

Korah Collegiate & Vocational School

Extended Essay Handbook

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RPPF Exemplars (to be provided)
 Subject Specific EE's (to be added by dept.)
 Scored EE's (to be added by dept.)
 Subject Specific Guidance (to be added by dept.)

Aims of the Extended Essay

The aims of the extended essay are for students to:

- engage in independent research with intellectual initiative and rigour
- develop research, thinking, self-management and communication skills
- reflect on what has been learned throughout the research and writing process

Basic Questions and Answers

What is the Extended Essay?

The extended essay, including the world studies extended essay, offers the opportunity for IB students to investigate a topic of special interest, in the form of a 4,000-word (maximum) piece of independent research. Students select an area of research from Diploma Programme subjects, or in the case of the interdisciplinary world studies essay from two subjects, and become acquainted with the independent research and writing skills expected at a college or university. This leads to a major piece of formally presented, structured writing, in which ideas and findings are communicated in a reasoned and coherent manner, appropriate to the subject or subjects chosen. It is intended to promote high-level research and writing skills, intellectual discovery and creativity. As an authentic learning experience, the extended essay provides students with an opportunity to engage in personal research on a topic of choice, under the guidance of a supervisor. The EE is externally assessed and, in combination with the grade for Theory of Knowledge, contributes up to three points to the total score for the IB diploma. The entire process is overseen by a supervisor chosen by the student, the Extended Essay Coordinator (Ryan Leland), and the IB Coordinator (Chad McAllister).

Do I have to write the Extended Essay in order to receive the full diploma?

Yes. In addition to the EE, you must complete the TOK course requirements, as well as the CAS requirements in order to receive a full IB diploma.

Does my supervisor have to be a teacher at Korah?

Yes. Your EE supervisor must currently teach Korah. However, he/she need not be an IB instructor. Your chosen supervisor should have an extensive background in the subject chosen for your essay.

What are all the things that go into an Extended Essay?

The *Extended Essay Guide* states that the following are required to be in your Extended Essay: contents page, introduction, body, conclusion, references and bibliography, and appendices (if needed)

Are there any example essays that I can look at?

In addition to basic internet searches, there are also sample essays in the CAS room. These essays have been scored by examiners. There are many examples here to get your brain going and to perhaps see what pitfalls to avoid.

How is the Extended Essay graded?

Generally, your Extended Essay will fall into one of the following “band descriptors”:

- | | |
|---|--|
| A | Work of an excellent standard |
| B | Work of a good standard |
| C | Work of a satisfactory standard |
| D | Work of a mediocre standard |
| E | Work of an elementary standard |

What will the Extended Essay do with regard to achieving an IB diploma?

Combined with both assessments from Theory of Knowledge (the formal presentation and the essay), you can receive up to three points toward your IB diploma total. Remember that you must acquire 24 points or more from your 6 courses plus EE/TOK in order to receive an IB diploma. See the following chart.

ToK/Extended Essay Point Matrix

ToK/EE	A	B	C	D	E
A	3	3	2	2	Failing condition
B	3	2	2	1	
C	2	2	1	0	
D	2	1	0	0	
E	Failing condition				

IB Extended Essay Support & Timelines

Below are the timelines required for submission of your extended essay as a requirement of your IB Diploma. Timelines and expectations within subject areas vary and are in ADDITION to these dates.

Dates for 2019	Expectation:	Explanation/Details:
February 11 – 14 th	Meet as per schedule during lunch period.	Introduction to the EE process, timeline, matrix
February 15 th	Attend morning session at Algoma U	Introduction to scholarly sources and research techniques
February 28 th	Return signed letter/contract	
February 28 th	Socratic Seminar & Potluck	Students use EE rubric to assess grade 12 papers
March 20 th	Pitch Party	Students prep 2 pitches; must be in 2 different disciplines
March 25 th – 30 th	Second meeting in CAS room, as per set schedule	Students are expected to have read over two papers in their subject area.
April 11 th	Students submit plan to science; book list to English; topic and resource list to history	Students are now focused on their area of study and have an FRQ
April 15 th – April 28 th	Students meet with mentor at least once to confirm focus of paper	Students and mentors set individual goals and deadlines.
April 23 rd – April 26 th	Initial reflection interview	Students arrange interview time and date with mentor
April 29 th	Individual interviews with Ms. Koskenoja; initial reflection due at this interview	Ensure students have met timelines, are on track, and know the format of research paper.
May 27 th – June 21 st	Students use alternate French periods for EE research	After IB French exam, students are expected to use alternate periods for work on EE - research, reading, and lab work.
May 27 th - June 13 th	Science students conduct; English & history students prepare and submit first 5 pages of EE OR 3 page detailed outline by 13 th (mentor's choice)	Labs conducted; detailed outline for any summer work must be approved by mentor; no school equipment can be signed out over the summer.
July – August	Students correspond with mentor	Each student and mentor set up a weekly/bi-weekly/monthly schedule for correspondence
Week of September 9 th	Interim reflection interview	Students arrange interview time and date with mentor
September 27 th	First good rough draft due; ideally this is pen to paper copy (mentor will confirm if this is case)	Students hand in hard & electronic copies to mentor and to Ms. K
October 8 th	Pen to paper copy due	As above
October 28 th	Final copy due	Students hand in hard & electronic copies to mentor & Ms. K
Week of November 18 th	Viva voce interview	Students arrange viva voce interview with mentor

Getting Started

The Extended Essay Mentor

Each student will be assigned a mentor teacher; this mentor will work with you in refining the topic of the essay, suggesting sources for research, and guiding you during the months spent researching and writing. Mentors will help direct you to sources, and provide general guidance, criticism, and feedback. Ask questions of your mentor. Seek advice!

Teachers will rarely supervise more than three candidates, so selection will be made as soon as the student decides upon the subject area of his/her paper.

As soon as you have chosen your subject, and been assigned a mentor, make an appointment to meet with your mentor and work out a calendar of when the two of you can meet. A formal meeting structure will be vital for you, as it will keep you on task as much as possible.

Choosing a Subject

Deciding what to write about is extremely important to your extended essay. Make sure it is something that you have a strong interest in. Your chosen subject must come from a subject within the IB curriculum. At Korah we allow the following subjects:

- Biology
- Chemistry
- Computer Science
- English Language and Literature (Category 1 or 2)*
- History
- Music

*** Language and Literature (English A) categories 1 & 2:**

- Category 1: Studies of a literary work or works originally written in the language in which the essay is presented (English)
- Category 2: Studies of a literary work or works originally written in the language of the essay (English) compared with one or more literary works originally written in another language. (The work originally written in another language may be studied in translation.)

Choosing a Topic

The topic of the extended essay is the particular area of study within the chosen subject. As long as the subject is approved, there is no limit to the topic that is chosen. You should choose a topic that is both interesting and challenging to you. The topic chosen should be limited in scope and sufficiently narrow to allow you to examine an issue or problem in depth. It should present you with opportunity to collect or generate information and/or data for analysis and evaluation. You are not expected to make a contribution to knowledge within a subject, meaning that you don't necessarily need to invent a new way of critiquing literature or discover a new element or anything. Instead, you will need to contribute to the conversation of that particular topic.

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.

Formulating well-focused research questions: A guide for students

Practice exercise: Formulating well-focused research questions

<p><i>Developing a narrow, focused research question is an integral part of your extended essay process. A research question will provide a path to guide you through your research and writing.</i></p>	
<p>Step 1. Choose your subject area</p>	<p><i>Which subject area is of most personal interest to you? Is there something you are especially curious about in one of your IB courses? Did your personal project (if you completed the Middle Years Programme) spark an idea that can be researched and developed into an arguable topic?</i></p>
<p>Step 2. Choose a topic that interests you</p>	<p><i>Describe your work in one sentence.</i></p> <p>I want to learn about _____.</p> <p>Example: I want to learn about public funding for the arts.</p>
<p>Step 3. Suggest a question</p>	<p><i>Try to describe your research by developing a question that specifies something about your topic.</i></p> <p>I am studying _____ because I want to find out (who, what, when, where, whether, why or how) _____.</p> <p>Example: I am studying public funding for the arts because I want to find out how accessible the arts are to those people who are on low incomes.</p> <p>Direct question: To what extent are the arts accessible to people who belong to the class of the working poor?</p> <p>Include a command term from your subject area to help form the research question.</p> <p>Will you be able to argue a specific position? What are some possible issues or arguments?</p>
<p>Step 4. Evaluate your question</p>	<p><i>Answer the questions:</i></p> <p><i>Is there a range of perspectives on this topic?</i></p> <p>_____</p>

	<p><i>Does the research question allow for analysis, evaluation and the development of a reasoned argument?</i></p> <hr/> <p>I am studying _____ because I want to find out _____ in order to understand (how, why or whether) _____.</p> <p>Example: I am studying public funding for the arts because I want to find out how accessible the arts are to the working poor so I can determine whether tax dollars support cultural enrichment for all citizens regardless of their socio-economic status.</p>
<p>Step 5. Restate your question using a different command term</p>	<p><i>Asking the question in a different way might help you view your topic in a different way.</i></p> <p>How does <i>analysing</i> ...</p> <p><i>To what extent</i> ...</p>
<p>Step 6. Review with your supervisor</p>	<p><i>Is your supervisor able to understand the nature of your research?</i> _____</p> <p><i>Is it clear to your supervisor how and why your topic is relevant in your subject area?</i></p> <hr/>
<p>Step 7. Reflection</p>	<p><i>If you can adequately respond to the “so what?” question, you may be on your way to a clear and focused research question using your initial topic idea.</i></p> <p>Do that here: _____</p> <hr/>
<p>You must now start some preliminary reading around the issue or topic. Remember that you will most likely need to revise your research question once you start to undertake your research. In this sense your research question should always be considered provisional until you have enough research data to make a reasoned argument.</p>	

GLOSSARY OF COMMAND TERMS

Candidates should be familiar with the following key terms and phrases used in examination questions. Although these terms are used frequently in examination questions, other terms may be used to ask candidates to present an answer in a specific way.

account for Asks candidates to explain a particular event or outcome. Candidates are expected to present a reasoned case for the existence of something. For example:

How do you account for the length and stability of the government of either Leopold Senghor in Senegal or Felix Houphouët-Boigny in the Ivory Coast?

analyse Asks candidates to respond with a closely argued and detailed examination of a perspective or a development. A clearly written analysis will indicate the relevant interrelationships between key variables, any relevant assumptions involved and also include a critical view of the significance of the account as presented. If this key is augmented by “the extent to which” then the candidate should be clear that judgment is also sought. For example:

Analyse the social impact of developments in (a) transport and (b) health care since 1945.

assess Asks candidates to measure and judge the merits and quality of an argument or concept. Candidates must clearly identify and explain the evidence for the assessment they make. For example:

Assess John F Kennedy’s handling of the Cold War problems during his presidency.

Using the sources and your own knowledge, assess the extent to which Mao was effective in ‘eliminating classes and realizing universal harmony’ in China up to 1953.

compare/contrast Asks candidates to describe two situations and present the similarities and differences between them. On its own, a description of the two situations does not meet the requirements of this key word/phrase. For example:

Compare the effects of the changes in family structure since 1945 in one developed and one developing nation.

