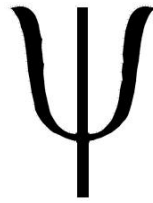




Academic Discipline: Psychology and Counselling



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BSc (Hons) Psychology and Counselling

Module ECPS4003

Research Methods I

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Module Handbook

2021-22

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. Your on-campus sessions will be more practically based and will allow you to discuss concepts of research methods with your peers and get involved in the more interactive elements of research methods learning. The aim of these sessions is to provide you with additional knowledge so, whilst some of the topics covered may be similar to lecture content, these are not and should not be seen as a repeat of the lecture information.

It is essential that you do not miss any lectures or the on-campus sessions for this module and that you have prepared adequately when it is required. If there are ever any questions that you have in this module – ask them! It is highly likely that another student is also holding back from asking the same question and without questions being asked we cannot gauge what topics require further exploration.

ECPS4003 Research Methods I: Module Requirements

Module Code: ECPS4003
Title: Research Methods I
Module Leader: Stacey Coleman
Level: 5
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:

1. Demonstrate an awareness of a number of qualitative and quantitative research methods and their applications
 2. 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. A 1,500 word quantitative study report. You will be required to calculate and report a simple non-parametric analysis. (30%)
2. 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. 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 first semester, 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 three elements of greater than zero, but to pass the module you require a combined mark of 40% or higher.

Please note that this module is a core module and, therefore, you must pass this module in order to progress with your degree.

Module Core Text and Wider Reading

Classification	Reading List Entry	Electronic*
Essential	Brace, N., Kemp, R., & Snelgar, R. (2016). <i>SPSS for psychologists</i> . (6th ed.). Hants: Palgrave Macmillan	☐
Essential	Coolican, H. (2014). <i>Research methods and statistics in psychology</i> . (6th 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> . (3rd ed.). Milton Keynes: Open University Press.	☒
Further	Beins, B.C., & Beins, A. M. (2012). <i>Effective writing in psychology: Papers, posters and presentations</i> . (2nd 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 session 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 regard to the topics that will be covered throughout this module. There are multiple copies available in the 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 be provided with the reference and 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/session content are integrated; someone who has prepared by carrying out the reading, watched the lecture recording and then reviewed the material should develop a good understanding of the material. A student who watches the lecture recording 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.

While the scheduled on-campus sessions are essential, and will introduce you to the package of SPSS, it is also expected that you practice using the software as much as possible either at home or on campus. It has been shown experimentally that the best learning occurs

cognitively when you reach a problem solution yourself. Please try to remember this when you feel stuck or frustrated (or both) when practising some of the statistical analyses you will encounter over the next few years with us. Read the handouts carefully and in order. It is often a case of slowing down, going back over the steps of the procedure and making sure you haven't missed something out. It is much less useful to simply ask for help and an answer – you are much less likely to remember the solution or understand it that way! Therefore, when you are working practically try to find a solution before you ask for help.

The worksheets for all statistical analyses have been created to give you a good understanding of the steps of the analysis and the way in which results should be reported, but it is the combination of what you should learn through the lecture content, your engagement during the on-campus sessions **and** your commitment to practising and revisiting content outside of your scheduled time with us that will determine how well you grasp research methods in psychology overall.

A message about Research Methods I from the Module Leader

Research Methods, in general, is a module that many students approach in the wrong way; it is a 'dry' topic, it is difficult, it involves incomprehensible equations... these are common assumptions and are often incorrect if you approach it in the right way.

Understanding how research works, from study inception to analyses, can give a whole new level of understanding to the exploration of every topic you cover. However, you need to be systematic and methodical in your approach to studying and understanding research methods; dipping in and out of the subject as and when you think something is interesting and/or important for you to learn for your assessment rarely works, and for this module certainly will not work.

The Module Series Information page of this document sets out what you will be doing across the course of this module and the suggested readings that go with each session. Before you engage in the readings for this module, please consider three important points:

1. The 'core' SPSS book recommended for your readings is Brace et al. (2012), but if you prefer a different text that is fine (for example, some people prefer the Pallant [2010] over the Brace et al., text on using SPSS), just so long as it contains a similar level of coverage to the core text (you are not going to get the same level of understanding of a research methods and statistics book in a 'research for dummies' book). The Coolican (2014) and the Pallant books are available in our online library system whilst the Brace et al., book is only available as a hard copy, but your choices regarding access to these books should only play a small part in your choice.
2. The level of the readings and the classes for this module assume some degree of prior reading and initiative on your behalf; there is not enough hours to be taught

everything that can possibly be taught in relation to research methods by me lecturing you! Engagement is critical and is key. As long as you approach things in a logical, linear way then you should have no problems with this module.

