

International Baccalaureate

The Extended Essay Handbook

A short look at a long paper

WHAT IS THE EXTENDED ESSAY (EE)?

Extended: long or longer than usual¹

Essay: a piece of writing on a particular subject²

WHY DO I HAVE TO DO IT?

You can't get an IB Diploma without it. Completing the EE also satisfies the Facharbeit requirement for the sächsisches Abitur. You can't get your Abitur without a Facharbeit.

WHAT DO I HAVE TO DO?

Write a really long paper (no more than 4,000 words) about something that interests you

WHO HELPS ME? I feel so alone!

- The EE Coordinator teaches you the basics
- YOU must find an EE Supervisor who is a BeBe and/or IB Teacher for the subject of your paper who agrees to supervise your work. Your Supervisor:
 - Meets with you at least 3 times
 - Approves your topic and research question
 - Reads one draft of the paper and gives comments
 - Meets with you for the Viva Voce (final discussion) after the paper is complete

HOW DO I FIND A TOPIC?

- You may write your paper in any IB subject that you have as an IB class
- Talk with the Coordinator and then your Supervisor to find an appropriate research question. The EE topics are a bit narrower than those of a Facharbeit, so speaking with your Supervisor is very important.
- A description of appropriate topics by subject is at the end of this Handbook.

¹ "English Dictionary, Translations & Thesaurus." Cambridge Dictionary, Cambridge University Press, 2017, dictionary.cambridge.org/.

² Cambridge Dictionary.

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HOW DO I USE MANAGEBAC (and why do I have to)?

- Once you have a subject (*History*), a topic (*How effective was the V-1 bomb in WWII*) and a supervisor, complete the EE Proposal on Managebac. You will communicate with your Supervisor and upload all work here, including the final EE and the Progress and Planning form (see below).

HOW IS IT GRADED (and by whom)?

- Your Supervisor is only permitted to read and give comments on one draft of your EE. The Supervisor will give you comments on how to improve the paper. Upload your final version on Managebac.
- The EE is “externally assessed.” It is submitted to the IBO, which issues the final grade on the paper. Your EE grade (A-E) is combined with your TOK grade for a total of 0-3 points on your IB Diploma. If your EE gets a failing grade (mark E) or you do not submit an EE (mark N), you cannot receive the IB Diploma.

		Theory of knowledge					
		Excellent A	Good B	Satisfactory C	Mediocre D	Elementary E	Not submitted
Extended essay	Excellent A	3	3	2	2	1	N
	Good B	3	2	1	1	0	N
	Satisfactory C	2	1	1	0	0	N
	Mediocre D	2	1	0	0	0	N
	Elementary E	1	0	0	0	Failing condition	N
	Not submitted	N	N	N	N	N	N

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- The EE can receive a maximum of 34 points:
 - **Focus and Method, 6 points.** Choose a good research question and a range of sources which can help you answer it.
 - **Knowledge and Understanding, 6 points.** Write in a way that the reader can see that you understand the subject and your topic, even if your English isn't perfect.
 - **Critical Thinking, 12 points.** Use good and relevant research. Provide good and relevant analysis and don't talk about things that aren't important. Give a good argument that is supported by your research and evidence, don't just vomit up things that others say but actually give your own opinion and back it up with research.
 - **Presentation, 4 points.** Prepare a paper that is well-structured with a good layout and organization which help the reader.
 - **Engagement, 6 points.** The IBO will look at your Planning and Progress reflections to complete this to see if you were interested in what you wrote and how engaged you were with the project.

WHAT SHOULD IT LOOK LIKE: the formal requirements

- No more than 4000 words (and not a lot less)
- Double-spaced, 12-point font, pages numbered
- Title page: Your title and/or research question. Do NOT include your name, your supervisor's name or the name of the school.
- Table of contents, including page numbers
- Bibliography
- Completed Progress and Planning Form (see below)

REFLECT (it wouldn't be IB without it).

- After each of your 3 meetings with your supervisor, you must write a brief reflection on your work on the EE Progress and Planning and Progress Form available on Managebac. This form is submitted, along with your Supervisor's comments, to the IBO along with your essay. It is required and affects your grade in the Engagement category.

