

The research and writing process

Overview

- Initial guidance on research and writing
- Developing a research question
- Five steps to developing a research question
- Sample research questions
- Writing the extended essay
- Presentation
 - Word counts
 - Illustrations
 - Tables
 - Footnotes and endnotes
 - Appendices
 - Specimen materials
- Academic honesty
 - Bibliography
 - Citations
 - Referencing
 - Referencing online materials
 - Accessing sources: technology literacy—using electronic sources
 - Using online encyclopedias and other similar information websites
 - Use of computer programs
 - Reliance on external resources
- Proofreading

Initial guidance on research and writing

Supervisors are recommended to advise their students on how to conduct research and write the extended essay, paying particular attention to the following key areas.

When researching the extended essay, students should follow the steps below.

- 1 Choose an available Diploma Programme subject for the extended essay for the session in question (subject to any restrictions imposed by the school).
- 2 Read the following materials: the assessment criteria, relevant subject-specific chapter of the *Extended essay guide*, the IB's ethical guidelines and other associated policies where relevant, such as those relating to animal experiments.
- 3 Set up the Researcher's reflection space (RRS) and use this as the key planning and reflection tool for the extended essay process.
- 4 Choose a topic and undertake some background reading on it.
- 5 Formulate a preliminary research question. Try to incorporate an IB command term in the research question if possible.
- 6 Draw up an outline plan for the research and writing process. This should include a timeline.
- 7 Begin to identify how and where they will gather source material for their research.
- 8 Identify which system of academic referencing they will use, ensuring that this meets the minimum requirements for the IB.
- 9 Set deadlines for themselves that are realistic and take into consideration the school's own internal deadlines.
- 10 Plan a structure for the essay. This may change as the research develops but it is useful to have a sense of direction from the start.
- 11 Undertake some preparatory reading in light of the proposed research question. *If students discover that it will not be possible to obtain the evidence needed in the time available, the research question should be changed. This should be done sooner rather than later: students should not lose time waiting and hoping that something will turn up. Students should go back to stage 3, 2 or 1, and choose a new research question that can be answered.*
- 12 Carry out the research. *The material collected should be assembled in a logical order, linked to the structure of the essay and clearly focused on the research question posed. Only then will students know whether they have enough evidence for each stage of the argument so that they can proceed to the next. Students should be prepared for things to go wrong. Sometimes they may discover something later in the research that undermines what they thought had been established earlier. If that happens, the research plan needs to be revised.*

Developing a research question

All students, regardless of the subject chosen, must frame their research question as a question. A hypothesis or statement of intent is not acceptable. The reason for this is that a question helps students to retain focus throughout the essay.

A research question is a **clear and focused** question centred on a research topic. Research questions usually emerge when questions are asked about a particular issue that a student is interested in or curious about.

A research question helps to focus the research, providing a path through which students will undertake the research and writing process. A clear and well-focused research question, which has a specific aim, will allow a student to work towards developing a reasoned argument within the scope of the task, rather than the kind of “all about” essay that an unfocused research question can lead to.

Sometimes students may need to revise their research question; therefore, a research question should always be considered provisional until they have enough research data to make a reasoned argument.

Supervisors should note that unfortunately the IB is unable to comment on the suitability of individual research questions. This is because the development of an appropriate research question forms part of the assessment. Should supervisors require support or advice with regard to possible research questions, the [Online curriculum centre extended essay forum](#) is a good starting point.

Five steps to developing a research question



Choose a subject and topic that is of interest.

Deciding on a subject and topic that is of interest and in which the student is personally invested is important if their motivation is to be sustained throughout the process. The student should be able to identify, in a broad sense, what it is that they are interested in and why.



Carry out preliminary reading.

After deciding on a topic of interest students should undertake some general reading around the issue. Questions they must consider at this stage are:

- What has already been written about this topic?
- Was it easy to find sources of information?
- Is there a range of different sources available?
- Is there a range of views or perspectives on the topic?
- What interesting questions have started to emerge from this reading?



Consider the emerging questions.

The student should now begin posing open-ended questions about their general topic. These questions will usually be framed using the terms “how”, “why” or “to what extent”.



Evaluate the question.

Once possible research questions have been posed they should be evaluated. This evaluation should be based on whether the research question is clear, focused, and arguable.

Clear: Will the reader understand the nature of my research? Will it direct the research being undertaken?

Focused: Will the research question be specific enough to allow for exploration within the scope of the task (that is, the number of words and time available)?

Arguable: Does the research question allow for analysis, evaluation and the development of a reasoned argument?



Consider research outcomes.

Once a provisional research question has been decided upon students should start thinking about the direction their research might take. This could be in terms of:

- suggesting possible outcomes of the research
- outlining the kind of argument they might make and how the research might support this
- considering options if the research available is not sufficient to support a sustained argument.

