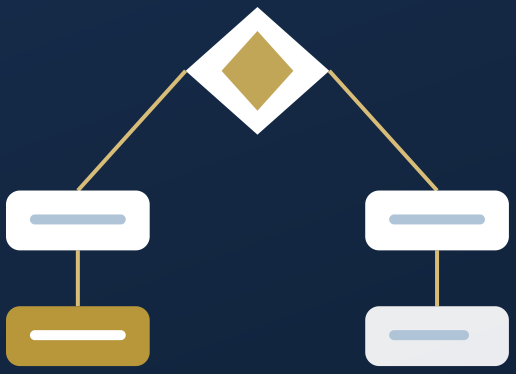
Research Gold

RESEARCH GOLD FIELD GUIDE

Before You Start a Systematic Review

How many studies you actually need, whether you can do it alone, how long it really takes, and which tools matter. The decisions to settle before you commit, from PhD methodologists.



Written by PhD methodologists researchgold.org

START HERE

Most reviews stall on decisions that should have been made first

A systematic review is a large, structured commitment, and the people who struggle are usually those who started before settling a few basic questions. How many studies is enough, can it be done alone, how long will it take, and what tools are worth using. Decide these honestly at the outset and the work becomes predictable rather than overwhelming.

PRINCIPLE

A systematic review is defined by its method, not its result count. There is no minimum number of included studies; a rigorous search that yields few eligible studies is still a valid review, and may itself be a finding. What makes it systematic is a pre-registered protocol, a comprehensive search, dual screening, and transparent reporting, not how many papers you end up with.

The questions to settle first

1. **How many studies do I need?**
   There is no fixed threshold. Your eligibility criteria decide what is included; the number follows from the evidence that exists. A small, well-justified set is defensible. A meta-analysis, however, usually needs at least a few comparable studies to be worthwhile.

2. **Can I do this on my own?**
   A review can be led by one person, but core steps are meant to be done by at least two. Screening and risk-of-bias assessment should be done independently by two reviewers, with a third to resolve disagreements. Doing it entirely solo weakens the review and is hard to defend.

3. **How long will it take?**
   A full review is typically a matter of months, not weeks, depending on the size of the literature and your team. Underestimating this is the most common reason reviews are abandoned partway.

4. **What will it cost me in effort?**
   The heaviest stages are screening hundreds or thousands of records and extracting data from included studies. Plan for these explicitly rather than discovering them midway.

THE TOOLS QUESTION

What screening software actually does for you

The most common tool question is which screening platform to use. They differ less in capability than in cost and workflow. Here is how the usual choices compare.

COMMON SYSTEMATIC REVIEW TOOLS, COMPARED HONESTLY

Tool	What it is best at	The trade-off
Rayyan	Fast title and abstract screening, free tier	Primarily a screening tool; less of a full pipeline
Covidence	End-to-end workflow: screening, extraction, export	Paid, and access is often tied to an institution
Reference manager (e.g. Zotero)	Organising and deduplicating references	Not built for structured screening or audit trails
ASReview or active-learning priority screening	Reordering the queue so likely-includes surface first	Speeds screening; the stopping rule is a judgement, not an automatic all-clear
Spreadsheet	Flexible, free, fully under your control	Manual; easy to lose the audit trail without discipline

WATCH OUT FOR

The tool is not what makes a review systematic; the method is. A free spreadsheet used with discipline can produce a defensible review, and an expensive platform used carelessly cannot rescue a weak one. Machine-learning priority screening (in Rayyan, Covidence, or ASReview) genuinely accelerates the title-and-abstract stage by ranking likely includes first, but it changes the *order* of screening, not the standard: you still need a pre-stated stopping rule and, for the records it deprioritises, a defensible account of why you stopped. Choose for the workflow that keeps your decisions documented and your counts reconcilable, then focus your energy on the method.

THE NON-NEGOTIABLES

The standards that define a systematic review, not a literature summary

What separates a systematic review from a thorough reading list is a chain of named standards, one for each stage. A reviewer checks for them by name, and their absence is what gets the word "systematic" challenged.

THE STANDARD EXPECTED AT EACH STAGE

Stage	The standard	What it governs
Protocol	Register on PROSPERO before screening	Locks your question and methods in advance, guarding against outcome switching
Conduct	Cochrane MECIR or JBI methodology	The methodological expectations for how each step is carried out
Reporting	PRISMA 2020, with the flow diagram	What you must report so the review is transparent and reproducible
Certainty	GRADE for each outcome	How much confidence the body of evidence warrants
Appraising a review	AMSTAR-2	The instrument others will use to judge your review's rigour

PRINCIPLE

Dual independent screening is not bureaucratic caution; it is an error-control measure. Studies of single-reviewer screening find it misses a meaningful share of eligible records, enough to change a review's conclusions, which is why two independent screeners with a third to adjudicate is the standard and a solo review is hard to defend. Register the protocol first, screen in duplicate, report against PRISMA 2020, and rate certainty with GRADE: that chain is what earns the word systematic.

DOING IT ALONE OR GETTING HELP

When it makes sense to bring in support

A frequent and fair question is whether to do everything yourself or get help. The honest answer depends on your deadline, your team, and which stages are the bottleneck.

A quick self-assessment

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Do I have a second reviewer for screening?   [yes / no]
Is my timeline realistic for the literature?  [yes / no]
Am I confident in the search strategy?        [yes / no]
Do I have a method for risk of bias?          [yes / no]
Is a meta-analysis planned, and can I run it?  [yes / no / n/a]
Where is my real bottleneck?  [search / screening /
                               extraction / synthesis / stats]
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PRINCIPLE

You do not have to choose all or nothing. Many researchers run the parts they are confident in and bring in methodological support for a specific bottleneck, the search strategy, dual screening, risk-of-bias assessment, or the meta-analysis, while staying the lead author throughout. Identifying your one binding constraint is more useful than deciding whether to outsource the whole project.

BEFORE YOU COMMIT

The readiness checklist

If every box is ticked, you are starting your review with the decisions that prevent it from stalling already made.

- [ ] You understand there is no minimum study count; your criteria decide inclusion.
- [ ] You have, or have planned for, a second independent reviewer.
- [ ] Your timeline reflects months of work, not weeks.
- [ ] You have chosen tools for workflow and audit trail, not prestige.
- [ ] You know whether a meta-analysis is planned and who will run it.
- [ ] You have identified your single biggest bottleneck.
- [ ] You will register the protocol on PROSPERO before screening, and report against PRISMA 2020.
- [ ] You will screen in duplicate and rate certainty of evidence with GRADE.
- [ ] You have a written protocol before screening begins.

WHEN YOU WOULD RATHER NOT DO IT ALONE

Have your review planned and run with you, end to end

If you want a protocol, a comprehensive search, dual independent screening, risk-of-bias assessment, and a meta-analysis where appropriate, our PhD methodologists carry the heavy stages with you, or just the one that is blocking you. You stay the lead author and make every judgement call.

Get a quote for your review

researchgold.org . Written by PhD methodologists . We work in writing, on your schedule.