Stockholm University

Department of Sociology

Systematic Reviews

7.5 credits, Fall 2019 Syllabus
Last Updated: September 25, 2019

Instructors

Course Responsible: Andrea Voyer (andrea.voyer@sociology.su.se)
Additional Instruction: Daniel Dahl (daniel.dahl@sociology.su.se)

Aims

It is becoming more common that public policy interventions should be based on best available evidence. The purpose of a systematic review is to sum up the best available research evidence on a specific question. This is done by synthesizing the results of several studies. Participants will explore the range of existing approaches to, and methods for, research synthesis. The course will provide hands-on experience of commonly used methods (including the procedures proposed by the Cochrane). The course uses material from a range of policy areas and will explore different kinds of review questions. Participants will be introduced to different methods for synthesizing both a range of study designs and qualitative and quantitative data, although there is an emphasis on synthesizing quantitative data (meta-analysis). To help participants consider the role played by systematic reviews in policy and practice decisions, this course also includes discussion of the opportunities and challenges that systematic reviews pose.

Entry requirements

Bachelor's degree with a major in social sciences and English B or corresponding.

Organization

The course is offered full-time over five weeks. Course participants and instructors meet approximately twice a week for lectures, group discussions, computer-based exercises and/or seminars. The lectures/seminars cover topics not necessarily addressed in the required readings. Lectures should therefore be viewed as a complement to the mandatory literature. In order to enhance the learning outcomes, students need to be up to date on previously acquired skills in descriptive statistics and basic multivariate quantitative methods. The course is conducted in English.

Learning outcomes

After having completed the course, students are expected to be able to:

- characterize and explain the steps in the systematic review process (problem formulation, identification of studies, data extraction, study quality appraisal, synthesis, dissemination).
- critically appraise and interpret meta-analyses of quantitative research evidence.
- understand the fundamental problems related to internal and external validity, and be able to reflect and argue for its consequences for applying social science research in practice.
- conduct oneself critical to the role played by systematic reviews in policy and practice decisions.

Assessment and examination

This course consists of a group project and computer-based exercises. All course work is based on collaborative work. Participation in group discussions is therefore mandatory. The course is examined through a group assignment to updated a published systematic review, a group peer review assignment, and an individual summary statement of self-reflection on the learning process.

1. Updated Systematic Review
2. Peer Review
3. Individual Summary Statement

Assignments 2 and 3 are assessed as Pass or Fail. Assignment 1 is assessed according to the criteria detailed below.

Criterion referenced assessment

Criteria	Review selection, planning and management	Literature searching, inclusion and exclusion	Data extraction and quality assessment	Synthesis and dissemination
Good	Detailed timeline, well-planned division of review tasks, very effective project management	Very comprehensive search, and effective screening, obtaining all papers	Identify relevant data, extract relevant data, carry out complete quality assessment with the appropriate tool.	Implement appropriate method of analysis, clearly present the results, disseminate results in written form with consistent use of language and formatting.
Some Shortcomings	Clear timeline, adequate division of review tasks,	Somewhat comprehensive search, and some screening,	Identify most relevant data, extract some relevant data,	Implement adequate method of analysis, present the results with some clarity,

	some project management	obtaining some papers	carry out adequate quality assessment with the appropriate tool	disseminate results in written form with minimally consistent use of language and formatting.
Fail	Unplanned, inadequate, and unmanaged project	Inadequate search and screening, obtaining no papers	Do not identify relevant data, or extract relevant data. Fail to carry out quality assessment with the appropriate tool	Inappropriate method of analysis, poor presentation of results, inadequate dissemination of results.

Late assignments will be penalized, and will rarely be graded good.

The final grade is based on the following criteria:
To receive grades A-E, students have to pass all assignments.