Compare and contrast the circumstances that gave rise to the regimes of Juan Perón and Fidel Castro in Latin America.

define Asks candidates to give a clear and precise account of a given word or term. For example:

Define the aims of two international economic organizations and analyse their success in improving economic conditions.

describe Asks candidates to give a portrayal of a given situation. It is a neutral request to present a detailed picture of a given situation, event, pattern, process or outcome, although it may be followed by a further opportunity for discussion and analysis. For example:

Describe the content and discuss the relative importance of the Camp David Accords to the Middle East peace process.

discuss/consider Asks candidates to consider a statement or to offer a considered review or balanced discussion of a particular topic. If the question is presented in the form of a quotation, the specific purpose is to stimulate a discussion on each of its parts. The question is asking for the candidate's opinions; these should be presented clearly and supported with as much evidence and sound argument as possible. For example:

Discuss the view that the United Nations General Assembly has become a forum for propaganda rather than constructive debate, but nevertheless acts as a useful safety valve.

Consider the significance of the 1837 rebellions in Upper and Lower Canada for the development of Canada to 1867.

evaluate Asks candidates to make an appraisal of the argument or concept under investigation or discussion. Candidates should weigh the nature of the evidence available, and identify and discuss the convincing aspects of the argument, as well as its limitations and implications. For example:

'German policy after January 1917 forced the United States to declare war.'
Evaluate the validity of this statement.

examine Asks candidates to investigate an argument or concept and present their own analysis. Candidates should approach the question in a critical and detailed way which uncovers the assumptions and interrelationships of the issue. For example:

Examine the role of the Treaty Port system in the development of China's relations with foreign powers between 1842 and 1870.

explain Asks candidates to describe clearly, make intelligible and give reasons for a concept, process, relationship or development. For example:

Explain the circumstances in which NATO and the Warsaw Pact were formed. What contribution did each make to the intensification of the Cold War?

Explain the success or failure of two guerrilla wars, each chosen from a different region.

how? On its own this is a straightforward invitation to present an account of a given situation or development. Often a second part will be added to such an essay question to encourage analysis.

How and why did Indo-China achieve independence from France after the Second World War?

Adding a second word such as "**successfully**", "**effective**", "**accurate**", or "**far**" turns a "how" question into one that requires a judgment. The candidate is now expected to provide his/her detailed reasons for that judgment.

How successful has the Organization of Petroleum Exporting Countries (OPEC) been in achieving its aims?

How far do you agree that the absence of the United States from the League of Nations was the major factor in the failure of that organization to preserve world peace?

identify

Asks candidates to recognize one or more component parts or processes. A second part will be added to such an essay question requiring explanation and analysis. For example:

With reference to three examples, identify and explain the different reactions of African peoples to European attempts at annexation of their territory.

outline

Asks candidates to write a brief summary of the major aspects of the issue, principle, approach or argument stated in the question. For example:

Outline the ways in which two industrialized countries, each from a different region, attempted to solve the problems arising out of the Great Depression.

to what extent?

Asks candidates to evaluate the success or otherwise of one argument or concept over another. Candidates should present a conclusion, supported by arguments. For example:

To what extent can nationalism rather than religion be considered the cause of the Arab-Israeli conflict?

why?

This short key word invites candidates to present reasons for the existence of something. Thus, the brevity of this command rather disguises a powerful requirement to present a detailed, reasoned argument. In effect it is similar to the invitation "account for".

Why have African-Americans been attracted to the teaching of Islam?

Why, since independence, have Asian countries achieved greater economic success than those in Africa? Refer to at least two countries in each region.

The Extended Essay at a Glance

Key Features of the Extended Essay

- The extended essay is compulsory for all students taking the Diploma Programme.
- A student must achieve a D grade or higher to be awarded the Diploma.
- The extended essay is externally assessed and, in combination with the grade for Theory of Knowledge, contributes up to three points to the total score for the IB Diploma.
- It is presented as a formal piece of sustained academic writing containing no more than 4,000 words accompanied by a reflection form of no more than 500 words.
- It is the result of approximately 40 hours of work by the student.
- Students are supported by a supervision process recommended to be 3–5 hours, which includes three mandatory reflection sessions.
- The third and final mandatory reflection session is the *viva voce*, which is a concluding interview with the supervising teacher.

Roles and Responsibilities

Student Requirements

It is **required** that students:

- choose a topic that fits into one of the subjects on the approved extended essay list
- observe the regulations relating to the extended essay
- meet deadlines
- acknowledge all sources of information and ideas in an approved academic manner.

It is **strongly recommended** that students:

- start work early
- think very carefully about the research question for their essay
- plan how, when and where they will find material for their essay
- plan a schedule for both researching and writing the essay, including extra time for delays and unforeseen problems
- record sources as their research progresses (rather than trying to reconstruct a list at the end)
- have a clear structure for the essay itself before beginning to write
- check and proofread the final version carefully
- make sure that all basic requirements are met (for example, all students should get full marks for the abstract).

Supervisors are NOT required to:

- write the essay for the student
- correct the essay
- mark the essay for writing
- know how to solve all problems
- understand how to derive all equations
- turn a bad essay into a good one

Responsibility Summary Chart:

Responsibility	Coordinator	Mentor	Student
Read EE Handbook plus section on your subject		x	x
Read Assessment criteria		x	x
Read Examiner Reports for subject		x	x
Read Outstanding Essays for subject		x	x
Train students in topic selection & research question	x		
Advise students in topic selection & research question		x	
Advise students in developing outline (research plan)		x	
Discuss/advise students concerning outline & argument		x	
Advise students on research resources		x	
Train students on citing sources	x		
Train students on avoiding plagiarism	x		
Train students on writing abstract, intro & conclusion	x		
Train students on formal presentation	x		
Read students' first drafts, write comments & review w/ students		x	
Conduct <i>Viva Voce</i> interview		x	
Fill out final commentary on the reflection on planning and progress form		x	

Reflection in the Extended Essay

Student reflection in the extended essay is a critical evaluation of the decision-making process. It demonstrates the evolution and discovery of conceptual understandings as they relate to the research question and sources. Reflection demonstrates the rationale for decisions made and the skills and understandings developed, as well as the authenticity and intellectual initiative of the student voice. Effective reflection highlights the journey the student has taken to engage in an intellectual and personal process as well as how it has changed him or her as a learner and affected the final essay. As a part of the extended essay, students will be expected to show evidence of intellectual growth, critical and personal development, intellectual initiative and creativity. This should be facilitated by the use of the Researcher's reflection space. The most successful students will be able to show an appreciation that learning is complex and that they are able to consider their actions and ideas in response to challenges that they may experience during the research process.

The depth of reflection will demonstrate that the student has constructively engaged with the learning process. Such engagement provides evidence that the student has grown as a learner as a result of his or her experience. More importantly, it demonstrates the skills that have been learned.

These skills may include:

- critical thinking
- decision-making
- general research
- planning
- referencing and citations
- specific research methodology
- time management.

Reflection must be documented on the *Reflections on planning and progress form* and is explicitly assessed under assessment criterion E (engagement).

Reflections on Planning and Progress Form (RPPF)

The *Reflections on planning and progress form* enables examiners to gain an insight into students' thinking processes while researching and writing the EE. The examiners are looking to see how students' thinking and skills have developed during this time.

The assessment criterion E (engagement) will be applied in the assessment of students' reflections. Representing 18% of the total grade, this is an extremely important part of the overall EE assessment.

It is important to stress with students that examiners want to gain an insight into their thinking processes throughout their experience with the EE. **Criterion E assesses the student's engagement with their research focus and the research process. It will be applied by the examiner at the end of the assessment of the essay, after considering the student's RPPF.**

Protocols for Completing and Submitting the Reflections on Planning and Progress Form

Completing the *Reflections on planning and progress form* (RPPF) is a requirement for the submission of the extended essay. It plays an important role in the assessment of the final essay and of the student's engagement with the process of independent research. The following is offered as guidance for the completion and submission of the form.

The Steps

1. Initial reflection session takes place.
2. Student is given a fixed time period to complete their first reflection comment. This time period should be short in order to authentically reflect the discussion that has taken place.
3. Supervisor date stamps and signs to authenticate the student comment on Managebac.
4. Interim reflection session takes place.
5. Student is given a fixed time period to complete their second reflection comment. This time period should be short in order to authentically reflect the discussion that has taken place.
6. Supervisor date stamps and signs to authenticate the student comment on Managebac.
7. Student submits to the supervisor the final, completed version of their extended essay, ready for submission to the IB. Once this is done, the essay is no longer available to the student and no changes are permitted. The supervisor is responsible for ensuring that no changes are made after that point.
8. The supervisor reads the essay and then arranges for the final reflection session, the *viva voce*, to take place.
9. The *viva voce* takes place.
10. Students complete their RPPF by adding their final summative comments, sign and date the form on Managebac.
11. The supervisor adds their summative comment; coordinator uploads the form on behalf of the student into the e-coursework system.
12. The extended essay coordinator then uploads both the mandatory items--the extended essay and the RPPF--to the IB for assessment for one portfolio.

Reflection Sessions

Preparation for the First Reflection Session

As preparation for their first reflection session, students should do the following.

1. Think about subjects and areas of particular personal interest and do some initial background reading into a subject and topic of their choice.
2. Using this as a starting point, explore a variety of possible research topics.
3. Read the subject-specific section of the *Extended essay guide* for the subject they are interested in, paying particular attention to the nature of the subject and the treatment of the topic.
4. Undertake further background reading and begin to gather information around their area of interest. This exploration should give rise to a variety of topics and questions that students can consider for further research. At this stage it is important that students consider the availability of reliable and valid sources for the topic under consideration. All of this should be recorded in their Researcher's reflection space.
5. Begin developing a research proposal which might include a MindMap® of ideas, an annotated article or preliminary bibliography. Additionally, students must already be thinking in terms of the following questions.
 - ☐ Is my topic appropriate for the subject I am considering?
 - ☐ Why am I interested in this area and why is it important?
 - ☐ What possible questions have emerged from my initial reading?
 - ☐ Are there any ethical issues that I need to consider?
 - ☐ What possible methods or approaches might be used for research in this area and why?

It is recommended at this point that the student-supervisor relationship is formalized and the student can consider himself or herself prepared for the first formal reflection session.

First Formal Reflection Session

This initial reflection session should be a dialogue between the student and the supervisor based on the student's initial explorations. It is recommended that the student sends their supervisor an outline of their research proposal ahead of the meeting in order to give the supervisor the opportunity to review their work. This will ensure that the reflection session is focused and productive.

Topics of discussion that should arise during this session include:

- a review of the requirements and assessment criteria for the subject
- a review of ethical and legal implications, if applicable
- a dialogue about possible approaches and any potential problems that might arise
- a discussion of strategies for developing the student's ideas for the essay and expanding the research so that the essay starts to take form
- probing and challenging questions that will help the student focus their thinking; this should lead to the development of the student's working research question
- an outline of the next steps that the student should undertake in order to refine their question; this should take the form of a research and writing timeline.

