

# Guide

# Extended essay

## Extended essay

### Guide

Published May 2019

Published by

International Baccalaureate Organization

15 Route des Morillons

1218 Le Grand-Saconnex

Geneva, Switzerland

Represented by

IB Publishing Ltd, Churchillplein 6, The Hague, 2517JW The Netherlands

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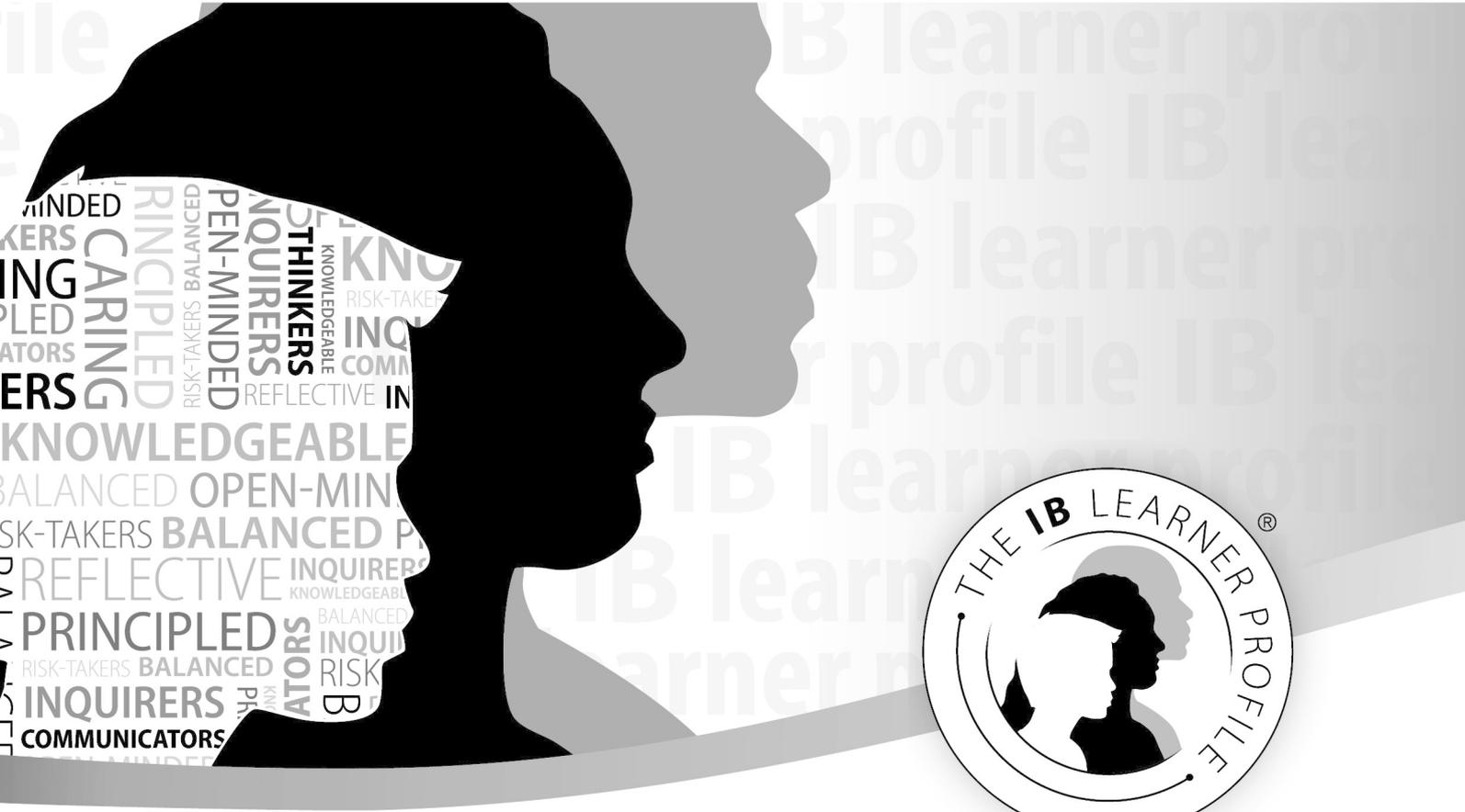
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## IB mission statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.



# IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

As IB learners we strive to be:

## INQUIRERS

We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.

## KNOWLEDGEABLE

We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.

## THINKERS

We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.

## COMMUNICATORS

We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

## PRINCIPLED

We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.

## OPEN-MINDED

We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.

## CARING

We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

## RISK-TAKERS

We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

## BALANCED

We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.

## REFLECTIVE

We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.

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# Introduction

## Introduction to the Diploma Programme

The Diploma Programme is a rigorous pre-university course of study designed for students in the 16 to 19 age range. It is a broad-based two-year course that aims to encourage students to be knowledgeable and inquiring, but also caring and compassionate. There is a strong emphasis on encouraging students to develop intercultural understanding, open-mindedness, and the attitudes necessary for them to respect and be able to evaluate a range of points of view.

## The Diploma Programme model

The programme is presented as six academic areas enclosing a central core (see figure 1). It encourages the concurrent study of a broad range of academic areas. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility and can choose subjects that particularly interest them and that they may wish to study further at university.

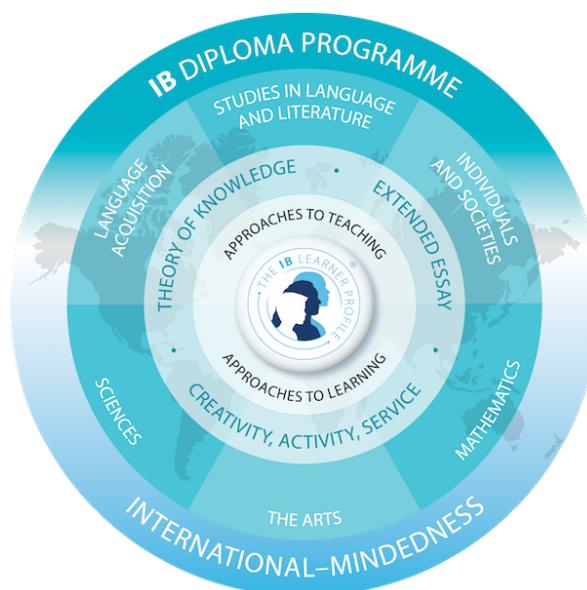


Figure 1

*The Diploma Programme model*

## Choosing the right combination

Students are required to choose one subject from each of the six academic areas, although they can choose a second subject from groups 1 to 5 instead of a group 6 subject. Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.

At both levels, many skills are developed, especially those of critical thinking and analysis. At the end of the course, students' abilities are measured by means of external assessment. Many subjects contain some element of coursework that is assessed by teachers.

### **First assessment 2018**

# The core of the Diploma Programme

All Diploma Programme students participate in the three elements that make up the core of the programme:

- [theory of knowledge](#)
- [creativity, activity, service](#)
- the extended essay.

These three elements of the core complement each other, working together to achieve the following common aims:

- to support, and be supported by, the academic disciplines
- to foster international-mindedness
- to develop self-awareness and a sense of identity.

**Theory of knowledge (TOK)** is fundamentally about critical thinking and inquiry into the process of knowing rather than about learning a specific body of knowledge. The TOK course examines the nature of knowledge and how we know what we claim to know. It does this by encouraging students to analyse knowledge claims and explore questions about the construction of knowledge. The role of TOK is to emphasize connections between areas of shared knowledge and link them to personal knowledge in such a way that an individual becomes more aware of their own perspectives and how they might differ from others.

