SAGE-R · STRUCTURED AI-GUIDED EDUCATION FOR RESEARCH

If you use AI, you remain responsible and must stand behind the research.

THE RULE

If you cannot explain, justify, verify and stand behind it, it is not ready to enter your research.

You own the research
DECISIONS · EVIDENCE · CLAIMS

SIX ACTIONS FOR EVERY AI-ASSISTED TASK

1. **Check permission** — Institution, ethics, funder and publisher rules
2. **Protect the research** — Keep confidential, participant and unpublished material out of unapproved tools
3. **Set the boundary** — Decide what AI may do and what stays yours
4. **Verify independently** — Against sources, data, code or methods
5. **Record and disclose** — As your institution and publishers require
6. **Defend the work** — Explain, justify, verify and stand behind it

Across your research journey

AI may help · Stays yours · Must check

01 Frame the research

AI may help: exploring concepts, comparing directions, proposal structure.
Stays yours: the problem, the questions and why they matter.

- [ ] Problem and questions stated in your own words.
- [ ] No AI-produced text stands in for your reasoning.
- [ ] Direction justified from literature you have read.

02 Find and read literature

AI may help: searching, initial screening and first-pass summaries.
Stays yours: what is included, and why.

- [ ] Source located; authors, title, outlet, year and DOI or other identifier verified.
- [ ] Findings, methods and statistics match the original.
- [ ] No merged papers, reversed results or false causation.

03 Design methods and ethics

AI may help: drafting initial instruments, protocols, code and procedural wording.
Stays yours: the method, and every judgement on risk and consent.

- [ ] Code and models tested against known results.
- [ ] Instruments aligned with your questions and approvals.
- [ ] No participant or ethics material in unapproved tools.

04 Analyse and interpret

AI may help: executing your specified analysis, producing draft tables and figures, and offering a first-pass interpretation.
Stays yours: the analytical approach, chosen first, and the interpretation.

- [ ] Dataset, variables, units and exclusions confirmed.
- [ ] Results reproduced, recalculated or independently checked as appropriate.
- [ ] Tables, figures and themes traced to the data.

05 Write and reference

AI may help: notes into prose (boundary prompt), reference formatting.
Stays yours: the reasoning and evidence, written first in your notes.

- [ ] No claim, inference or reference beyond your notes.
- [ ] Qualifications neither strengthened nor dropped.
- [ ] Every citation located and supporting its claim.

06 Discuss and conclude

AI may help: structure, counterarguments and language.
Stays yours: the contribution, and how far the evidence reaches.

- [ ] Every conclusion traced to a finding.
- [ ] Claims fit the design; limitations acknowledged.
- [ ] Contextual and cultural assumptions identified and corrected.

Your supervisor may ask

Part of normal supervision

STAGE 01
"In your own words, what problem are you solving, why this one, and what alternatives did you consider?"

STAGE 02
"Pick any paper in your review. How was the study conducted, what did it find, why is it included, and what did you verify in any AI-generated summary?"

STAGE 03
"Why this method rather than the alternatives? How does the instrument, code, model or protocol work, and what would change if a design decision changed?"

STAGE 04
"Walk me through this finding. How was it produced, what does it assume, and what does it not show?"

STAGE 05
"Show me the notes behind this section. Why is this reference here, and what point does it support?"

STAGE 06
"Which finding supports this recommendation, and where are its limits?"

Examiners may ask this too.

Verification is not...

- **Asking AI again.** A further AI response is not independent evidence.
- **Spot-checking.** It is a screen only. Check every output you actually use.

Cannot verify it? Do not rely on it. Raise it with your supervisory team.

Ready to Defend?

Ask yourself before any milestone

- **Explain** — What did you do, and how did AI contribute?
- **Justify** — Why was this approach appropriate?
- **Verify** — What evidence beyond AI confirms it?
- **Stand behind** — Will you take responsibility for this claim?

Dr Mahmoud Elkhodr and Professor Ergun Gide · CQUniversity Australia

SAGE-R does not itself authorise AI use. Always follow your institution's policies, ethics approvals and funder or publisher requirements. Full candidate and supervisor guidance: **sage-framework.com/sager** · Working draft for consultation, October 2026 · CC BY 4.0 · Icons: Font Awesome Free (CC BY 4.0)