Following this first session, the student is required to complete the first student comment section of the *Reflections on planning and progress form* on Managebac; their supervisor must then sign and date the form.

Preparation for the Interim Reflection Session

Between the first and second reflection session, students can engage in informal conversations with other people, such as subject teachers, the extended essay coordinator, the librarian or their supervisor. They must also ensure that they are progressing with their research plan.

In preparation for the interim reflection session, students should have:

- attempted to refine a focused and appropriate research question
- significantly deepened their research and recorded pertinent evidence, information or data in the Researcher's reflection space
- reviewed and consolidated the methodologies they are using
- formulated arguments based on the evidence that they have collected
- added to the working bibliography for their research.

Interim Formal Reflection Session

This session is a continuation of the dialogue between supervisor and student in which the student must demonstrate the progress they have made in their research. They must also be able to discuss any challenges they have encountered, offer their own potential solutions and seek advice as necessary.

During this session the supervisor might discuss:

- a completed piece of sustained writing from the student in order to ensure that they understand the academic writing requirements, including referencing formats
- whether an appropriate range of sources has been accessed and how the student is critically evaluating the origin of those sources
- what the student now has to do in order to produce the full draft of their essay, and ways and means of breaking down the task into manageable steps.

By the end of the interim reflection session both student and supervisor should feel satisfied that there is:

- a clear and refined research question
- a viable argument on which to base the essay
- a sufficient range of appropriate sources
- a clear vision for the final steps in the writing process.

Between the interim session and the completion of the extended essay, students should continue to see their supervisor as appropriate to their needs, although the third and final reflection session should not take place until after the extended essay has been completed and uploaded for submission.

Following this interim session, the student is required to complete the second student comment section of the *Reflections on planning and progress form* on Managebac; their supervisor must then sign and date the form

The *viva voce* (concluding interview)

The *viva voce* is a short interview between the student and the supervisor, and is the mandatory conclusion to the extended essay process. Students who do not attend the *viva voce* will be disadvantaged under criterion E (engagement) as the *Reflections on planning and progress form* will be incomplete.

The *viva voce* is conducted once the student has uploaded the final version of their extended essay to the IB for assessment. At this point in the process no further changes can be made to the essay. The *viva voce* is a celebration of the completion of the essay and a reflection on what the student has learned from the process.

The *viva voce* is:

- an opportunity to ask the student a variety of open-ended questions to elicit holistic evidence of the student's learning experience.
- an opportunity for the supervisor to confirm the authenticity of the student's ideas and sources
- an opportunity to reflect on successes and difficulties encountered in the research process
- an aid to the supervisor's comments on the *Reflections on planning and progress form*.

The *viva voce* should last 20–30 minutes. This is included in the recommended amount of time a supervisor should spend with the student.

Remember, a blank or unsubmitted RPPF will score a 0 for criterion E.

Guiding student reflection

In critically reviewing your engagement in the research process, it might help to think in terms of three levels of reflection: descriptive, analytical and evaluative reflection. The table below gives examples of guiding questions to help with this. They are not exhaustive.

Level of reflection	Example of the kinds of questions students may have asked and answered of themselves
Descriptive	<ul style="list-style-type: none"> • What did I do? • How did I undertake my research? • What were the problems I faced? • Did my approach or strategies change throughout the process? • What have been the high and the low points of the research and writing process?
Analytical	<ul style="list-style-type: none"> • Was my research successful? • If I changed my approach or strategies during the process, why did I do this? • What did I learn from the experience in terms of my understanding of the subject area and/or the skills needed to undertake research? • How has my understanding of the topic and research process developed throughout the task?
**Evaluative	<ul style="list-style-type: none"> • If I were to undertake this research again, would I do it differently—if so, why or why not? • What has affected this? • If I did do the research again, would I change the theories applied or the methodological approach? Would this have led to a different outcome? • What can I conclude from this? • Were the strategies I used for undertaking my research the most appropriate for achieving my outcomes? • What, if any, questions emerged as a result of my research that I was not expecting? Would these questions influence my approach if I were to undertake the research again?

These levels correspond to the attainment levels of the rubric for critterion E (engagement). **Therefore, try to use EVALUATIVE prompts for best results!

Pedagogical support for the EE



Reflecting throughout the research process

Reflection is a continual process. If you are constantly considering the decisions you are making in the extended essay (EE) process, you are better able to avoid the common pitfalls of independent research. Reflection also helps you plan, allowing you to monitor your progress.

The following table identifies three stages in the review process and the kinds of questions you can usefully consider at each. It also suggests what evidence you might use in your reflection sessions to demonstrate your progress and learning.

Stage	Types of questions you may ask yourself	Evidence from my researcher's reflection space
Initial: Planning stages	<ul style="list-style-type: none"> • What am I interested in researching and why? • What are my motivations for undertaking research in this area? • How will I begin the research process? • Is my chosen topic appropriate for the subject I have chosen to complete it in? • Do I have sufficient knowledge of the subject area to fulfill the criteria of an EE? • What possible question(s) might I research? • How might I go about undertaking this research? • Do I have access to appropriate sources? • Are my chosen research methods appropriate for the subject I have chosen to complete it in? • Are there any ethical issues I need to consider before pursuing this area of research? • Is there sufficient focus to my research area? 	<ul style="list-style-type: none"> • Mind map® • Annotated section of the <i>Extended essay guide</i> • Annotated bibliography • Annotated photograph, newspaper article, and so on
Background reading stage	<ul style="list-style-type: none"> • What have I learned about my subject area so far? • What questions are emerging? Are these similar or different to my initial questions? • Given the initial reading I have undertaken on the subject, is my research question appropriate for the subject I am submitting my EE in? • Is my research question manageable within the word limit of the EE? 	<ul style="list-style-type: none"> • Notes • Annotated article • Brainstorm of questions • Mind map® of potential challenges and possible strategies

	<ul style="list-style-type: none"> • Will my research question allow me to think critically about the topic I am researching? If it suggests a descriptive response, how might I need to change it to allow for more critical thinking? • Are there any challenges that I need to overcome in order to achieve my desired outcomes? 	
Interim: Writing stage	<ul style="list-style-type: none"> • Do I have sufficient data/information to begin formulating an argument? • If I do not have sufficient data/information, how will I go about resolving this? Can it be resolved? • To what extent does the data/information I have relate to my proposed research question? • Given the data/information I have collected, do I need to reformulate my research question? • Has the data/information collected taken me in an unexpected direction? • Do I want to change course now? Is it too late? • Are there still questions/issues that I am unclear how to resolve? • Am I keeping to a schedule with the writing process? 	<ul style="list-style-type: none"> • Introduction of the essay • Annotated sections from books, journals, articles, and so on • Reworked research question • Examples of data/information collected from research
Final: Writing stage	<ul style="list-style-type: none"> • Do I have a reasoned argument that can be sustained throughout the essay? • Am I able to make coherent links between different points made and the evidence presented? • To what extent have I answered my research question? • What reasons may have affected my ability to answer my research question? • If I have been selective in the evidence presented in my essay, can I justify my choices? • Is there a clear summative conclusion, and does this reflect the discussion that has taken place? 	<ul style="list-style-type: none"> • An outline of the main argument • Timeline • Working bibliography

	<ul style="list-style-type: none"> • To what extent do I think I have fulfilled the expectations of the extended essay as a task? • Has my research resulted in me changing my perspective or views on the topic in question? • What strategies have I employed that have worked particularly well at this stage of the process? 	
<i>Viva voce</i>	<ul style="list-style-type: none"> • To what extent has my thinking been confirmed or changed about my chosen topic as a result of my research? • What strategies did I employ that proved particularly effective in the research process? • What skills have I developed and how might these be useful in the future? • What improvements might I suggest to my own working practices? • How might different research strategies have impacted my outcomes? • What did I learn about myself as a learner in this process? 	

The Research Process

1. Choose an available Diploma Programme subject for the extended essay for your appropriate session.
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.
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 (more specific than the school's).
7. Begin to identify how and where gathered research materials will be acquired.
8. Identify which system of academic referencing will be used, ensuring that this meets the minimum requirements for the IB.
9. Set deadlines 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 important to have a sense of direction from the start.
11. Undertake some preparatory reading in light of the proposed research question. If the evidence needed cannot be obtained in time, the research question should be changed. Do not simply wait for evidence that might turn up. If need be, go back to earlier steps in the process and begin again.
12. Carry out the research. The material 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 if 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. If that happens, the research plan needs to be revised.

Five Steps to Developing a Research Question

1. **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.
2. **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?
 - 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?
3. **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."
4. **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 done?

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?

5. **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

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?

Structuring 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: The 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 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.
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.

Presentation of the Extended Essay

The extended essay should be written in a clear, correct and formal academic style, appropriate to the subject from which the topic is drawn. Given that the extended essay is a formally written research paper, it should strive to maintain a professional, academic look.

To help achieve this, the following formatting is required:

- the use of 12-point, readable font
- double spacing
- page numbering
- no candidate or school name on the title page or page headers.

Word Count

The upper limit is 4,000 words for all extended essays.

Please note: Examiners are instructed **not** to read or assess any material in excess of the word limit. This means that essays containing more than 4,000 words will be compromised across all assessment criteria. Given the holistic nature of the assessment criteria, students who write in excess of the word limit will self-penalize across all criteria. For example, in criterion B, any knowledge and understanding demonstrated beyond the 4,000-word limit will be treated as if it were not present; in criterion C, analysis, discussion or evaluation made beyond the 4,000-word limit will be treated as if the point had not been made.

Supervisors and students should be aware that the e-upload of extended essays will facilitate the automatic recognition of a cut-off point for assessment. Students should ensure that they remain within the word limit and should edit accordingly.

Please refer to the following guidance on what content should be included in the word count.

Included in the Word Count	Not Included in the Word Count
The introduction	The contents page
The main body	Maps, charts, diagrams, annotated illustrations
The conclusion	Tables
Quotations	Equations, formulas and calculations
Footnotes and/or endnotes that are not references	Citations/references (whether parenthetical, numbered, footnotes or endnotes)
	The bibliography
	The <i>Reflections on planning and progress form</i>

Illustrations

Presentation and overall neatness are important, and it is essential that illustrative material, if included, is well set out and used effectively. Graphs, diagrams, tables and maps are effective only if they are clearly labelled and can be interpreted with ease.

Any labelling should contain the minimum information to ensure the examiner understands the significance of the map, chart, diagram or illustration. It must not include commentary, as this will be considered as part of the essay discussion and thus included in the word count.

All such material that is incorporated into the extended essay must be directly related to the text and acknowledged where appropriate. The use of photographs and other images is acceptable only if they are captioned and/or annotated and are used to illustrate a specific point made in the extended essay. Students should be advised to use illustrations with caution as excessive use may detract from the discussion in the essay. They should only be used if they are relevant and appropriate to a point being made as part of the argument of the essay.