**Creativity, activity, service (CAS)** is at the heart of the Diploma Programme. The three strands of CAS are:

- creativity (arts and other experiences that involve creative thinking)
- activity (physical exertion contributing to a healthy lifestyle)
- service (an unpaid and voluntary exchange that has a learning benefit for the student).

The emphasis in CAS is on helping students to develop their own identities, in accordance with the ethical principles embodied in the [IB mission statement](#) and the [IB learner profile](#). It involves students in a range of activities alongside their academic studies throughout the Diploma Programme.

Possibly, more than any other component in the Diploma Programme, CAS contributes to the IB's mission to create a better and more peaceful world through intercultural understanding and respect.

**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 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 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.

## Coherence in the core

The three elements of the core (TOK, CAS and the extended essay) were introduced by the original curriculum designers of the Diploma Programme as a way to educate the whole person. Strongly committed to the principle of developing the whole person, the IB believes that this is best achieved by identifying and developing clearer and more explicit aims for and relationships between these three elements. Specifically, the IB believes a coherent view of the core will:

- support the interconnectedness of learning
- support concurrency of learning
- support the [IB continuum of education](#) and the [IB learner profile](#)
- support a broader view of the subject disciplines.

## Supporting, and being supported by, the academic disciplines

The core is seen as the heart of the Diploma Programme. The academic disciplines, while separate to the core, are nonetheless linked to it. The core relies on the disciplines to provide enrichment, and individual subjects should be nourished by the core. Teachers in each of the three elements of the core need to carefully plan and consider how TOK, CAS and the extended essay can feed into a deeper understanding of the subject matter studied by Diploma Programme students in their individual subjects. This will include, for example:

- transferring the critical thinking process developed in TOK to the study of academic disciplines
- developing service learning opportunities in CAS that will build on a student's existing subject knowledge and contribute to the construction of new and deeper knowledge in that subject area
- exploring a topic or issue of interest which has global significance in an extended essay through one or more disciplinary lenses.

## Fostering international-mindedness

The core has a responsibility to foster and nurture international-mindedness, with the ultimate goal of developing responsible global citizens. To a large extent, the core should be driven by the IB's mission to:

"develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" and "encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right."

*(IB mission statement)*

To this end, the core should encourage an exploration of issues of global significance and in so doing allow students to examine links between the local and the global. It should encourage students to consider the contexts and views of others, and should ensure that the principles and values developed by students are reflected upon throughout their lifetime. This might include, for example:

- emphasizing different cultural perspectives in TOK and how different cultural traditions have contributed to our current constructions of knowledge
- considering a service project in CAS that reflects an issue of global significance, but is explored from a local perspective
- encouraging students to write a world studies extended essay—an interdisciplinary extended essay on a global theme.

## Developing self-awareness and a sense of identity

The core should strive to make a difference to the lives of students. It should provide opportunities for students to think about their own values and actions, to understand their place in the world, and to shape their identity. This might include, for example:

- providing opportunities in TOK for students to have conversations with others from different backgrounds and with different viewpoints, thereby challenging their own values
- encouraging students in CAS to evaluate their commitment to helping those in need and exploring the notion of advocacy
- asking students to reflect on the process of writing the extended essay and in so doing identifying areas of strength and areas for development.

## Approaches to teaching and learning

The term *approaches to teaching and learning* (ATL) across the Diploma Programme refers to deliberate strategies, skills and attitudes which permeate the teaching and learning environment. These approaches and tools, intrinsically linked with the learner profile attributes, enhance student learning and assist student preparation for Diploma Programme assessment and beyond. The aims of approaches to teaching and learning in the Diploma Programme are to:

- empower teachers as teachers of learners as well as teachers of content
- empower teachers to create clearer strategies for facilitating learning experiences in which students are more meaningfully engaged in structured inquiry and greater critical and creative thinking
- promote both the aims of individual subjects (making them more than course aspirations) and linking previously isolated knowledge (concurrency of learning)
- encourage students to develop an explicit variety of skills that will equip them to continue to be actively engaged in learning after they leave school, to help them not only obtain university admission through better grades but also prepare them for success during tertiary education and beyond
- enhance further the coherence and relevance of the students' Diploma Programme experience
- allow schools to identify the distinctive nature of an IB Diploma Programme education, with its blend of idealism and practicality.

The five approaches to learning (developing thinking skills, social skills, communication skills, self-management skills and research skills) along with the six approaches to teaching (teaching that is inquiry-based, conceptually focused, contextualized, collaborative, differentiated and informed by assessment) encompass the key values and principles that underpin IB pedagogy.

More advice and support on these approaches to teaching and learning can be found in the next section of this subject guide. Additionally, a suite of materials on *approaches to teaching and learning* in the Diploma Programme is available on the programme resource centre. The guidance in the following section builds on these resources.

## Approaches to teaching and learning and the extended essay

The following articulation of some of the approaches to teaching and learning are for guidance only and demonstrate how the extended essay facilitates the development of these skills. The links and examples given are not exhaustive and teachers and students may identify other ways in which these skills are linked to their extended essay experience.

The six approaches to teaching are:

- teaching based on inquiry
- teaching focused on conceptual understanding
- teaching developed in local and global contexts
- teaching focused on effective teamwork and collaboration
- teaching differentiated to meet the needs of all learners
- teaching informed by assessment (formative and summative).

The five approaches to learning are:

- thinking skills
- communication skills
- social skills
- self-management skills
- research skills.

## Approaches to teaching

### Inquiry and the extended essay

The extended essay is perhaps the most inquiry-based activity that students will undertake, especially given that it is a completely open-ended task, directed by student interest. This is not coincidental: the extended essay is intended to encourage students to examine significant issues and areas of research that they personally care about in an in-depth and meaningful way. Through their research, students can learn not only about the topic of their research, methodology, and critical thinking, but they can also learn important transferable skills such as time management, perseverance, resilience, and decision-making.

#### Teaching based on inquiry

### IB Programme Essentials

The idea behind inquiry-based teaching in IB programmes is to develop students' natural curiosity together with the skills of self-management, thinking, research and collaborative learning so that they can become motivated and autonomous lifelong learners.

There are different types of inquiry-based learning. These include:

- experiential learning
- problem- and project-based learning
- case-based learning
- discovery learning.

The most significant aspect of inquiry-based teaching is that students are actively engaged in their own learning, constructing their own understandings. In a classroom where inquiry-based teaching is happening, there is much interaction between students and between students and the teacher. The teacher's primary role in such a setting is to promote questions and to facilitate the learning process. Students have a degree of freedom to make decisions about how to proceed in their learning, which most often progresses from the concrete towards the abstract.

### Conceptual understanding and the extended essay

In the extended essay, concepts play an important role in helping to frame the focus of the research students are undertaking, and also as a demonstration of their knowledge and understanding. Students who are able to engage critically in discussion about the concepts relevant to their area of research are able to demonstrate at a deeper level how different aspects of their learning are connected.

## IB Programme Essentials

An important reason for using conceptually focused teaching in IB programmes is to help students develop their ability to engage with significant and complex ideas. Equally valuable are the discussions of the “big ideas” behind a topic, which can help students get to the heart of **why** they are learning what they are learning.

To appreciate the role of concepts in building lasting and significant understandings, it is helpful to think of concepts as the building blocks of students’ cognitive frameworks. When they are learning at a conceptual level, students are integrating new knowledge into their existing understandings. They see how seemingly discrete topics are connected and are ready to transfer their learning to new contexts. A subject emerges for them in a holistic light. In a classroom where conceptually focused teaching is happening, there is continuous movement between learning facts and discussing what they mean, with students asking why the facts matter as a natural part of their learning process.