3. If you do struggle with this module, if you hate statistics, if you don't understand design... that is even more of a reason for you to attend and engage with the readings, lectures and on-campus sessions of this module. Research lies at the heart of all areas of psychology. Anywhere you go on to work, whether it be in science, mental health support, or an office job, you will (or should) always use evidence-based policy and procedures. Research tells us what works and what does not work. It is a skill you should master and then use for the rest of your life.

Your developing academic skills and research knowledge will be assessed through two academic reports, an exam and a reflective log. For each written assignment you will receive guidance on the academic proforma which will be posted on Moodle and you will be expected to demonstrate appropriate academic standards and referencing in each assessment component.

In the Module Information section of this handbook you will see that time has been allocated to each of the summative assessments for this module. What you will notice is there are a lot of elements within this module that require your time; don't let this scare you! The purpose of providing you with this information is to ultimately help and certainly not to hinder. The time allocated has been calculated to include the readings as well as the additional guidance that you can engage with each week. In addition, time has been calculated for the completion of each of the four assessments for this module and broken down into specific tasks; this should provide you with ample time to complete your assessments but also emphasises the need to plan ahead and ensure that you spend the required time on your assessed work.

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

Assessment Criteria at Level 4

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

- Achievement at Level 4 reflects the ability to use relevant understanding, methods and skills to address problems that are well defined but complex and non-routine. It includes taking responsibility for overall courses of action as well as exercising autonomy and judgement within broad parameters. It also reflects understanding of different perspectives or approaches within an area of study or work.
- Use practical, theoretical or technical understanding to address problems that are well defined but complex and non-routine.
- Analyse, interpret and evaluate relevant information and ideas.
- Be aware of the nature and approximate scope of the area of study or work.
- Have an informed awareness of different perspectives or approaches within the area of study or work.
- Address problems that are complex and non-routine while normally well-defined.
- Identify, adapt and use appropriate methods and skills.
- Initiate and use appropriate investigation to inform actions.
- Review the effectiveness and appropriateness of methods, actions and results.
- Take responsibility for courses of action, including where relevant, responsibility for the work of others.
- Exercise autonomy and judgement within broad but generally well-defined parameters

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 prior to watching the recorded lectures each week and prior to attendance at the scheduled on-campus sessions for this module.

Module Series Information and Assessment Plans

Week	Lecture Content	Preparation		Time Allocated
		Readings	Additional guidance	
1	Introduction to research methods	Coolican 6 th ed: Ch. 1, 2, 4 Howitt 5 th ed: Ch. 1, 2, 3 Psychology house rules document		4 hours
2	Ethics	Coolican 6 th ed: Ch. 11 Howitt 5 th ed: Ch. 8		4 hours
3	Experimental, non-experimental and quasi-experimental designs	Coolican 6 th ed: Ch. 3, 5 Howitt 5 th ed: Ch. 9, 10, 11		4 hours
4	Quantitative data: Parametric and non-parametric analyses	Coolican 6 th ed: Ch. 13		2 hours
Reading Week				
5	Using data and testing for significance	Coolican 6 th ed: Ch. 8, 13, 14, 15, 16 Pallant: Ch. 7, 10 Psychology house rules document	Panopto recordings: Downloading SPSS Introduction to SPSS Descriptive statistics	8 hours
6	Testing for differences	Coolican 6 th ed: Ch. 14, 17 SPSS text on t-test (Pallant = Ch. 17)	Panopto recordings on t-tests to work on SPSS and worksheets on Moodle	4 hours
7	Correlational studies	Coolican 6 th ed: Ch. 14, 19 SPSS text on correlation (Pallant = Ch. 11)	Panopto recordings on correlation to work on SPSS and worksheets on Moodle	4 hours
8	Introduction to qualitative research	Braun and Clarke: Ch. 4, 5		4 hours
9	Qualitative data analysis 1	Braun and Clarke: Ch. 4, 5		4 hours
10	Qualitative data analysis 2	Panopto video on thematic analysis with PDF's of stages on Moodle Additional exam revision guidance session		2 hours
Total Reading= 40 hours				

