

Writing a Protocol

Overview

A protocol is a written plan that specifies, **in advance**, exactly how you intend to conduct your systematic literature review. It is not complete until all 11/12 sub-sections below have been worked through and recorded. Writing the protocol is not a bureaucratic hurdle; it is the mechanism that makes your review transparent, reproducible, and defensible to examiners, supervisors, and future readers.

The protocol has two functions. First, it forces you to make every methodological decision before you are influenced by seeing results. Second, it creates a timestamped record of those decisions so that any deviation from the plan is visible and requires justification.

Do not begin searching until your protocol is complete and your supervisor has reviewed it.

What a Protocol Contains

The table below lists all required sections. Each is explained in detail in the sub-sections that follow.

Section	What it records
Title	Working title of the review
Background	Brief rationale: why this topic, why an SLR, why now

Section	What it records
Research question	Your structured question from the previous step , using PICO, SPIDER, or PCC
Eligibility criteria	Explicit inclusion and exclusion rules
Search strategy	Databases, search strings, supplementary methods
Screening process	Phases, tools, screeners, conflict resolution
Quality appraisal	Tool selected and how scores will affect inclusion
Data extraction	Fields to be collected and who will extract
Synthesis method	Narrative, thematic, or meta-analytic approach
Timeline	Planned dates for each stage
Registration	PROSPERO or OSF registration number, or a statement of why registration was not pursued
Protocol Amendments	Any changes made to the protocol after searching begins: the date of each change, the section affected, the original wording, and the reason for the change. This section is blank at submission and completed during the review process. All amendments must be disclosed in the thesis methods chapter.

For a thesis-level SLR, the protocol will typically run two to four pages. A downloadable template covering all sections is available [here](#).

Why a Protocol Matters

The core risk in any literature review is unconscious bias: the tendency to favor studies that confirm what you already expect to find. A pre-registered protocol addresses this directly by committing you to your methods before you have seen the results. Specifically, a protocol:

- **Prevents outcome-driven decisions.** Without a protocol, it is easy to quietly shift your inclusion criteria after seeing which studies support your argument. A protocol makes any

such deviation visible and requires justification.

- **Supports reproducibility.** Another researcher following your protocol should be able to replicate your search and arrive at substantially the same set of included studies.
 - **Strengthens your thesis.** Examiners can evaluate the rigor of your method independently of your findings. A well-written protocol demonstrates systematic thinking before you have produced a single result.
 - **Saves time downstream.** Decisions made in the protocol (date ranges, languages, study types) do not have to be renegotiated at each subsequent stage.
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Eligibility Criteria

Eligibility criteria are the explicit rules that determine which studies are included in or excluded from your review. They are derived directly from your research question: each element of your PICO, SPIDER, or PCC framework suggests at least one criterion.

Criteria are divided into two types:

- **Inclusion criteria** define the characteristics a study must have to be eligible. Every included study must meet all inclusion criteria.
- **Exclusion criteria** define characteristics that disqualify a study, even if it otherwise appears relevant. Exclusion criteria often address practical constraints (language, access, study quality) rather than topic relevance.

Common Criterion Categories

Category	Example inclusion criterion	Example exclusion criterion
Publication date	Published between January 2015 and December 2025	Published before 2015
Language	Written in English or German	Written in any other language
Document type	Peer-reviewed journal articles and conference papers	Editorials, opinion pieces, book reviews, dissertations

Category	Example inclusion criterion	Example exclusion criterion
Study design	Empirical studies (qualitative, quantitative, or mixed-methods)	Purely conceptual or theoretical papers
Geographic scope	Studies conducted in EU member states	Studies conducted outside Europe
Population/context	Studies focused on SMEs	Studies focused exclusively on large corporations
Relevance	Studies directly addressing the phenomenon of interest	Studies mentioning the topic only incidentally

Why Criteria Must Be Pre-Specified

Criteria written after you have seen the results of your search are retrospective and therefore biased. If you find yourself wanting to exclude a specific study because it complicates your synthesis, that is a signal to engage with it more carefully, not to rewrite a criterion. Any change to criteria after searching begins is a protocol amendment and must be documented.

