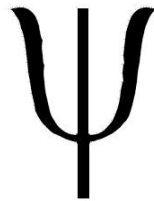




Academic Discipline: Psychology



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Psychology BSc (Anrh) Seicoleg a
Cwnsela BSc (Hons) Psychology and
Counselling

Module ECPS4003
Research Methods I

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Module Handbook
2018-19

Module ECPS4003 Research Methods I

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This handbook has been designed to provide you with the necessary information required for your progression throughout the module. It is very important that you keep this in a safe place as it is your essential guide to module content and the learning outcomes required to complete the module.

Good luck with your studies. If you have any queries regarding this module, please contact the module leader.

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ECPS4003 Research Methods I: Module Information

This is a Level 4 module and therefore is designed to provide you with the foundational skills which will be critical for future years of your degree programme. Through the Research Methods module you will develop your understanding of the concepts and principles of research design, ethics and statistical analysis. The skills you will learn in this module are absolutely essential in underpinning your progression throughout your degree.

Lectures for this module will introduce different types of research in psychology, as well as research design and ethics. Workshops will be more practically based and will allow you to practice techniques, use statistical packages to analyse data, and allow you to engage in peer discussions about the topics introduced within lectures.

It is essential that you do not miss any lectures or workshops for this module and that you have prepared adequately when it is required.

Module Requirements

MODULE CODE:	ECPS4003
TITLE:	Research Methods I
MODULE LEADER:	Stacey Coleman
LEVEL:	4
SEMESTER:	2
CREDITS:	20

AIM(S)

The aim of this module is to:

- Introduce students to quantitative and qualitative research design and analyses and their appropriate application, taking into consideration ethical principles of research.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- demonstrate an awareness of a number of qualitative and quantitative research methods and their applications
- understand the principles of ethical research
- recognise and use appropriate methods of collecting, describing and analysing research data.

Allocations of teaching to deliver the module are:

Activity type	Hours	Percentage
Scheduled learning: • Lectures = 10 hours • Workshops = 20 hours	30	15%
Independent learning	170	85%
Total	200	100%

This module will be assessed through four assessment components, each worth a specific percentage of your overall module mark.

1. Your first assessment will be a 1,500 word quantitative study report. You will be required to calculate and report a simple non-parametric analysis. (30%)
2. Your second assessment will be a second 1,500 word quantitative study report. This report will be focused on a parametric analysis using a simple experimental design, and you will be analysing provided data. (30%)
3. A one hour open book exam will enable students to demonstrate an awareness of quantitative research design issues and associated ethical considerations, and to demonstrate the ability to carry out basis analyses that describe simple research data. (30%)
4. You are required to submit a 500 word reflective log that demonstrates your awareness of the research topics and studies you have taken part in over the course of the year, including reference to their related ethical and design issues. (10%)

Please see the individual Assessment Proformas on the Research Methods I Moodle page for specific information regarding the assessment questions, requirements, and submission deadlines.

For this module you must submit all four pieces of work for assessment and record a mark for each of the four elements of greater than zero, but to pass the module you required a combined mark of 40% or higher.

Module Core Text and Wider Reading

Classification	Reading List entry	Electronic*
Essential	Brace, N., Kemp, R., & Snelgar, R. (2016). <i>SPSS for psychologists</i> (6 th ed.). Hants: Palgrave Macmillan.	☐
Essential	Coolican, H. (2014). <i>Research methods and statistics in psychology</i> (6 th ed.). London: Hodder & Stoughton.	☒
Further	Smyth, T.R. (2004). <i>The principles of writing in psychology</i> . Basingstoke: Palgrave Macmillan.	☐
Further	Harris, P. (2008). <i>Designing and reporting experiments in psychology</i> (3 rd ed.). Milton Keynes: Open University Press.	☒
Further	Beins, B.C., & Beins, A. M. (2012). <i>Effective writing in psychology: Papers, posters and presentations</i> . (2 nd ed.). Oxford: Blackwell.	☐

Lectures and Seminars

This is a Level 4 module and is intended to provide you with the foundational knowledge and skills that will be critical for future years of your degree programme.

This handbook clearly sets out the requirements for your individual learning and it is expected that students will engage in all readings set out for lecture and seminar preparation.

Readings

Readings and preparation for this module are set out in the Module Information section of this handbook and are essential. There are two essential textbooks for this module that each have their own place in regards to the topics that will be covered throughout this module. There are multiple copies available in the Townhill library of each book, and the *research methods and statistics* textbook is also available online via the University library system. Some weeks will require you to engage with a chapter, or a number of chapters, from these books; please ensure you are aware of what is being covered each week and prepare accordingly.

