



MODULE SPECIFICATION

Code: USPJL7-30-1 **Title:** Research Design and Analysis 1 **Version:** 2

Level: 1 **UWE credit rating:** 30 **ECTS credit rating:** 15

Module type: Standard

Owning Faculty: Health and Life Sciences

Department: Psychology

Faculty Committee approval: Quality and Standards Committee

Date: April 2011

Approved for Delivery by: N/A

Valid from: September 2011

Discontinued from:

Pre-requisites:

None

Co-requisites:

None

Entry Requirements:

N/A

Excluded Combinations:

None

Learning Outcomes:

The student will be able to:

- distinguish between different types of information and data, both quantitative and qualitative, and appreciate their properties;
- summarise and display quantitative data using appropriate information technology;
- understand the principles of descriptive and inferential statistical analysis;
- understand the basic principles of experimental design and its relationship to statistical analysis;
- compare and contrast the strengths and weaknesses of quantitative and qualitative approaches to research;
- recognise and discuss the ethical issues involved in research;
- demonstrate an understanding of the perspective of the participant in research.

Syllabus Outline:

An introduction to experimental design: independent and dependent variables, confounding variables, extraneous variables and control of these variables through methods such as randomisation and counter balancing. Comparison of between subjects, within subjects, matched pairs and mixed designs.

Approaches to qualitative data collection and analysis: observation and questionnaire development

Use of spreadsheet, statistical and graphics software to obtain descriptive statistics and to construct tables and graphs.

Data summary and presentation: tables, bar charts, pictograms, histograms, cumulative charts, and scatter plots.

Types of data: Inductive and deductive approaches and their relationship to qualitative and quantitative data; obtaining nominal, ordinal, interval and ratio data.

Descriptive statistics: frequency distributions, measures of central tendency and dispersion. The normal and binomial distribution: rationale and use.

Theories of measurement and psychological testing: Measurement error, validity, reliability and generalizability

Parametric and non parametric tests for within and between subjects designs - t tests, F test, Wilcoxon and Mann-Whitney tests, chi square test for contingency tables and one way Anova.

Measures of association – Pearson's and Spearman's correlation coefficients, simple linear regression.

Ethical issues in research.

Teaching and Learning Methods:

A variety of pedagogical approaches will be used to ensure the active engagement of students.

The course will be presented in weekly sessions of 2 hours. This format has been chosen so as to facilitate interactive and multi-media teaching and learning.

As with 'content' modules, students will also enjoy small group sessions based on their facilitated learning groups. These will enable further exploration of issues raised by lectures and guided study activities. Lectures on specified topics will be followed by seminars that include both computer workshops (computer based in the case of sessions covering quantitative oriented research) and practical sessions (offering hands on experience of both participation in, and of conducting, research activities), with the content and format of both the workshops and practicals being driven by the lecture programme.

Assessments have been planned so as to incorporate and directly test academic and generic skills first presented to students in the related graduate development sessions which involve study skills seminars and home-group based tutorials. For this particular module students will be assessed on their ability to identify arguments and evaluate evidence on course material within an essay, and on their knowledge of the content through ongoing computer marked assessment. At the end of the module, student's overall knowledge will be assessed via an examination.

Reading Strategy:

All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively.

Any **essential reading** will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.

If **further reading** is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases.

Indicative Reading List:

The reading strategy will be based upon key texts which the student is expected to purchase. These will be backed up with guided study using the library resources, Blackboard, other web based resources, and study packs.

Indicative sources:

Current editions of:

Coolican, H. (2006) Introduction to Research Methods in Psychology. London: Hodder Arnold.

Field, A.. (2005) Discovering Statistics Using SPSS (Introducing Statistical Methods. London: Sage.

Howitt, D. & Cramer, D. (2005) Introduction to SPSS for Psychology. Harrow: Pearson Prentice Hall.

Howitt, D & Cramer, D. 2005. Introduction to Statistics in Psychology. Harrow: Pearson Prentice Hall.

Howitt, D & Cramer, D. 2005. Introduction to Research Methods in Psychology. Harrow: Pearson Prentice Hall.

Haslam, S. A. & McGarty, C. (2003). Research Methods and Statistics in Psychology. London: Sage.

Silverman, D. (2004). Doing Qualitative Research: A practical handbook. London: Sage.

Assessment:

Weighting between components A and B (standard modules only) A: 30% B: 70%

FIRST ATTEMPT

First Assessment Opportunity

Component A (<i>controlled</i>)	Element Wt (Ratio) (<i>within Component</i>)
Description of each element	
EX1 Examination Multiple Choice	<i>Final Assessment</i> 1

Component B	Element Wt (Ratio) (<i>within Component</i>)
Description of each element	
CW1 Practical Report (1,500 words)	1
CW2 Portfolio	1

Second Assessment Opportunity (Resit) further attendance at taught classes is not required

Component A (<i>controlled</i>)	Element Wt (Ratio) (<i>within Component</i>)
Description of each element	
EX2 Examination - Multiple Choice	<i>Final Assessment</i> 1

Component B	Element Wt (Ratio) (<i>within Component</i>)
Description of each element	
CW3 Practical Report (1,500 words)	1
CW4 Portfolio	1

EXCEPTIONAL SECOND ATTEMPT Attendance at taught classes is required.

Specification confirmed by**Date**
(Associate Dean/Programme Director)