Footnotes and endnotes

Footnotes and endnotes may be used for referencing purposes and if this is the case will not be included in the word count of the essay. If information is contained in a footnote or endnote and is not a reference, this must be included in the word count. In order to avoid confusion and unwittingly exceed the word limit, students are advised to avoid using footnotes or endnotes other than for referencing purposes unless it is appropriate.

As footnotes and endnotes are not an essential part of the extended essay students must take care to ensure that all information with direct relevance to the analysis, discussion and evaluation of their essay is contained in the main body of it.

An essay that attempts to evade the word limit by including important material in footnotes or endnotes will be compromised across the assessment criteria. Please note that footnotes and endnotes are added to the word count as they are encountered.

Appendices

Appendices are not an essential part of the extended essay and examiners will not read them, or use any information contained within them, in the assessment of the essay. Students must take care to ensure that all information with direct relevance to the analysis, discussion and evaluation of their essay is contained in the main body of it. Appendices should therefore be avoided except in the following instances:

- an exemplar of a questionnaire or interview questions
- an exemplar of permission letters
- group 1, category 1 essays: copies of poems or short stories (of less than three pages)
- group 1, category 3 essays: excerpts from newspapers, advertisements and transcripts of speeches
- language acquisition, category 1 and 2: excerpts from newspapers, advertisements, transcripts of speeches, etc
- language acquisition, category 3: excerpts or copies of poems or short stories (less than 3 pages)
- an external mentor letter, where one has been used
- raw data or statistical tables for experimental sciences (this should not include any analysis or conclusions).

Students should not continually refer to material presented in an appendix as this may disrupt the continuity of the essay and examiners are not required to refer to them.

Reliance on External Resources

Irrespective of the subject, the extended essay should be a complete piece of independent research, modelled on an academic journal/research paper, which can exist and be understood on its own, without the need to access external links, such as hyperlinks, or accompanying material such as DVDs.

Examiners will not access any material contained in an external source when assessing an essay. Material that is pertinent to the argument being made must be contained in the essay itself to be considered by examiners in their assessment of it.

As with appendices, if information central to the argument is included in the external link, it is treated as though the point has not been made and as such could affect different criteria, for example, criterion C (critical thinking), depending on the quality of the other analyses.

Academic Honesty

Research practices when working on an extended essay must reflect the principles of academic honesty. The essay must provide the reader with the **precise** sources of quotations, ideas and points of view through accurate citations, which may be in-text or footnotes, and full references listed in the bibliography, which, regardless of the system used, must ensure the minimum requirements.

Producing accurate references and a bibliography is a skill that students should be seeking to refine as part of the extended essay writing process. Documenting the research in this way is vital: it allows readers to evaluate the evidence for themselves, and it shows the student's understanding of the importance of the sources used.

Failure to comply with this requirement will be viewed as academic misconduct and will, therefore, be treated as a potential breach of IB regulations.

For further information, see *Academic honesty in the IB educational context* and *Effective citing and referencing*.

Bibliography

A bibliography is an alphabetical list of every source used to research and write the essay. Sources that are not cited in the body of the essay but were important in informing the approach taken should be cited in the introduction or in an acknowledgment. The bibliography must list only those sources cited.

Citations

A citation is a shorthand method of making a reference in the body of an essay, either as an in-text citation or footnote/endnote. This must then be linked to the full reference at the end of the essay in the bibliography. A citation provides the reader with accurate references so that he or she can locate the source easily. How sources are cited varies with the particular referencing style that has been chosen. Page numbers should normally be given when referencing printed material and this is especially so in the case of direct quotations. For some styles this will also be in the citation, in others in the full reference. Once again, it is important to emphasize that there must be consistency of method when citing sources.

References

A reference is a way of indicating to the reader, in an orderly form, where information has been obtained. A reference provides all the information needed to find the source material. References must be cited because they acknowledge the sources used, and enable the reader to consult the work and verify the data that has been presented.

References must be given whenever someone else's work is quoted or summarized. References can come from many different sources, including books, magazines, journals, newspapers, emails, internet sites and interviews.

There are a number of different styles available for use when writing research papers; most are appropriate in some academic disciplines but not others. The supervisor or school librarian should help the student decide on a style for the particular subject of the essay. It is important to remember that whatever style is chosen, it must be applied consistently and in line with the IB's minimum requirements.

When choosing the style, the student needs to have a clear understanding of how it is to be used before embarking on the research task. The style should be applied in both the final draft of the essay and in the initial research stages of taking notes. This is good practice, not only for producing a high-quality final product, but also for reducing the opportunities and temptation to plagiarize.

The IB's minimum requirements include:

- name of author
- date of publication
- title of source
- page numbers (print sources only)
- date of access (electronic sources only)
- URL.

Any references to interviews should state the name of the interviewer, the name of the interviewee, the date and the place of the interview.

For more detailed information on styles for citations and referencing please refer to the IB document *Effective citing and referencing*.

Referencing Online Materials

References to online materials should include the title of the extract used as well as the website address, the date it was accessed and, if possible, the author. With regard to electronic sources, the requirement of the IB for date stamping supersedes the requirements of the chosen referencing system. In other words, all electronic sources must be date stamped by including the date the student accessed the resource (for example, accessed 12 March 2016). Caution should be exercised with information found on websites that do not give references or that cannot be cross-checked against other sources. The more important a particular point is to the essay, the more the quality of its source needs to be evaluated.

Accessing Electronic Sources

Using the internet as a resource for finding information is more and more commonplace, and it is a tremendous resource. However, it must be used critically and with care. One important thing to be aware of is that unlike resources found in a library in printed form, those found on the internet may not have been through a review or editing process.

Students should:

- know appropriate search engines to use
- not rely exclusively on sources found on the internet
- have a clear and focused research question to help them search more directly on the internet (given the amount of information available it is easy to be overwhelmed)
- critically evaluate the reliability and validity of the information presented on the internet
- keep a detailed record of all references, in accordance with the IB's minimum requirements, ensuring that the URL of where the source was located is written down correctly. This includes recording the date that the site was accessed. The Researcher's reflection space (RRS) is a good tool for supporting this practice.

Accessing Electronic Sources

As a tool for research, free online encyclopedias can be valuable resources, but there are several reasons why students should be cautious in using them:

- they tend to be general encyclopedias
- very often the author is unknown

- there is no guarantee that the content meets standards of academic rigour—it may not, for example, have been through a process of peer review
- the content can be unstable, in that it can change at any time.

Teachers, supervisors and coordinators may choose to caution against the use of free online encyclopedias and other similar information websites. Certainly a bibliography that only cites these for reference or an argument that is overly reliant on them will not demonstrate the necessary “range of sources” required by the assessment criteria for the extended essay. They may also not be relevant or appropriate for the research question being explored.

Many online encyclopedias are not scholarly sources; however, if used appropriately and critically they can offer a useful starting point for many students undertaking research. Rather than absolutely discouraging the use of these sites, it may be more supportive to explore their potential as a platform for training students in research and thinking skills, especially in terms of assessing and evaluating the information they provide.

The internet is part of the education information ecosystem and a “real-world” source that many students engage with. The rise in popularity of free online encyclopedias has led to a shift in how knowledge and expertise is viewed, with new definitions of notions such as authority and expertise. For this reason, ensuring that students use it in an informed way is essential if they are to develop the necessary research, critical thinking and reflection skills in which the extended essay places value.

If using free online encyclopedias, students should do the following.

- Follow the references provided by the encyclopedia; this will help to verify the information given.
- Consider whether the article is part of a larger project, where a number of people are contributing to the discussion. If it is, then it implies that the writers have more than a casual interest in the topic being written about.
- Look to see if there is a rating for the information provided. If there is then this means that the information has undergone some sort of peer review and been given a rating. While not the same as an academic peer review, it can aid the judgment of the “quality” of the information.

The key point to remember, if students do use information that is found on the internet, is that they are responsible for ensuring that it is both reliable and accurate. One way a supervisor could facilitate this as a learning opportunity is in terms of a discussion with students about the quality of their sources. This could take the form of asking students to produce an annotated bibliography as part of their Researcher’s reflection space. An annotated bibliography provides a concise summary of each source and some assessment of its value and relevance. A good annotated bibliography will:

- encourage students to think critically about the sources they are using and how these relate to their chosen research area in terms of their relevance for example
- provide a way to help students determine whether a source is of use to them in their research
- allow students to keep track of their reading and enable them to make informed decisions about which sources to use in writing their essay.

Assessment Grade Descriptors for the Extended Essay

The extended essay is externally assessed, and as such, supervisors are not expected to mark the essays or arrive at a number to translate into a grade. Predicted grades for all subjects should be based on the **qualitative** grade descriptors for the subject in question

Grade Descriptors	Criterion A: Focus and Method	Criterion B: Knowledge and Understanding	Criterion C: Critical Thinking	Criterion D: Presentation	Criterion E: Engagement
A	<p>Demonstrates effective research skills resulting in a well-focused and appropriate research question that can be explored within the scope of the chosen topic</p> <p>Effective engagement with relevant research areas, methods and sources</p>	<p>Excellent knowledge and understanding of the topic in the wider context of the relevant discipline</p> <p>Effective application of source material and correct use of subject specific terminology and/or concepts further supporting this</p>	<p>Consistent and relevant conclusions that are proficiently analyzed</p> <p>Sustained reasoned argumentation supported effectively by evidence</p> <p>Critically evaluated research</p>	<p>Excellent presentation of the essay, whereby coherence and consistency further supports the reading of the essay</p> <p>Structural and layout elements are present and correctly applied</p>	<p>Engagement with the process is conceptual and personal</p> <p>Key decision making during the research process is documented</p> <p>Personal reflections are evidenced, including those that are forward thinking.</p>
B	<p>Demonstrates appropriate research skills resulting in a research question that can be explored within the scope of the chosen topic</p> <p>Reasonably effective engagement with relevant research areas, methods and sources</p>	<p>Good knowledge and understanding of the topic in the wider context of the relevant discipline</p> <p>A reasonably effective application of source material and use of subject-specific terminology and/or concepts</p>	<p>Consistent conclusions that are accurately analyzed</p> <p>Reasoned argumentation often supported by Evidence</p> <p>Research that at times evidences critical evaluation</p>	<p>A clear presentation of all structural and layout elements, which further supports the reading of the essay</p>	<p>Engagement with the process is generally evidenced by the reflections</p> <p>Key decision making during the research process is documented.</p>
C	<p>Demonstrates evidence of research undertaken, which has led to a research question that is not necessarily expressed in a way that can be explored within the scope of the chosen topic</p> <p>Partially effective engagement with mostly appropriate research areas, methods and sources—however, there are some discrepancies in those processes, although these do not interfere with the planning and approach</p>	<p>Some knowledge and understanding of the topic in the wider context of the discipline, which is mostly relevant</p> <p>Attempted application of source material and appropriate terminology and/or concepts;</p>	<p>Attempted synthesis of research results with partially relevant analysis</p> <p>Conclusions partly supported by the evidence</p> <p>Discussion is descriptive rather than analytical</p> <p>Attempted evaluation</p>	<p>Satisfactory presentation of the essay, with weaknesses that do not hinder the reading</p> <p>Some structural and layout elements that are missing or are incorrectly applied.</p>	<p>Engagement with the process is evidenced but shows mostly factual Information</p> <p>Personal reflection mostly limited to procedural issues.</p>

