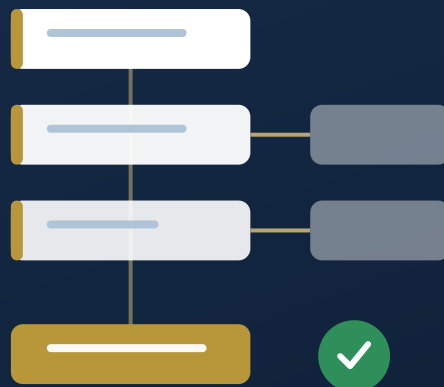


The Systematic Review Protocol Blueprint

Plan a PRISMA-aligned systematic review that survives peer review, before you run a single search. The decisions, the templates, and the protocol checklist used by PhD methodologists.



Written by PhD methodologists researchgold.org

A weak protocol is the most expensive mistake in a review

Almost every problem reviewers raise in a systematic review traces back to a decision that should have been made and written down before the search began. A protocol is where you make those decisions once, defensibly, and protect yourself from the accusation that you changed the rules to fit the result.

PRINCIPLE

The protocol is the contract you make with yourself and your reviewers. Every method, every threshold, every inclusion rule is fixed in advance. When a reviewer asks why you did something, the honest answer becomes "because the protocol said so", not "because it worked out that way".

What a registered protocol buys you

1 Protection against the charge of cherry-picking

A timestamped, pre-registered protocol shows your decisions were made before you saw the results. That single fact answers a whole class of reviewer suspicion.

2 A faster, cleaner write-up

The methods section of the manuscript is largely the protocol in past tense. Plan well and you have written a third of the paper before screening starts.

3 A team that agrees on the rules

When two screeners disagree, the protocol decides. Without it, every borderline study becomes a negotiation, and the review slows to a crawl.

The nine parts of a complete protocol

A protocol that reviewers trust covers every decision below, in writing, with a rationale. Missing any one of them is where revisions come from.

1 The research question, in a structured framework

State the question using a structured frame such as population, intervention, comparator, and outcome. A vague question produces an unsearchable review.

2 Eligibility criteria

Exactly which studies are in and which are out, by design, population, intervention, comparator, outcome, language, and date. Decide the hard edges now.

3 Information sources

The databases, registers, and grey literature you will search, with the date range and the rationale for each. Reviewers check that you searched the right places.

4 The search strategy

The full search string for at least one database, including controlled vocabulary and free-text terms. It must be reproducible by someone else.

5 The selection process

How many screeners, working independently or not, and how disagreements are resolved. Two independent screeners is the defensible standard.

6 Data extraction

What you will pull from each study and how. A piloted extraction form prevents the "we forgot to record that" problem at synthesis.

7 Risk of bias assessment

The named instrument appropriate to your study designs, and who applies it. Reviewers expect a formal, instrument-based judgement, not an informal one.

8 The synthesis plan

Whether you will pool quantitatively or synthesise narratively, and the rule that decides. State this before you see the data, not after.

9 Certainty of evidence

How you will rate the overall certainty of the body of evidence, typically using a structured approach such as GRADE.

WATCH OUT FOR

The single most common protocol failure is a search strategy that cannot be reproduced. If a reader cannot paste your search into the database and get your numbers, the review is not transparent, and a careful reviewer will say so.

THE QUESTION

Turn a topic into a searchable question

A systematic review answers one precise question. The structured frame below forces that precision and hands you the building blocks of your search at the same time.

A STRUCTURED QUESTION FRAME

Element	What it fixes	Example
Population	Who the study is about	Adults with type 2 diabetes
Intervention	What is being done	Structured exercise programme
Comparator	What it is measured against	Usual care
Outcome	What you will measure	Change in glycated haemoglobin
Study design	Which evidence counts	Randomised controlled trials

Write your question in one sentence

In [population], what is the effect of [intervention] compared with [comparator] on [primary outcome], as measured in [study designs]?

PRINCIPLE

Each element of the frame becomes a concept block in your search. Population, intervention, and the relevant designs are usually searched; outcomes are often left out of the search string and applied at screening, because outcome reporting in titles and abstracts is unreliable.

Build a search a librarian would sign off on

A reproducible search is built from concept blocks, combined with Boolean logic, and reported in full. Here is the pattern.

1 One block per concept

Build a separate list of terms for each concept, usually the population and the intervention. Combine terms within a block with OR.