Readings beyond the core texts for this module can be found through the University library system. When a reading is not widely available (e.g., a book chapter) it will be made available to you on the module Moodle site. However, journal articles that are freely available through the University system will not be made available on Moodle: you will need to retrieve them for yourself.

Lectures and seminars can only provide you with a scaffold of information – it is your wider reading that will help you to develop a comprehensive understanding of the topics discussed in. It is suggested that you carry out the essential readings as we go along as this will enhance your understanding of the overall topics. It is often best to consolidate your learning by reading the text again; not only will this help you learn it will give you the information to digest any information provided in the lecture/seminar in your own way.

This module has been structured in such a way that the readings and lectures/workshops are integrated; someone who has prepared by carrying out the reading, attending the lecture and then reviewed the material should develop a good understanding of the material. A student who attends the lecture but does not carry out any of the readings will, in all likelihood, struggle to even understand what is being talked about in the lecture; they certainly will not develop the knowledge that will be required at more advance levels of their degree.

Please note: Lectures will start promptly at 9:05am on Mondays. Late entry will only be permitted at points where the academic staff feel it is appropriate, as it is unfair on students who have arrived on time when their lecture is disrupted by late-attending students. Please note that no materials will be repeated for those arriving late.

At **Level 4** it is expected that students will demonstrate the following qualities:

- Be able to write in well-formed English sentences, paragraphs and essays so as to present arguments in a clear and effective manner.
- Be able to speak in a direct, coherent and effective fashion.
- Be able to find relevant information to inform written and oral communication.
- Understand how to gain information through the use of library facilities.
- Be able to work individually.
- Begin to understand the theoretical concepts behind the forms of knowledge encountered in their study.
- Understand the difference between, and relationship between, primary and secondary data.
- Be able to acquire computer and other IT skills.

The following pages set out the lecture structure for this module. This handbook and the associated Moodle folder should be used to keep track of what is being covered each week and what you are required to do to prepare for lectures and seminars each week.

Module Series Information

Date	Lecture Title	Workshop Topic	Preparation (Coolican, 2014); unless otherwise noted	Time Allocated
Mon 28 th Jan	Introduction to module Measuring people	Variables and operational definitions	Ch. 1, 2 & 11	6 hours
Mon 4 th Feb	Experimental and non-experimental designs	Design issues in psychology	Ch. 3 & 5	6 hours
Mon 11 th Feb	Differences between samples	Data collection Chi ²	Ch. 17 & 18	6 hours
Mon 18 th Feb	Organising data	Frequencies Interpreting chi ² and reporting results	Ch. 13, 15 & 18	8 hours
Reading Week				
Mon 4 th Mar	Significance testing	Introduction to SPSS	Ch. 16	4 hours
Mon 11 th Mar	Validity and reliability in psychological research	Psychological tests and measurement scales	Ch. 4 & 8	6 hours
Mon 18 th Mar	Correlation and the t-test	Correlation and the t-test	Ch. 17 & 19	6 hours
Mon 25 th Mar	Introduction to qualitative research	Qualitative skills practical	Ch. 10 & 11	6 hours
Mon 1 st April	Qualitative research methods and analysis	Qualitative analysis	Ch. 10 & 12	4 hours
Easter Break – 3 weeks				
Mon 29 th April	Revision session Level 5 expectations	No scheduled workshop	None	0

Suggested plan for Assessment One: Chi² report

Task	What it entails	Time assigned for task
Data collection	Participating in a task to collect data – you will then be provided with the data to conduct the appropriate analysis	This will take place during scheduled workshops
Topic readings	Reading related to the area of research; basic articles/books and more advanced specific journal articles	Basic reading = 10 hours Advanced reading = 6 hours
Report first draft	Write main sections of report;	6 hours

	Introduction Method Results Discussion	
Data analysis	Simple descriptive statistical calculations; calculating and interpreting <i>chi-square</i>	This will be practiced during workshops and will require an additional 4 hours of independent work
Report second draft	Check for coherence of each section of the report; add abstract	4 hours
Report final draft	Constructing the version that is to be submitted, complete with citations and full reference list in APA style	4 hours
Proofread and check	Proofread for structure and errors, check for correct formatting and presentation	2 hours
Total allocated to assessment = 36 hours		

