Subject-specific guidance

Overview

This section covers individual subjects' requirements for the extended essay (EE) in terms of:

- · Choice of topic
- Treatment of topic
- Assessment:
 - · Criterion A: focus and method
 - · Criterion B: knowledge and understanding
 - · Criterion C: critical thinking
 - Criterion D: presentation
 - Criterion E: engagement.

It assumes that teachers are already familiar with the EE generic guide and the EE teacher support material, in particular the process whereby students choose a subject area and topic, write their research question and select the research method(s) they will use to explore and answer it.

For a full summary, see the process diagram and the generic assessment criteria.

Or for a quick refresher, read Extended essay: general requirements .



General requirements

The EE is an in-depth study of a focused topic. It gives students the opportunity to:

- · engage in independent research with intellectual initiative, creativity and rigour
- · develop research, thinking, self-management and communication skills
- reflect on what they have learned throughout the research and writing process.

All students must:

- provide a logical and coherent rationale for their choice of topic
- · review what has already been written about the topic
- formulate a clear research question
- offer a concrete description of the methods they use to investigate the question
- generate reasoned interpretations and conclusions based on their reading and independent research in order to answer the question.

Choice of topic

See also Initial guidance on research and writing

Students first need to identify the broad area of inquiry they are interested in.

Sources of ideas may include:

- · work already undertaken as part of the course
- preliminary reading of academic journals and reputable scholarly e-resources, eg conference papers,
 essays, book chapters or journal articles. A school librarian can advise on this
- · conversations with teachers, fellow students and librarians.

Literature review

Students should try to read as much as they can of what has already been written about their topic. Time spent on a literature review early on in the research process will guide and improve their work. It will help them to:

- · contextualize their research question and subsequent findings
- meet criterion B: demonstrating knowledge and understanding.

While conducting their literature review, students may find it useful to compile an annotated bibliography and to record their responses to what they read in their researcher's reflection space (RRS).

If using the internet, students are encouraged to use specialized academic search engines that will find resources appropriate for citation in the EE.

Students must be aware of their responsibilities to cite properly the resources they use and to check their work for plagiarism. Their citations should adhere to the requirements of the IB and be consistently applied.



Research question

Students should identify a **working** research question early on but be prepared to change, eg if too little information is available to permit the intended investigation.

Students should be guided by the idea that what they are writing is important because:

- it seeks to fill a gap in understanding their chosen topic, or
- it offers a resolution to some controversial argument.

The research question should therefore be non-trivial and follow from the existing body of literature on the topic. It must be:

- specific, sharply focused and capable of being answered within a 4,000-word essay
- stated clearly in the introduction of the essay and on the title page
- · related to the chosen topic.

Students need to avoid researching questions that are too narrow or too obvious as this will limit their ability to formulate reasoned arguments.

Their answer to the question must be analytical rather than descriptive.

Title

The title is a formal requirement on the title page of the essay. If the title is missing, it will be considered on balance with the other formal requirements against criterion D. While there is no explicit penalty in criterion A, the title will help address the requirements as it expands on the student's intended focus. Without a title, students lose an opportunity to clarify their focus.

Treatment of the topic

Once students have identified their topic and written their research question, they can decide how to research their answer. They may find it helpful to write a statement outlining their broad approach.

The definition of "research" and terms such as "primary data" and "secondary data" varies from subject to subject.

In some subjects, students must use both primary and secondary data. In others, students may, or even must, rely exclusively on secondary data.

However, all students must carry out secondary research in terms of a literature review for their topic.

Two important reminders

- 1. Undertaking an extended essay is a challenge. Planning is crucial. Students need to start writing their papers early and discuss any emerging difficulties with their supervisor. As well as their supervisors, librarians are a great source of information, advice and support for students.
- 2. Students risk their diploma if found guilty of academic misconduct:



Individuals and societies

Individuals and societies

An extended essay (EE) in individuals and societies is intended for students who are interested in undertaking research in an area of business management, economics, geography, global politics, history, ITGS, philosophy, psychology, social and cultural anthropology or world religions.

The individuals and societies EE is intended to encourage the systematic and critical study of:

- human experience and behaviour
- · physical, economic and social environments
- the history and development of social and cultural institutions.

