

Teaching evaluation methods

Reflections from the UK

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The brief

- What should be/is taught?
- How is it taught, strengths and limitations?



Long history of UK policy research

- Royal Commissions (19th century)
- Royal Statistical Society (1832; 1887)
- Philanthropist/researchers
- Fabian Society
- Government Economic Service
- 1997 Evidence based/informed policy making



Bureaucratisation of evaluation

- 1976 Sterling Crisis, IMF intervention
 - Change from ‘volume’ to ‘cash’ accounting
- 1997 *Green Book* (HMT, 1997).
 - Model of policy making under the acronym, ROAMEF (Rationale, Objectives, Appraisal, Monitoring, Evaluation and Feedback).
 - This differentiates between
 - appraisal (the ‘assessment of whether a proposal is worthwhile’) and
 - evaluation (‘similar in technique to appraisal, although it obviously uses historic [actual or estimated] rather than forecast data, and takes place after the event’ and monitoring (HMT, 2003, pp.3-5).



Bureaucratisation of evaluation

- 1999 *Modernising Government*
- 1999 *Professional Policy Making*
- 2001 *Better Policy-Making*
 - ...new policies must have evaluation of their effectiveness built into them from the start; established policies must be reviewed regularly to ensure that they are still delivering the desired outcome; and the lessons learned from evaluation must be available and accessible to other policy makers (PMM, 1999; para. 10.1).
- ‘Evidence-informed’ or ‘evidence-inspired’ policy making. (HoC (2006) (Science and Technology Committee))



Teaching/training in Government

- **National School of Government**
 - Introduction to Evidence-Based Policy Making
 - Analysis and Use of Evidence - Fast stream, Grade 7 or above
 - Evaluating for Business Performance
 - Evaluation of Public Programmes and Policies for Commissioning Evaluations
 - Evaluation of Public Programmes and Policies for Practitioners
 - Needs Analysis and Evaluation
- **HM Treasury: Policy Hub**
 - The Green Book: Appraisal and Evaluation in Central Government
 - http://www.hm-treasury.gov.uk/economic_data_and_tools/greenbook/data_greenbook_index.cfm
 - The Magenta Book: Guidance Notes on Policy Evaluation
 - http://www.policyhub.gov.uk/magenta_book/index.asp



Teaching in Academe

- **Economic and Social Research Council**
 - Centre for Evidence Based Policy and Practice, Kings College London
 - Evidence Network
 - <http://evidencenetwork.org/index.html>
 - Journal: *Evidence and Policy*
 - The Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre), Institute for Education, London
 - MSc in Evidence for Public Policy and Practice
 - Centre for Microdata Methods and Practice (Cenmap)
 - Occasional courses



Day 1	Day 2
9.45 Coffee	9.15 Coffee
10.00 Introduction to the Course The Evaluation Problem	9.30 Regression Discontinuity 11.00 Econometric Selection
11.30 Coffee	11.30 Coffee
11.45 Social Experiments	11.45 Econometric Selection Practical Work
13.00 Lunch	13.00 Lunch
13.45 Practical Work	13.45 Ordinary Least Squares Practical Work
15.00 Natural Experiments Instrumental Variables	
16.00 Tea	15.15 Tea
16.15 Natural Experiments and IV (cont.)	15.30 Matching Methods
17.00 Practical Work	
18.00 Close of Day 1	17.30 Close of Day 2

Introduction to the Course
The Evaluation Problem
Social Experiments
Natural Experiments
Instrumental Variables
Regression Discontinuity Design
Econometric Selection Model
Ordinary Least Squares
Matching Methods
Operationalising Matching
Before-After
Difference-in-Differences
Bounds
Structural Models
General Equilibrium and CBA
Review and General Lessons



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- **UK Evaluation Society**
 - <http://www.evaluation.org.uk/>
 - Journal: *Evaluation: the international journal of theory, research and practice.*
- **Social policy/public policy/(economic) disciplines**



Doctorate in Applied Social Science

University of Nottingham

- Year 1
- Semester 1
 - Policy analysis and evaluation 30 credits
 - Advanced quantitative design and analysis 30 credits
- Semester 2
 - Research management 20 credits
 - Advanced qualitative design and analysis 20 credits
 - Subject specific module 20 credits
- Summer
 - Dissertation 60 credits



DASS Advanced quantitative analysis and design

Module aims and objectives

- ***Aim***

- This module aims to provide students with the methodological and technical skills to assess the effectiveness of policy.

- ***Objectives***

- On completing this module students will be able to:
 - Devise robust research designs that perform effectively in complex applied settings
 - Implement experimental and non-experimental policy evaluations
 - Undertake quantitative analysis of the effectiveness of policies using a range of different techniques and kinds of data
 - Present the results of complex analyses in ways accessible to policy makers and research customers



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DASS Advanced quantitative analysis and design

Structure

- Design
 - A set of analytic seminars designed to examine the purpose, potential and application of competing and complementary research designs,
- Analysis
 - A group research project employing different modes of analysis structured around regular ‘team’ meetings.