Testing Your Criteria

Before finalizing your criteria, test them against five to ten records from a preliminary search: a mix of obviously relevant, obviously irrelevant, and borderline papers. If you cannot apply the criteria consistently to this small sample, they need further specification before you proceed to full screening.

Search Strategy

Your search strategy records exactly how you will find the literature. It has three components.

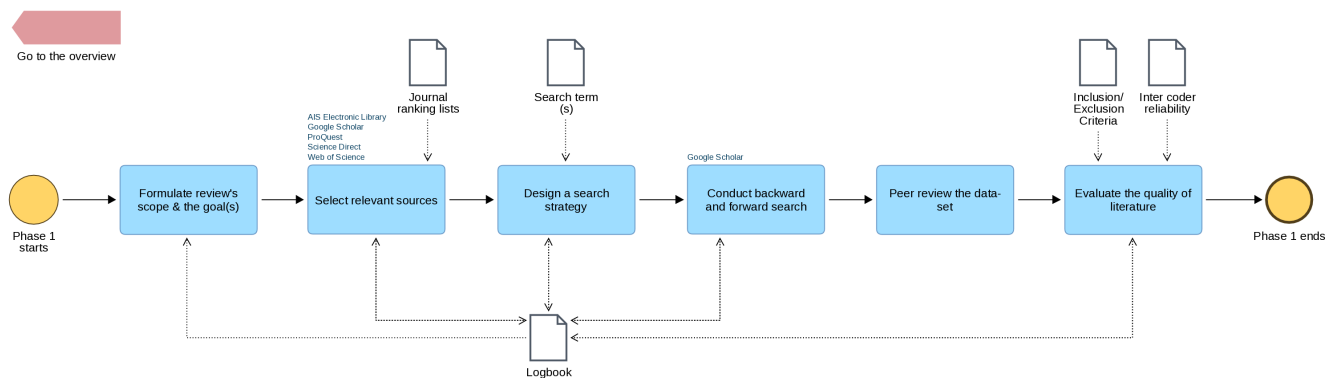
Databases: List every database you will search. For business and management research, the standard set is [Business Source Ultimate \(EBSCO\)](#) and [JSTOR](#). Google Scholar may be used supplementarily for grey literature. The rationale for including each database should be noted briefly (coverage of the discipline, access to specific journal types, etc.).

Search strings: Document the complete Boolean search string you will use in each database.

Strings are built from the concepts in your research question framework, with synonyms connected by OR and concepts connected by AND. If strings vary between databases due to different controlled vocabularies, record each variation. Full guidance on constructing strings is provided in [Conducting Your Search](#).

Supplementary methods: Document any additional search methods beyond database searching.

The most important of these is snowballing, a technique in which you trace citations forward and backward from a confirmed set of relevant papers. Backward snowballing examines the reference lists of included studies to find earlier relevant work; forward snowballing uses citation databases (Google Scholar, Scopus, Web of Science) to find later papers that have cited an included study. Snowballing is particularly valuable in management research, where relevant work may be published in practitioner journals or conference proceedings not fully indexed in major databases.



"Phase 1 of the Bandara et al. SLR process: extraction of relevant literature" by Hasan Koç is licensed under [CC BY-NC-SA 4.0](#), based on [Bandara et al., 2015](#).

Screening Process

The screening process section of your protocol records how you will apply your eligibility criteria to the records returned by your search. It should specify:

- The two phases of screening (title/abstract, then full text) and what decisions are made at each phase
- The tool you will use (e.g. Rayyan or a spreadsheet)
- Who will screen (solo screening is acceptable at thesis level but must be stated as a limitation)

- What you will do with full texts that cannot be retrieved

Full guidance on conducting screening is provided in [Screening the Results](#).

