

# Streamlined versus extensive search methods – Is there a difference?

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**BACKGROUND:** Rapid reviews (RR) have become a popular approach and an alternative to traditional systematic reviews (SRs) by streamlining methodological processes such as literature searching. This might be susceptible to bias, as striving for balance between comprehensiveness and timeliness can be a challenge.

**AIM:** To examine whether RR search methods identified all the studies included in SRs and compare the number of records retrieved by RR searches to those found by comprehensive searches.

**METHODS:** Using the data given in six SRs, we designed and carried out searches employing two streamlined rapid review search methods.

## 1. Limited number of databases method:

- Boolean searches: Ovid Medline, Cochrane Library, Epistemonikos.org
- PubMed similar articles: 1-6 potentially relevant references, 1st 100 linked articles for each, filtered by same formal criteria as the Boolean searches (e.g., language, study design)

## 2. Streamlined search method:

- Search 3-4 key databases for five-ten years
- Restricted search operators
- English language only
- Studies published in Organisation for Economic Co-operation and Development countries



**RESULTS:** The table illustrates the two RR methods are comparable. Most of the RR searches identified smaller number of search results.

Prospero #	Extensive Search	Limited databases	Streamlined Search	Number of studies retrieved compared to extensive search (Reason for non-retrieval from RR methods)	
				Limited databases	Streamlined Search
Gleeson CRD42016042385	853 (35h)	405 (4h)	687 (4.5h)	5/6 (1 grey literature study missed due to search strategy)	5/6 (1 grey literature study missed due to search strategy)
Khan CRD42018086759	4106 (24h)	890 (5h)	775 (4h)	4/10 (6 not available in dbases searched)	6/10 (3 restrictions in search strategy & dbases; 1 grey literature study)
Neumeister CRD42018104855	1772 (10h)	1097 (3h)	2296 (5.5h)	18/31 (13 due to restrictions in search strategy)	19/31 (12 due to restrictions in search strategy & dbases)
Oakley CRD42017084078	2304 (21h)	394 (2h)	1624 (3.5h)	2/2 (N/A)	2/2 (N/A)
Schmucker CRD42018100343	7908 (18h)	1626 (2.5h)	5912 (5h)	12/13 (1 restriction in search strategy)	10/13 (3 due to restrictions in search strategy)
Sommer CRD42018086888	6116 (26h)	4221 (4.5h)	7270 (6.5h)	28/36 (5 restrictions in search strategy, 3 not indexed in dbases searched)	23/36 (12 restrictions in search strategy; 1 grey literature study)

**CONCLUSION:** Both RR approaches saved time during the search process and by creating smaller search results. However, their sensitivity compared to SR searches varied, finding 40-100% of included references. More prospective research is needed to identify factors influencing the appropriateness of streamlined methods.