Sample research questions

The following table gives guidance on the difference between unclear and unfocused research questions and those that are appropriately clear and focused, lending themselves to in-depth research.

Unclear, unfocused and unarguable research questions	Clear, focused, narrow research questions lending themselves to in-depth research
What was the impact of Ho Chi Minh's allegiance to Lenin?	To what extent was nationalism the guiding factor in Ho Chi Minh's adoption of Leninism in 1920?
What is the history of Chinese theatre?	How does the legacy of Mei Lan Fang contribute to modern Jingju?
How important is chlorophyll to plant life?	What is the effect of different concentrations of kinetin on leaves aging and the biosynthesis of chlorophyll?
How can the US government's spending policy be reformed?	To what extent did the rising COE prices affect the demand for new and used cars by the consumer population and hence affect the revenue generated by the Singaporean economy for the period 2012–16?

An important note:

A question that is unclear or too broad will result in a narrative overview of the issue or event being discussed and provide little scope for analysis and reasoned argument. The result of this is that examiners will not be able to apply the range of marks available in the assessment criteria, particularly in relation to criterion C (critical thinking).

Writing the extended essay

The structure of the essay is very important. It helps students to organize the argument, making the best use of the evidence collected.

There are six required elements of the final work to be submitted. More details about each element are given in the “Presentation” section. Please note that the order in which these elements are presented here is not necessarily the order in which they should be written.

Six required elements of the extended essay:

1. Title page
2. Contents page
3. Introduction
4. Body of the essay
5. Conclusion
6. References and bibliography

Title page

The title page should include **only** the following information:

- the title of the essay
- the research question
- the subject for which the essay is registered (if it is a language essay also state which category it falls into; if a world studies essay also state the theme and the two subjects utilized)
- word count.

An important note:

Please note that name of the student or the school should not appear on the title page or on any page headers. This is because the work is assessed anonymously.

The title

The title of your essay should be a clear, focused summative statement of your research, which gives the reader an indication of your research topic. It should **not** be phrased as a research question.

Title	Research question
Negative externalities of consumption: Australian policy on cigarette packaging	How effective has the Australian policy of plain cigarette packaging been in reducing the negative externalities associated with the consumption of cigarettes in X?
Commodification and the body— an ethnographic study of social representations about the human body with relation to organ donation	To what extent can we interpret the negative attitude from laymen towards organ donation as an act of resistance towards the demands of the hegemonic medical model? The case of organ donation in Argentina.

Title	Research question
An exploration of evil as a motivating force in drama	How effectively does Christopher Marlowe present his view of evil in <i>Dr Faustus</i> ?
The feasibility of wireless networking in a city-wide context	To what extent is wireless networking a feasible alternative to cabled networking within a whole-city context?

Contents page

A contents page must be provided at the beginning of the extended essay and all pages should be numbered. Please note that an index page is not required and if included will be treated as if it is not present.

Introduction

The introduction should tell the reader what to expect in the essay. The introduction should make clear to the reader the focus of the essay, the scope of the research, in particular an indication of the sources to be used, and an insight into the line of argument to be taken.

While students should have a sense of the direction and key focus of their essay, it is sometimes advisable to finalize the introduction once the body of the essay is complete.

Body of the essay (research, analysis, discussion and evaluation)

The main task is writing the body of the essay, which should be presented in the form of a reasoned argument. The form of this varies with the subject of the essay but as the argument develops it should be clear to the reader what relevant evidence has been discovered, where/how it has been discovered and how it supports the argument. In some subjects, for example, the sciences, sub-headings within the main body of the essay will help the reader to understand the argument (and will also help the student to keep on track). In structuring their extended essay, students must take into consideration the expected conventions of the subject in which their extended essay is registered.

Once the main body of the essay is complete, it is possible to finalize the introduction (which tells the reader what to expect) and the conclusion (which says what has been achieved, including notes of any limitations and any questions that have not been resolved).

Any information that is important to the argument **must not** be included in appendices or footnotes/endnotes. The examiner **will not** read notes or appendices, so an essay that is not complete in itself will be compromised across the assessment criteria.

Conclusion

The conclusion says what has been achieved, including notes of any limitations and any questions that have not been resolved. While students might draw conclusions throughout the essay based on their findings, it is important that there is a final, summative conclusion at the end. This conclusion(s) must relate to the research question posed.

References and bibliography

Students should use their chosen style of academic referencing as soon as they start writing. That way they are less likely to forget to include a citation. It is also easier than trying to add references at a later stage. For more information on this, refer to the guidelines in the IB document *Effective citing and referencing*.

Writing the essay takes time but if students have used their Researcher's reflection space and reflection sessions in a meaningful way they should be well prepared to develop their arguments.