Application and inspection form

Optional Canvas TRAMA–TRACE-S interface

Purpose: record and inspect the link between a preserved research scope and a stable search task. TRACE-S can be used without Canvas TRAMA. This form does not provide validated search syntax, empirical retrieval results or participant observations.

Status: proposed operational supplement approved by the authors for submission with the revised TRACE-S manuscript. Author approval does not establish prior application or scientific validation. This is not a validated instrument or a certificate of search quality.

How to use this form

Complete one task record on pages 1–2. Duplicate page 2 for additional concept–term mappings and pages 3–4 for each version or execution. Keep all identifiers and evidence locations consistent. An independent examiner completes pages 5–7. Page 8 provides guidance and limitations.

Project_ID and project title

Scope_Version_ID and instrument name / version

Preserved source location or file reference

Task_ID and purpose

Responsible person or program; date, time and time zone

Scope and concept mapping

Task_ID: complete the field below on each repeated sheet. Fix relevance criteria before query comparisons.

Task_ID and Scope_Version_ID

Research question, population or object, and context

Fixed relevance criteria

Scope decisions used and rationale

Provisional or pending conditions

Concept_ID, associated task component and mapping rationale

Term_ID, literal term, vocabulary or source, and selection rationale

Repeat this sheet as needed. Do not automatically convert every scope boundary into a search filter. A changed information need requires a new task rather than retrospective alteration of the existing task.

Query version and execution

Preserve each version and execution separately, including unsuccessful and successful empty executions.

Task_ID and Version_ID

Predecessor Version_ID or first-version status; reason for change

Database or source and platform

Exact executable query as submitted to the platform

Parameters, limits and rationale

Execution_ID; execution date, time and time zone

Execution status and details: success, successful empty result, error or pending

Export location and optional checksum

Counts and evidence preservation

Link this sheet to its task and execution. Preserve independent judgments before adjudication.

Task_ID, Version_ID and Execution_ID

Displayed count; exported count; deduplicated count; counting basis

Document identity reconciliation method

Location of preserved Execution–Document associations

Independent judgment records and adjudication record locations

N, R, I and U for the same task; denominator source and missing records

N = R + I + U. Record relevant (R), irrelevant (I) and unresolved or unassessable (U) records consistently with the manuscript. If N > 0 and U = 0, R/N is the relevant fraction among the N assessed records. If N > 0 and U > 0, the conditional identification bounds are R/N and (R + U)/N. If N = 0, the fraction is undefined. These are not confidence intervals or estimates of overall retrieval precision unless the full retrieval set was assessed.

Re-execution test references and status; distinguish pending from successful tests

Retain every retrieval-origin link after deduplication. Documentary completeness alone does not demonstrate improved retrieval performance.

Independent inspection 1 of 2

Select one response per item. Cite specific evidence, explain limitations and justify every Not applicable response.

Task_ID; examiner name; inspection date

01 Source scope copy and version can be located.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

02 Task purpose and fixed relevance criteria are reconstructible.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

03 Concept and term choices are traceable to the task.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

04 Query revisions retain predecessor links and reasons.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

05 Changes in information need are represented as new tasks.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

Independent inspection 2 of 2

Select one response per item. Cite specific evidence, explain limitations and justify every Not applicable response.

Task_ID; examiner name; inspection date

06 Executions, documents and origin associations are preserved.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

07 Independent judgments and adjudication are distinguishable.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

08 Counts and missing or unassessable records are reconstructible.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

09 Pending re-execution tests are distinct from successful tests.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

10 Ambiguities, clarifications and inspection time are recorded.

○ Yes ○ Partial ○ No ○ Not applicable

Evidence reference and explanation; justify any Not applicable response

Inspection findings and follow-up

These 10 interface checks supplement, and do not replace or validate, the manuscript's SSQC-15. No total score or acceptance threshold is specified.

Task_ID; examiner name; inspection date

Critical failures: missing executable query, unidentified source or denominator

Record each critical failure separately with its evidence reference. An unreconstructible denominator is a critical failure. If no such failure is found, record that explicitly; do not infer it from an empty field.

Other missing or ambiguous evidence

Clarification requests and responses, with dates and evidence references

Inspection start and end times, time zone, and elapsed inspection time

Outstanding actions, responsible person and evidence needed

Inspection time and clarification requests are proposed feasibility observations, not evidence of validation or improved search quality.

Guidance and limitations

Reference notes for future application. The example below is hypothetical and is not a completed study record.

Hypothetical example

Project P01 and scope S01 concern artificial intelligence for radiographic detection of periapical lesions in permanent teeth. Task T01 seeks diagnostic-performance studies under fixed relevance criteria. Concepts are C01, periapical lesions; C02, artificial intelligence; and C03, dental radiography.

A proposed version V02 adds deep-learning terms; a proposed V03 changes field restrictions. Each requires its own rationale and version record. No executable query or database retrieval is claimed in this example.

A document retrieved by two versions retains both execution links and one adjudicated relevance decision for T01. A later question about treatment decisions requires a new task T02 linked to revised scope S02, rather than retrospective changes to T01. No observed counts or performance results are supplied.

Before a prospective pilot

Specify examiner eligibility and calibration, task selection, applicable link instances, inspection rules, handling of missing records and feasibility outcomes before starting. Any new human-participant evaluation requires determination of the applicable requirements before it begins.

Limits of this proposed form

This supplement has not undergone content validation, cognitive testing, interrater reliability testing or feasibility assessment. It must not be presented as a validated instrument, as proof of search quality or as evidence of empirical testing.

Preparation and source

Prepared with AI-assisted drafting and organization from the submitted TRACE-S manuscript, especially Tables 1–4 and Sections 4–5. This structured version reorganizes the proposed supplement into blank fields and response options. No additional data collection or testing was performed.

The authors must verify, revise and approve this supplement before adopting it as submission material. Blank fields are intentional spaces for future use and do not represent missing observations from a completed study.