Suggested plan for Assessment One: Non-parametric 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
Data analysis	Simple descriptive statistical calculations; calculating and interpreting <i>chi-square</i>	This will be introduced to you during your on-campus session and will require an additional 4 hours of independent work
Report first draft	Write main sections of report; Introduction Method Results Discussion	6 hours
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, and map/table of themes included in appendix	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: Parametric 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 require around 14 hours of independent work engaging with the documents and worksheets provided on Moodle – this is on top of time that has been allocated for practising the analysis as set out in the module series information section above
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, and all appendices included	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: 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	2 hours
Consolidation of research design and ethics knowledge	Revisiting information delivered throughout the module and engaging with textbooks	4 hours
First draft of reflective log	Write up initial draft of reflection including details of a number of studies you have participated in	4 hours
Second draft	Refining reflection and including a solid conclusion	2 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	2 hours
Total allocated to assessment = 16 hours		

Suggested plan for Assessment Four: 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	32 hours
Total allocated to assessment = 32 hours		

NOTE: The allocated times above are **suggested** times and should be used as a guide only. Essentially, these are the minimum number of hours you should be spending on each task. You may find that you are quicker or slower at certain tasks compared to other tasks. Likewise, you should not stop doing something if the number of suggested allocated hours has come to an end, especially if you still have assessments to finish, have further reading to do, or have further revision to complete.

Total Independent Study = 170 hours

Week One

Introduction to Research Methods

The lecture this week will begin with an introduction and overview of research methods in psychology. We will explore what is meant by the scientific method and discuss information related to measurement in social science research, variables and samples, and the difference between qualitative and quantitative research methods.

On-campus session 1

In the first half of this session, we will be looking at APA report writing style and you will be expected to have engaged with the Psychology and Counselling house rules document. You will also be receiving important information about the formative and summative assessments for this module. We will start to look at the structure of research articles and discuss how to effectively collate information from multiple articles to begin to form a good literature review.

During the afternoon sessions, we will start to look at the concept of validity in psychological research and engage in discussion regarding appropriate methods of collecting data for research. To end today's session, we will start to discuss how we move from 'ideas' to specific hypotheses. You will be discussing how appropriate research questions and hypotheses can be developed and guided by the literature you have engaged with as well as the type of study design being employed.

Week Two

Ethics

This week will focus on ethical considerations in psychology as a profession and, specifically, in psychological research. The main focus will be on the use of human participants in psychological research, and we will cover topics related to confidentiality, anonymity, informed consent, privacy, deception, debriefing, protection from harm (including physical and mental stress and discomfort), right to withdraw, the power of researchers, and involuntary participation. We will also focus on the role of the British Psychological Society (BPS) – the governing body for Psychology in the UK – and look at the key ethical guidelines and principles that must be adhered to when engaging in research or working with clients.

Week Three

Experimental, non-experimental and quasi-experimental designs

We will start to explore the role and features of experiments this week and will discuss the difference between designs that aim to explore relationships between variables and designs that look to determine differences between conditions in experiments. You will be introduced to the strengths and weaknesses of using certain types of designs in experimental settings and how to construct independent and dependent variables while avoiding confounds. We will look at the ways in which we can use non-experimental designs to answer our research questions and will end the lecture with a look at quasi-experimental designs; a type of design that aims to be as controlled as possible but is often restricted and so can't be considered a true experimental study.

On-campus session 2

Today you will be taking on the role of an ethics panel member in order to review and judge the suitability of various hypothetical and real research study applications in terms of the ethical concerns associated with them, whether the researchers have adequately explained and dealt with any ethical issues, and finally providing an outcome as to whether you think the study could be approved to run.

This afternoon's sessions will be spent providing you with key information for your first research report assessment for this module. You will engage in the data collection for the non-parametric report and begin to structure the method section based upon the procedure of the 'study'. We will end the session with an introduction to the calculation of the chi-square analysis required for this report; this report requires you to hand calculate the analysis and this is an incredibly important skill for you to learn.

Week Four

Quantitative Data: Parametric and Non-Parametric Analyses

This week's lecture will cover the various types of data that can be collected in quantitative research studies. From this, we will then focus particularly on the differences between parametric and nonparametric statistics and consider 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 nonparametric 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 your next on-campus session.

