SO916-20 Quantitative Methods in Social Research

20/21

Department
>   Sociology

Level
>   Taught Postgraduate Level

Module leader
>   Richard Lampard

Credit value
>   20

Module duration
>   10 weeks

Assessment
>   100% coursework

Study location
>   University of Warwick main campus, Coventry

Description

Introductory description

This module aims to develop practical quantitative research methods skills, and a critical appreciation of such methods. It covers the secondary analysis of data from large-scale surveys, the collection or generation of survey data, and the use of non-survey sources for quantitative analysis. It also includes considerations of the evaluation and interpretation of existing data sources/published data (including official statistics) and the development of research instruments. The conceptual and contextual factors determining the meaning and value of survey data are also discussed. The module includes a number of 'hands-on' computing sessions (in which statistical software# is used to manipulate and analyse data). The statistical techniques considered (and applied using statistical software) within the module range from basic descriptive and inferential statistics (such as cross-tabulations and chi-square) to multivariate techniques (such as logistic regression). The components of the module assessment relate to quantitative data sources and questionnaire design, sampling and the production of primary data, descriptive and inferential statistics, multivariate analysis, and the interpretation of published statistical analyses.

[Module web page](#)

Module aims

This module aims to give practical skills in, and a critical appreciation of, quantitative research methods, including statistical analysis techniques, as part of a broader education in social research methods

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.

WEEK TOPIC
la Novice's guide to quantitative analysis.
lb Survey design and sampling.
2a Operationalising concepts.
2b Novice's guide to using SPSS.
3a Research instruments/Questionnaire design.
3b SPSS: Data management
4a Data sources, secondary analysis and official statistics.
4b Statistics without surveys: Content analysis.
5a Statistical inference.
5b SPSS: Descriptive (and inferential) statistics.
[6 Reading Week]
7a Cross-tabular analysis.
7b SPSS: Cross-tabular analysis.
8a (Multiple) regression (and correlation).
8b Logistic regression.
9a The use of multivariate analysis in published research.
9b SPSS: (Multiple) regression and logistic regression).
10a Log-Linear models.
10b SPSS: Log-linear models.

Learning outcomes

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

- (1) A knowledge and understanding of a range of issues relevant to the practicalities, value and limitations of quantitative methods and data sources.
- (2)A knowledge and understanding of statistical inference.
- (3)The ability to apply a quantitative software package to secondary data, including the application of a relevant multivariate analysis technique, and the ability to appropriately present and interpret the results from such an analysis.

Indicative reading list

Buckingham, A. and Saunders, P. 2004. The Survey Methods Workbook. Cambridge: Polity.
Dale, A., Fieldhouse, E. and Holdsworth, C. 2000. Analyzing Census Microdata. London: Arnold.
Dale, A., Wathan, J. and Higgins, V. 2008. 'Secondary Analysis of Quantitative Data Sources'. In Alasuutari, P., Bickman, L. and Brannen, J. (eds) The SAGE Handbook of Social Research Methods.

London: Sage.

De Vaus, D. 2001. Surveys in Social Research. (5th edition). London: Routledge.

Diamond, I. and Jefferies, J. 2000. Beginning Statistics; An Introduction for Social Scientists. London: Sage.

Field, A. 2009. Discovering Statistics Using SPSS (3rd edition). London: Sage.

Fielding, J. and Gilbert, N. 2006 Understanding Social Statistics (2nd edition) London: Sage.

Gray C.D. and Kinnear, P.R. 2011. IBM SPSS 19 Made Simple. Hove: Psychology Press.

Marsh, C. and Elliott, J. 2009. Exploring Data: An Introduction to Data Analysis for Social Scientists
(2nd edition). Cambridge: Polity Press.

Menard, S. 2001. Applied Logistic Regression Analysis (2nd Edition). London: Sage.

Pole, C. and Lampard, R. 2002. Practical Social Investigation' Qualitative and Quantitative Methods in Social Research. Harlow: Prentice Hall (Pearson Education).

Tarling, R. 2008. Statistical Modelling for Social Researchers: Principles and Practice. London:

Subject specific skills

(i) A knowledge and understanding of a range of issues relevant to the value and limitations of quantitative data sources (including secondary sources).

(ii) A more specific knowledge and understanding of the conceptual and contextual factors determining the meaning and value of data from survey questions/research instruments.

(iii) A knowledge and understanding of the issues involved in sampling.

(iv) The ability to apply quantitative methods to qualitative source materials.

(v) A knowledge and understanding of descriptive statistics and statistical inference.

(vi) A knowledge and understanding of the use of multivariate analysis.

(vii) The ability to apply a quantitative software package to secondary data.

(viii) A knowledge and understanding of the relationships between quantitative data and substantive theory.