## Local and global contexts and the extended essay

In extended essays contemporary examples, case studies and real-life engagement with local and global issues can bring students’ research to life. This is particularly true for students choosing to complete a world studies extended essay, where the focus is on a contemporary issue of global significance. These issues tend to be dynamic, varied and present at all levels of global social organization; global issues have local ramifications and local issues are often a part of a wider phenomenon. Different factors can prompt students to choose to engage with an issue such as CAS activities or the desire to further investigate an issue raised in an individual subject but from a different perspective. Students who choose to focus on a global issue tend to have an interest in global issues generally, wanting to explore them through different disciplinary and interdisciplinary lenses.

## Teaching developed in local and global contexts

### IB Programme Essentials

As young individuals and as members of local and global communities, students make sense of the world through their life experiences and the world around them. IB programmes emphasize contextualized teaching because the more students can relate their learning to real-life contexts the more likely they are to engage with it. Equally valuable is that through enabling students to see the applications of their learning, contextualized teaching, like conceptually focused teaching, helps students to get to the heart of why they are learning what they are learning.

In order to appreciate the role of contexts for relevant learning, it is helpful to think of contexts as students' frames of reference. When they are learning in a contextualized way, students are grounding abstract ideas and new information in familiar real-life situations. In a classroom in which contextualized teaching is happening, concepts and theories are related to accessible and meaningful examples, illustrations and stories, which in turn inform further conceptual and theoretical understandings.

### Effective teamwork, collaboration and the extended essay

Although the extended essay is an independent task, students should be guided through the process by an appointed supervisor. The supervision and reflection process is to ensure that students are given the opportunity to explore ideas, issues and challenges in a supportive environment. Using evidence from their Researcher's reflection space, students can engage in discussions with their supervisor about the direction and progress of their research, establishing working objectives and timelines.

## Teaching focused on effective teamwork and collaboration

### IB Programme Essentials

IB programmes acknowledge that learning is a social activity. Students and teachers come together, each with unique life experiences, beliefs, ideas, strengths and weaknesses. Learning is the result of these complex interactions.

An important aspect of the learning process is regular feedback from students to teachers on what they have and have not yet understood. Concrete and constructive feedback from teachers to students on performance is similarly crucial for learning to take place.

### Meeting the needs of all learners and the extended essay

Although the extended essay is an independent task, guided by common criteria across all subjects, supervisors play an important role in guiding students to choose areas of research that allow them to demonstrate their ability within the subject area. Identifying and refining an appropriate and feasible

research question early on in the process is crucial. Additionally, throughout the research process supervisors can offer guidance and support—within the parameters of the task—at different levels for different students. For example, some students may not require the full five hours of supervision time permitted, whereas others will.

At the beginning of the process, the Diploma Programme/Extended Essay coordinator may wish to provide differentiated learning materials related to research methods and academic honesty to students. This could be in the form of study skills classes focused on research or note-taking, for example, or reading materials related to these.

## Teaching differentiated to meet the needs of all learners

### IB Programme Essentials

IB programmes promote equal access to the curriculum for all learners. Differentiation entails planning for student differences through the use of a variety of teaching approaches; implementing a variety of learning activities; and making a variety of formats and modes of exploring knowledge and understanding available to students. It also involves identifying with each student the most effective strategies to develop, pursue and achieve realistic and motivational learning goals. In the context of an IB education, special consideration often needs to be given to students' language backgrounds and skills. Affirming students' identity and valuing their prior knowledge are important aspects of treating students as unique individuals and helping them develop holistically as young human beings.

### Assessment and the extended essay

The extended essay is assessed using generic assessment criteria complemented by subject-specific interpretations of the criteria. Students should have access to this early on in the process so that they are clear about how their work will be assessed. They should also be able to view exemplars of extended essays along with the accompanying examiner comments.

Through the supervision and reflection process, as part of the learning process, students should be tracking their progress, monitoring specific issues and reflecting on their own learning and skills development.

## IB Programme Essentials

Assessment plays a crucial role in IB programmes in supporting and measuring learning. Formal Diploma Programme assessments are based on course aims and objectives and, therefore, effective guidance of these requirements also ensures effective teaching. Formative assessments developed by teachers are tools and processes to improve student learning. Here, feedback is most effective as a two-way process: students learn how they are doing, and teachers learn what students understand, struggle with, and find engaging. In addition to assessment tasks, such feedback can be provided more informally.

## Approaches to learning

### Thinking skills and the extended essay

In the extended essay thinking skills play a key role, especially in terms of providing students with the opportunity to demonstrate a deeper understanding of a very specific area of research. While metacognition is a skill that is embedded in Diploma Programme courses, in the extended essay critical thinking and reflection skills have a central role. Working on a specific area of research and engaging with different sources of information and data, students become exposed to different and new perspectives on issues and topics.

The extended essay requires students to engage with their research in an analytical and evaluative way. Further to this, the skill of reflection, particularly in relation to the process of conducting research, is highly valued. The mandatory reflection sessions and engagement assessment criterion place a high value on the benefits structured reflection can have on a student's learning and progress.

Through the Researcher's reflection space students are encouraged to reflect using a variety of different techniques, including written reflections, video diaries, blogs or MindMaps®, for example.

#### Thinking skills

### IB Programme Essentials

A key feature of IB programmes is the opportunity given to students to develop their thinking skills and an awareness of themselves as thinkers and learners. Being “thinkers” is one of the IB learner profile attributes, and is defined as being able to apply thinking skills critically and creatively to recognize and approach complex problems, and to make reasoned, ethical decisions.

Thinking skills consist of a large number of related skills. In the Diploma Programme, particular emphasis is placed on skills such as metacognition, reflection, critical thinking, creative thinking, and transfer. Metacognition, or control over one's cognitive processes of learning, can be thought of as a foundation for developing other thinking skills. When practising metacognition, students think about the ways in which they process information, find patterns, and build conceptual understandings. Once they become aware that they are using a variety of techniques and strategies to perform even the most basic learning tasks, students can be encouraged to consider if there are more effective or efficient ways to achieve the same learning, to try out these new ways and evaluate them. Similarly, reflection is a thinking skill that plays a critical role in improving learning. When practising reflection, students think about the success, value or otherwise of their learning. The Diploma Programme course aims, assessment objectives and assessment tasks place a premium on higher order thinking skills, such as critical thinking, creative thinking and transfer.

## Communication skills and the extended essay

The extended essay requires students to demonstrate their ability to communicate on a research topic of their choice in a specific way: in an academic paper. They will need to formulate arguments clearly and coherently, as well as draft and proofread their own work.

During their supervision and reflection sessions students will develop their ability to communicate their research ideas, progress, challenges and rationale, both orally and in terms of summative reflections on their *Reflections on planning and progress form*.

In developing their Researcher's reflection space students can use a range of different communication techniques to record their thoughts, ideas, progress, timelines and arguments. These may include MindMaps®, blogs, annotated articles or images. Excerpts from the reflection space may be shared with their supervisor during sessions to stimulate discussion.

### Communication skills

#### IB Programme Essentials

Communication skills are not only important in IB programmes but are also an essential part of a wider dynamic in the learning community: they help to form and maintain good relationships between students, and between students and adults. Furthermore, being able to communicate well contributes to the development of students' self-confidence and enhances their future prospects, as communication skills are a critical ingredient of success in working life.