Week Five

Using Data and Testing for Significance

In this lecture we will look at the ways in which we can use statistics in psychology. We will look at different types of data that we can collect when we conduct quantitative research, and we will focus upon different levels of measurement. We will then look at how we can summarise a large amount of numbers/data and recap on 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 this section with a brief look at frequencies within larger sets of data. You will also 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 'rejecting the null'. We will then move on to looking at level of significance, errors, sample size, and power within statistical testing.

On-campus session 3

The main focus of today's session will be on the second research report assessment for this module. There are a number of different things that are required for this report so the sessions today will be scheduled as follows:

1 & 2: Discussion of how to select appropriate measures for data collection and how to write up a materials section in full. You should have already prepared for this session by spending some time looking at the type of measures that can be used to assess personality and tasks to collect memory recall data, and you will discuss with your peers what you consider to be the most appropriate methods and measures to use to collect data for your research project/report. You will practice writing up a materials section for a provided psychological measure.

3 & 4: During this afternoon's sessions you will be given time to work on putting together the method section for report 2. The discussions from this morning's sessions will help guide you and you will be provided with further specific information on the study and data collection methods to report. We will end with a brief discussion on the difference between exploring relationships between variables and determining differences between groups, and this information will be important in the choice you make regarding the analysis you conduct for report 2.

Week Six

Testing for Differences

This week's lecture will focus on testing between two samples, and you will be introduced to the statistical analysis of the t-test. We will be exploring the measurements and types of data that are required to be able to conduct this type of analysis and will discuss the strengths and limitations of using a t-test analysis. We will revisit significance levels and put this into context of explaining whether results are significant or non-significant, and whether we can observe a **difference** between levels of our variables. We will end the lecture with a brief overview of the common uses of this type of test and we will discuss what CAN'T be interpreted through conducting a t-test analysis, too.

You will be using SPSS to practice the t-test analysis and we will begin to look at how we interpret the results of this statistical test. A range of tutorial videos and worksheets will also be provided on Moodle for you to practice using SPSS to conduct t-test analyses and interpretations of the data.

Week Seven

Correlational Studies

During this week's lecture you will be introduced to the design and statistical analysis of correlation. We will be exploring the measurements and types of data that are required to be able to conduct this type of non-experimental analysis and will discuss the strengths and limitations of using a correlation 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** between variables. We will end the lecture with a brief overview of the common uses of this type of test and we will discuss what CAN'T be assumed when using the correlation analysis, too.

You will be using SPSS to practice the correlation analysis and begin to look at how we interpret the results of this statistical test. A range of tutorial videos and worksheets will also be provided on Moodle for you to practice using SPSS to conduct the correlation analysis and interpret the data appropriately.

Week Eight

Introduction to Qualitative Research

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

On-campus session 4

1 & 2: During the morning sessions you will be engaging in discussion with your class about the fundamentals of qualitative research. You will start to consider the ethical issues associated with conducting qualitative research and, although many of the same ethical considerations are similar in quantitative and qualitative research (e.g., informed consent), you will be considering what unique ethical challenges arise for researchers to consider when conducting qualitative research. We will end the morning sessions with groupwork that will allow you to start considering appropriate research topics and questions that can be explored using qualitative research

3 & 4: We will be covering the methods of interviews and focus groups in this afternoon's session. You will be working together to start to construct a one-to-one interview schedule that you will then use to 'collect' data from your peers. We will then move on to consider the difference in interviews and focus groups and will work in groups to demonstrate the things that can go wrong when using a focus group methodology.

Week Nine

Qualitative Data Analysis 1

This week we will start to look at the ways in which qualitative data can be analysed, and we will be starting with Thematic Analysis. You will be introduced to the processes and procedures involved in thematic analysis and start to consider how different types of qualitative data can be analysed through the development of themes.

Week Ten

Qualitative Data Analysis 2

During the final lecture of this module, you will be introduced to a number of different data analysis techniques that can be used to analyse various forms of qualitative data. These include Interpretative Phenomenological Analysis (IPA), grounded theory, discourse analysis, conversation analysis, and narrative analysis.

To end this lecture, you will also be given an additional opportunity to engage in an online revision session this week in preparation for the upcoming Research Methods I exam. Please ensure you make every effort to attend this session.