Multiple evaluation methods

Time perspective	Evaluation question	Illustrative evaluation method(s)	Counterpart formative evaluation question	Illustrative formative evaluation approaches
Extensive past	What worked?	Meta-analysis Systematic review	How did it work?	Systematic review
Past	Did the policy work?	Retrospective evaluation	How did it work/not work?	Retrospective interviews Participative judgement (Retrospective case-study)
Present	Is this policy working?	Monitoring • Interrupted time series • Natural experiments	How is it working/not working?	Process studies Implementation evaluation Ethnography
Present to future	Is there a problem?	Basic research Policy analysis	What is the problem?	Basic research Rapid reconnaissance
Close future	Can we make this policy work?	Prototypes Micro-simulation	How can we make this policy work?	Theory of change Participative research Action research
Future	Will this policy work?	Programme evaluation • Random assignment • Matched designs • Cohort designs • Statistical controls	How will it work/not work?	Theory of change Laboratory evaluation



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DASS

Research management

- ***Aim***

- To introduce students to the principles of research management and their application to policy orientated research.

Advanced qualitative analysis and design

- ***Aim***

- The module aims to enable students to design and execute qualitative policy research and to integrate formative and summative approaches to policy evaluation



Integrating modules

Wk	Module ADVANCED QUALITATIVE ANALYSIS AND DESIGN	Project Policies on student and university finance	Module RESEARCH MANAGEMENT
1	Qualitative research Formative policy evaluation		Preparing research proposals
2	Design and sampling	Statement of research objectives	Costing research
3	Fieldwork instruments and implementation	Research design	Project management
4	Depth interviews	Recruitment strategy Topic guides	Ethical dimensions of applied research
5	Group interviews	Fieldwork	Soliciting research funding,
6	Observation	Fieldwork Transcriptions	Competitive tendering and negotiating research contracts
7	Analysis	Fieldwork Transcriptions	Presenting research, dissemination strategies
8		Transcriptions/analysis	Quality assurance
9	Presenting qualitative findings.	Analysis	Managing external relations
10		Analysis	Managing research teams and consortium
11	Approaches to integrating quantitative and qualitative data	Report writing	Synthesis and revision



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Oxford: MSc in Evidence based social intervention

Content

- Core paper on evidence based social intervention
- Research methods
- Introduction to statistical methods
- Qualitative research methods
- Option papers
 - Community analysis and large scale social interventions
 - Evidence-based HIV/AIDS prevention and policy
 - Promoting the welfare of children and families
 - Systematic review



Oxford: MSc in Evidence based social intervention

Content of core paper

- Theories underlying intervention
- Construction of a social problem
- Intervention at a community level
 - Empowerment, participation and methodology
 - Organising, assessment and problem solving
- Intervention at an individual level
- Transporting evidence based interventions into practice
 - Diversity issues
- Transporting evidence based interventions across cultures, groups and settings
- Critical appraisal
 - Applying the findings of qualitative research
 - Applying the findings of RCTs
 - Applying the findings of non-randomised studies of social interventions



Oxford: MSc in Evidence based social intervention

Content of research methods

- Research questions and design
 - Efficacy, effectiveness, prevention, risk, prognosis, assessment
- Search skills
- Critical appraisal of trials
- Systematic review