Communication skills consist of a cluster of different skills and forms of communication. The ability to listen and understand various spoken messages, to read and understand diverse written texts and other forms of media, and to respond clearly and convincingly in spoken, written and digital forms are all part of how students engage with others in the world. Some of these forms of communication are independent of era and culture, but interacting in and with the digital space is a significant part of most students' communication and social interaction. Online activities which are often collaborative in nature present exciting opportunities for the development of students' communication skills.

## Social skills and the extended essay

There are strong links between social skills and the affective skills associated with self-management, which is an important part of the extended essay experience. This is especially true given that students are managing a substantial task, not only in terms of workload and timelines, but also in terms of intellectual challenge. Providing students with a variety of strategies to help support and guide them through the extended essay will be invaluable to their success. Developing a good working relationship with their supervisor is an important part of students' skills development in this area.

## IB Programme Essentials

Closely related to communication skills are social skills, important in IB programmes, perhaps even more so than communication skills, for the role they play in the development of the learner as a whole and in the value of a community for learning. A starting point for developing students' social skills is to acknowledge that people differ greatly in terms of their degree of introversion or extroversion and that these differences should be respected. Similarly, different cultures have different expectations of appropriate behaviours in social situations. To be able to understand the perspectives of others, to form good relationships and to regulate one's own emotions and behaviour are at the heart of many of the IB learner profile attributes and the IB's aspiration to develop international-minded students. Schools, as formative communities in young people's lives, can play a significant part in the development of their social and emotional skills.

## Self-management skills and the extended essay

As a substantial independent task, students undertaking an extended essay will need to identify and develop the necessary self-management skills to be successful. While support and guidance can be given from supervisors, part of the learning experience for students is to navigate their way through the extended essay independently. The benefits of the development of these skills are recognized when students progress to university and the workplace, and are expected to be able to manage their workloads and competing priorities.

Examples of approaches and activities that develop students' self-management skills in the extended essay include:

- establishing clear deadlines, managing expectations and specifying consequences if these are not met
- providing guidance and support regarding study techniques, such as time management, note-taking, mind mapping, and digital behaviour
- promoting the Researcher's reflection space as a planning and progress tool
- organizing supervision and reflection sessions which provide an opportunity for students to discuss their progress.

### IB Programme Essentials

In addition to learning how to live alongside others, IB learners need to learn to persevere and be emotionally stable as individuals. Often, of course, these two processes go hand in hand, as membership and support of a community is critical for individual well-being. Learning to manage themselves is important for students in a demanding educational programme like the Diploma Programme, as well as a highly helpful competency in their later life.

Self-management skills consist of organization skills, such as setting goals and managing time and tasks effectively, and affective skills, such as managing one's state of mind, motivation and resilience.

Like other learning skills, self-management skills can be modelled and practised. For Diploma Programme students, time management is often a particularly pertinent organization skill. Strategies for improving time management include: breaking down assignments into achievable steps and creating a timeline for each step; planning revision and study plans for tests and examinations; and building study timetables. An important aspect of such strategies is not only how they affect students' use of time but that they give students a perception of greater control over their time.

Affective self-management skills, in turn, enable students to gain some control over their mood, their motivation, and their ability to deal with challenges and difficulties. Students' affective skills can be developed in a school environment where students feel they have a degree of autonomy and self-direction, where they do not need to get things right the first time, through the setting of challenging but not too difficult objectives, and even through the teaching of psychological techniques such as mindfulness training.

### Research skills and the extended essay

The extended essay is a research task providing the ideal opportunity for students to be able to demonstrate and develop their research skills. Students are able to engage in a wide variety of research depending on their choice of research topic and subject area. All students, regardless of their research area, are required to undertake a literature review which demonstrates their knowledge and understanding in context, and this requires them to be able to make informed choices about the relevancy, reliability and validity of secondary source material. Additionally, they must choose research methods and techniques appropriate and relevant to the research question posed and the subject for which they are submitting their essay. Furthermore, students must also ensure that they are aware of any IB policy related to [ethical](#) practice when undertaking research.

Given that students are required to treat sources of information critically, and this is especially true of sources of information located on the internet, it is important that as part of their general research skills training, they develop technology literacy, which refers to the ability to access and use technology responsibly. This includes accessing and using electronically based sources.

Another important research skill that is developed and demonstrated in the extended essay is academic honesty. Students should grasp the fundamental values, become conversant with the technical aspects, and be supported by learning strategies to help them develop consistent and *Effective citing and referencing* skills, for example.

## Research skills

### IB Programme Essentials

Research skills are a central element of the inquiry-based pedagogy of IB programmes. While good research skills have always been at the heart of academic endeavour, the availability of digital resources and the explosion in the amount of information easily accessible to students make the development of research skills a particularly pertinent part of today's education. Also, learning to work with academic integrity and respecting the intellectual contributions of others is an important aspect of learning in all IB programmes.

Fundamental research skills include formulating focused and precise research questions, appraising sources, recording, analysing, evaluating and synthesizing information, and presenting and evaluating results.

Additionally, research today demands that students spend more time validating, comparing and contrasting available information, narrowing down the volume of data into a manageable quantity while being discerning about what is relevant. Although confident in browsing and communicating online, students often lack the information literacy skills they need for the kind of effective and self-directed research they are expected to conduct as part of their inquiries.

## The IB mission statement and the IB learner profile

The Diploma Programme aims to develop in students the knowledge, skills and attitudes they will need to fulfill the aims of the IB, as expressed in the organization's mission statement and the learner profile. Teaching and learning in the Diploma Programme represent the reality in daily practice of the organization's educational philosophy.

The table below shows some of the links between the extended essay and the learner profile attributes.

| Attribute     | Connection to extended essay   |
|---------------|--|
| Inquirers     | Through research, students demonstrate both the acquisition of skills necessary to conduct inquiry and their interest in learning.   |
| Knowledgeable | Students acquire in-depth knowledge of their topic through exploration of current literature and/or research.  |
| Thinkers      | Students make reasoned analysis of their research topic and apply critical thinking skills in a creative way.  |
| Communicators | Students effectively express ideas and information in an academic way.   |
| Principled    | Students exercise academic honesty in all aspects of their work, showing respect for the ideas and work of others, and caring for the welfare of subjects studied and for the environment. |
| Open-minded   | As researchers, students will seek out and express an appropriately wide range of points of view.  |
| Caring        | By clearly demonstrating the relevance of their topic, students exhibit their personal commitment to making a difference in the lives of others.   |
| Risk-takers   | Students explore new areas or novel situations and courageously defend their positions.  |
| Balanced      | Students' understanding of the importance of intellectual development is reinforced by the research process.   |
| Reflective    | Students draw conclusions on their topic demonstrating thoughtful consideration and they have the opportunity to assess their strengths and weaknesses.                                    |

## Academic honesty

The Diploma Programme prides itself on promoting high standards of academic honesty.

Academic honesty in the Diploma Programme is a set of values and behaviours informed by the attributes of the learner profile. In teaching, learning and assessment, academic honesty serves to promote personal integrity, engender respect for the integrity of others and their work, and ensure that all students have an equal opportunity to demonstrate the knowledge and skills they acquire during their studies.

All coursework—including work submitted for assessment—must be authentic, based on the student’s individual and original ideas with the ideas and work of others fully acknowledged. Assessment tasks that require teachers to provide guidance to students or that require students to work collaboratively must be completed in full compliance with the detailed guidelines provided by the IB for the relevant subjects.