CITATIONS AND ACADEMIC HONESTY

- Citations must be given whenever someone else's work is quoted or **summarized**. ***If you learned the information from someone else, give a citation for it!***
- EasyBib <http://www.easybib.com/> helps you to get the citation right
- We use the MLA8 citation method, as follows:
 - Books
Author's Last name, First name. "Title of chapter or section." Title of the work, translated by or edited by First name Last name, vol. number, Publisher, Year the book was published, page number(s).

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Example: Donoghue, Emma. Room: a Novel. Little, Brown and Co., 2010.

- Websites

Author's Last name, First name. "Title of the Article or Individual Page." Title of the website, Name of the publisher, Date of publication, URL.

Example:

- Newspapers

Author's Last name, First name. "Title of the article." Title of the newspaper, First name Last name of any other contributors, Version, Numbers, Date of publication, Location.

Example: Schloemann, Johann. "Professor Für Amerikanistik – Wie Robust Ist Die Amerikanische Demokratie?" Süddeutsche Zeitung, 03 Februar 2017. Süddeutsche.de, www.sueddeutsche.de/kultur/professor-fuer-amerikanistik-wie-robust-ist-die-amerikanische-demokratie-1.3363012.

- Films

Last name, First name of the creator. Title of the film or video. Role of other contributors and their First name, Last name, Version, Numbers, Publisher, Publication date.

Example: Tarantino, Quentin, and Lawrence Bender, "Pulp Fiction." Directed by Quentin Tarantino, Miramax, 1995.

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EXTENDED ESSAY SUBJECT GUIDE

Group 1: German A Literature: Analyze one or more pieces of German *literature*. This essay must be written in German.

- Category 1: Category 1 Studies of one or more literary works originally written in German.
 - Example: Inwieweit entgleitet Michael Kohlhaas sein eigentliches Vorhaben, Recht zu schaffen?
- Category 2: Studies of a literary work or works originally written in German compared with one or more literary works originally written in another language. (The work originally written in another language may be studied in translation.)
- Category 3: Studies in language based on one or more texts originally produced in the language in which the essay is presented.

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Group 2: English, French or Russian B Language. Analyzes *language*. There are 3 types:

- Category 1: A specific analysis of the language use and structure, normally related to its cultural context or a specific text.

Example: Est-ce que les immigrants de l’Afrique du Nord ont enrichi la langue française?

- Category 2: A socio-cultural analysis of the impact of a particular issue on the form or use of the language:

(a) based on an examination of language use

Example: How do the various terms used to refer to foreigners and immigrants in popular media reflect various shades of discrimination in British society?

- (b) an essay of a general cultural nature based on specific cultural artifacts. Cultural artifacts include anything concrete or tangible that helps to give insight into the target culture and language, such as:

- Written documents: newspapers, magazines, news headlines, articles, books (other than literary), cartoons, adverts, leaflets, brochures or manifestos, laws or policies, historical documents or records.
- Spoken documents: screenplays, radio or television programs, song lyrics, interviews.
- Visual documents: works of fine art, architecture (buildings, monuments, etc.), films, stamps.
- Cultural icons: fashion items and accessories (as a manifestation of culture), food items, dishes (as a manifestation of culture), brands (as a manifestation of culture).

The following do **not** qualify as cultural artifacts: political events (elections, referendums), historical events, social movements (e.g. riots), social issues (unemployment, immigration, racism, school violence, the role of women in country X, etc), towns or regions (“travel guide” essays), (minority) ethnic groups, media trends, styles of music, sports, traditions, institutions (school systems, political parties, etc).

Example: What does rap music tell us about contemporary American culture? An analysis of the rap lyrics of Kendrick Lamar

- Category 3 An analysis of a literary type, based on a specific work or works of literature exclusively from the target language.

Example: “How does Shakespeare present gender roles in *Much Ado about Nothing* and to what extent do those reflect the gender roles of the Elizabethan time?”

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Group 3: History. Investigate an event or period which occurred AT LEAST 10 YEARS AGO.