Grade Descriptors	Criterion A: Focus and Method	Criterion B: Knowledge and Understanding	Criterion C: Critical Thinking	Criterion D: Presentation	Criterion E: Engagement
D	<p>Demonstrates a lack of research, resulting in unsatisfactory focus and a research question that is not answerable within the scope of the chosen topic</p> <p>At times engagement with appropriate research, methods and sources, but discrepancies in those processes that occasionally interfere with the planning and approach</p>	<p>Some relevant knowledge and understanding of the topic in the wider context of the discipline, which are at times irrelevant</p> <p>Attempted application of source material, but with inaccuracies in the use of, or underuse of, terminology and/or concepts</p>	<p>Irrelevant analysis and inconsistent conclusions because of a descriptive discussion</p> <p>A lack of evaluation</p>	<p>Presentation of the essay at times is illogical and hinders the reading</p> <p>Structural and layout elements that are missing.</p>	<p>Engagement with the process is evidenced but is superficial</p> <p>Personal reflections are solely narrative and concerned with procedural elements.</p>
E	<p>Demonstrates an unclear nature of the essay</p> <p>A generally unsystematic approach and resulting unfocused research question</p> <p>Limited engagement with limited research and sources</p>	<p>Generally limited and only partially accurate knowledge and understanding of the topic in the wider context of the relevant discipline</p> <p>Ineffective connections in the application of source material</p> <p>Inaccuracies in the terminology and/or concepts used</p>	<p>Results of research are summarized with inconsistent analysis;</p> <p>An attempted outline of an argument, but one that is generally descriptive in nature</p>	<p>The layout generally lacks or incorrectly applies several layout and structural elements.</p>	<p>Engagement with the process is limited, with limited factual or decision making information and no personal reflection on the process.</p>

Extended Essay
Rubric for May 2018

A: Focus and method	
0	The work does not reach a standard outlined by the descriptors below.
1 – 2	<p>The topic is communicated unclearly and incompletely.</p> <p>Identification and explanation of the topic is limited; the purpose and focus of the research is unclear, or does not lend itself to a systematic investigation in the subject for which it is registered.</p> <p>The research question is stated but not clearly expressed or too broad. The research question is too broad in scope to be treated effectively within the word limit and requirements of the task, or does not lend itself to a systematic investigation in the subject for which it is registered.</p> <p>The intent of the research question is understood but has not been clearly expressed and/or the discussion of the essay is not focused on the research question.</p> <p>Methodology of the research is limited. The source(s) and/or method(s) to be used are limited in range given the topic and research question. There is limited evidence that their selection was informed.</p>
3 – 4	<p>The topic is communicated.</p> <p>Identification and explanation of the research topic is communicated; the purpose and focus of the research is adequately clear, but only partially appropriate.</p> <p>The research question is clearly stated but only partially focused. The research question is clear but the discussion in the essay is only partially focused and connected to the research question.</p> <p>Methodology of the research is mostly complete. Source(s) and/or method(s) to be used are generally relevant and appropriate given the topic and research question. There is some evidence that their selection(s) was informed. 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.</p>
5 – 6	<p>The topic is communicated accurately and effectively.</p> <p>Identification and explanation of the research topic is effectively communicated; the purpose and focus of the research is clear and appropriate.</p> <p>The research question is clearly stated and focused. The research question is clear and addresses an issue of research that is appropriately connected to the discussion in the essay.</p> <p>Methodology of the research is complete. An appropriate range of relevant source(s) and/or method(s) have been applied in relation to the topic and research question. There is evidence of effective and informed selection of sources and/or methods.</p>

B: Knowledge and understanding	
0	The work does not reach a standard outlined by the descriptors below.
1 – 2	<p>Knowledge and understanding is limited.</p> <p>The selection of source material has limited relevance and is only partially appropriate to the research question.</p> <p>Knowledge of the topic/discipline(s)/issue is anecdotal, unstructured and mostly descriptive with sources not effectively being used.</p> <p>Use of terminology and concepts is unclear and limited. Subject-specific terminology and/or concepts are either missing or inaccurate, demonstrating limited knowledge and understanding.</p>
3 – 4	<p>Knowledge and understanding is good.</p> <p>The selection of source material is mostly relevant and appropriate to the research question.</p> <p>Knowledge of the topic/discipline(s)/issue is clear; there is an understanding of the sources used but their application is only partially effective.</p> <p>Use of terminology and concepts is adequate. The use of subject-specific terminology and concepts is mostly accurate, demonstrating an appropriate level of knowledge and understanding.</p> <p>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.</p>
5 – 6	<p>Knowledge and understanding is excellent.</p> <p>The selection of source materials is clearly relevant and appropriate to the research question.</p> <p>Knowledge of the topic/discipline(s)/issue is clear and coherent and sources are used effectively and with understanding.</p> <p>Use of terminology and concepts is good. The use of subject-specific terminology and concepts is accurate and consistent, demonstrating effective knowledge and understanding.</p>

C: Critical thinking	
0	The work does not reach a standard outlined by the descriptors below.
1 – 3	<p>The research is limited. The research presented is limited and its application is not clearly relevant to the RQ.</p> <p>Analysis is limited. There is limited analysis. Where there are conclusions to individual points of analysis these are limited and not consistent with the evidence.</p> <p>Discussion/evaluation is limited. An argument is outlined but this is limited, incomplete, descriptive or narrative in nature. The construction of an argument is unclear and/or incoherent in structure hindering understanding.</p> <p>Where there is a final conclusion, it is limited and not consistent with the arguments/evidence presented.</p> <p>There is an attempt to evaluate the research, but this is superficial. If the topic or research question is deemed inappropriate for the subject in which the essay is registered no more than three marks can be awarded for this criterion.</p>
4 – 6	<p>The research is adequate. Some research presented is appropriate and its application is partially relevant to the Research question.</p> <p>Analysis is adequate. There is analysis but this is only partially relevant to the research question; the inclusion of irrelevant research detracts from the quality of the argument. Any conclusions to individual points of analysis are only partially supported by the evidence.</p> <p>Discussion/evaluation is adequate. An argument explains the research but the reasoning contains inconsistencies. The argument may lack clarity and coherence but this does not significantly hinder understanding.</p> <p>Where there is a final or summative conclusion, this is only partially consistent with the arguments/evidence presented. The research has been evaluated but not critically.</p>
7 – 9	<p>The research is good. The majority of the research is appropriate and its application is clearly relevant to the research question.</p> <p>Analysis is good. The research is analysed in a way that is clearly relevant to the research question; the inclusion of less relevant research rarely detracts from the quality of the overall analysis. Conclusions to individual points of analysis are supported by the evidence but there are some minor inconsistencies.</p> <p>Discussion/evaluation is good. An effective reasoned argument is developed from the research, with a conclusion supported by the evidence presented. This reasoned argument is clearly structured and coherent and supported by a final or summative conclusion; minor inconsistencies may hinder the strength of the overall argument. The research has been evaluated, and this is partially critical.</p>
10 – 12	<p>The research is excellent. The research is appropriate to the research question and its application is consistently relevant.</p> <p>Analysis is excellent. The research is analysed effectively and clearly focused on the research question; the inclusion of less relevant research does not significantly detract from the quality of the overall analysis. Conclusions to individual points of analysis are effectively supported by the evidence.</p> <p>Discussion/evaluation is excellent. An effective and focused reasoned argument is developed from the research with a conclusion reflective of the evidence presented. This reasoned argument is well structured and coherent; any minor inconsistencies do not hinder the strength of the overall argument or the final or summative conclusion. The research has been critically evaluated.</p>

D: Presentation	
0	The work does not reach a standard outlined by the descriptors below.
1 – 2	Presentation is acceptable. The structure of the essay is generally appropriate in terms of the expected conventions for the topic, argument and subject in which the essay is registered. Some layout considerations may be missing or applied incorrectly. Weaknesses in the structure and/or layout do not significantly impact the reading, understanding or evaluation of the extended essay.
3 – 4	Presentation is good. The structure of the essay clearly is appropriate in terms of the expected conventions for the topic, the argument and subject in which the essay is registered. Layout considerations are present and applied correctly. The structure and layout support the reading, understanding and evaluation of the extended essay.
E: Engagement	
0	The work does not reach a standard outlined by the descriptors below.
1 – 2	Engagement is limited. Reflections on decision-making and planning are mostly descriptive. These reflections communicate a limited degree of personal engagement with the research focus and/or research process.
3 – 4	Engagement is good. Reflections on decision-making and planning are analytical and include reference to conceptual understanding and skill development. These reflections communicate a moderate degree of personal engagement with the research focus and process of research, demonstrating some intellectual initiative.
5 – 6	Engagement is excellent. Reflections on decision-making and planning are evaluative and include reference to the student's capacity to consider actions and ideas in response to setbacks experienced in the research process. These reflections communicate a high degree of intellectual and personal engagement with the research focus and process of research, demonstrating authenticity, intellectual initiative and/or creative approach in the student voice.

Comments:

Unpacking the criteria

The following is intended to help you understand each criterion in terms of what should be included in the extended essay to achieve the highest level.

Each criterion is organized at three levels of information. Firstly, the **markband**, which relates to the mark range available; secondly, **the strand**, which relates to what is being assessed; and, thirdly, **the indicators**, which are the demonstration of the strands within a markband. For example:

Markband 1-2	<p>(Strand) The topic is communicated unclearly and incompletely.</p> <p>(Indicators of the strand)</p> <ul style="list-style-type: none"> • Identification and explanation of the topic is limited; the purpose and focus of the research is unclear, or does not lend itself to a systematic investigation in the subject for which it is registered. <p>(Strand) The research question is stated but not clearly expressed or too broad.</p> <p>(Indicators of the strand)</p> <ul style="list-style-type: none"> • The research question is too broad in scope to be treated effectively within the word limit and requirements of the task, or does not lend itself to a systematic investigation in the subject for which it is registered. • The intent of the research question is understood but has not been clearly expressed and/or the discussion of the essay is not focused on the research question. <p>(Strand) Methodology of the research is limited.</p> <p>(Indicators of the strand)</p> <ul style="list-style-type: none"> • The source(s) and/or method(s) to be used are limited in range given the topic and research question. • There is limited evidence that their selection was informed.
Criterion	Unpacking the criterion
A: Focus and method	<p>This criterion focuses on the topic, the research question and the methodology. It assesses the explanation of the focus of the research (this includes the topic and the research question), how the research will be undertaken, and how the focus is maintained throughout the essay.</p> <ol style="list-style-type: none"> 1. The topic chosen is identified and explained to readers in terms of contextualizing and justifying its worthiness.