(ix) The ability to apply a quantitative software package to secondary data and to thus:

- generate and present descriptive and inferential statistics and graphics,
- manage data,
- test hypotheses.
  (x) The ability to apply a quantitative software package to secondary data in order to model data using a multivariate technique, and the ability to present and interpret the results from such an analysis.

Transferable skills

the qualities and transferable skills necessary for employment requiring:

- the exercise of initiative and personal responsibility
- decision-making in complex and unpredictable situations
- the independent learning ability required for continuing professional development
- advanced abilities in statistics

Study

Study time

Type	Required
Lectures	9 sessions of 2 hours (9%)
Practical classes	9 sessions of 2 hours (9%)
Private study	164 hours (82%)
Total	200 hours

Private study description

Reading for seminars.
Preparation for seminars including data analysis
Preparation for, analysis for, and writing of summative work portfolio

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 A2

	Weighting	Study time
Assessment C	15%	
Assessment E	15%	
Assessment A	20%	
Assessment B	20%	
Assessment D	30%	

Feedback on assessment

Marking is via the Tabula system and students receive written, electronic feedback through the system.

Availability

Courses

This module is Core for:

- Year 1 of TSOA-L3PW Postgraduate Taught Social Inequalities and Research Methods
- Year 1 of TSOA-L3PE Postgraduate Taught Social Research

This module is Core optional for:

- TIMA-L981 Postgraduate Social Science Research
  - Year 1 of L98A Social Science Research (Applied Linguistics)
  - Year 1 of L98H Social Science Research (Economic and Social History)
  - Year 1 of L98D Social Science Research (Education)
  - Year 1 of L98F Social Science Research (Health & Wellbeing)
  - Year 1 of L98K Social Science Research (Interdisciplinary Methodologies)
  - Year 1 of L98E Social Science Research (Management & Business Studies and Finance)
  - Year 1 of L98G Social Science Research (Political Science & International Relations)
  - Year 1 of L98L Social Science Research (Socio-Legal Studies)
  - Year 1 of L98C Social Science Research (Sociology)

This module is Optional for:

- Year 1 of TIMA-L981 Postgraduate Social Science Research
- Year 1 of TSOA-L3PD Postgraduate Taught Sociology

This module is Option list A for:

- TSOA-L3P8 Postgraduate Taught Social and Political Thought
  - Year 1 of L3P8 Social and Political Thought
  - Year 1 of L3P8 Social and Political Thought
  - Year 1 of L3P8 Social and Political Thought
  - Year 1 of L3P8 Social and Political Thought

This module is Option list B for:

- Year 1 of TWSA-M9P7 Postgraduate Taught Gender and International Development
- TSOA-L3PD Postgraduate Taught Sociology
  - Year 1 of L3PD Sociology
  - Year 1 of L3PD Sociology

This module is Option list C for:

- TPOS-M9PE Double MA in Politics and International Studies (with NTU Singapore)
  - Year 1 of M91L International Development (Double Degree - NTU)
  - Year 1 of M91B International Political Economy (Double Degree - NTU)

- - Year 1 of M91C International Politics and East Asia (Double Degree - NTU)
  - Year 1 of M91D International Politics and Europe (Double Degree - NTU)
  - Year 1 of M91G International Security (Double Degree - NTU)
  - Year 2 of M91B International Political Economy (Double Degree - NTU)
  - Year 2 of M91C International Politics and East Asia (Double Degree - NTU)
- TPOS-M9PP Double MA in Politics and International Studies (with Universität Konstanz, Germany)
  - Year 1 of M92B International Political Economy (Double Degree - Konstanz)
  - Year 1 of M92C International Politics and East Asia (Double Degree - Konstanz)
  - Year 1 of M92E International Relations (Double Degree - Konstanz)
  - Year 1 of M92G International Security (Double Degree - Konstanz)
  - Year 1 of M92H Public Policy (Double Degree - Konstanz)
  - Year 2 of M92C International Politics and East Asia (Double Degree - Konstanz)
  - Year 2 of M92D International Politics and Europe (Double Degree - Konstanz)
  - Year 2 of M92E International Relations (Double Degree - Konstanz)
  - Year 2 of M92G International Security (Double Degree - Konstanz)
  - Year 2 of M92K Political and Legal Theory (Double Degree - Konstanz)
  - Year 2 of M92H Public Policy (Double Degree - Konstanz)
- Year 2 of TPOS-M9PT MA in International Development
- Year 2 of TPOS-M1P8 Postgraduate Taught International Politics and East Asia
- Year 2 of TPOS-M9PS Postgraduate Taught Political and Legal Theory
- Year 2 of TPOS-M9PQ Postgraduate Taught United States Foreign Policy