

WHAT IS A SYSTEMATIC LITERATURE REVIEW AND HOW DO I DO ONE?

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<https://www.stir.ac.uk/media/schools/management/documents/centregradresearch/How%20to%20do%20a%20systematic%20literature%20review%20and%20meta-analysis.pdf>

A huge amount of research is produced each year, often with conflicting findings. These between-study differences may be due to study differences, flaws or chance (sampling variation). In such situations, it is not always clear what the overall picture is, or which results are most reliable and should be used as the basis for practice and policy decisions.

Systematic reviews aim to address these problems by *identifying, critically evaluating and integrating* the findings of all relevant, high-quality individual studies addressing one or more research questions. A good systematic review might achieve most or all of the following (Baumeister & Leary, 1997; Bem, 1995; Cooper, 2003):

- Establish to what extent existing research has progressed towards clarifying a problem;
- Identify relations, contradictions, gaps, and inconsistencies in the literature, and explore reasons for these (e.g. by proposing a new conceptualisation or theory which accounts for the inconsistency);
- Formulate general statements or an overarching conceptualization (make a point, rather than summarizing all the points everyone else has made; Sternberg, 1991);
- Comment on, evaluate, extend, or develop theory;
- In doing these things, provide implications for practice and policy;
- Describe directions for future research.

A systematic review is therefore a piece of research and, by its nature, can address much broader questions than single empirical studies ever can (e.g. uncovering connections among many empirical findings; Baumeister & Leary, 1997). Indeed, systematic reviews sit above all other research designs at the top of the 'hierarchy of evidence' because they have the potential to provide the most important practical implications.

Systematic reviews are characterised by being objective, systematic, transparent and replicable. They involve a systematic search process to locate studies which address a research question, as well as a systematic presentation and synthesis of the characteristics and findings of the results of this search. The criteria for inclusion and exclusion in the review are objective, explicitly stated and consistently implemented such that the decision to include or exclude studies is clear to readers and another researcher using the same criteria would likely make the same decision. This explicit approach aims to minimise bias and allows readers of the review to assess the author's assumptions, procedures, evidence and conclusions, rather than taking the author's conclusions on faith. This methodology also allows other researchers to update the review later to integrate new findings. To best-achieve the purposes of a systematic review, Baumeister (2013) recommends *adopting the mindset of a judge and jury*, rather than a lawyer. A judge and jury sceptically evaluate the evidence to render the fairest judgment possible. In contrast, a lawyer's approach to the evidence involves trying to make the best case for one side of the argument.

HOW TO PRESENT (WRITE UP) A SYSTEMATIC REVIEW

There is no one right way to do a review; what you cover and how you organize the review should be dictated by the goals you have for the review. For example, reviews could be arranged historically, so that topics are introduced in the chronological order in which they appear in the literature; conceptually, so that works relating to the same ideas appear together; or methodologically, so that works that use similar methods are grouped together (see Cooper, 2003, p. 5, for further details).

More specifically, a systematic review should probably include most or all of the following:

Introduction

- Provide a theoretical and empirical background to the literature, explaining key terms, definitions and concepts;
- Provide a theoretical and/or empirical rationale for the systematic review;
- Explicitly state what the “foci, goals, perspective, coverage, organization, and audiences are... This statement should appear early in the review so that the reader can construct an appropriate frame of reference for evaluating the effort” (Cooper, 2003, p. 5). “Few readers can manage to wade through 50 pages of text... and findings before learning what the point is” (Baumeister & Leary, 1997, p. 316). This can be achieved either by (i) presenting an existing or new theoretical conceptualization at the start of the review and then using the remainder of the manuscript to review the literature relevant to the theory, or by (ii) presenting a quick summary of an existing or new theoretical conceptualization at the start of the review, postponing its full elaboration until after the literature has been reviewed (Baumeister & Leary, 1997).
- Describe aims and objectives;

Method

- Describe a comprehensive, objective, systematic literature search in detail, including how and when databases were searched; years searched; search terms; inclusion and exclusion criteria with a theoretical and/or empirical rationale; what concerted efforts you made to locate and include all published and unpublished work on the topic (i.e. what comprehensive and systematic preventative steps were taken to minimize bias and errors in the study selection process);

Results

- Describe the characteristics of included studies in detail in a Table;
- Describe assessment of the scientific quality of included studies;
- Critically evaluate and integrate the results in an unbiased and systematic way, including stating whether the results are heterogeneous and discussing possible reasons for this;
- Balance conflict resolution (by identifying inconsistencies in study results) against bridge building (by identifying points of contention in theories, conceptualizations, and methods in the literature) (Cooper, 2003).

Discussion

- Summarise and discuss the findings and conclusions of the review in a balanced and impartial way, in the context of previous theory, evidence and practice;
- Explicitly and intuitively link your conclusions to the evidence reviewed;
- Discuss the strengths and limitations of the literature and, by implication, the review, including

considering the scientific quality of included studies and methodological problems in the literature (e.g., methodological rigor or lack thereof, the amount of evidence, its consistency, and its methodological diversity). Conclusions should be tempered by the flaws and weaknesses in the evidence. Perhaps propose a new conceptualisation or theory which accounts for inconsistencies. (Baumeister & Leary, 1997);

- Comment on, evaluate, extend, or develop theory;
- Draw conclusions and make recommendations for practice;
- Describe directions for future theory, evidence and practice by pointing out remaining unresolved issues (Baumeister & Leary, 1997).

References

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