	<ul style="list-style-type: none"> ○ How well does the research paper identify and communicate the chosen topic? <p>2. The purpose and focus of the research to be addressed is within the scope of a 4,000-word extended essay, is outlined in the introduction and specified as a research question.</p> <ul style="list-style-type: none"> ○ Is the research question appropriate given the scope of the task? For example, is the topic sufficiently focused to be adequately addressed within the requirements of the task? ○ Is the research question clearly stated, focused and based on/situated against background knowledge and understanding of the chosen subject/topic area? ○ Is the focus of the research question maintained throughout the essay? <p>3. The research is planned and appropriate methods of data collection (methodology) are chosen and identified in order to address the research question.</p> <ul style="list-style-type: none"> ○ Is there evidence of effective and informed source/method selection with regard to the choice of appropriate sources and/or method(s) used to gather information, including narrowing of scope the range of sources/methods, in order to address the research question within the constraints of the word limit? <p>4. Sources/methods are considered relevant/appropriate or sufficient in so far as the academic standards for the discipline are concerned. For example, for an economics essay, it would not be sufficient to only use textbooks but rather include reports and data. There is no consideration of the research question as such.</p>
B: Knowledge and understanding	<p>This criterion assesses the extent to which the research relates to the subject area/discipline used to explore the research question, or in the case of the world studies extended essay, the issue addressed and the two disciplinary perspectives applied, and additionally the way in which this knowledge and understanding is demonstrated through the use of appropriate terminology and concepts.</p> <p>1. The research question being investigated is put into the context of the subject/discipline/issue.</p>

	<ul style="list-style-type: none"> ○ Demonstration of the appropriate and relevant selection and application of the sources is identified. <ol style="list-style-type: none"> 2. Knowledge and understanding of the topic chosen and the research question posed is demonstrated with appropriate subject-specific terminology. <ul style="list-style-type: none"> ○ The use of subject-specific terminology and/or concepts is an indicator of knowledge and understanding of the discipline(s)/issue discussed. 3. Sources/methods are assessed here in terms of their appropriateness to the research question.
C: Critical thinking	<p>This criterion assesses the extent to which critical thinking skills have been used to analyse and evaluate the research undertaken.</p> <ol style="list-style-type: none"> 1. The selection and application of the research presented is relevant and appropriate to the research question. 2. The appropriateness of sources/methods in terms of how they have been used in the development of the argument presented. 3. The analysis of the research is effective and focused on the research question. 4. The discussion of the research develops a clear and coherent reasoned argument in relation to the research question. 5. There is a critical evaluation of the arguments presented in the essay. 6. Unlikely or unexpected outcomes can also demonstrate critical thinking.
D: Presentation	<p>This criterion assesses the extent to which the presentation follows the standard format expected for academic writing and the extent to which this aids effective communication.</p> <ol style="list-style-type: none"> 1. Structure: the structure of the essay is compatible with the expected conventions of a research paper in the subject for which the essay has been submitted. (Examiners, supervisors and students are advised to check the guidance given in the <i>Extended essay guide</i> for the relevant subject.) 2. Layout: title page, table of contents, page numbers, section headings (where appropriate), effective inclusion of illustrative materials (tables, graphs, illustrations, appropriately labelled) and quotations, bibliography and referencing.

	<ul style="list-style-type: none"> ○ The referencing system should be correctly and consistently applied and should contain the minimum information as detailed in the Extended essay guide.* ○ The extended essay has not exceeded the maximum word limit.** <p>* If referencing does not meet this minimum standard work should be considered as a case of possible academic misconduct.</p> <p>** If the essay exceeds 4,000 words, examiners should not read or assess beyond the maximum 4,000-word limit. Students who exceed the word limit will compromise the assessment of their extended essay across all criteria. For example, in criterion B, any knowledge and understanding demonstrated beyond the 4,000-word limit will be treated as if it were not present; in criterion C, any analysis, discussion or evaluation made beyond the 4,000-word limit will be treated as if the point had not been made. Given the holistic nature of the assessment criteria, students who write in excess of the word limit will self-penalize across all criteria.</p>
E: Engagement	<p>This criterion assesses the student's engagement with their research focus and the research process. It will be applied by the examiner at the end of the assessment of the essay, after considering the student's Reflections on planning and progress form.</p> <ol style="list-style-type: none"> 1. Engagement with the process: the student has engaged in discussions with their supervisor in the planning and progress of their research; the student is able to reflect on and refine the research process, and react to insights gained through the exploration of their research question; the student is able to evaluate decisions made throughout the research process and suggest improvements for their own working practices. 2. Engagement with their research focus: an insight into the student's thinking, intellectual initiative and creative approach through reflections on the thought and research process; the extent to which the student voice is present rather than that of the supervisor and academics; is the student's engagement reflected?

Extended Essay Checklist

General Requirements

- ☐ Is the essay within 4,000 words?
- ☐ Is your research question worded as a question, with a question mark at the end?
- ☐ Is your essay title worded as a statement (NOT a question), summarising your topic or the focus of your research?
- ☐ Have all the sources you used been fully and consistently referenced?

Presentation

- ☐ Have you checked that there is no candidate or school name on the title page or page headers?
- ☐ Is the font 12-point and readable?
- ☐ Has double line-spacing been used?
- ☐ Are all pages numbered?
- ☐ Does the title page contain the title of the essay, the research question, the subject for which the essay is registered* and the word count?

* Note: if it is a language essay, the category must also be stated; if a World Studies essay, the theme and the two subjects utilized must be stated.

Structure of the Essay

- ☐ Is there a contents page, giving the page numbers of the introduction, essay body or sections, conclusion, and bibliography?
- ☐ Have you given a header to the introduction, essay body or sections, conclusion, and bibliography?

☐

Does your introduction fit the following description?

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.

☐

Does your conclusion fit the following description?

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.

What's new in EE for 2018 Assessment Onwards

There are a number of developments to the EE, which represent key features and need to be understood by coordinators, supervisors and students. They are grouped in terms of the following areas:

- implementation of the EE process, including supervision
- presentation and formatting of the EE
- assessment of the EE.

Implementation of the EE process, including supervision

Feature	Explanation
Reflection is a compulsory element of the EE	<p>The inclusion of reflection recognizes that the process of completing the EE is important in terms of skills development.</p> <p>Reflection is an important aspect of the Diploma Programme core, with each element providing a different kind of reflection. In the EE, reflection focuses on students' progress during the research process. It is intended to help students with their planning and completion of the EE, as well as allowing them the opportunity to consider the effectiveness of their choices, to re-examine their ideas and decide whether changes are needed in order to complete the task. It also allows students to engage in a more summative reflection of their achievements and challenges while completing the EE.</p> <p>This will be an assessed aspect of the EE.</p>
Three mandatory reflection sessions	<p>In order to support students through the process of undertaking independent research they must be allocated an appropriate supervisor. It is recommended that students be given between three and five hours of supervision time and this time must include the three mandatory reflection sessions. [More information on the supervision process]</p>
RPPF	<p>This form allows examiners to gain an insight into students' thinking throughout the process of undertaking their research and writing. It will allow for the application of criterion E (engagement).</p> <p>This form must be completed by students after each of their mandatory reflection sessions. Supervisors must sign after each reflection is completed and at the end of the process once the <i>viva voce</i> has taken place. They then write their summative comment. The form is submitted along with the essay for external assessment.</p>

<p>Administrative responsibilities in relation to changes in the supervision process</p>	<p>Requirements:</p> <ul style="list-style-type: none"> • Schools must provide organizational structures that allow for three mandatory supervision (reflection) sessions. • EE/DP coordinators must introduce, explain and support the reflection process and provide supervisors and students with the general and subject-specific information and guidelines for the EE. • EE/DP coordinators must ensure that the RPPF is completed and signed by the student and supervisor and submitted to the IB with the essay for assessment under criterion E. <p>Schools are strongly recommended to:</p> <ul style="list-style-type: none"> • ensure that students are taught the necessary research skills, including those related to academic honesty and technology literacy • support the introduction and use of the Researcher's reflection space (RRS) as an integral part of the EE process • limit the number of students one supervisor is allocated to ensure the appropriate level of supervision can be provided for each student • provide appropriate training and ongoing support for supervisors.
<p>Role of external mentors</p>	<p>The conditions under which work can be undertaken outside the school with an external mentor have been clarified. [More details on the role of external mentors]</p>
<p>The RRS</p>	<p>The use of the RRS is strongly recommended as it will allow students to more clearly articulate and understand their decision-making process as it relates to the critical and evaluative elements of the essay. It supports learning, thinking, critical analysis and evaluation and contributes not only to the development of a successful EE but also to skills and competencies for pathways beyond the Diploma Programme.</p> <p>[Examples from student spaces]</p>

Presentation and formatting of the EE

Feature	Explanation
No abstract	An abstract is not a formal requirement for an EE. While the EE models an academic research paper, it does not mirror it. Writing an abstract is a skill that students can develop at a later stage in their respective studies.
All research questions must be posed as a research question	This will enable students to maintain their focus more easily throughout the essay and to make a judgment as to whether they have responded to the research question.
Reference to external sources or supplementary information is not permitted and examiners will not access them	The EE is an entity in itself and any argument made must be in the body of the essay. Supplementary information provided in the form of CDs or DVDs or links to external sources such as YouTube™ clips are not permitted and examiners will not refer to them in their assessment of the essay.
The use of footnotes, endnotes and appendices	These requirements are in place to ensure parity across subjects and to mitigate against students attempting to circumvent the word limit. [More information on the use of footnotes, endnotes and appendices]
Formatting of the EE	Students are required to submit their essay using a size 12 readable font and double-spaced. This is to promote the idea that the EE is an academic piece of work and as such should be formatted appropriately, including font choice. It is also to help facilitate the assessment of the EE on-screen.

Assessment of the EE

Feature	Explanation
Five assessment criteria	The number of criteria for the extended essay is five. Of the five criteria four are applied to the essay itself and one to the RPPF. [View the assessment criteria]
The “best-fit” approach in the assessment of EEs	The aim of the “best-fit approach” is to find the descriptor that conveys most accurately the level attained by the student's work. A best-fit approach means that compensation is made when a piece of work matches different aspects of a markband at different levels. The mark awarded is the one that most fairly reflects the balance of achievement against the markband. It is not necessary for every indicator of a level descriptor to be met for that mark to be awarded.

The Supervision Process

In order for students to be successful in the completion of the extended essay, the process needs to be structured and must incorporate a supervision process of 3–5 recommended hours to include three formal reflection sessions between the student and the supervisor as well as supervision sessions called check-in sessions.

The recording of reflections on the *Reflections on planning and progress form* is mandatory and must be submitted with the completed extended essay for assessment under criterion E (engagement). To prepare for these sessions and ensure that they are meaningful and purposeful, the student needs to undertake a number of preparatory steps which are outlined in the following section. Be aware of these things as supervisor.

Check-in Sessions

Students are encouraged to meet with their supervisor in between (and in addition to) the formal reflection sessions. Supervision time should meet the needs of the individual student; therefore, the frequency and duration of these meetings will depend on the needs of the student and the supervisor's requirements. Supervision time may consist of an occasional 10-minute check-in to discuss a timeline or clarification of a comment made by the supervisor. It may also include a more lengthy discussion about particular issues, for example, regarding access to resources. These supervision sessions do not form part of the formal reflection process and do not, therefore, need to be reported on the *Reflections on planning and progress form*. However, they nevertheless form an important part of the supervision process.