Students' choice of topic should enable them to recognize that the content and methodologies of the subjects are contestable and that their study requires critical thinking.

Students must have sufficient grounding in the subject under which they submit their essay: reading a textbook or consulting an encyclopedia while writing the EE will not compensate for a lack of proper background knowledge.

For a longer general introduction to the subject areas of individual societies see Individuals and societies:

An introduction



Psychology: Subject-specific guidance

See also: EE generic guide and EE teacher support material

Overview

An extended essay (EE) in psychology gives students the opportunity to:

- investigate in depth a topic of their choice within the subject
- · develop their skills in research, analysis and evaluation, and communication
- increase their understanding of behaviour from a psychology perspective.

Psychology may be defined as "the study of behaviour". The subject involves studying the behaviours of humans and non-human animals and has a range of specialist terms, methods and literature.

It is therefore essential for students undertaking an EE in psychology to:

- have a sound understanding of the subject and its methodologies
- choose a topic amenable to psychological investigation and analysis.

Students who have not studied psychology formally should not undertake the EE, unless they can demonstrate that they have sufficient knowledge and understanding of the subject.

Schools where psychology is not taught must be aware that students who submit an EE in psychology with no formal exposure to the subject may compromise their level of achievement.

Choice of topic

The topic may be an extension of an area covered on the Diploma Programme psychology course or a topic of interest outside the content covered.

When choosing their topic, students should remember that their EE must be based on secondary sources only. The collection of primary data is not permitted for the psychology EE (see Treatment of the topic).

The process of selecting a focused research question may be summarized as:

- · choose a field in psychology of particular interest
- · refine this choice to a specific topic
- · develop a research question on this topic.

For example, a student might be interested in stress. They may then narrow this to the topic of stress within commercial aviation. Many large commercial airlines employ psychologists to investigate pilot performance and factors such as stress or emergency management. The student's research question could be: "To what extent does airline pilot stress affect airline safety standards?" (See also Examples of topics.)

Students must ensure that enough relevant and appropriate resources are available for them to conduct their research. They should investigate this at the start of their planning process.



The research question should require the construction of a systematically structured and fully supported argument in the development of an informed conclusion.

Supervisors do not necessarily require detailed knowledge of the student's topic.

Tricky topics

Topics within the fields of "pop psychology" or "self-help" will not be appropriate for the EE as they are not supported by peer-reviewed research studies.

Topics that do not lend themselves well to analysis, evaluation and debate are unlikely to be the best choices for a student.

Topics such as eating disorders, dysfunctional behaviours (eg schizophrenia or depression) and forensic psychology are popular with students. However, they pose a challenge unless students focus their research question very tightly. These topics are extremely ambitious, requiring far more time and experience than students generally have at their disposal.

Examples of topics

These examples are just for guidance. Students must ensure their choice of topic is focused (left-hand column) rather than broad (right-hand column).

Focused topics	Broad topics
The relationship between bilingualism and cognitive development	One- or two-language households
An examination of whether and how sleep contributes to learning	Sleep and learning
An examination of the extent to which music therapy is effective in enhancing the communication skills of individuals diagnosed with autism	Music and autism
The relationship between motivation techniques and performance in long-distance running	Motivation and achievement in sport

Treatment of the topic

Primary versus secondary data

Primary data collected using the students' own experiments, surveys, observations and case studies is inappropriate for the EE.

Instead, students must use secondary data from published sources. They should develop their argument with careful and appropriate citation of relevant concepts, theories and studies from academic psychological research journals and books.

Students should not make any assertions unsupported by evidence drawn from psychological theories or studies.



Analysis and discussion and evaluation

To develop a well-rounded understanding of their topic, students should carefully evaluate any research they cite. The essay should offer a balanced argument in response to the research question.

Students should demonstrate critical awareness and understanding of the material they use. They should analyse rather than simply describe. They need to apply what they have read to the research question rather than report the information.

One of the aims of all group 3 subjects is to enable the students to recognize that the content and methodologies of the subjects in group 3 are wide ranging and require students to critically evaluate the choices they make with regard to methodologies. An EE in psychology should demonstrate such understanding.

The *Psychology guide* introduces a framework for evaluation. It trains students to address cultural, ethical, gender and methodological considerations potentially affecting how a particular study or theory interprets behaviour.

