

GAC033 Project Based Learning and Research Methods

GAC Study and Communication Skills

What this module is, and how it is marked

GAC033 teaches research the way a university expects it: a team develops, presents and defends a **research proposal** 研究提案. Eight units take you from a question to a defended plan.

Assessment is the proposal itself, its **presentation** 展示 to peers and facilitators, and coursework. What is assessed is the proposal — not results, because the study is not run.

- △ The commonest failure is a question too big to research. Narrowing is the skill, and it is worth more marks than any amount of reading.

Introducing PBL: the driving question

- A **driving question** 驱动性问题 opens an investigation. It cannot be answered by a search, and it does not have one obvious answer.
- Good driving questions are **specific**, **researchable** and **arguable**.
- Start from something you have noticed, not from a topic you were given.

Worked example. Narrowing one topic three times.

Topic: social media. *Too broad to research.*

Narrower: social media and study. *Still no measurable question.*

Driving question: Does keeping a phone out of reach during homework change how long students work before their first interruption?

The third names who, what is measured, and what would count as an answer. That is what “narrow” means, and it is the whole first unit.

Inquiry: the research methods

- Choose the method **after** the question, not before.
- An **experiment** 实验 changes something and measures the effect; a **survey** 问卷 measures what people report; an **observation** 观察 records what they do; a **research interview** 访谈 explains why.

- **Ethics** 伦理: consent, anonymity, the right to withdraw, and nothing that could harm a participant. A proposal without an ethics section is incomplete.

Inquiry: gathering information

- Use **databases** 数据库 and library catalogues, not a search engine alone.
- Keep a **search log**: what you searched, where, and what you found. It is evidence of method, and it stops you repeating searches.
- Record every citation as you go — the same rule as every other module, for the same reason.

Inquiry: the research question

- The **research question** 研究问题 is the driving question made precise: variables named, population defined, timeframe fixed.
- Write the **null hypothesis** as well. If you cannot state what “no effect” looks like, the question is not yet measurable.
- Define your terms. “Interruption” needs a definition before anyone can count one.

Synthesis: literature

- A **literature review** 文献综述 says what is already known, where sources agree and disagree, and where the gap is that your study would fill.
- Organise by **idea**, never by source. One paragraph per idea, citing whoever supports it — the GAC015 rule, applied to a longer text.
- The gap is the justification for your study, and a proposal without one has not explained why it should exist.

Synthesis: the proposal

- A proposal states: the question, why it matters, what is known, the method, the ethics, the timeline, and the limitations.
- **Limitations** 局限 are written before the study, not after. Saying what your design cannot show is what makes the rest credible.
- The **timeline** 时间表 must be realistic for the weeks you actually have.

Critique: peer review

- **Peer review** 同行评审 here means reading another team's proposal as a critical friend.
- Review the **method against the question**: would this design actually answer it?
- Give feedback that is specific and about the work: *the sample is only your own class, so the claim about the school does not follow.*
- Receiving critique well is assessed too. Defending every point is a worse outcome than changing one.

Finalize and share: the proposal and presentation

- Present the question first, then why it matters, then the method. An audience that does not understand the question cannot judge the method.
- Prepare for the **defence** 答辯: the three hardest questions are almost always about sample, measurement and alternative explanations.
- Answer with the limitation, not around it. "That is a real weakness; here is why the result would still be informative" is the strongest thing you can say.