For further information on academic honesty in the IB and the Diploma Programme, please consult the IB publications:

- [Academic honesty in the IB educational context](#)
- [Effective citing and referencing](#)
- [Diploma Programme: From principles into practice](#)
- [General regulations: Diploma Programme.](#)

Specific information regarding academic honesty as it pertains to the extended essay can be found in this guide.

## Acknowledging the ideas or work of another person— minimum requirements

Coordinators, teachers and supervisors are reminded that students must acknowledge all sources used in work submitted for assessment. The following is intended as a clarification of this requirement.

Diploma Programme students submit work for assessment in a variety of media that may include audio-visual material, text, graphs, images and/or data published in print or electronic sources. If students use the work or ideas of another person, they must acknowledge the source using a standard style of referencing in a consistent manner. A student’s failure to acknowledge a source will be investigated by the IB as a potential breach of regulations that may result in a penalty imposed by the IB final award committee.

The IB does not prescribe which style(s) of referencing or in-text citation should be used by students; this is left to the discretion of appropriate faculty/staff in the student’s school. The wide range of subjects, response languages and the diversity of referencing styles make it impractical and restrictive to insist on particular styles. In practice, certain styles may prove most commonly used, but schools are free to choose a style that is appropriate for the subject concerned and the language in which students’ work is written.

The following criteria must be applied.

- Students are expected to use a standard style and use it consistently so that credit is given to all sources used, including sources that have been paraphrased or summarized.
- When writing, students must clearly distinguish (in the body of the text) between their words and those of others by the use of quotation marks (or other method like indentation) followed by an appropriate citation that denotes an entry in the bibliography.
- Students are not expected to show faultless expertise in referencing, but are expected to demonstrate that all sources have been acknowledged.
- Students must be advised that any audio-visual material, text, graphs, images and/or data that is crucial to their work and that is not their own must also attribute the source. Again, an appropriate style of referencing/citation must be used.
- Regardless of the reference style adopted by the school for a given subject, it is expected that the minimum information given includes:
  - name of author
  - date of publication
  - title of source
  - page numbers as applicable
  - date of access (electronic sources)
  - URL.
- For the bibliography, follow the minimum requirements as summarized on the last page of the *Effective citing and referencing* document.

Examiners are required to alert the IB when minimum requirements are not met by a student, and the work is investigated accordingly.

## Learning diversity and learning support requirements

Schools must ensure that equal access arrangements and reasonable adjustments are provided to students with learning support requirements in line with the IB documents:

- *Candidates with assessment access requirements*
- *Learning diversity and inclusion in IB programmes.*

# Overview of the extended essay

## The extended essay at a glance

The extended essay is an in-depth study of a focused topic chosen from the list of available Diploma Programme subjects for the session in question. This is normally one of the student's six chosen subjects for those taking the IB diploma, or a subject that a course student has a background in. It is intended to promote academic research and writing skills, providing students with an opportunity to engage in personal research in a topic of their own choice, under the guidance of a supervisor (an appropriately qualified member of staff within the school). 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 chosen. It is mandatory that all students undertake three reflection sessions with their supervisor, which includes a short, concluding interview, or *viva voce*, with their supervisor following the completion of the extended essay. An assessment of this reflection process is made under criterion E (Engagement) using the [Reflections on planning and progress form](#).

The extended essay is assessed against common criteria, interpreted in ways appropriate to each subject.

## Key features of the extended essay

- The extended essay is compulsory for all students taking the Diploma Programme and is an option for course students.
- 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.
- The extended essay process helps prepare students for success at university and in other pathways beyond the Diploma Programme.
- When choosing a subject for the extended essay, students must consult the list of available Diploma Programme subjects published in the Diploma Programme [Assessment procedures](#) for the session in question.
- The extended essay is a piece of independent research on a topic chosen by the student in consultation with a supervisor in the school.
- 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.

## Prior learning

The extended essay is a unique task for all students, both those who are studying for the full IB diploma and course students who choose it as an option. While no particular background is formally required to undertake the extended essay, students are strongly recommended to carry out research in a subject area they are currently studying in the Diploma Programme to ensure that they have sufficient subject knowledge to complete the task. If a student has a background in the subject that is not from their Diploma Programme studies, the student must ensure that they are familiar with the subject from a Diploma Programme perspective.

For those students completing a world studies extended essay, it is strongly recommended that they are undertaking a course of study in at least one of the subjects chosen for their essay. A familiarity with research methods would be an advantage; however, when students begin the extended essay, part of the process is to develop an understanding of the methodology most appropriate for the research area within the chosen subject. Developing this understanding will be undertaken with the support and guidance of their supervisor, Diploma Programme and/or extended essay coordinator and librarian.

## The nature of the extended essay

The extended essay is a unique opportunity for students to explore an academic area in which they have a personal interest. This takes the form of an independently written research paper that allows students to demonstrate their passion, enthusiasm, intellectual initiative and/or creative approach for their chosen topic. Such topics can range from focused, in-depth analyses of specific elements of a subject to critically evaluating responses to issues of global significance in the case of the world studies extended essay. Students develop important transferable skills such as research, critical thinking, and self-management, which are communicated in the form of an academic piece of writing. Emphasis is placed on engagement and reflection on the research process, highlighting the journey the student has made on an intellectual and personal level and how it has changed them as a learner and affected the final essay.

Students complete an extended essay in a specific discipline or in one of the interdisciplinary options available. In a disciplinary essay students must demonstrate their knowledge and understanding of the theories, tools and techniques of a specific discipline explored through a topic of their choice. Students who choose a world studies extended essay must demonstrate how their understanding of an issue of contemporary global significance is enhanced by taking an interdisciplinary approach.

An important aim of the extended essay, as part of the Diploma Programme core is to support and be supported by the academic disciplines. Whichever subject is chosen, the extended essay is concerned with exploring a specific research question through interpreting and evaluating evidence, and constructing reasoned arguments. In undertaking the extended essay students model many of the elements of academic research by locating their topic within a broader disciplinary context, or issue in the case of a world studies extended essay, justifying the relevance of their research and critically evaluating the overall strength of the arguments made and sources used. Guided through this process by a supervisor, students are encouraged to reflect on insights gained, evaluate decisions, and respond to challenges encountered during the research.

Embedded within the process of writing the extended essay are many elements of the [approaches to learning](#) (ATL). While research skills are fundamental to successful completion, other ATL skills are implicit in the task. As the extended essay is an independent task, it requires students to self-manage by developing organization and affective skills, including mindfulness, perseverance, resilience and self-motivation. The process of researching and writing the extended essay represents the learner profile in action. Being open-minded, principled and reflective are aspects of the student experience within the extended essay. The extended essay provides students with the opportunity to become more internationally minded by engaging with the local and global communities on topics of personal inquiry. The development of the learner profile attributes help to unify IB learners in a larger community in this shared experience.

The extended essay is a challenging and rewarding experience, which prepares students for different pathways beyond the Diploma Programme by developing skills valued by both tertiary education and employers. The extended essay embodies the essence of an IB education in developing inquiring, critical, lifelong learners.

## Engaging with sensitive topics

Undertaking an extended essay provides students an opportunity to engage with interesting, stimulating and personally relevant topics and issues. However, it should be noted that often such topics and issues can also be sensitive and personally challenging. Diploma Programme and/or extended essay coordinators and supervisors should be aware of this and provide guidance to students on how to approach and engage with such topics and issues in a responsible manner. The IB's [ethical guidelines](#) should be consulted.

