

PS906-15 Experimental Design and Data Collection

24/25

Department

Psychology

Level

Taught Postgraduate Level

Module leader

Michaela Gummerum

Credit value

15

Module duration

10 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module will familiarize students with the principles of good experimental and non-experimental design

Module aims

- To familiarize students with the principles of good experimental and non-experimental design, and the various ways in which empirical data is collected
- To deepen students' understanding of the best ways to address different kinds of research problems and questions
- To teach students how to critically assess research articles

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

1: Validity

- 2: Randomized designs
- 3: Reliability
- 4: Non-randomised designs
- 5: Sampling
- 6: Ethical considerations
- 7: Meta-analysis
- 8: Observational methods
- 9: Survey and questionnaire studies
- 10: Case studies and longitudinal research

Learning outcomes

By the end of the module, students should be able to:

- Assess the advantages and uses of alternative experimental and non-experimental designs
- Design a logically sound experiment to test a hypothesis
- Identify common errors in poorly designed experiments
- Outline the key techniques for collecting quantitative and qualitative data
- Design a protocol for collecting non-experimental data to address a research question

Indicative reading list

Rosenthal, R., & Rosnow, R.L. (2008). *Essentials of behavioral research* (3rd Ed). McGraw-Hill: New York.

Howell, D. C. (2017). *Statistical methods for psychology* (9th ed.). Belmont, CA: Duxbury Press.

Todman, J. B., & Dugard, P. (2001). *Single-case and small-N experimental designs*. Mahwah, NJ: Erlbaum.

Tourangeau, R., Rips, L. J., & Rasinski, K. (2000). *The psychology of survey response*. Cambridge, England: Cambridge University Press.

[View reading list on Talis Aspire](#)

Subject specific skills

- Familiarity with the principles of good experimental and non-experimental design and identification of errors in poor designs
- Employment of evidence-based and critical reasoning
- Examination of practical, theoretical, and ethical issues associated with a range of methodologies

Transferable skills

- effective personal planning skills
- effective communication skills to develop a cogent argument supported by relevant evidence

Study

Study time

Type	Required
Lectures	10 sessions of 1 hour (7%)
Seminars	10 sessions of 1 hour (7%)
Private study	130 hours (87%)
Total	150 hours

Private study description

130 hours guided private study

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Students can register for this module without taking any assessment.

Assessment group A4

	Weighting	Study time
Research Design	10%	
Description of the main research question, hypotheses, and design section of a Stage 1 registered report. Up to 500 words. 10%		
Stage 1 Registered Report	40%	
Write a Stage 1 Registered Report on a self-chosen psychological topic. The Stage 1 RR should include an Introduction, proposed Methods and Design, proposed Analyses, and ethical considerations. Between 1000 and 2000 words. 40%		
Class test - online	50%	

Feedback on assessment

Formative feedback on class presentations during seminars, and during seminar discussions of papers. Summative feedback through comments on Research Design and Stage 1 Registered Report manuscripts and general summary of performance on the Class Test.

Availability

Courses

This module is Core for:

- Year 1 of TPSS-C8P5 Postgraduate Taught Clinical Applications of Psychology