MY405/MY505

Research methods for evaluation in health, development and public policy

2018/19

Dr. David Hendry & Dr. Alasdair Jones
Department of Methodology
London School of Economics and Political Science
Course content

This course aims to equip students with the methodological knowledge and research skills to be able to design and critically appraise evaluation research. In the context of the rise of evidence-based policy, the course is designed to extend students’ abilities to use evaluative information carefully and critically. The course takes a mixed methods approach. It covers the major quantitative designs, including randomized experiments and observational (i.e. non-randomized) research designs such as selection on observables, difference-in-differences, and the regression discontinuity design. It covers qualitative and participatory research designs and their contribution to formative research, process evaluation, interpreting outcomes, and assessing transferability to other settings. As well as the major design issues, the course addresses practical and ethical issues of evaluation research, how to write a study protocol, and how to draw lessons from a body of evidence through reviewing and synthesising evidence. Examples from the fields of health, international development and public policy will be used throughout the lectures, and students select one of these fields for their focus in seminars.

Learning outcomes

After participating in lectures, seminars, and completing the exercises and assignments, students will be in a position to:

- Define the role of mixed method evaluation studies in informing evidence-based policy
- Identify the strengths and weaknesses of research designs for the evaluation of interventions and policies
- Critically appraise evaluation reports or articles
- Design evaluation studies appropriate to various evaluation contexts and constraints
- Assess the strength of a body of evidence and its potential policy implications

Teaching staff

Convenor: Dr David Hendry (d.hendry@lse.ac.uk)
Lecture and seminar teaching: Dr David Hendry and Dr Alasdair Jones (a.jones@lse.ac.uk)
## Teaching Schedule

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<th>Lecture</th>
<th>Seminar</th>
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<td></td>
<td>Tues 15:00-16:30 CLM.2.02</td>
<td>Sign up to a seminar group on LSE for You</td>
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<tr>
<td>1</td>
<td>Principles of evaluation research &amp; qualitative research design&lt;br&gt;Dr. Alasdair Jones</td>
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<tr>
<td>2</td>
<td>Quantitative research design&lt;br&gt;Dr. David Hendry</td>
<td>Reading: De Luca et al. (2012)&lt;br&gt;Dr. Alasdair Jones</td>
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<td>3</td>
<td>Formative evaluation: Qualitative and participatory methods&lt;br&gt;Dr. Alasdair Jones</td>
<td>Reading: Aragon et al. (2014)&lt;br&gt;Dr. Alasdair Jones</td>
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<td>4</td>
<td>Randomized experiments I&lt;br&gt;Dr. David Hendry</td>
<td>Reading: Clasen et al. (2014) &amp; Routray et al. (2015)&lt;br&gt;Dr. David Hendry</td>
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<td>5</td>
<td>Randomized experiments II&lt;br&gt;Dr. David Hendry</td>
<td>Reading: Olken et al. (2014)&lt;br&gt;Dr. David Hendry</td>
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<td>6</td>
<td>Reading week: no lecture</td>
<td>Submit formative assignment</td>
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<td>7</td>
<td>Differences in differences&lt;br&gt;Dr. David Hendry</td>
<td>Exercise: Measurement&lt;br&gt;Dr. David Hendry</td>
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<td>8</td>
<td>Regression discontinuity designs&lt;br&gt;Dr. David Hendry</td>
<td>Exercise: Quantitative research designs&lt;br&gt;Dr. David Hendry</td>
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<td>Realist evaluation: Understanding process &amp; context&lt;br&gt;Dr. Alasdair Jones</td>
<td>Exercise: Qualitative research designs&lt;br&gt;Dr. Alasdair Jones</td>
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<td>10</td>
<td>Evidence review &amp; synthesis&lt;br&gt;Dr. Alasdair Jones</td>
<td>Exercise: Systematic review&lt;br&gt;Dr. Alasdair Jones</td>
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<td>Planning an evaluation: Practical issues, ethical issues, and writing a protocol&lt;br&gt;Dr. Alasdair Jones</td>
<td>Groupwork presentations&lt;br&gt;Dr. Alasdair Jones &amp; Dr. David Hendry</td>
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Course materials

Moodle
The MY405/MY505 Moodle site should be your first port of call for all information relating to the course. It will provide access to: lecture recordings and lecture slides; links to essential seminar readings and seminar activities; and information and templates for formative and summative assignments.