## Policies relevant to the extended essay

All students undertaking an extended essay must be aware of and read the relevant policies related to [ethical guidelines](#) for carrying out research and those relating to academic honesty. Additionally, students must ensure that they follow the policies related to specific subject areas, such as in the sciences, psychology, and social and cultural anthropology. In the sciences, this refers specifically to the [animal experimentation policy](#), and in psychology and social and cultural anthropology it refers to ethical guidelines for undertaking research.

## Aims

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.

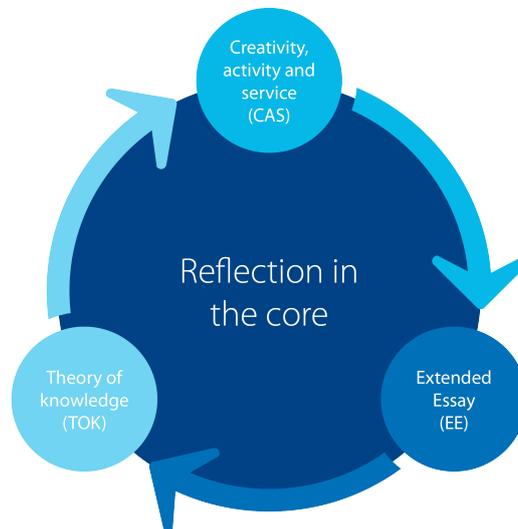
## Assessment objectives

In working on the extended essay, students are expected to achieve the following assessment objectives.

| Assessment objectives          |   |
|--------------------------------|---|
| Knowledge and understanding    | <ul style="list-style-type: none"><li>• To demonstrate knowledge and understanding of the topic chosen and the research question posed.</li><li>• To demonstrate knowledge and understanding of subject specific terminology and/or concepts.</li><li>• To demonstrate knowledge and understanding of relevant and/or appropriate research sources and/or methods used to gather information.</li></ul> |
| Application and analysis       | <ul style="list-style-type: none"><li>• To select and apply research that is relevant and appropriate to the research question.</li><li>• To analyse the research effectively and focus on the research question.</li></ul>   |
| Synthesis and evaluation       | <ul style="list-style-type: none"><li>• To be able to discuss the research in terms of a clear and coherent reasoned argument in relation to the research question.</li><li>• To be able to critically evaluate the arguments presented in the essay.</li><li>• To be able to reflect on and evaluate the research process.</li></ul>   |
| A variety of (research) skills | <ul style="list-style-type: none"><li>• To be able to present information in an appropriate academic format.</li><li>• To understand and demonstrate academic integrity.</li></ul>  |

## Reflection in the core

Being reflective is one attribute of the IB learner profile: “We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.”



### Reflection in CAS:

Creativity,  
activity and  
service  
(CAS)

- Reflection is central to building a deep and rich experience of CAS. Students explore their own actions and reflect on their personal growth.
- The emphasis in CAS is on **affective** reflection, characterized by reflecting on attitudes, feelings, values, principles, motivation, emotions and self-development.
- Students will be encouraged to informally reflect on their CAS experiences throughout the CAS programme, but are required to reflect formally when developing a CAS portfolio.

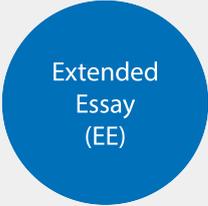
## Reflection in TOK:



Theory of  
knowledge  
(TOK)

- TOK is about reflecting on the nature of knowledge. Students are encouraged to reflect on how knowledge is constructed as well as the commonalities and differences in their subject areas.
- The emphasis in TOK is on **critical** reflection, characterized by reflecting on metacognition, evaluation, justification, arguments, claims and counterclaims, underlying assumptions and different perspectives.
- Students will be encouraged to informally reflect on their engagement with knowledge throughout the course, but are required to reflect formally as part of the TOK essay and the TOK presentation.

## Reflection in the extended essay:



Extended  
Essay  
(EE)

- Reflection in the extended essay focuses on the student's progress during the planning, research and writing process. It is intended to help students with the development of their extended essay as well as allowing them the opportunity to consider the effectiveness of their choices, to re-examine their ideas and to decide whether changes are needed.
- The emphasis in the extended essay is on **process** reflection, characterized by reflecting on conceptual understandings, decision-making, engagement with data, the research process, time management, methodology, successes and challenges, and the appropriateness of sources.
- Students will be encouraged to informally reflect throughout the experience of researching and writing the extended essay, but are required to reflect formally during the reflection sessions with their supervisor and when completing the Reflections on planning and progress form.

## 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).

# Supporting the extended essay

## Administrative requirements of the extended essay

The following sections outline the administrative requirements of the extended essay for:

- the school
- the Diploma Programme and/or extended essay coordinator
- the supervisor
- the student.

|        | Required action  |
|--------|--|
| School | <ul style="list-style-type: none"> <li>• Ensure that the Diploma Programme and/or extended essay coordinator understands who can and cannot be a supervisor.</li> <li>• Provide organizational structures that allow for three mandatory reflection sessions with the supervisor.</li> </ul> |

|   | Required action  |
|---|--|
| Diploma Programme/<br>extended essay<br>coordinator | <ul style="list-style-type: none"> <li>• Ensure that extended essays conform to the regulations outlined in the Diploma Programme <i>Assessment procedures</i>.</li> <li>• Ensure that students select the subject for their extended essays from the list of available subjects for the May or November session in question (in the Diploma Programme <i>Assessment procedures</i>) before choosing a topic.</li> <li>• Ensure that each student has an appropriately qualified supervisor, who is a member of staff within the school.</li> <li>• Introduce, explain and support the reflection process.</li> <li>• Provide supervisors and students with the general and subject-specific information and guidelines for the extended essay contained in this guide and the accompanying teacher support material.</li> <li>• Ensure that the <i>Reflections on planning and progress form</i> (RPPF) is completed and signed by the student and supervisor and submitted to the IB with the essay for assessment under criterion E by the deadline stated in the Diploma Programme <i>Assessment procedures</i>.</li> <li>• Provide exemplars of extended essays to supervisors and students.</li> </ul> |

|  | Required action   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Ensure that supervisors and students are familiar with the IB documents <a href="#">Academic honesty in the IB educational context</a> and <a href="#">Effective citing and referencing</a>.</li> <li>• Explain to students the importance of the extended essay in the overall context of the Diploma Programme, including the requirement to achieve a D grade or higher in order to be awarded the Diploma.</li> <li>• Explain to students that they will be expected to spend up to 40 hours on their extended essay.</li> </ul> |

|            | Required action  |
|------------|--|
| Supervisor | <ul style="list-style-type: none"> <li>• Undertake three mandatory reflection sessions with the student. &gt;</li> <li>• Ensure that students complete the <i>Reflections on planning and progress form</i>, and initial and date the form after each entry by the student.</li> <li>• Provide a supervisory comment, which is used to contextualize the student's reflections.</li> </ul> |

|         | Required action  |
|---------|--|
| Student | <ul style="list-style-type: none"> <li>• Choose a subject from the available extended essay list. See Diploma Programme coordinator or extended essay coordinator for details.</li> <li>• Ensure that the starting point for your essay is a subject that is available, or in the case of the world studies extended essay, an issue of global, contemporary significance within one of the six world studies themes.</li> <li>• Observe the regulations with regard to the extended essay, including the IB's <a href="#">ethical guidelines</a>.</li> <li>• Read and understand the subject-specific requirements for the subject in which you intend to complete your extended essay, including the interpretation of the assessment criteria.</li> <li>• Meet all internal deadlines set by your school in relation to the extended essay.</li> <li>• Understand concepts related to academic honesty, including plagiarism and collusion, for example, and ensure that you have acknowledged all sources of information and ideas in a consistent manner. This also includes understanding the implications of the <a href="#">General regulations: Diploma Programme</a> should there be a breach of these.</li> <li>• Attend three mandatory reflection sessions with your supervisor, the last of which is the <i>viva voce</i>.</li> <li>• Record your reflections on the <i>Reflections on planning and progress form</i> for submission as part of the assessment of criterion E (engagement).</li> </ul> |

## Pedagogical support for the extended essay

The following sections provide recommendations for how schools, Diploma Programme/extended essay coordinators and supervisors should support the extended essay research and writing process. The guidance is a reflection of what the IB would consider to be good practice in the implementation and organization of the extended essay.