Suggested plan for Assessment Two: T-test report		
Task	What it entails	Time assigned for task
Topic readings	Reading related to the area of research; basic articles/books and more advanced specific journal articles	Basic reading = 10 hours Advanced reading = 6 hours
Report first draft	Write main sections of report; Introduction Method Results Discussion	6 hours
Data analysis	Enter data into SPSS; analyse data to report descriptive and inferential statistics	This will be practiced during workshops and will require an additional 4 hours of independent work
Report second draft	Check for coherence of each section of the report; add abstract	4 hours
Report final draft	Constructing the version that is to be submitted, complete with citations and full reference list in APA style	4 hours
Proofread and check	Proofread for structure and errors, check for correct formatting and presentation	2 hours
Total allocated to assessment = 36 hours		

Suggested plan for Assessment Three: Open Book Exam

Task	What it entails	Time assigned for task
Revisiting information from lectures/workshops	Finding and reading information related to the topics covered throughout the semester	26 hours
Total allocated to assessment = 26 hours		

Suggested plan for Assessment Four: Reflective Log

Task	What it entails	Time assigned for task
Recording studies you have participated in	Making notes following each study you take part in; record details of study, design flaws and ethical considerations	Approximately 6 hours in total across year
Consolidation of research design and ethics knowledge	Revisiting information delivered throughout the module and engaging with textbooks	5 hours
First draft of reflective log	Write up initial draft of reflection including details of a number of studies you have participated in	3 hours
Second draft	Refining reflection and including a solid conclusion	3 hours
Final draft of reflective log	Writing final version that will be submitted, complete with citations in the text and a full reference list in APA style	2 hours
Proofread and check	Proofread for structure and errors, check for correct formatting and presentation	1 hour
Total allocated to assessment = 20 hours		

Lecture One: Measuring People

During this first lecture you will be introduced to the requirements of the module, including attendance at lectures and workshops and the module assessments.

We will start to explore the nature of psychology as a science and assess the basic types of research methods and designs present in psychological research. We will end the lecture with a final discussion on the quantitative/qualitative debate and you will be considering how we could begin to explore a number of research questions using each method.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press **Chapters 1 & 2**

Workshop 1: Variables and Operational Definitions

During this workshop you will be looking at types of variables, samples and assessing the difference between qualitative and quantitative research methods. Using a number of different examples, you will learn how research questions are developed and the importance of using operational definitions and representative samples in your research.

Lecture Two: Experimental and Non-Experimental Designs

This week we will begin by exploring the role, and features, of experiments and we will discuss the difference between relationships between variables and differences between conditions in experiments. You will be introduced to the strengths and weaknesses of using certain types of designs in experimental settings, for example, related versus unrelated designs.

We will then explore a number of non-experimental designs in psychological research and will discuss the difference between ‘true’ experiments and field experiments. We will end the lecture with a brief introduction to qualitative research methods such as interviews.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapters 3 & 5.**

Additional Reading:

Harris, P. (2008). *Designing and reporting experiments in psychology*. (3rd ed.). Milton Keynes: Open University Press. (E-book also available.) **Chapter 10.**

Workshop 2: Design Issues in Psychology

This week you will be working in groups to discuss the strengths and weaknesses of a number of different designs that are commonly used in psychological research.

Lecture Three: Differences Between Samples

In this lecture you will be discussing the differences between parametric and non-parametric statistics and considering WHY this difference is important for the statistical test that we choose to use to analyse any data we collect. You will be introduced to some of the basic assumptions of parametric testing plus the alternative criteria of non-parametric testing. At the end of this lecture, we will start to look at the statistical calculation for a chi-square analysis and you will be practicing this in upcoming workshops.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapter 17 & 18**

Workshop Three: Data Collection / Chi-Square

For the first half of this workshop you will be engaging in a small research study in order to collect data to complete your first report assessment for this module.

For the remainder of the session you will start to use 'dummy data' to practice calculating simple descriptive statistics and begin to work through calculating the chi-square analysis you will need to report for this assessment. This analysis is required for you to infer statistical significance from the specific study data you will be analysing (more on this over the next two weeks!)