Formal Reflection Sessions

These are the mandatory sessions that must be recorded on the *Reflections on planning and progress form*. It is recommended that these sessions last 20–30 minutes. During these sessions students should share excerpts from their Researcher's reflection space with their supervisor. These sessions should focus on progress made so far and set clear objectives for moving forward in the research process. Students should be prepared for these sessions and the meetings should be a dialogue guided by questions posed by the supervisor. Examples of these are given in the document *Guiding student reflection*.

Supporting the mandatory reflection sessions

There are three mandatory reflection sessions that are a formal part of the extended essay and should be recorded on the *Reflections on planning and progress form*. Following each session, students are required to complete the relevant comment section on the form and submit it to their supervisor. The supervisor must then sign and date the form and after the final reflection session, the *viva voce*, add their own comment. For more information on the protocols for completing and submitting the *Reflections on planning and progress form* please refer to the section "Protocols on completing and submitting the *Reflections on planning and progress form*".

Following the completion of all three sessions, the form will be submitted to the International Baccalaureate along with the completed extended essay. An incomplete form will impact the examiner's ability to apply assessment criterion E (engagement) and will result in the student receiving a lower mark for this criterion.

Reflections on Planning and Progress form

The *Reflections on planning and progress form* enables examiners to gain an insight into students' thinking processes while researching and writing the EE. The examiners are looking to see how students' thinking and skills have developed during this time.

The assessment criterion E (engagement) will be applied in the assessment of students' reflections. Representing 18% of the total grade, this is an extremely important part of the overall EE assessment. It is important to stress with students that examiners want to gain an insight into their thinking processes throughout their experience with the EE. **Criterion E assesses the student's engagement with their research focus and the research process. It will be applied by the examiner at the end of the assessment of the essay, after considering the student's RPPF.**

Protocols for Completing and Submitting the Reflections on Planning and Progress Form

Completing the *Reflections on planning and progress form* (RPPF) is a requirement for the submission of the extended essay. It plays an important role in the assessment of the final essay and of the student's engagement with the process of independent research. The following is offered as guidance for the completion and submission of the form.

The Steps

13. Initial reflection session takes place.
14. Student is given a fixed time period to complete their first reflection comment. This time period should be short in order to authentically reflect the discussion that has taken place.
15. Supervisor date stamps and signs to authenticate the student comment on Managebac.
16. Interim reflection session takes place.
17. Student is given a fixed time period to complete their second reflection comment. This time period should be short in order to authentically reflect the discussion that has taken place.
18. Supervisor date stamps and signs to authenticate the student comment on Managebac.
19. Student submits to the supervisor the final, completed version of their extended essay, ready for submission to the IB. Once this is done, the essay is no longer available to the student and no changes are permitted. The supervisor is responsible for ensuring that no changes are made after that point.
20. The supervisor reads the essay and then arranges for the final reflection session, the *viva voce*, to take place.
21. The *viva voce* takes place.
22. Students complete their RPPF by adding their final summative comments, sign and date the form on Managebac.
23. The supervisor adds their summative comment; coordinator uploads the form on behalf of the student into the e-coursework system.
24. The extended essay coordinator then uploads both the mandatory items--the extended essay and the RPPF--to the IB for assessment for one portfolio.

Reflection Sessions

Preparation for the First Reflection Session

As preparation for their first reflection session, students should do the following.

- Think about subjects and areas of particular personal interest and do some initial background reading into a subject and topic of their choice.
- Using this as a starting point, explore a variety of possible research topics.
- Read the subject-specific section of the *Extended essay guide* for the subject they are interested in, paying particular attention to the nature of the subject and the treatment of the topic.
- Undertake further background reading and begin to gather information around their area of interest. This exploration should give rise to a variety of topics and questions that students can consider for further research. At this stage it is important that students consider the availability of reliable and valid sources for the topic under consideration. All of this should be recorded in their Researcher's reflection space.
- Begin developing a research proposal which might include a MindMap® of ideas, an annotated article or preliminary bibliography. Additionally, students must already be thinking in terms of the following questions.
 - Is my topic appropriate for the subject I am considering?
 - Why am I interested in this area and why is it important?
 - What possible questions have emerged from my initial reading?
 - Are there any ethical issues that I need to consider?
 - What possible methods or approaches might be used for research in this area and why?

It is recommended at this point that the student-supervisor relationship is formalized and the student can consider himself or herself prepared for the first formal reflection session.

First Formal Reflection Session

This initial reflection session should be a dialogue between the student and the supervisor based on the student's initial explorations. It is recommended that the student sends their supervisor an outline of their research proposal ahead of the meeting in order to give the supervisor the opportunity to review their work. This will ensure that the reflection session is focused and productive.

Topics of discussion that should arise during this session include:

- a review of the requirements and assessment criteria for the subject
- a review of ethical and legal implications, if applicable
- a dialogue about possible approaches and any potential problems that might arise
- a discussion of strategies for developing the student's ideas for the essay and expanding the research so that the essay starts to take form
- probing and challenging questions that will help the student focus their thinking; this should lead to the development of the student's working research question
- an outline of the next steps that the student should undertake in order to refine their question; this should take the form of a research and writing timeline.

Following this first session, the student is required to complete the first student comment section of the *Reflections on planning and progress form* on Managebac; their supervisor must then sign and date the form.

Preparation for the Interim Reflection Session

Between the first and second reflection session, students can engage in informal conversations with other people, such as subject teachers, the extended essay coordinator, the librarian or their supervisor. They must also ensure that they are progressing with their research plan.

In preparation for the interim reflection session, students should have:

- attempted to refine a focused and appropriate research question
- significantly deepened their research and recorded pertinent evidence, information or data in the Researcher's reflection space
- reviewed and consolidated the methodologies they are using
- formulated arguments based on the evidence that they have collected
- added to the working bibliography for their research.

Interim Formal Reflection Session

This session is a continuation of the dialogue between supervisor and student in which the student must demonstrate the progress they have made in their research. They must also be able to discuss any challenges they have encountered, offer their own potential solutions and seek advice as necessary.

During this session the supervisor might discuss:

- a completed piece of sustained writing from the student in order to ensure that they understand the academic writing requirements, including referencing formats
- whether an appropriate range of sources has been accessed and how the student is critically evaluating the origin of those sources
- what the student now has to do in order to produce the full draft of their essay, and ways and means of breaking down the task into manageable steps.

By the end of the interim reflection session both student and supervisor should feel satisfied that there is:

- a clear and refined research question
- a viable argument on which to base the essay
- a sufficient range of appropriate sources
- a clear vision for the final steps in the writing process.

Between the interim session and the completion of the extended essay, students should continue to see their supervisor as appropriate to their needs, although the third and final reflection session should not take place until after the extended essay has been completed and uploaded for submission.

Following this interim session, the student is required to complete the second student comment section of the *Reflections on planning and progress form* on Managebac; their supervisor must then sign and date the form

Accommodating a Change of Direction

If the student or supervisor is not satisfied that the goals of the research are being met, further supervision sessions may be appropriate.

Students who find that they need to change direction in their research or adjust the formulation of their research question should demonstrate the thinking that led them to these decisions in their second reflection on the *Reflections on planning and progress form*. They must not go back and adjust their initial reflections, as the purpose of the form is to demonstrate the evolution of their thinking in the research process.

Commenting on a Draft Version of the Extended Essay

Commenting on one completed draft of the essay is a very important aspect of the latter stages in the process, and the last point at which the supervisor sees the essay before it is finally uploaded for submission. It is therefore vital that the level of support given is appropriate—too little support and the ability of the student to meet their potential is compromised; too much help and it will not be the work of an independent learner.

The best way of conducting this last stage is for the student to submit the essay prior to a supervision session to allow the supervisor to add their comments. This should be followed by a one-to-one discussion between the supervisor and the student in which they go through the comments together as these become a starting point for a dialogue about the essay. This advice should be in terms of the way the work could be improved, but this first draft must not be heavily annotated or edited by the supervisor.

What supervisors can do:

Comments can be added that indicate that the essay could be improved. These comments should be open-ended and not involve editing the text, for example:

- Issue: the research question is expressed differently in three places (the title page, the introduction and the conclusion).
- Comment: is your research question consistent through the essay, including on the title page?
- Issue: the essay rambles and the argument is not clear.
- Comment: your essay lacks clarity here. How might you make it clearer?
- Issue: the student has made a mistake in their calculations.
- Comment: check this page carefully.
- Issue: the student has left out a section of the essay.
- Comment: you are missing something here. What is it? Check the essay against the requirements.
- Issue: the essay places something in the appendix that should be in the body of the essay.
- Comment: are you sure this belongs here?
- Issue: the conclusion is weak.

- Comment: what is it that you are trying to say here? Have you included all your relevant findings? Have you looked at unanswered questions?

What supervisors cannot do:

- Correct spelling and punctuation.
- Correct experimental work or mathematics.
- Re-write any of the essay.
- Indicate where whole sections of the essay would be better placed.
- Proofread the essay for errors.
- Correct bibliographies or citations.

Submission Requirements

After commenting on one full draft, the next version of the essay that the supervisor sees must be the final one submitted to them before the *viva voce*. This version of the extended essay must be clean; in other words, it must not contain any comments from the supervisor or any other person. Once this version has been submitted to the supervisor and discussed, students are not permitted to make any further changes to it, unless deemed appropriate by the supervisor because of an administrative error. For this reason, it is important that students are advised to ensure that it meets all formatting and submission requirements before they upload it.

Final Reflection Session (*viva voce*)

Supervisors must have already read the final version of the essay, sent to them by the candidate, before this session takes place.

Students should bring the following to this session:

- extracts from their RRS that illustrate how they have grown as learners through the process of reflection
- a willingness to share their personal experience and to discuss the skills and development of conceptual understandings that they have acquired through the completion of the extended essay.

It is important to note that students must not be allowed to make any changes to their extended essay after this meeting. Once they have submitted the essay as final to their supervisor, it is the supervisor's responsibility to ensure that changes are not made. This is particularly important for schools who allow candidate upload of the essay.

Conducting the *viva voce*

The *viva voce* is a short interview between the student and the supervisor, and is the mandatory conclusion to the extended essay process. Students who do not attend the *viva voce* will be disadvantaged under criterion E (engagement) as the *Reflections on planning and progress form* will be incomplete.

The *viva voce* is conducted once the student has uploaded the final version of their extended essay to the IB for assessment. At this point in the process no further changes can be made to the essay. The *viva voce* is a celebration of the completion of the essay and a reflection on what the student has learned from the process.

The *viva voce* is:

- an opportunity to ask the student a variety of open-ended questions to elicit holistic evidence of the student's learning experience.
- an opportunity for the supervisor to confirm the authenticity of the student's ideas and sources
- an opportunity to reflect on successes and difficulties encountered in the research process
- an aid to the supervisor's comments on the *Reflections on planning and progress form*.

The *viva voce* should last 20–30 minutes. This is included in the recommended amount of time a supervisor should spend with the student.

In conducting the *viva voce* and writing their comments on the *Reflections on planning and progress form*, supervisors should bear in mind the following.