Quality Appraisal Approach

The quality appraisal section of your protocol specifies how you will assess the methodological rigor of included studies. Record:

- The appraisal tool you will use and why it is appropriate for your study types (CASP, MMAT, or JBI; all are free)
- Whether studies scoring below a threshold will be excluded, or whether all studies will be retained with quality noted in the synthesis
- Who will appraise (solo appraisal is acceptable at thesis level)

This decision must be made before appraising any study. Deciding post-hoc to exclude low-quality studies after seeing their findings is a form of bias. Full guidance on quality appraisal is provided in [Appraise Study Quality](#).

You will also be asked, at the end of your review, to evaluate the rigor of your own process using the self-assessment rubric on [Evaluating Your Own SLR Process](#).

Data Extraction and Synthesis Method

Data extraction: Specify the fields you will extract from each included study and the format of your extraction form (typically a spreadsheet). At minimum, record: author, year, country, methodology, sample, key findings, theoretical framework, limitations, and quality appraisal rating. A blank copy of your extraction form should be included as a thesis appendix. Full guidance is provided in [Extract Data](#).

Synthesis method: State whether you will use narrative synthesis, thematic synthesis, or meta-analysis, and briefly justify the choice in relation to your research question and expected study types. Even a one-sentence commitment ("findings will be synthesised narratively using thematic grouping") is sufficient at protocol stage. Full guidance on synthesis approaches is provided in [Synthesise and Report](#).

Timeline

Provide estimated completion dates for each stage. A systematic review takes significantly longer than most students anticipate; building in buffer time is essential.

Stage	Planned completion date
Protocol finalised and supervisor-approved	
Database searches completed	
Title/abstract screening completed	
Full-text screening completed	
Quality appraisal completed	
Data extraction completed	
Synthesis and write-up completed	

Protocol Registration (Optional)

Registering your protocol with an external repository creates a timestamped, publicly accessible record of your planned methods. This is optional for most student theses but is increasingly expected in academic publishing and demonstrates a high standard of rigor.

PROSPERO

PROSPERO (International Prospective Register of Systematic Reviews), hosted by the University of York, accepts reviews from health, social science, education, welfare, and business contexts. Registration is free and requires an ORCID iD. Note that PROSPERO does not accept scoping reviews; use OSF for those.

- URL: crd.york.ac.uk/prospero

OSF (Open Science Framework)

The OSF, maintained by the Center for Open Science, accepts protocol registrations for any discipline with no topic restrictions. It is the more flexible option for management, design, or interdisciplinary business research, and accepts scoping reviews.

- URL: osf.io

When Registration Is Not Required

Registration is not a formal requirement for most taught or research master's theses. If you do not register, state this explicitly in your methods chapter and give a brief reason (for example, the review is a thesis component rather than a standalone publication). Do not simply omit the topic.

Amendments to the Protocol

Any change made to the protocol after searching begins must be recorded as a formal amendment. For each amendment, document:

- The date of the change
- Which section was changed and what the original wording was
- The reason for the change

Amendments are not a sign of failure; they are a sign of transparency. What is not acceptable is changing methods silently to accommodate inconvenient results. Include the amendments log as an appendix in your thesis.

Common Mistakes to Avoid

- **Writing the protocol after searching.** A retrospective protocol defeats its purpose entirely.
- **Being too vague.** "Recent articles in English" is not a criterion; "peer-reviewed journal articles in English or German, published between January 2015 and December 2025" is.
- **Separating the criteria from the protocol.** Eligibility criteria are a section of the protocol, not a prior step. Do not finalise them in isolation.
- **Leaving the synthesis section blank.** Students frequently specify their search in detail but leave synthesis unaddressed. Commit to a method before you begin.
- **Not getting supervisor sign-off.** The protocol review is a checkpoint, not a formality. A supervisor who has approved your protocol cannot later object that your method was inappropriate.

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