- To get **A (excellent)**, Assignment 1 has to be Good on all criteria.
- To get **B (very good)**, Assignment 1 has to be Good on all criteria except one.
- To get **C (good)**, Assignment 1 has to be Good on at least two criteria
- To get **D (satisfactory)**, Assignment 1 has to be Good on at least one criteria
- To get **E (sufficient)**, Assignment 1 has some shortcomings on all criteria.
- To get **Fx (insufficient)**, Assignment 1 fails on at least one criteria and/or the student has not passed assignments 1-2 or the student has not participated in collaborative group work.
- To get **F (fail)**, Assignment 1 fails on at least one criteria and the student has not passed assignments 1 and 2 and the student has not participated in collaborative group work.

Transitory Regulations

A student who has been awarded the grade Fx or F twice by the same instructor on the course has the right to have his/her next exam being evaluated by another instructor. If the student so wishes, he/she should contact the director of undergraduate studies.

Readings

Course Books

- **Petticrew, M. & Roberts, H. (2006). Systematic reviews in the social sciences: a practical guide. London: Blackwell.**
- Bogenschneider, K. & Corbett, T. J. (2010). Evidence-based policymaking. Insights from policy-minded researchers and research-minded policymakers. New York: Routledge Academic (e-book access via Stockholm University library)

Other Books used for reference

- Borenstein, M. et al. (2009). Introduction to meta-analysis. Chichester: John Wiley & Sons.
- Davies, H. T. O., Nutley, S. M. & Smith, P. S. (Eds.) (2000). What works? Evidence-based policy and practice in public services. Bristol: The Policy Press.

Articles, chapters, Cochrane reviews

Go to the Cochrane Library for the most complete source of systematic reviews: https://www.cochranelibrary.com/

- Aboud, F. E., Tredoux, C., Tropp, L. R., Brown, C. S., Niens, U., & Noor, N. M. (2012). Interventions to reduce prejudice and enhance inclusion and respect for ethnic differences in early childhood: A systematic review. *Developmental review*, *32*(4), 307-336.
- Altman, D. G. et al. (2001). The revised CONSORT statement for reporting randomized trials: explanation and elaboration. *Annals of Internal Medicine*, 134: 663-694.
- Andrée Löfholm, C., Brännström, L., Olsson, M. & Hansson, K. (2013). Treatment-as-usual in effectiveness studies: What is it and does it matter? *International Journal of Social Welfare*, 22(1): 25-34.
- Aas, R. W. & Alexanderson, K. (2012). Challenging evidence-based decision-making: a hypothetical case study about return to work. *Occupational Therapy Internl*, 19: 28-44.
- Boaz, A. & Pawson, R. (2005). The perilous road from evidence to policy: five journeys compared. *Journal of Social Policy*, 34(2): 175-194.
- Britten, N. et al. (2002). Using meta-ethnography to synthesise qualitative research: a worked example. *Journal of Health Services Research and Policy*, 7(4): 209-215.
- Gendrau, P. & Smith, P. (2007). Influencing the "people who count". Some perspectives on the reporting of meta-analytic results for prediction and treatment outcomes with offenders. *Criminal Justice and Behavior*, 34(12): 1536-1559.
- GRADE Working Group (2004). Grading quality of evidence and strength of recommendations. *British Medical Journal*, 328(19): 1-8.
- Guyatt, G. et al. (2011). GRADE guidelines: 1. Introduction – GRADE evidence profiles and summary of findings tables. *Journal of Clinical Epidemiology*, 64: 383-394.
- Harris, R. J. et al. (2008). metan: fixed- and random-effects meta-analysis, *The Stata Journal*, 8: 3-28.
- Henggeler, S. et al. (2006). Methodological critique and meta-analysis as Trojan horse. *Children and Youth Services Review*, 28(4): 447-457.
- Lieberson, S. (1992). Einstein, Renoir, and Greely: some thoughts about evidence in sociology. *American Sociological Review*, 57: 1-15.
- Littell, J. (2005). Lessons from a systematic review of effects of multisystemic therapy. *Children and Youth Services Review*, 27(4): 445-463.
- Littell, J. et al. (2005). Multisystemic therapy for social, emotional, and behavioral problems in children and adolescents aged 10-17. Campbell Systematic Review 2005:1. Oslo: The Campbell Collaboration.
- Littell, J. (2006). The case for multisystemic therapy: Evidence or orthodoxy? *Children and Youth Services Review*, 28(4): 458-472.

