Course notes

International Baccalaureate · IB Diploma · Extended Essay

Extended Essay: a question you can investigate

Make the question answerable

A **research question** 研究问题 states what you will investigate. “Are parks good?” is too broad. “How does shade affect afternoon surface temperature at three sites in the school garden?” gives a setting, a comparison and a measurable outcome. Your subject teacher must confirm that the question and method fit the applicable essay rules.

A **method** 方法 explains how you collect or examine evidence. For the garden question, compare named surfaces at consistent times and record shade conditions. Repeated measurements help reveal variation; they do not remove a badly chosen comparison.

Test feasibility before collecting

Feasibility 可行性 means you can complete the work with your time, access and equipment. Try a small pilot. Can the instrument distinguish the temperatures? Can you access all sites safely? If a method fails, revise the question before collecting a large set of weak measurements.

For work involving people, obtain school approval before recruitment. Use appropriate consent and privacy arrangements. Do not collect sensitive information just because it might be interesting.

Read sources for a purpose

A **source** 来源 is useful when it provides relevant information you can examine. Record its author, date, method and role in your argument. Three websites repeating one report are not three independent measurements.

Separate a source’s result from your interpretation. A local garden comparison does not prove that all parks cool every city. Explain how the setting and method limit what your evidence can show.

Build an honest argument

A **citation** 引用说明 allows a reader to find the source of an idea or result. Keep page numbers and publication details while reading. Quotation and citation do not replace an explanation of why the evidence matters.

A **conclusion** 结论 answers the question using the evidence you actually have. Include

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a material limitation and explain its effect. Keep a record of changes to the question and reasons for your decisions. Confirm the applicable assessment version with your supervisor; these notes do not provide a complete subject-specific essay rubric.

Research reflection: explain a decision and its effect

A promising question needs a new route

- A student plans to compare river samples from two sites. Access to one site is refused, so the original comparison cannot proceed. How should the student document a change without pretending the first method succeeded?
- A **decision** 决策 record explains the choice, the evidence available at the time and why the next action fits the research question. A diary of dates alone does not explain the reasoning.

Bring evidence to the supervisor

- Bring the current question, proposed method, source notes and the access restriction to the school supervisor. Explain which comparison is no longer possible and what an approved alternative could answer.
- The student owns the research and writing. Supervision helps clarify feasibility, permitted methods and the applicable assessment requirements; it does not supply an invented result or a replacement essay.

Evaluate the effect of a change

- If only one site remains available, a narrower question about that site may be feasible. Explain how this change removes a two-site comparison and limits the conclusion.
- An **alternative** 备选方案 should be evaluated for relevance, access and the subject's methods. Changing a title without changing an unsuitable method does not solve the problem.

Reflect on learning rather than list tasks

- A **reflection** 反思 explains what an experience changed in your understanding and future choices. Identify the initial assumption, the evidence that challenged it and the resulting action.
- Use actual records. Do not claim that you developed a skill merely because the project required it; describe a decision or piece of work that shows the development.

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Keep the assessment version clear

- The Extended Essay brief is labelled first assessment 2027. Confirm your session's guide and reflection process with the school before using any required form, word limit or submission rule.
- A practice explanation of a research decision is useful across methods. It is not a completed official reflection form, and an online check cannot verify authorship or replace the school's supervision process.

■ Worked example

The student initially assumed access to both river sites. After a documented refusal, the student discusses an approved one-site study with the supervisor. The question and comparison plan are narrowed before collecting data. The reflection explains that feasibility must be checked early, shows how the restriction changed the possible conclusion and identifies earlier access checks as a future action. It reports the actual process instead of inventing the missing comparison.

■ Watch out

Do not write a successful-sounding account of a method you could not use. Explain the actual restriction, decision and learning.

■ Key idea

Use a traceable decision, evaluate its effect on the research question and explain what you learned; confirm session-specific reflection requirements.

From a source claim to a warranted conclusion

An announcement is not an outcome

- A museum announces: "Our new audio guide makes every visit easier." A later report says that 18 of 20 visitors who tried it found the instructions clearer. Does this establish an improvement for every visitor?
- A **source claim** 来源主张 records what its maker says. The announcement shows the museum made a promise; testing its effect needs evidence about actual visits. These statements are invented for this lesson.

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Identify who supplied the evidence

- The report concerns 20 users of the audio guide. It says nothing about visitors who did not use it, or why they did not. Keep the studied group visible when explaining the result.
- **Scope** 范围 is the range covered by a claim. "18 of these 20 users" fits the reported count. "Every visitor benefits" goes beyond it, even if the users gave honest answers.

Read the measure before the conclusion

- "Instructions clearer" describes reported understanding of instructions. It does not measure waiting time, access to every exhibit or enjoyment of the whole visit. Decide what the question actually asks.
- A **measure** 衡量指标 must address the proposed outcome. More responses to the same narrow question would not automatically establish an improvement in all parts of a visit.

