

Knowledge Synthesis Methods

9. Non-systematic literature review¹

Summary of method

Literature review that describes (and may appraise) the state/nature of existing evidence, but does not follow a standardised, systematic method.

There are no formal reporting requirements.

Key references

No specific resource provides guidance on the method, as methods are so variable. The following paper suggests how to improve and standardise literature review methods.

Haddaway, N., Woodcock, P., Macura, B., Collins, A. (2015). *Making literature reviews more reliable through application of lessons from systematic reviews*. *Conservation Biology* 29, 1596-1605.

Examples of application

Many scientific assessment reports commissioned by governments or international institutions follow this method, or a combination of this with 'expert consultation'. For example, the assessment reports of the Intergovernmental Panel on Climate Change (IPCC), the Millennium Ecosystem Assessment (MEA) and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) published so far have not followed standardised or peer-reviewed protocols or appraisal methods. Instead, they rely on internal and external extended peer-review of draft report stages as the main element of quality control. They have not documented their detailed methods, or the fate of all articles screened. These steps are required for systematic reviews and systematic maps, and usually also for rapid evidence assessments and scoping reviews.

¹ A guidance note from Dicks LV, Haddaway N, Hernández-Morcillo M, Mattsson B, Randall N, Failler P, Ferretti J, Livoreil B, Saarikoski H, Santamaria L, Rodela R, Velizarova E, and Wittmer H. (2017). *Knowledge synthesis for environmental decisions: an evaluation of existing methods, and guidance for their selection, use and development – a report from the EKLIPSE project*.

Non-systematic literature review

Cost	Varies depending on rigour (a few days to months FTE)
Time required	Varies depending on rigour (a few days to months)
Repeatability	Low
Transparency	Low
Risk of bias	Very high
Scale (or level of detail)	Independent of scale (any)
Capacity for participation	Usually none
Data demand	Variable depending on rigour
Types of knowledge	Scientific/technical, opinion-based; explicit
Types of output	Narrative description and reference list
Specific expertise required	Usually requires a topic expert

Strengths

Fast
Requires little technical skill
All academics are familiar with their conduct
Moderate length documents fairly easy to read and understand
Can cover a broad subject area

Weaknesses

No formal methodology
Generally very low transparency precludes verification of methods used and reliability of synthesis
No critical appraisal of included studies performed
No quantitative analysis of study findings
High risk of vote-counting (see Vote-Counting)
Typically do not include grey literature
Low comprehensiveness