- MacLure, M. (2005). 'Clarity bordering to stupidity': Where's the quality in systematic review? *Journal of Education Policy*, 20(4): 393-416.
- Moher, D. et al. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of Internal Medicine*, 151(4): 264-270.
- Mullen, E. J. (2006). Choosing outcome measures in systematic reviews: critical challenges. *Research on Social Work Practice*, 16(1): 84-90.
- Pawson, R. et al. (2005). Realist review – a new method of systematic review designed for complex policy interventions. *Journal of Health Services Research and Policy*, 10(S1): 21-34.
- Smedslund, G. et al. (2006). Work programmes for welfare recipients. Campbell Systematic Review 2006:9. Oslo: The Campbell Collaboration.
- Smith, G. C. S. & Pell, J. P. (2003). Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials. *British Medical Journal*, 327: 1459-1461.
- Sterne, J.A.C. et al. (2001). "Meta-analysis in Stata", in Egger, M., Davey Smith, G. & Altman, D. G. (Eds.), Systematic Reviews in Health Care: Meta-Analysis in Context. 2nd edition. London: BMJ.
- Stroup, D. E. et al. (2000). Meta-analysis of observational studies in epidemiology: a proposal for reporting. *JAMA*, 283(15): 2008-2012.
- Vedung, E. (2010). Four waves of evaluation diffusion. *Evaluation*, 16(3): 263–277.

Other Readings

- Higgins, J. P. T. & Green, S. (Eds.) (2008). Cochrane handbook for systematic reviews of interventions. Hoboken: Wiley-Blackwell.
- Saini, M. & Shlonsky, A. (2012). Systematic synthesis of qualitative research. Oxford: Oxford University Press.
- Shemilt, I. et al. (Eds.) (2010). Evidence-based decisions and economics. Health care, social welfare, education and criminal justice. 2nd edition. Chichester: Wiley-Blackwell.
- Sterne, J. A. C. (Ed.) (2009). Meta-analysis in Stata: an updated collection from the Stata Journal. College Station: Stata Press.

Schedule: Systematic Reviews, 7.5 ECTS-credits, Fall 2019

Meeting	Date, Time, Room	Topic
1	4/11/19, Monday Kl 10-12, D247 Instructor: Andrea Voyer	• Introduction to systematic reviews. • Formulating an answerable review question. Required Reading: Pettigrew & Roberts, Chapter 1 & Chapter 2
2	6/11/19, Wednesday Kl. 10-12, D207 Instructors: Daniel Dahl and Andrea Voyer	• Doing a systematic review as a Masters Thesis • Identifying relevant studies and outcomes. • Replication review selection. Required Reading: Pettigrew & Roberts, Chapter 3
3	8/11/19, Friday Kl. 10-12, Library	• Advanced information searching Required Reading: Pettigrew & Roberts, Chapter 4
4	12/11/19, Tuesday Kl. 10-12, D320 Instructor: Andrea Voyer	• Systematic methods for study quality appraisal, data extraction and evidence-grading Required Reading: Pettigrew & Roberts, Chapter 5, Noyes et al. 2018.
5	14/11/19, Thursday Kl. 10-12, E413	• Systematic methods for research synthesis Required Reading: Pettigrew & Roberts, Chapter 6.

6	18/11/19, Monday Kl. 13-16, LAB Instructor: Daniel Dahl	• Practical Meta-analysis in Stata
7	22/11/19, Friday, Kl. 9-12, F220 Instructor: Andrea Voyer	• Presentation of reviews
8	25/11/19, Monday Kl. 12-14, F220 Instructor: Andrea Voyer	• Possibilities and pitfalls of systematic reviews Required Reading: Pettigrew & Roberts, Chapter 7, Bogenschneider and Corbett, Chapters 8 & 10
	26/11/19, Thursday Kl. 22	Assignment 1 Due on Athena
9	3/12/19, Tuesday Kl. 9-12, D307 Instructor: Andrea Voyer	• Seminar: Peer evaluations of Assignment 1
	6/12/19, Friday, kl. 22	Personal reflection due on Athena