Course readings
There is no set textbook for this course. Instead there are specific readings associated with each week’s lecture. Reading lists include ‘background readings’ which are methodological chapters or articles, and ‘examples’ of the research designs being covered that week.

Each week, there is a starred ‘background reading’. It is essential to read this background reading before the lecture, so that you are prepared to get the most out of the lecture. To help you to understand how the research designs are used, you should also read at least one example per week. The first four seminars of the term are based on readings which present examples of evaluation studies. It is essential to read these carefully, so that you can participate fully in the class. A ‘reading guide’ is provided to help you to structure your critical reading of the article, and will be used in class to structure our discussion.

Useful textbooks
The following textbooks provide useful general and introductory background to the range of issues covered in the course:


Lecture Outlines

Week 1: Principles of evaluation research & qualitative research design
The first lecture sets out the core purposes and principles of evaluation research. We set out the rationales for evaluating programmes and policies, in terms of assessing effectiveness, improving programmes, and ensuring accountability. The lecture situates the mixed method approach taken in this course against the background of the ‘science wars’ over quantitative and qualitative research methods and paradigms, arguing that clarification of the specific purpose best served by each method allows for productive mixed method collaborations. We introduce the evaluation designs to be covered in this course: formative evaluations, impact evaluations, process evaluations, realistic evaluation and synthesis of evaluation studies. This is followed by introduction of key design concerns for qualitative studies including transferability and the role of theory and interpretation. The lecture also introduces the structure of the course, expectations of students, and the assignments.

Background reading


Critical account of evaluation and evidence-based policy


Mixed methods research


Qualitative Design


Week 2: Quantitative Research Design
We then lay out some of the key research design concerns of quantitative evaluation studies, including the issues of internal and external validity. In brief, internal validity is the degree to which a design allows a researcher to attribute a causal effect to a specific set of factors and rule out competing explanations. External validity, on the other hand, is the degree to which the findings of a study can be generalized to subjects and situations outside of the study setting. We will learn that there is often a tradeoff between internal and external validity, and that analysis of their quality can have profound implications for the conclusions we can draw from individual evaluation studies.

Internal and External Validity


Putting Qualitative and Quantitative Research within Same Scientific Inference Framework


Example debate over the (in)compatibility of quantitative and qualitative methods


Week 2 Essential seminar reading: Example of mixed-method research

**Week 3: Formative evaluation: Qualitative & participatory methods**

Formative evaluation provides feedback for the optimal design and implementation of interventions. Programmes and policies do not simply transfer from one context to another, but often require tailoring to a context in order to maximise their chances of success. Qualitative interview and ethnographic methods are often used to assess feasibility, acceptability and appropriateness of a particular intervention and its evaluation methodology. Participatory methods are used to work collaboratively with programme staff and beneficiaries to embed feedback, improvement and learning into the implementation of a programme. Formative evaluation can be a stand-alone activity or a precursor to a well-designed impact evaluation. This lecture argues for the use of qualitative methods for responsive interventions and well-designed evaluations.

**Background reading**


**Basics of qualitative methods**

Skovdal, M. & Cornish, F. (2015). *Qualitative Research for Development: A guide for practitioners.* Practical Action. [Chapter 3: Interviews & focus groups; Chapter 4: Participant observation; Chapter 5: Participatory data collection methods; Chapter 6: Photovoice].

**Examples**


**Week 3 Essential seminar reading**

Week 4: Randomized Experiments I
Here we begin an exploration of the logic of randomized experiments, a research design that is widely believed to be the “gold standard” for the identification of causal effects in evaluation research. This belief comes from the fact that properly performed experiments allow us to maximize internal validity, focusing on the effects of factors under the control of researchers, with possible confounding explanations eliminated through the process of randomization. The lecture and readings will present the distinction between experimental and observational studies and give a very basic introduction to the statistical framework of causal inference provided by randomized experiments. The logic of the randomized experiment will provide the basis for all of the later quantitative approaches we discuss in this course. In a sense, if we want to use quantitative tools to estimate the causal effect of a program or policy, we are always trying to use clever research design principles to mimic a randomized experiment, even when one is not available.