Explain the evidence-to-claim connection

- A **warrant** 论证依据 explains why evidence supports a conclusion. Here, users' reports can support a limited claim about their experience of the instructions. Explain that connection rather than writing "the report proves success".
- Consider what could change the interpretation. If staff invited only satisfied users to respond, selection may affect the finding. Investigate how the users were chosen; do not invent a selection problem as an established fact.

State what remains unanswered

- A **limitation** 局限 matters when it changes what you can conclude. The missing non-user evidence prevents a conclusion about all museum visitors. It does not erase what the 20 users reported.
- An actual research plan needs traceable sources, a permitted subject method and supervisor review. This fictional practice case supplies no collected data, approved research question or completed essay paragraph.

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■ **Worked example**

The report states that 18 of 20 audio-guide users found the instructions clearer. This supports a claim about those users' reported understanding, provided the wording and collection process are checked. It does not establish that the guide improved every visit: non-users are absent, and other aspects of a visit were not measured. A next research decision is to define the intended outcome and check what evidence is accessible before widening the claim.

■ **Watch out**

A source can be quoted accurately while the conclusion drawn from it is too broad. Check the group, measure and inference as well as the quotation.

■ **Key idea**

Separate what a source says, what its evidence measures and what your argument can reasonably conclude.

Trace sources and preserve their meaning

Three pages can repeat one result

- A fictional student investigates how a town library changed its opening hours. A council note, newspaper article and campaign page all report the same survey. The student calls them three separate confirmations. What needs checking?
- A **source trail** 来源链 records where a statement came from. Follow each page back to its named survey. Three accounts of one survey can show different interpretations, but they do not create three independent sets of observations.

Read the original finding

- The invented survey says 24 of 30 respondents preferred later closing on Fridays. Record the survey date, who could respond, the question wording and where this result appears. If the original report is unavailable, say which secondary account you actually read.
- A **locator** 来源定位信息 identifies a passage, table or section. Save enough information to find the evidence again. Do not invent a page number or cite an unseen report as if you inspected it.

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Keep borrowed words visible

- Suppose the fictional report describes respondents as “users visiting after school”. Copying that phrase into a draft requires quotation marks and a traceable reference. Changing a few nearby words does not make the wording your own.
- A **quotation** 直接引文 preserves the source’s actual words. Check its surrounding passage before using it. The phrase describes a particular group; it does not establish that all residents prefer later hours.

Paraphrase the idea accurately

- A **paraphrase** 转述 expresses a source’s meaning in your own words and sentence structure. Read the passage, set it aside, write the meaning, then compare your version with the original. Keep the source credit because the idea is still borrowed.
- “Most respondents wanted a later Friday closing time” fits 24 of 30. “Most residents wanted the library open later every day” changes both the group and the days. A fluent sentence can still misrepresent the evidence.

Separate the finding from your inference

- The reported preference may support discussing demand among these respondents. Whether longer hours would improve access also depends on other evidence, such as who cannot currently attend and what staffing is feasible. These are further questions, not supplied results.
- An **inference** 推论 connects evidence to a conclusion. Make that connection explicit in your own analysis. A reference credits the finding; it does not automatically justify every conclusion written after it.

Investigate an apparent disagreement

- A second fictional survey says 18 of 25 morning visitors preferred keeping the opening time unchanged. This does not directly contradict a preference for later Friday closing. The groups, questions and times differ.
- A **comparison basis** 比较依据 states what is being compared. Check the population, measure and period before calling sources inconsistent. Keep genuine disagreement visible when the same claim is tested; do not hide an inconvenient result.

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Make each draft claim recoverable

- Keep a working record with the claim, source details, locator, exact words or your paraphrase, and your reason for using it. Mark any source you still need to inspect. Keep your interpretation separate from what the source states.
- A **citation audit** 引用核查 checks both directions: each borrowed claim has a source, and each reference points to evidence actually used. A long bibliography cannot repair an unsupported paragraph. Follow the citation convention required by the chosen subject and school.

Revise the conclusion and the next action

- A defensible draft says the first survey reports a Friday-closing preference among its respondents. The morning survey addresses a different decision. Check sampling and the original questions before making a wider claim about residents or changing the research question.
- Actual research needs permitted subject methods and supervisor review. This fictional case teaches source use; it supplies no genuine collected data or approved essay. Confirm the guide and requirements for your assessment session before submitting assessed work.

■ Worked example

The council note and newspaper article both refer to the same 30-person survey. I therefore treat them as accounts of one dataset rather than independent confirmations. The reported 24 positive responses concern later Friday closing. They support a limited claim about those respondents' preference. They do not establish a preference among all residents or a benefit from longer opening hours. I will inspect the original question wording and sampling method before widening the conclusion. The morning survey concerns keeping the opening time unchanged, so its result must be compared on that basis.

■ Watch out

Credit the source of an idea even when you rewrite it. Check whether your rewrite preserves the group, measure and period; a correct reference can accompany an inaccurate paraphrase.

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■ Key idea

Trace the evidence, preserve its meaning, credit borrowed material and explain your own inference.

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