Comparative analysis may also be a useful evaluative strategy.

Students should keep these considerations in mind when selecting a topic, generating a research question and developing their argument.

Ethical guidelines

The IB has published a set of ethical guidelines that apply to the psychology EE and internal assessment task.

Many topics within psychology are sensitive in nature. Students should consider carefully all possible ethical issues before they embark on their essay. Students and supervisors share the responsibility for ensuring it does not breach the guidelines.

Examples of topics, research questions and suggested approaches

Once students have identified their topic and written their research question, they can decide how to research their answer. They may find it helpful to write a statement outlining their broad approach. These examples are for guidance only.

Topic	Gender-related colour choices
Research question	To what extent is preferred colour choice acquired or innate in young children?
Approach	Recent fashions in the colours of children's clothing, furnishings and toys seem to have reverted from gender-neutral schemes to pink for girls and blue for boys. This provides material for investigating the question of the extent to



- A comparison of evaluated published research findings supporting each type of explanation, having linked the studies to relevant psychological theory.
- Findings and related interpretations regarding the research question from different decades and/or cultural groups could be compared and evaluative commentary provided, focusing on addressing the "To what extent" aspect of the question, culminating in an informed summary conclusion.

Topic	Media influences on altruistic behaviours
Research question	To what extent do presentations in the media affect adult choices in volunteering to work for charities?
Approach	 An interest in social influences on pro-social behaviours in adults could result in curiosity about the factors affecting the varying levels of adult participation in volunteer activities. Is there evidence or theory to suggest some individuals are more predisposed to pro-social behaviours than other individuals? Use theory-based research into the efficacy of health campaigns to investigate the impact of media presentations on adult volunteer rates. A balanced argument could evaluate evidence claiming support for the success of television adverts, personal presentations at meetings, newspaper articles, etc in recruiting adult volunteers for work with charities, comparing this with evidence to suggest personality type as a more dominant factor in pro-social behaviour. The question covers a broad area including possible trans-historical and cross-cultural variations, so the essay's introduction should clearly indicate the chosen parameters.
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An important note on "double-dipping"

Students must ensure that their EE does not duplicate other work they are submitting for the Diploma Programme.

The EE and IA

In particular, an EE in psychology is not an extension of the internal assessment (IA) task. Students must ensure that they understand the differences between the two. Students and supervisors share the responsibility for ensuring the EE differs in intent, content, methodology and outcome from the IA.

Supervisors play an important role in guiding students on these distinctions. Students risk their diploma if academic misconduct is detected.



Interpreting the EE assessment criteria

Criterion A: Focus and method

(Strands: Topic, Research question, Methodology)

Students should state their choice of topic clearly at the start of the EE.

The research question must be:

- 1. expressed in question format
- 2. very precise
- 3. able to be fully addressed within the word limit.

It should be clear to the reader how the question relates to and is derived from the knowledge and understanding of the topic under consideration.

The introduction should provide the academic context and subsequent justification for the research question. The student should show how and why it is relevant for consideration in an academic context, indicating the current state of research and the discussions raised.

Although their personal interest in the topic is important, students' personal experiences and opinions are inappropriate here. Students must explain their approach to the topic. Their explanation needs to:

- · outline the remit of the essay
- indicate the psychological theories and studies they will use and how
- enable the reader to see how the focus of the essay is to be maintained.

Psychological journals and books are appropriate resources. Materials from "pop psychology" and items from the media do not offer sufficient depth and academic rigour to develop an informed and balanced argument.

Students must select appropriate resources and make explicit reference to the research question throughout the essay to score highly against this criterion.

Where a student considers neuro-cognitive processing in relation to a behaviour, the focus of their essay should be on its impact on the behaviour or experience of the individual rather than on description of biological processing, however detailed and accurate.

If the topic or research question is deemed inappropriate for the subject in which the essay is registered, no more than four marks can be awarded for this criterion. This applies to psychology essays that are based on the collection of primary data.

Criterion B: Knowledge and understanding

(Strands: Context, Subject-specific terminology and concepts)

Students can provide evidence in several ways that they clearly understand the concepts and materials they are using and are able to communicate them effectively.