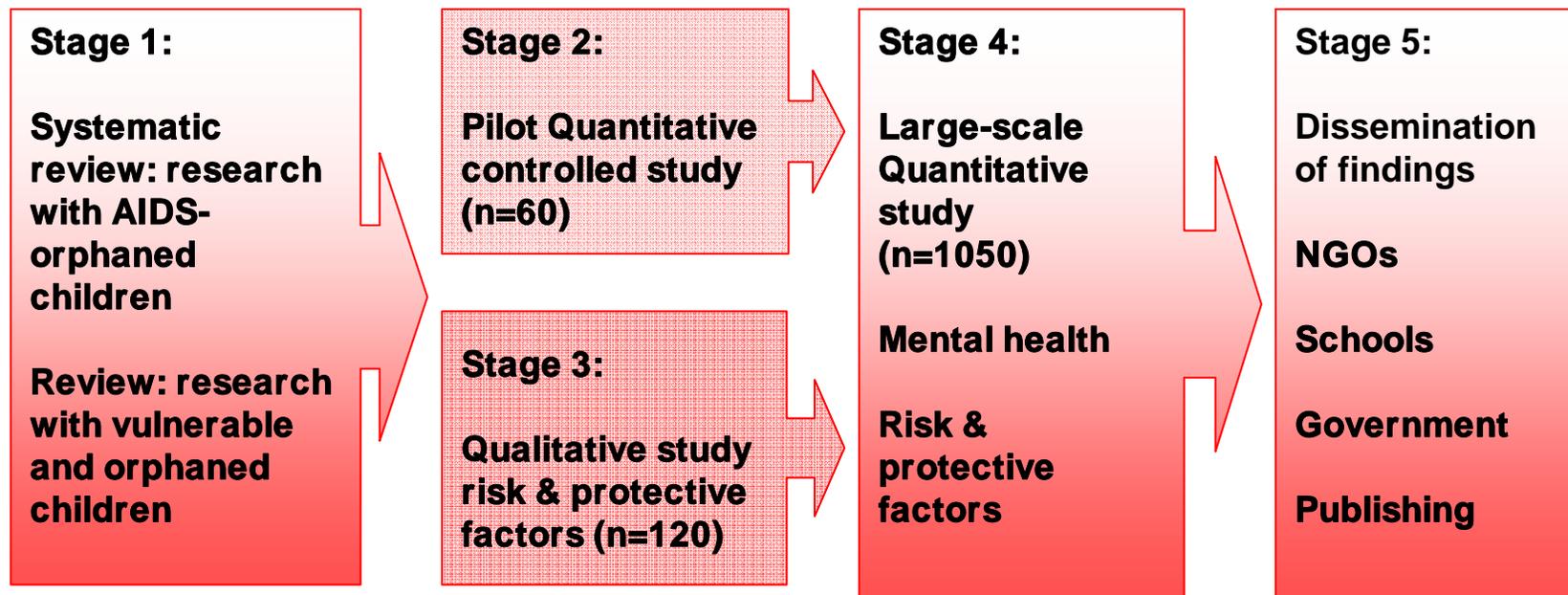


Oxford: MSc in Evidence based social intervention

Individual project (DPhil)

🚫 Does AIDS-orphanhood cause psychological distress?

🚫 What are risk and protective factors?



Lucie Culver

Cluver, L, Gardner, F & Operario, D (2007) Psychological distress amongst AIDS-orphaned children in urban South Africa. *Journal of Child Psychiatry and Psychology*, 48(8)



Conclusion

- What should be/is taught?
- How is it taught, strengths and limitations?



Oxford: MSc in Evidence based social intervention

Individual project (DPhil)

Multivariate associations between orphanhood by AIDS, orphanhood by other causes, and psychological outcomes, controlling for sociodemographic cofactors

	Depression(1)		Anxiety(2)		Peer Problems(3)		PTSD(4)		Delinquency(5)		Conduct Problems(6)	
	Unadjusted Model	Adjusted Model	Unadjusted Model	Adjusted Model								
AIDS-Orphanhood	.200**	.179**	.097*	.069	.290**	.261**	.299**	.267**	.144**	.124**	.142**	.130**
Other-orphanhood	.035	.029	-.008	-.022	.055	.040	.087*	.073	-.002	-.011	.015	.009
R-Square	.032	.052	.008	.026	.068	.090	.067	.090	.019	.048	.016	.036
R-Square change		.023		.022		.026		.027		.035		.023
F-change		7.64**		6.28**		8.22**		6.56**		6.43**		7.40**

* Denotes significance at the 0.05 level ** Denotes significance at the .001 level

1 Adjusted model controls for age, gender

2 Adjusted model controls for age, gender, informal dwelling

3 Adjusted model controls for age, household size, >2 moves between homes

4 Adjusted model controls for age, gender, household size, >2 moves between homes

5 Adjusted model controls for age, gender, informal dwelling, migration, >2 moves between homes

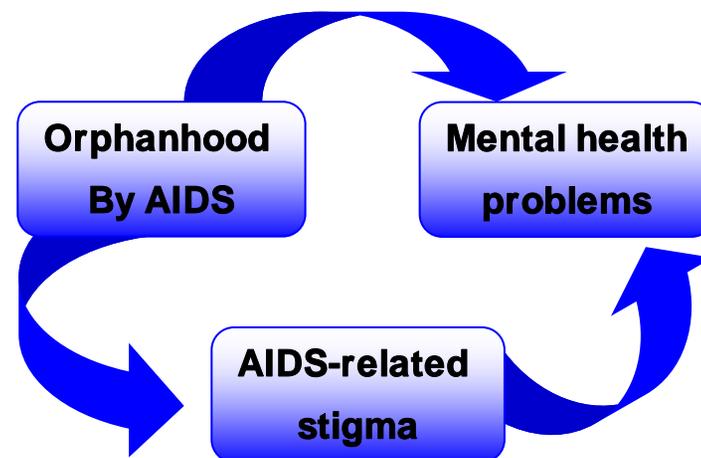
6 Adjusted model controls for age, gender, migration



Oxford: MSc in Evidence based social intervention

Individual project (DPhil)

-  Do AIDS-orphans experience more stigma?
-  Does stigma mediate mental health?