Recommendations are made in relation to:

- the school
- the Diploma Programme/extended essay coordinator
- the supervisor
- the student

### The school

Before the supervisor and student meet for their one-to-one sessions, there is much that a school can do to prepare students and supervisors for the research and writing process and this preparation is **strongly recommended**. The following suggestions are not meant to be exhaustive:

- Provide training sessions for supervisors run by the extended essay or Diploma Programme coordinator and/or experienced supervisors.
- Facilitate special sessions for students on how to approach research for the extended essay, including use of the internet. The librarian may be best placed to do this with students.
- Support the development of courses on citing and referencing. Supervisors and students must be familiar with the IB documents on this.
- Provide or recommend study skills sessions for students on note-taking and structuring essays.
- Provide or recommend guidance on research methodologies relevant and appropriate to the subject (for example, questionnaire design and interview techniques).
- Support the outline of key milestones, such as internal deadlines.

The advantage of the above approach is that it avoids duplication of effort on the part of the supervisors and it does not have to be covered in the three to five hours recommended for the one-to-one meetings between the supervisor and the student.

### Quick glance: role of the school

| Do:    | Do not:                                        |
|---|---|
| encourage teachers to assume the role of supervisor for a subject in which they have an appropriate background                                | unnecessarily remove the range of choice a student has in terms of subjects available   |
| provide training for staff on the role of the supervisor so that the role is undertaken effectively and consistently regardless of supervisor | overlook the time commitment of the role of a supervisor; this varies depending on the number of students a supervisor is allocated |

|  |  |
|--|--|
| highlight the importance within the school community of internal deadlines                                 | overlook the training of supervisors; it is an official role with which potential supervisors should be familiarized and given the opportunity to raise questions and concerns in the correct training forum |
| facilitate classes on referencing, research methodologies and the concept of ethical practice in research. | rely on the 3–5 hours of individual student supervision time to address key skills.  |

## Diploma Programme/extended essay coordinator

The Diploma Programme/extended essay coordinator plays an important role in implementing and managing the extended essay research and writing process. As a pedagogical leader the coordinator will set the tone for how the extended essay is undertaken and how students and supervisors engage with the process.

The following suggestions are not meant to be exhaustive:

- Ensure that students are taught the necessary research skills, including those related to academic honesty and technology literacy, which refers to the ability to access and use technology responsibly. This includes accessing and using electronically based sources.
- Support the introduction and use of the Researcher’s reflection space as an integral part of the extended essay process.
- Limit the number of students allocated to each supervisor to ensure the appropriate level of supervision can be provided for each student.
- Provide appropriate training and ongoing support for supervisors.

## Quick glance: the role of the Diploma Programme/extended essay coordinator

| ✔   | ✘   |
|---|---|
| Do:   | Do not:   |
| ensure a sufficient number of supervisors are available per examination session   | allocate too many students to each supervisor   |
| develop training programmes for supervisors to encourage more staff members to take on this valuable role                           | discourage students from taking certain subjects without reason   |
| highlight the importance of the Researcher’s reflection space   | rely on supervisors to ensure that students have all the necessary key skills, such as referencing or research methodologies. |
| ensure that policies such as the academic honesty policy are fully embedded into the preparation of students for the extended essay |   |
| make programme resource centre resources available to supervisors, such as extended essay exemplars and subject reports             |   |

|  |  |
|--|--|
| monitor the correct completion of the <i>Reflections on planning and progress form</i> . |  |
|--|--|

## The supervisor

The supervisor–student working relationship is probably the most important one in the extended essay process. The supervisor must be a suitably qualified member of staff at the school in which the student is registered.

The supervisor plays an important role in helping students to plan and undertake their research for the extended essay. The relationship should be an active two-way process with the supervisor primarily there to support and guide the student, during the supervision and reflection sessions, at the planning stage, and when the student is carrying out and writing up their research. This is done through the supervision process, including the three mandatory reflection sessions and the completion of the *Reflections on planning and progress form*.

It is the responsibility of the supervisor to ensure that students are familiar with the requirements of the extended essay. Supervisors and students must discuss:

- the nature of the extended essay
- their chosen subject, topic and research question
- the most appropriate research methods to be used given the subject for which the student is submitting their essay
- the formal requirements for the completion of the task.

Students should be encouraged to initiate discussions with their supervisor to obtain advice and information and the role of the supervisor should be explained to them so that there is a shared understanding of expectations and responsibilities. Supervisors must ensure that they understand the important role they play in supporting students in this process. However, if a student could not have completed the work without substantial support from their supervisor, this should be reported to the Diploma Programme/extended essay coordinator, who in turn must record the details on the appropriate form. Additionally, if the student has received substantial support from a teacher but has not declared this, then this too must be recorded in the summative comment made by the supervisor on the *Reflections on planning and progress form*. If academic misconduct is suspected, supervisors must report this to the Diploma Programme/extended essay coordinator initially.

Supervisors are **required** to:

- undertake three mandatory reflection sessions with each student they are supervising
- initial and date each reflection summarized on the *Reflections on planning and progress form* and provide comments at the end of the process. If the form and essay are submitted via the eCoursework system, then it is deemed signed and authenticated. An RPPF that is blank, unsubmitted, or written in a language other than that of the essay, will be awarded a 0 for criterion E.
- provide students with advice and guidance in the skills of undertaking research

- encourage and support students throughout the research and writing of the extended essay
- discuss the choice of topic with each student and, in particular, help to formulate a well-focused research question which is suitable to the subject of registration and 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
- is familiar with the regulations governing the extended essay and the assessment criteria, and gives copies of these to students
- 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 comment on one draft only of the extended essay (but do **not** edit the draft); this should take place after the interim reflection session, but before the final reflection session, the *viva voce*
- ensure that the final version of the essay is handed in before the final reflection session (*viva voce*) takes place, and that no changes are made to it subsequently
- read the final version and, in conjunction with the *viva voce*, confirm its authenticity.

The student may work with or consult external experts in a particular area of specialism but it remains the responsibility of the supervisor within the school to complete all the requirements described above. See the section on the role of external mentors.

Supervisors are **strongly** recommended to:

- read recent extended essay reports for the subject
- spend between three and five hours with each student, including the time spent on the three mandatory reflection sessions
- encourage the development of a Researcher's reflection space for students
- set a clear schedule for the reflection sessions
- ensure that the chosen research question is appropriate for the subject
- advise students on:
  - access to appropriate resources (such as people, a library, a laboratory)
  - research methods
  - how to cite and reference.