Lecture Four: Organising Data

In this lecture you will learn how we can begin to use statistics in psychology. You will be introduced to the different levels of measurement and different types of data that we can collect when we conduct quantitative research. We will look at how we can summarise a large amount of numbers/data and how we use measures of central tendency and dispersion to describe the sample we use in our research. You will learn the importance of using sample/descriptive statistics to describe samples based upon the data you have gathered and will be introduced to the concepts of normal distribution and standard deviation. We will end the lecture with a brief look at frequencies within larger sets of data.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapters 13, 15 & 18**

Workshop Four: Frequencies / Interpreting chi-square and reporting results

At the beginning of this workshop we will be looking again at why we use categorical variables in our research, and you will be introduced to frequency tables to show your data when collecting categorical data. We will then look at how to interpret the results of the chi-square analysis you have been calculating and how to present this appropriately in your full written report.

Lecture Five: Significance Testing

In this lecture you will learn more about the ways in which we can use statistics in psychology, moving away from descriptive statistics to developing an understanding of probability, hypothesis testing and inferential statistics. We will look at the difference between the experimental hypothesis and null hypothesis, and you will learn what we mean by aiming to 'reject the null'. We will then move on to looking at level of significance, errors, and power within statistical testing.

Essential Reading

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapter 16**

Workshop Five: Introduction to SPSS

In this workshop you will be introduced to the Statistical Package for the Social Sciences (SPSS); a form of software that we use in psychology to run statistical analyses on data. You will start to input simple descriptive data and will be shown how to run basic descriptive statistical tests.

Lecture Six: Validity and Reliability in Psychological Research

In this lecture you will be introduced to the concept of psychometric standards in psychological research. You will learn about the importance of validity in experimental settings and in qualitative research, and will also discuss the importance of choosing reliable and valid measures when conducting research using surveys, for example. To end the lecture we will be looking at how validity and reliability can be measured and you will continue this in today's workshop.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapters 4 & 8**

Workshop Six: Psychological Tests and Measurement Scales / Data Collection

During this week's workshop you will be completing a number of scales, tests and/or questionnaires in order to practice scoring of psychological scales. You will be introduced to the concept of measuring reliability and validity and we will discuss why standardisation is important when choosing a scale to use in research. For the second half of the workshop, you will take part in a small study to collect data for the second report you will be submitting for this module.

Lecture Seven: Correlation and the T-test

During this week's lecture you will be introduced to the statistical analyses of correlation and the t-test. We will be exploring the measurements and types of data that are required to be able to conduct these analyses, and will discuss the strengths and limitations of using each form of analysis. We will revisit significance levels and put this into context of explaining whether results are significant or non-significant, and whether we have a relationship or a difference. We will end the lecture with a brief overview of the common uses of these types of tests and we will discuss what CAN'T be assumed when using each of the types of analysis, too.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapters 17 & 19**

Workshop Seven: Correlation and the T-test

You will be using SPSS to practice both the correlation analysis and the t-test analysis, and we will begin to look at how we interpret the results of each of these tests.

Lecture Eight: Introduction to Qualitative Research

During this lecture we will be exploring alternatives to the traditional scientific method in psychological research and debating the problem with quantification, and you will then be introduced to qualitative research methods. We will consider the role qualitative research has to play in psychology and explore a number of different qualitative methods, including interviews and focus groups.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapter 10 & 11**

Workshop Eight: Qualitative Skills Practical

During this workshop you will be engaging in the practice of interviewing skills. You will be required to work in groups to create your own research questions (keeping in mind that these must fit a qualitative design), and you will then be using these questions to gather your 'data' from your peers.

Lecture Nine: Qualitative Research Methods and Analysis

We will continue to look at qualitative research methods this week and we will be exploring the effects of interpersonal variables when gathering and analysing qualitative data. You will then be introduced to the ways in which qualitative data may be analysed, specifically focusing on interview and focus group data (which are common methods of data collection employed for final year dissertations). We will end the lecture with a discussion about the reliability and validity of qualitative methods.

Essential Reading:

Coolican, H. (2014). *Research methods and statistics in psychology*. (6th ed.). London: Psychology Press. **Chapter 12**

Workshop Nine: Qualitative Analysis

For the entirety of this workshop you will be working through the steps of thematic analysis on a provided transcript. You are required to follow the steps of thematic analysis and attempt to analyse the information that has been presented from the data in the transcript. As part of a formative assessment for this module, this transcript will then be collected at the end of the session and feedback will be provided to each individual on the analysis you have conducted.

Lecture Ten: Revision Session

This week we will be using the lecture to revisit key areas covered throughout the module in preparation for your upcoming exam. You should use this lecture to clarify any issues you have, ask any questions and work with your peers to formulate a realistic plan for revising thoroughly for this exam.

Workshop Ten: None scheduled

There will be no workshops this week.