



PSY 863

Research Design and Evaluation

S1 Day 2015

Department of Psychology

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General Information

Unit convenor and teaching staff

Prof Mike Jones

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C3A516

Credit points

4

Prerequisites

Admission to DClinPsych or MClInPsych or DClinNeuro or MClInNeuro or DOrgPsych or MOrgPsych or PGDipOrgBeh

Corequisites

Co-badged status

Unit description

This unit exposes students to a range of advanced quantitative statistical methods that are useful in research in psychology. The intent of the unit is to explain underlying concepts rather than teach deeper technical detail. Students completing the unit should have an appreciation of when a variety of advanced statistical methods are appropriate, how to interpret the results of these analyses and how to assess publications that have used these methods. Content includes a refresher on statistical study design, critical appraisal of published research, common data analysis methods and a number of methods for longitudinal and complex-sampled data as well as meta-analysis.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

- Design a study and formulate appropriate hypotheses and ways of testing them
- Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered
- Read research literature in an informed and sophisticated manner
- Reach a basic level of competence in handling SPSS commands and procedures
- Draw on a selection of quantitative analysis methods/approaches/techniques

Knowledgeably apply the specific analytic methods they used in their optional modules

Assessment Tasks

Name	Weighting	Due
Study design project	35%	23 May
Take-home exam	35%	25 April
Invigilated exam	30%	Exam period

Study design project

Due: **23 May**

Weighting: **35%**

The sample size and study design compulsory topics will be applied to a practical project that accounts for 35% of the overall course grade. Details of the project will be posted separately on iLearn but will take the form of a competitive grant research proposal.

On successful completion you will be able to:

- Design a study and formulate appropriate hypotheses and ways of testing them

Take-home exam

Due: **25 April**

Weighting: **35%**

The data manipulation and missing value compulsory topics will be assessed via a take-home exam that will account for 35% of the overall course grade. The exam will be available and completed in the form of an online iLearn quiz. The exam may involve multiple choice, fill-in-the-blank or short answer questions.

On successful completion you will be able to:

- Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered
- Read research literature in an informed and sophisticated manner
- Reach a basic level of competence in handling SPSS commands and procedures
- Draw on a selection of quantitative analysis methods/approaches/techniques

Invigilated exam

Due: **Exam period**

Weighting: **30%**

This may be composed of multiple choice and/or short answer style questions and will be held in the regular exam period after week 13 (exact date/time/location to be advised by the university). The exam will cover all of the elective topics plus critical appraisal and students will choose to answer questions on any two topics.

On successful completion you will be able to:

- Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered
- Reach a basic level of competence in handling SPSS commands and procedures
- Knowledgeably apply the specific analytic methods they used in their optional modules

Delivery and Resources

The unit is largely delivered by downloadable video lectures that combine a classical lecture with demonstration of practical application using SPSS and are available for download at the start of semester. Only one compulsory topic is delivered by face-to-face lecture while all subsequent compulsory modules and all student-selected modules have their core content delivered by video lecture. All compulsory topics do, however, have one-hour face-to-face tutorial sessions at which attendance is strongly recommended but not compulsory. All student-selected modules have an associated in-person workshop at which attendance is very strongly recommended but also not compulsory. The purpose of the workshops is to provide an opportunity to address unresolved questions prior to the final exam. **Important note:** *To achieve this it will be necessary for each student to have viewed the module video and thought about their project prior to attending the workshop.*

Unit Schedule

Week	Lecture date	Topic	Milestone
1	25-Feb	Admin & sample size/design	
2	4-Mar	No class	
3	11-Mar	Compulsory topic tutorials*	
4	18-Mar	No class	
5	25-Mar	Elective topic workshops*	

6	1-Apr	Elective topic workshops*	
	6-17 April	Mid-semester break	Take-home exam due
7	22-Apr	Project advising**	
8	29-Apr	No class	
9	6-May	No class	
10	13-May	No class	
11	20-May	No class	Project report due
12	27-June	No class	
13	3-June	Exam revision class [§]	

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy <http://mq.edu.au/policy/docs/grading/policy.html>

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit <http://informatics.mq.edu.au/help/>.

When using the University's IT, you must adhere to the [Acceptable Use Policy](#). The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered
- Read research literature in an informed and sophisticated manner
- Draw on a selection of quantitative analysis methods/approaches/techniques
- Knowledgeably apply the specific analytic methods they used in their optional modules

Assessment tasks

- Study design project
- Invigilated exam

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Design a study and formulate appropriate hypotheses and ways of testing them
- Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered
- Read research literature in an informed and sophisticated manner
- Reach a basic level of competence in handling SPSS commands and procedures
- Draw on a selection of quantitative analysis methods/approaches/techniques
- Knowledgeably apply the specific analytic methods they used in their optional modules

Assessment tasks

- Study design project
- Take-home exam
- Invigilated exam

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Design a study and formulate appropriate hypotheses and ways of testing them
- Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered

Assessment tasks

- Study design project
- Take-home exam

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Design a study and formulate appropriate hypotheses and ways of testing them
- Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered

Assessment task

- Study design project

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Design a study and formulate appropriate hypotheses and ways of testing them
- Read research literature in an informed and sophisticated manner

Assessment task

- Study design project