Background Reading


Week 4 Essential seminar readings


Week 5: Randomized Experiments II
Here we turn our focus to examples of randomized experiments in evaluation research. Like all research designs, the pure randomized experiment is a stylized theoretical form. In practice, particularly in the social sciences, researchers are forced to make choices and compromises, dealing with issues such as non-compliance by the experimental subjects, interference between units in the treatment and control groups, and problems stemming from small sample sizes, to name a few. We will use these examples to help us develop a framework for critically assessing evaluation research as consumers, and a template for designing evaluation research as practitioners. The body of research using randomized experiments in evaluation research is vast and growing, and the work presented here can only present a small slice.

Applications


Essential seminar reading

**Week 7: Differences in differences**
Here we present our first foray into the world of trying to mimic the experimental ideal with non-experimental data. Sometimes we have situations in which a program or policy is implemented and applied to some units and but not others. We can sometimes bring such a situation into the experimental framework by considering units to which a policy or program is applied and units to which it is not applied as treatment and control units, respectively. If we can observe some outcome of interest on these units both before and after implementation (that is, if we have panel data or observations of repeated cross-sections in the pre- and post-implementation phases), we may be able to evaluate the causal effect of the policy or program by comparing change over time in the treatment group to change over time in the control group. This lecture will present a brief overview of the assumptions required for a difference-in-difference design to produce valid causal inferences.

**Background**


**Applications**


**Week 8: Regression discontinuity designs**

Here we present another means of applying the logic of the randomized experiment to an observational data setting. A regression discontinuity design can be used to evaluate the effects of programs or policies when units are selected to take part in those programs or policies based on whether their values on a numeric score exceed some threshold. These designs exploit the fact that for many policies, the rules that determine eligibility are completely arbitrary. We will leverage this arbitrariness in order to eliminate competing explanations when evaluating program effectiveness. If we are able to make some reasonable assumptions about the similarity of units that are close to one another on this numeric score, we can basically treat the policy as a randomly assigned treatment if we compare units just above and just below the threshold.

**Background**


**Applications**


**Week 9: Realist evaluation: Understanding process and context**

The previous 4 weeks’ lectures have presented powerful research designs for establishing whether a particular intervention or change was the cause of observed outcomes or not. The strength of these designs, some evaluation experts argue, has led to over-reliance on experimental and related designs in evaluation research. Cartwright and Hardie (2012, p.121) argue that to answer the ‘how’ question: “How did the policy work and how can I expect it to work here?” calls for the use of a wider set of research designs and types of information. Pawson & Tilley (1997) established ‘realistic evaluation’, summed up in the formula ‘context + process = outcome’. This lecture explores qualitative means of studying processes and contexts, in order to further understanding of how interventions work, the social conditions needed to allow them to work, and ultimately to inform assessments of how to make interventions work in new settings.

**Background reading**


**Further reading**


**Example of a process evaluation**


**Example of studying process and context through comparative case study**

**Week 10: Evidence review and synthesis**

So far, we have considered how to evaluate individual instances of interventions. To make more general statements about the evidence as a whole for a particular type of intervention or policy, a number of methods have been devised. This lecture focuses on systematic reviews. A systematic review is a literature review designed to reach high levels of comprehensiveness and transparency, through very clear articulation of a systematic search strategy, a process of grading the quality of the evidence, and a process for synthesis and analysis. We will discuss the key steps and skills for conducting a systematic review, as well as critical debates about their appropriateness in different contexts.

