIC	109
14	ANALYSING QUANTITATIVE DATA WITH MULTIPLE VARIABLES	112
	SIMPLIFYING ANALYSIS	113
	MULTIVARIATE ANALYSIS	115
	CONCLUSION	119

INTRODUCTION

Many undergraduate courses, and most postgraduate courses, require participants to carry out a substantial piece of original research, to be written up as a dissertation or thesis.

This eBook, one of a series designed for students, aims to help you design your research and choose the most appropriate methods to explore your research question. Together with its 'partner' book, the *Skills You Need Guide to Writing Your Dissertation or Thesis*, it aims to simplify the process of researching and then writing up your dissertation or thesis.

Its main focus is research methods in social sciences and humanities, including management research, although it may also be useful for healthcare research.

It does not cover laboratory research, or advanced computer modelling, such as that required for mathematics or physics, although some of the principles on research design in Chapter 2 may be useful.



This book is designed as an introduction to research methods. If you wish to explore particular methods in more detail, you are advised to consult a more rigorous academic textbook, or the study of the original researcher.

We hope that you find it useful in considering how to carry out your research.

The Skills You Need Team

1

AN INTRODUCTION TO RESEARCH METHODS

You are most likely to have to carry out a piece of research as part of a course of study, whether for an undergraduate or postgraduate degree.

However, there are also plenty of times when you may need to do some basic research as part of a job or a voluntary role, whether it is a simple survey to find out what customers think or a more advanced piece of research.

This chapter introduces some basic principles of research design and discusses how your view of the world affects your choice of methods and techniques.

**The full eBook
is available at
www.skillsyouneed.com**