2 Controlled vocabulary plus free text

For each concept, include the database subject headings and the natural-language synonyms, including spelling variants and plurals. Missing synonyms is how reviews miss studies.

3 Combine blocks with AND

Join the concept blocks with AND so every result touches every concept. This is what makes the search specific to your question.

4 Translate for each database

Subject headings differ between databases. The search is rewritten for each one, and every version is reported in an appendix.

Search strategy skeleton (one database)

Concept 1 (population):

[subject heading] OR "[term a]" OR "[term b]" OR [term c] *

Concept 2 (intervention):

[subject heading] OR "[term d]" OR "[term e]" OR [term f] *

Combined:

Concept 1 AND Concept 2

Limits applied: [dates], [language], [other].

Date last searched: [date].

WATCH OUT FOR

Record the exact date you ran each search and the number of records returned. You will need both for the flow diagram, and a reviewer will ask you to update the search if too long has passed before submission.

THE FLOW

Account for every record, from search to synthesis

The flow diagram is where reviewers check your arithmetic. The numbers must reconcile: records found, duplicates removed, records screened, full texts assessed, studies excluded with reasons, and studies finally included.

THE FLOW, STAGE BY STAGE

Stage	What you report	Common slip
Identification	Records found per source, plus duplicates removed	Forgetting register or grey-literature hits
Screening	Titles and abstracts screened, and excluded	Numbers that do not add up to the next stage
Eligibility	Full texts assessed, and excluded with a reason each	Exclusions without a stated reason
Included	Studies, and reports, in the synthesis	Confusing studies with reports

PRINCIPLE

Track exclusion reasons at the full-text stage from the very first record. Reconstructing them at the end, from memory, is painful and error-prone, and the reasons are mandatory in the reporting guideline.

Register the protocol before you screen

Prospective registration is the strongest signal that your review was planned, not reverse-engineered. It is quick, it is free, and reviewers increasingly expect it.

- ✓ Register the protocol in a recognised registry before screening begins, while your decisions are genuinely prospective.
- ✓ Give the registration record the same care as the protocol itself; a thin record undercuts the credibility it is meant to provide.
- ✓ If the protocol changes after registration, record the change and the reason rather than quietly editing. Transparent amendment is a strength, not a weakness.
- ✓ Cite the registration number in the manuscript so reviewers can compare what you planned with what you did.

PRINCIPLE

Reviewers do compare the registered protocol against the submitted paper. Undisclosed departures read as a red flag; disclosed and justified departures read as careful science. Plan to amend openly.

WATCH OUT FOR

Registering in PROSPERO and *reporting* the protocol document are two separate obligations, and reviewers increasingly expect both. The PROSPERO record is a short structured entry; the protocol itself should be written to the PRISMA-P standard, the seventeen-item protocol-specific extension of PRISMA that governs what a complete protocol contains (the eligibility logic, the full draft search, the planned risk of bias and synthesis methods). A common slip is to treat the registry fields as the whole protocol. They are the index, not the document. Write the protocol to PRISMA-P, register the summary in PROSPERO, and where the topic falls outside PROSPERO scope (for instance scoping reviews) lodge the protocol in an open repository with a timestamp instead.

The protocol readiness checklist

Run your plan through this list before the first search. If you cannot tick a box, the protocol is not finished, and the review is not ready to start.

- ☒ The research question is written in one sentence using a structured frame.
- ☒ Eligibility criteria are explicit for design, population, intervention, comparator, outcome, language, and dates.
- ☒ Every information source is named, with a date range and a reason for inclusion.
- ☒ The full search string for at least one database is written and reproducible.
- ☒ The number of screeners and the disagreement-resolution rule are stated.
- ☒ A piloted data extraction form lists every field you will record.
- ☒ The risk of bias instrument is chosen and matched to your study designs.
- ☒ The synthesis plan states the rule for pooling quantitatively or synthesising narratively.
- ☒ The approach to rating certainty of the evidence is specified.
- ☒ The protocol document itself is written to the PRISMA-P reporting standard, not just summarised in the registry fields.
- ☒ The protocol is registered, with its number ready to cite.

WHEN THE REVIEW IS BIGGER THAN THE CALENDAR

A full systematic review is a year of work done in parallel

If you need the protocol, the reproducible search, screening support, data extraction, risk of bias assessment, and a manuscript-ready write-up that follows the reporting guideline, our PhD methodologists run the whole review with you. You stay the author and make every inclusion call; we do the heavy, exacting work that makes it publishable.

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