**Background**


*Petticrew, M. and Roberts, H. 2006. Systematic Reviews in the Social Sciences: A Practical Guide. Oxford: Blackwell Publishing. [Chapter 1 for the rationale; Chapter 2 Starting the review, and see the Appendices for very useful tools]*


**Debates**


**Examples**

The Campbell Collaboration supports and publishes systematic reviews in a range of areas of social policy, including Crime & Justice; Education; International Development; Social Welfare. Many examples of systematic reviews and protocols for systematic reviews can be found on its website. [https://www.campbellcollaboration.org/](https://www.campbellcollaboration.org/)

The Cochrane Library houses systematic reviews in the area of healthcare. [http://www.cochranelibrary.com/](http://www.cochranelibrary.com/)
Week 11: Planning an evaluation: Practical issues, ethical issues, and writing a protocol
This week’s lecture sets out the key steps in practical planning of an evaluation, which links directly to the structure of the write-up of the groupwork assignment. We discuss how to address common practical constraints, the major ethical issues, and the issues to cover in writing up a research protocol.

Background


Example guidelines for protocol writing

WHO-recommended format for a research protocol
http://www.who.int/rpc/research_ethics/format_rp/en/

Example evaluation protocol templates

Avon Primary Care Research Collaborative evaluation protocol template

Open University (2012). Writing a Research Project Proposal (generic template)
Assignments

All assignments are to be submitted via Moodle. No hard copy is needed. An upload link will be available on the MY405 Moodle site. Moodle will allow you to upload ONE file only. PDF is the preferred file format. The filename of your submission is very important. The first part of the filename should be the course code, followed by your candidate number, e.g. MY405-18042.pdf or MY405_23756.pdf. Please also ensure your candidate number is on the first page of your document.

Formative assignment
An upload link will be available on the MY405 Moodle site. Moodle will allow you to upload ONE file only. PDF is the preferred file format. The filename of your submission is very important. For the formative assignment only, you should use your own name as part of the file name. The first part of the filename should be the course code, followed by your name, e.g. MY405-Donald Campbell.pdf or MY405_Eleanor Chelimsky.pdf.

The task: Critical review of an evaluation article. A template for your review is provided on Moodle.

Word limit: 1500 words

Deadline: End of reading week, Friday 22 February, 4pm.

The articles
Choose ONE of the following articles:


OR

Summative assignment 1: Group research design project

The group project
During the second half of the term, in groups of 3, students will develop and present an evaluation research design, in response to scenarios provided. Students will be assigned to groups by the course convenor. In your teams, each person will take on a different role: as quantitative specialist, qualitative specialist and subject/context specialist. Each will be responsible for doing background research and making suggestions in their area of expertise. These will be brought together by the group into a joint research design, which will be presented in the final seminar of the term. Feedback will be given on the presentation.

Groupwork is done in students’ own time outside of class time: we suggest meeting once per week in weeks 7-11.

Each group is required to attend at least one office hour session with one of the course teachers. At this session, you will get feedback on your provisional evaluation questions and design to ensure you are on the right track. All members of the group need to attend together for a group meeting. One of the group should book a double office hour slot.

Students are welcome to make use of the teachers’ office hours, in groups, or individually, for further consultations about the groupwork.

The group project is assessed by means of an individual write-up of a proposed research design. Each student writes up and submits their own version of the research design for assessment.

Word limit: 2500 words.

Deadline: Friday 19 April 2019, 4pm.

Submission: An upload link will be available on the MY405 Moodle site. Moodle will allow you to upload ONE file only. PDF is the preferred file format. The filename of your submission is very important. The first part of the filename should be the course code, followed by your candidate number, e.g. MY405-18042.pdf or MY405_23756.pdf. Please also ensure your candidate number is on the first page of your document.
Summative assignment 2: Essay

The task: Essays will critically assess the contribution made by a particular research design/methodology to a substantive field of the student’s specialist interest. Essay questions should be drafted by the student and must be approved by the course convenor in an office hour discussion before the end of term.

Essay questions will be of the form:

‘A critical assessment of the contribution of [X evaluation design] to [Y field of study]’

e.g.
‘A critical assessment of the contribution of randomised controlled trials to the study of poverty reduction’

Or
‘A critical assessment of the contribution of participatory evaluation designs to healthcare quality improvement’.

Students may add a phrase to the title to summarise the conclusion of their critical assessment, once they have completed their assessment.

Word limit: 2500 words

Deadline: Friday 10 May 2019, 4pm.