AIDS-related stigma	AIDS-orphaned	Other-orphaned	Non-orphaned	P-value
Teased about family illness	34.9%	20.75%	7.9%	<.001
Treated badly due to family illness	38.0%	19.5%	6.5%	<.001
Gossiping about family illness	48.3%	22.0%	13.3%	<.001



Oxford: MSc in Evidence based social intervention

Individual project (DPhil)

	Effect of being orphaned by AIDS	Effect remaining independent of stigma	Mediational effect (Sobel test)
Depression	Highly significant	Effect eliminated	$p < .000000000$
Post-traumatic stress	Highly significant	Effect eliminated	$p < .000000000$
Peer problems	Highly significant	Moderately significant	-
Delinquency	Highly significant	Effect eliminated	$p < .000000000$
Conduct Problems	Highly significant	Effect eliminated	$p < .000000000$



DASS Research management

Module aims and objectives

- ***Aim***
 - To introduce students to the principles of research management and their application to policy orientated research.
- ***Objectives***
 - On completing the module students will:
 - Be able effectively to apply the principles of research management to their doctoral research and their dealings with their research sponsor;
 - Be able to prepare competent and intellectually persuasive research proposals;
 - Appreciate the principles of project management and be able to exploit the power of project management software;
 - Understand contract law as applied to social research
 - To be able to communicate research findings effectively to different audiences, in different settings;
 - Be aware of the aspirations and concerns of research customers, the constraints under which they work, areas of potential conflict between the research and policy communities and the strategies available for maximising good working relationships between research customer and contractor.



DASS Advanced qualitative analysis and design

Aims and objectives

- ***Aim***

- The module aims to enable students to design and execute qualitative policy research and to integrate formative and summative approaches to policy evaluation

- ***Objectives***

- On completing the module, students will be:
 - Conversant with the various approaches to applied qualitative research
 - Able to design qualitative research to address policy relevant issues
 - Capable of generating, analysing and reporting on qualitative data
 - Able to integrate qualitative and quantitative modes of analysis



DASS Advanced quantitative analysis and design

Content

Design activity

1. Choice of evaluation methods: a question of timing?
2. Random assignment in programme evaluation: principles
3. Random assignment: implementation issues
4. Quasi-experimental evaluation
5. Prototypes
6. Cost and cost benefit analysis
7. Interrupted time series and natural experiments
8. Retrospective and theory of change evaluation
9. Systematic review and meta-evaluation
10. Micro-simulation.
11. Laboratory experimentation



- 1. Choice of evaluation methods: a question of timing?**
Explains the rationale for the seminar series and provides an overview of policy evaluation design.
- 2. Random assignment in programme evaluation: principles**
Some consider experimentation to be the crowning glory of evaluation design and random assignment the jewel in the crown.
- 3. Random assignment: implementation issues**
While the theory of random assignment is comparatively straightforward, making reality of the theory is exceedingly difficult.
- 4. Quasi-experimental evaluation**
Random assignment is not always possible or politically viable in which case it is sometimes possible to employ quasi-experimental approaches based on matched designs, cohorts and other forms of statistical control.
- 5. Prototypes**
Sometimes the evaluation question is not whether a policy initiative works but how to make it work.
- 6. Cost and cost benefit analysis**
Policies can be effective in meeting objectives, but at what cost?
- 7. Interrupted time series and natural experiments**
When policies are already in place or their consequences are likely to be system wide, experimentation is generally inappropriate in which case different approaches are required.
- 8. Retrospective and theory of change evaluation**
The most difficult methodological challenges occur when evaluating existent policies and when it is impossible to define a counterfactual (the situation that would obtain in the absence of the policy and the datum against which effectiveness is assessed).
- 9. Systematic review and meta-evaluation**
Replication and the systematic, cumulative acquisition of evaluative evidence is arguably a prerequisite for evidence-based policy making.
- 10. Micro-simulation**
If evidence does not exist, it may be necessary to invent it.
- 11. Laboratory experimentation**
Techniques derived from experimental economics are pushing forward the frontiers of policy evaluation.



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- **Transferable skills**
 - Critical appraisal skills
 - Tendering skills
 - Networking skills
 - Skills in group-working
 - Leadership skills
 - Promotion skills



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 - Able to integrate qualitative and quantitative modes of analysis
- **Transferable skills**
- Critical appraisal skills
- Research design skills
- Presentation skills
- Promotion skills



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- ***Transferable skills***

- Critical appraisal skills
- Research design skills
- Quantitative analysis skills
- Presentation skills
- Promotion skills