- Good questions can start with: “How successful...” or “how significant...”
- Themes to consider as you design your question: causation, consequence, change, continuity, significance and perspectives.
- Use both primary and secondary sources. For instance:
 - Evaluate different interpretations of the same event/s
 - Show how understanding of event/s changed over time
 - Do a case study on local history, perhaps comparing of local and national developments
 - Collect and analyze oral and written data from family and other contacts to help explain the past, perhaps leading to a comparing of local and national developments
- Don't forget to analyze your sources for OPVL (Origin, Purpose, Value and Limitations)
- The difference between and EE in History and the Historical Investigation:
 - The HI is more about historical method – how to choose sources, do a good OPVL, examine how historians do their work. The HI reflection is therefore like TOK: how do historians learn about the past
 - The History EE is a more general research paper. The EE reflection is more about you – why did the topic interest you, how did you engage in the process of writing

Example: To what extent can patriotism be seen as the reason for the blockade runners' activities during the American Civil War from 1861 to 1865?

Example: An evaluation of the success of denazification carried out in the US zone of Germany 1945–48

Example: How significant was Stalin's economic policy on population change in the Ukraine from 1930-1934?

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Group 4: Biology, Chemistry or Physics

The difference between an EE in sciences and the science Internal Assessment are:

- The EE can be about things not covered in the class, the IA is more likely to focus on the syllabus content
- The EE can be a review of scientific literature on the topic, the IA must include data collection and analysis (from hands-on experiments, databases, simulations or modelling)
- The *EE must have a theoretical framework* for the biology, chemistry or physics of the topic, whereas the *IA focuses on the application* of the scientific method to a problem of interest and will only include some background information.
- The EE is about the students' ability to analyze and evaluate scientific arguments.

Biology

- Using Primary or Secondary Research:
- Primary Essays in biology may be based on data collected by the student through:
 - experimentation
 - survey
 - microscopic observations
 - biological drawing
 - fieldwork
 - AND use of Secondary sources
- Secondary Essays in biology may be based on data or information obtained from literature. They can use the data and manipulate or analyze it in an original way. Essays that simply restate facts or data taken directly from the sources are not good.
- The main body of the essay should consist of an argument or evaluation based on the data or information presented.
- Students should provide some explanation of problems or unexpected outcomes
- Describe and explain the limitations imposed on the research by factors such as:
 - the suitability and reliability of the sources accessed
 - accuracy and precision of measuring equipment
 - sample size
 - validity and reliability of statistics.
- Example: "How can DNA sequencing be used to identify the mutations causing cystic fibrosis?"
- Example: What evidence is there for the antibacterial properties of commercially available mouthwash on *Streptococcus mutans* grown at 20°C?

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Chemistry

- An EE in chemistry may be based on:
 - literature
 - theoretical models
 - experimental data.
- students are strongly encouraged to undertake experimental work as part of their research AND
- consult original research using:
 - scientific journals
 - personal communications
 - online sources
 - textbooks.
- Many of the best essays investigate simple phenomena using apparatus and materials that can be found in the school laboratory
- Example: What is the effect of storage temperature on the operational lifespan of an alkaline battery?

Physics

- The evidence can be from the student's personal experimentation and/or book- and internet-based research.
- Can be based only on theory or on data and theory.
- Must analyze, not just describe. Don't just inform, use personal and original thinking.
- Material from outside the physics course should be explained and referenced, but can use physics from the course without proof or explanation, e.g. Newton's laws.
- If the essay is data based, students can choose to collect their own primary data or use secondary data that has already been collected elsewhere.
- Students must use or analyze this secondary data in an original way. Essays that simply state facts or data taken directly from sources are of little value.
- Topics that are NOT ok:
 - broad or complex topics like quantum computers or black holes
 - history of physics or social implications of discoveries in physics.
- Example:

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Group 5: Mathematics

- Any topic with a mathematical focus, including engineering, natural sciences or social sciences. History of mathematics is also ok, so long as it is mathematical (for instance, not about the lives of famous mathematicians)
- EEs in Math can be in 6 different areas:
 - the applicability of mathematics to solve both real and abstract problems
 - the beauty of mathematics—e.g. geometry or fractal theory
 - the elegance of mathematics in the proving of theorems—e.g. number theory
 - the history of mathematics: the origin and subsequent development of a branch of mathematics over a period of time, measured in tens, hundreds or thousands of years
 - the effect of technology on mathematics:
 - in forging links between different branches of mathematics,
 - or in bringing about a new branch of mathematics, or causing a particular branch to flourish.
- Difference between math EE and IA: The EE is a more substantial piece of work that requires formal research. The IA is an exploration of an idea in mathematics.
- Make sure:
 - data analyzed using appropriate techniques
 - arguments correctly reasoned
 - situations modelled using correct methodology
 - problems clearly stated and techniques at the correct level of sophistication applied to their solution.
- Use primary or secondary sources:
 - A primary source for research in mathematics involves:
 - data-gathering
 - visualization
 - abstraction
 - conjecturing
 - proof.
 - A secondary source of research refers to a comprehensive review of scholarly work, including books, journal articles or essays in an edited collection.
- Important graphs and diagrams should be in the body of the essay. Long printouts, tables of results and computer programs should be in footnotes or in an appendix.
- Example: What was the role of mathematics, and geometry in particular, in navigation when we relied on the stars? Does it still play a part now we have man-made satellites?
- Example: How many square numbers are also triangular numbers, where are they and what other problems lead to Pell's equation?
- Example: How well can π , e , $2-\sqrt{2}$ and other irrationals be approximated by rational numbers?

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Group 6: Music or Visual Arts

Music

- Musical analysis of particular pieces of music for intent, purpose and meaning
- Show understanding of musical context and genre
- Include link to practice (talk with performers, directors, go to concerts, theaters...)
- Good questions might start with “why?” (example: Why has the composer made specific musical decisions? Why are specific combinations more effective than others? Why does a piece of music work in one context but not in another?)
- Use primary (recordings, scores, concerts, etc.) and secondary sources (textbooks, journals, internet – what other people say about the piece of music)
- Your research question should: give the musical piece and compositional element that will be studied (example: “How is counterpoint used in Bartók’s *Concerto for Orchestra*?”)
- NOT good for a music EE:
 - Simply describing a musical topic
 - Research questions that are too broad (example: “What is African Music?”)
 - Non-musical topics, such as: the life of a performer, the nature and development of instruments or technology, lyrics or biological, neurological, therapeutic or educational issues
 - pieces you will submit for your IB solo or group performance
- *Example:* Is Eric Clapton’s cover version of Robert Johnson’s “Cross Road Blues” an independent contribution to the development of blues and rock music?

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Visual Arts:

- Topics can include architecture, design and contemporary forms of visual culture.
- Can be inspired by your own creative experience or interest in a particular artist, style or period. Can be related to your own or another culture.
- The topic should not be boring and should show critical thinking. For instance, could investigate a field of the arts that is of humanistic importance.
- The EE is a scientific work that should represent your personal thoughts. Use first hand experiences to legitimate your interest in the subject.
- Use primary (museum or gallery visits, artist talks, studio visits, paintings, photos, exhibitions, etc.) and secondary sources (textbooks, journals, internet – what other people say about the piece of art). Local sources are particularly good.
- Analyze your sources for OPVL (origin, purpose, value and limitations)
- Must include visual evidence (i.e., a photo of the painting you are studying) that is properly referenced (citations!)
- May include link to practice (talk with painters, go to museums...)
- NOT good for a Visual Arts EE:
 - Simply summarizing general secondary sources, such as universal art history textbooks and encyclopedias.
 - Research questions that are too broad or descriptive (example: “What is Impressionism?”)
 - Biographical studies of artists (unless you have a specific research question and can give a particular, and preferably personal, conclusion)
 - Essays that belong in different subjects (example: essays on “green” architecture that focus on technology or essays about film that do not focus on the visual aspects)
- *Example:* “To what extent does “Birkenau” connect to Gerhard Richter’s reflection of German history?”
- *Example:* “Was Picasso a genius or a cultural thief? An investigation of the extent to which selected images in Picasso’s work may have been appropriated from other cultural sources.”

ANY QUESTIONS? Write us at ib@bebe-dresden.de