- The form is an assessed part of the extended essay. The form must include: comments made by the supervisor that are reflective of the discussions undertaken with the student during their

supervision/reflection sessions; the student's comments; and the supervisor's overall impression of the student's engagement with the research process.

- An incomplete form resulting from supervisors not holding reflection sessions, or students not attending them, could lead to criterion E (engagement) being compromised.
- In assessing criterion E (engagement), examiners will take into account any information given on the form about unusual intellectual inventiveness. This is especially the case if the student is able to demonstrate what has been learned as a result of this process or the skills developed.
- Examiners want to know that students understand any material (which must be properly referenced) that they have included in their essays. If the way the material is used in context in the essay does not clearly establish this, the supervisor can check the student's understanding in the *viva voce* and comment on this on the *Reflections on planning and progress form*.
- If there appear to be major shortcomings in citations or referencing, the supervisor should investigate thoroughly. No essay should be authenticated if the supervisor believes the student may be guilty of plagiarism or some other form of academic misconduct.
- The comment made by the supervisor should not attempt to do the examiner's job. It should refer to things, largely process-related, that may not be obvious in the essay itself.
- Unless there are particular problems, the *viva voce* should begin and end positively. Completion of a major piece of work such as the extended essay is a great achievement for students.

Remember, a blank or unsubmitted RPPF will score a 0 for criterion E.

Authenticating Student Work

All extended essays submitted to the IB for assessment must be authenticated by the student and supervisor, and must not include any known instances of suspected or confirmed academic misconduct. All students and supervisors must confirm the authenticity of the work submitted when uploading work to the e-coursework system. Once a student has uploaded the final version of their extended essay to the e-coursework system for assessment, and confirmed the authenticity of it, it is submitted via the system to their supervisor. At this point the supervisor must not allow any retraction of the essay by the student for modification purposes unless there has been an administrative oversight.

The *Reflections on planning and progress form* is given to the supervisor by the student, signed and dated, and it is the responsibility of the supervisor to upload this to the e-coursework system, add their comment and authenticate it before submitting it to the IB with the already uploaded essay as one portfolio. Further guidance on this is given in the section “Protocols for completing and submitting the *Reflections on planning and progress form*”.

It is extremely important that supervisors are able to confirm that they have followed the guidance for monitoring the student’s work throughout the process and can, to the best of their knowledge, confirm the authenticity of the work upon final submission (please refer to the *Handbook of procedures for the Diploma Programme*).

If the supervisor is unable to confirm the authenticity of the work this must be brought to the attention of the Diploma Programme coordinator, who in turn should refer to the *Handbook of procedures for the Diploma Programme* for guidance. Work that is submitted but does not comply with the expectations and requirements outlined in this publication will be treated as a case of academic misconduct. When authenticity is in doubt, the supervisor should first discuss this with the student. In addition, one or more of the following actions may be helpful:

- compare the style of writing with work known to be that of the student
- compare the final submission with the first draft of the written work
- check the references cited by the student and the original sources
- interview the student in the presence of a third party
- use one of the many websites set up to prevent plagiarism.

It is the responsibility of supervisors to ensure that all students understand the basic meaning and significance of concepts relating to academic honesty, especially authenticity and intellectual property. Supervisors must ensure that all student work to be assessed is prepared according to the stated requirements and must explain clearly to students that the extended essay must be entirely their own work.

The same piece of work cannot be submitted to meet the requirements of both the extended essay and a subject-specific assessment component.

For further guidance on this issue and the procedures for confirming authenticity please refer to the *General regulations: Diploma Programme*, as well as the *Handbook of procedures for the Diploma Programme*.

Your Overall Responsibilities as Supervisor

- Encourage and support the student throughout the research and writing of the extended essay
- Discuss the choice of topic with the student and, in particular, helps to formulate a well-focused research question
- Ensure that the chosen research question satisfies appropriate legal and ethical standards with regard to health and safety, confidentiality, human rights, animal welfare and environmental issues
- Be familiar with the regulations governing the extended essay and the assessment criteria
- Monitor the progress of the extended essay to offer guidance and to ensure that the essay is the student's own work (this may include presenting a section of the essay for supervisor comment)
- Read and fully comment on one completed draft only of the extended essay (but do **not** edit the draft)
- Read the final version to confirm its authenticity
- Submit a predicted grade for the student's extended essay to IB Cardiff
- Complete the supervisor's section in the extended essay reflection on planning and progress form and the supervisor's report on the extended essay cover sheet

It is strongly recommended that the supervisor:

- reads sample essays in his/her subject (These will be provided by the EE coordinator.)
- reads recent extended essay reports for the subject (These will be provided by the EE coordinator.)
- **spends between three and five hours** with each student total working on the extended essay
- ensures that the chosen research question is appropriate for the subject
- advises students on:
 - o access to appropriate resources (such as people, a library, a laboratory)
 - o techniques of information-/evidence-/data-gathering and analysis
 - o writing an abstract
 - o documenting sources
- conducts a short, concluding interview (*viva voce*) with the student before completing the supervisor's report.

Supervisors are NOT required to:

- write the essay for the student
- correct the essay
- mark the essay for writing
- know how to solve all problems
- understand how to derive all equations
- turn a bad essay into a good one

Student Requirements

It is **required** that students:

- choose a topic that fits into one of the subjects on the approved extended essay list
- observe the regulations relating to the extended essay
- meet deadlines

- acknowledge all sources of information and ideas in an approved academic manner.

It is **strongly recommended** that students:

- start work early
- think very carefully about the research question for their essay
- plan how, when and where they will find material for their essay
- plan a schedule for both researching and writing the essay, including extra time for delays and unforeseen problems
- record sources as their research progresses (rather than trying to reconstruct a list at the end)
- have a clear structure for the essay itself before beginning to write
- check and proofread the final version carefully
- make sure that all basic requirements are met (for example, all students should get full marks for the abstract).

Responsibility Summary

Responsibility	Coordinator	Mentor	Student
Read EE Handbook plus section on your subject		x	x
Read Assessment criteria		x	x
Read Examiner Reports for subject		x	x
Read Outstanding Essays for subject		x	x
Train students in topic selection & research question	x		
Advise students in topic selection & research question		x	
Advise students in developing outline (research plan)		x	
Discuss/advise students concerning outline & argument		x	
Advise students on research resources		x	
Train students on citing sources	x		
Train students on avoiding plagiarism	x		
Train students on writing abstract, intro & conclusion	x		
Train students on formal presentation	x		
Read students' first drafts, write comments & review w/ students		x	
Conduct <i>Viva Voce</i> interview		x	
Fill out final commentary on the reflection on planning and progress form		x	

Exemplars: Supervisor Comments

[Exemplar 1](#)

Supervisor's comment	<p>The candidate's connection with her topic is of a rather personal nature: as a matter of fact, one would be hard-pressed to identify an example that would hit closer to home. The student is Lebanese and lived in Lebanon, raised by a Shia Muslim father and Sunni mother.</p> <p>The EE process turned out to be a rewarding one, as it offered the candidate the unique and invaluable opportunity to study and begin to understand a conflict that she was aware of but not familiar with in terms of the historical significance of names, events and places. By looking at the facts, the student discovered that the underlying cause was religious factionalism.</p> <p>In addition, the candidate was surprised how she was able to maintain an objective distance from the topic, despite her background.</p> <p>One difficult aspect involving the research process was getting started in terms of laying the foundation and finding reliable historians. However, once started, and after finding several good sources, everything moved forward smoothly.</p> <p>Another challenge involved time management and the writing and rewriting of the essay. In general, the student spent most of her time establishing how various religious groups in Lebanon viewed each other and, in relation to this, how to separate opinions from facts.</p> <p>Overall, in the candidate's assessment, the EE process was very much worth it. Main future application and benefit of having gone through said process is an awareness of the importance of managing one's time well by getting a head start and spacing out time wisely. The candidate appreciated how the personal nature of the essay made her motivated to want to write and research.</p>
Value of the comment	<ul style="list-style-type: none">• Shows the student's personal connection to the topic as well as her struggles with the process of writing an EE.• Demonstrates how the student consciously avoided bias in her research despite her obvious personal connection.• Focuses on how the student developed good research and time management skills through her work on the EE while demonstrating perseverance in executing the final product.

Exemplar 2

Supervisor's comment	The student was reflective in his writing process. He freely shared ideas with enthusiasm and was open to suggestions. He understood that the EE is about the process, not just the product.
Value of the comment	<ul style="list-style-type: none">• The supervisor is positive about this student.• Lacks details and/or examples that address the importance of engagement in the process, eg mentions the student has engaged in reflection of the writing process, but there is no sense of what type of reflection was done nor any mention of its outcome.

Exemplar 3

Supervisor's comment	<p>The student chose this area because it relates to research he is currently involved in as a temporary intern at a local university.</p> <p>When discussing the EE process, he described how his greatest challenge was understanding the different journal articles he consulted. Because of the high level of knowledge needed to fully understand the concepts involved, he re-read the articles numerous times to try to comprehend the processes they employed.</p> <p>Through this approach, he has improved his use and understanding of scientific language and terminology, though his grasp of some of the concepts remains somewhat vague in the essay.</p> <p>The student showed himself to be something of a risk-taker in choosing to look at other scientists' research and data to come to new conclusions instead of doing his own experiment.</p>
Value of the comment	<ul style="list-style-type: none">• Indicates student individual initiative and personal growth through engagement in the process. Even though the candidate's knowledge and understanding may be limited, this does not affect the level of engagement.• The level of student reflection is not indicated in the commentary.

Exemplar 4

Supervisor's comment	<p>I have worked with E over the last year leading up to the submission of her EE. Although E was somewhat slow in producing written work, she was engaged intellectually in the EE task.</p> <p>During the <i>viva voce</i>, E explained that she is passionate about visual arts but she wanted to analyse more current and pervasive texts in her EE, which led her to advertisements.</p> <p>Further, she chose her focus on company X since it is a multinational company with several brands around the world that she could analyse. She also explained that she liked the fact that company X has leading brands in the US and in Brazil, as she planned to analyse the use of language as well as images in the ads.</p> <p>E mentioned that she particularly enjoyed researching and analysing entire product ads and campaigns, yet she felt the need to select representative ads to analyse more carefully considering the scope of the EE. She also commented that she was surprised to find that beer advertisements are so culturally oriented.</p> <p>She explained that the difficulties she encountered in the EE were mostly within the writing process itself, as she struggles with writing generally. Thus, her advice to other students is to spread out the EE writing, so that there is more time to write and revise under less time pressure. Finally, E explained that she learned the value of time management through the EE, since she did not always manage her time well and she struggled to meet internal deadlines.</p> <p>E's comments during the <i>viva voce</i> illustrated a fairly good degree of critical analysis and depth of understanding of her research question.</p>
Value of the comment	<ul style="list-style-type: none">• Indicates that the student was both engaged in the process of doing the EE and the topic of her research.• The supervisor clearly feels that the student has learned a lot through the process and has been able to some degree to reflect on this. There is also a clear insight into the rationale for subject choice in terms of the area of research.