The following resources might be helpful in supporting the supervision and reflection process:

Pedagogical support for the EE

## Quick glance: the role of the supervisor

| Do:  | Do not:  |
|---|---|
| ensure you feel prepared to undertake the role of the supervisor                        | overlook the role or give it insufficient time  |

|   |  |
|---|--|
| help students to arrive at a focused research question which is feasible within the scope of the task, time available, and the student's ability  | use the reflections or check-in sessions to address key skills such as research methodology and referencing; instead, speak to your Diploma Programme/extended essay coordinator about more effective cohort-wide provision. |
| emphasize the importance of the reflection sessions as supported by a detailed Researcher's reflection space  |  |
| ensure that students are given copies of relevant publications available on the programme resource centre, such as policies, exemplars and subject reports  |  |
| ensure you are fully familiar with both the assessment requirements of the subject you are supervising as detailed in the relevant chapter of the <i>Extended essay guide</i> , as well as the generic requirements |  |
| monitor the progress of the students and encourage them to develop skills relevant to their research and writing  |  |
| comment fully on one draft of the extended essay within the parameters permitted  |  |
| ensure adequate availability to students for check-in and reflection sessions.  |  |

## The student

As the extended essay is an important component of the Diploma Programme, and a substantial piece of work, students need to ensure that they understand the expectations of the task and manage their time and workload effectively. The following suggestions are given as guidance to help with the process.

Students are **strongly** recommended to:

- develop a Researcher's reflection space as a planning tool
- use the Researcher's reflection space to prepare for reflection sessions
- share excerpts from the Researcher's reflection space with the supervisor during the reflection sessions
- choose a subject, followed by a topic, and then think carefully about the research question for their essay
- plan how, when and where they will find material and sources for their essay before deciding on the final topic and research question
- plan a schedule for both the researching and writing of their extended essay, including extra time for delays and unforeseen problems
- record sources as their research progresses using their Researcher's reflection space rather than trying to reconstruct a list at the end
- make the most of their supervision and reflection sessions by arriving prepared to discuss their work
- have a clear structure for the essay before beginning to write
- check and proofread the final version of their extended essay

- make sure that the version they submit for assessment is the final version with all sources correctly and consistently referenced
- ensure that all requirements are met.

## Quick glance: the role of the student

| ✔  | ✘  |
|--|--|
| Do:  | Do not:  |
| choose a subject and then topic that interests you and allows you to develop and demonstrate your understanding, creativity and/or originality | choose a topic or research question that you have seen in exemplars and that have been done too many times before            |
| develop a Researcher's reflection space that will facilitate planning and preparation for reflection sessions                                  | overlook the importance of planning and how this can contribute to success in your extended essay                            |
| make the most of your supervisor's availability to guide you in the process  | try to construct a list of references at the end of the process—be aware of the implications of poor/inadequate referencing. |
| prepare for reflection sessions appropriately  |  |
| meet all internal deadlines  |  |
| maintain a reference list as you work  |  |
| familiarize yourself with relevant policies.   |  |

## The role of the librarian

### Overview of the librarian's role

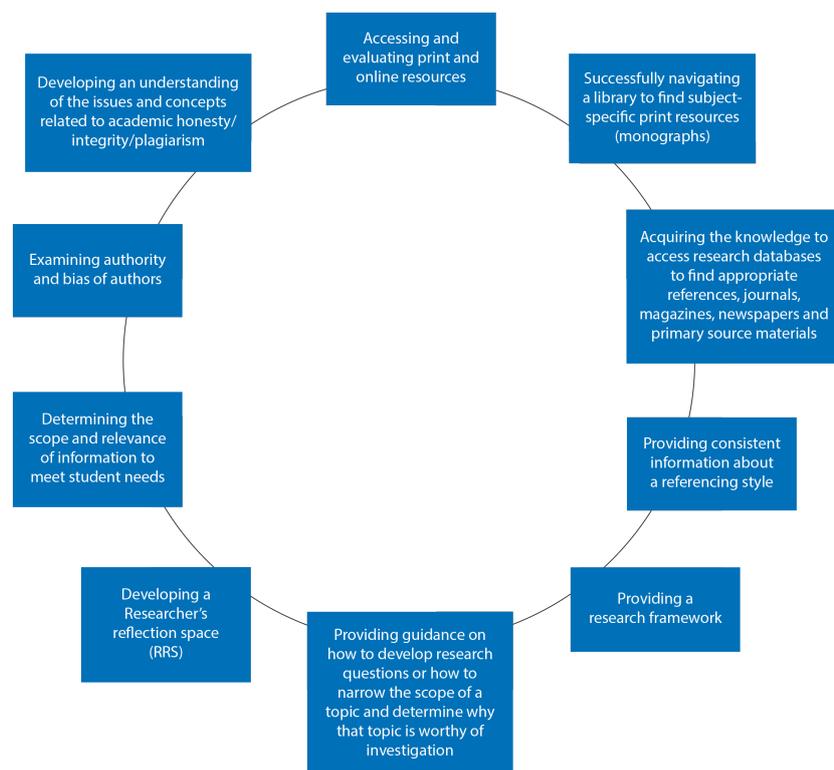
Librarians are uniquely positioned to play an important and effective role in the extended essay process. As interdisciplinary educators they are able to work across subject areas to help students become lifelong learners through inquiring, gaining and creating new knowledge, and pursuing personal interests. With the necessary educational background and training they are able to support students in the development of information literacy and research skills. Students are often overwhelmed at the amount of unfiltered information available to them, so they need to develop the skills to be able to raise questions and evaluate the authenticity, validity and reliability of sources. Utilising the knowledge and skills of a school librarian will help students to navigate and plan their extended essay more effectively and to become independent researchers.

In order to prepare students to be successful in the extended essay process, librarians can help to lay the foundations for the development of research skills. Ideally, some of these skills will have already been developed several years before the extended essay process, thus giving students a chance to demonstrate their learning. However, in situations where the concept of research is new to students, librarians have an invaluable role to play. The school librarian can provide leadership and expertise in the selection, acquisition, evaluation, and organization of information resources and technologies in all formats, as well as expertise in the ethical use of information. These are all important concepts and practices students need to understand.

### Support for the extended essay

One of the best resources any school has to support the extended essay is the school library and librarian. In order to support the extended essay, a school may decide that the librarian is best placed to provide training in some of the fundamental research and information literacy skills. Working closely with Diploma Programme/extended essay coordinator and supervisors, librarians can provide important and additional support in the development of these skills.

These skills can include:



Some schools might consider using the school librarian as the extended essay coordinator as the extended essay process and the concept of an investigation may be well suited to a school librarian’s educational background. The librarian can help with the creation of an internal extended essay timeline in conjunction with Diploma Programme teachers and the Diploma Programme coordinator. This timeline should take into account all the major internal and external IB assessments, along with other major tests and school requirements. Schools should determine how their librarian might best support the Diploma Programme/extended essay coordinator and supervisors in guiding students through the extended essay process.

The librarian can also create partnerships with local public and university libraries to allow Diploma Programme students access to resources outside of the school for the extended essay process. The school librarian can work with the Diploma Programme/extended essay coordinator or head of school to come up with creative solutions to help students with their first major independent research project.

If the librarian is to play a role in the extended essay process it is advisable that they be formally trained in the [extended essay at a Category 3 workshop](#). A working knowledge of the general and subject-specific guidelines must be understood so that they can provide the support that students may need. The librarian may also choose to utilize a course management system to set up a structure for the school in order to facilitate the successful implementation of the extended essay. A system such as this will be of benefit to both supervisors and students who will need access to the guidelines along with instructions on how to access all the resources needed for the extended essay.

Librarians are permitted to act as supervisors for the extended essay if they are appropriately qualified.

## Quick glance: the role of the librarian

| Do:   | Do not:    |
|--|---|
| <ul style="list-style-type: none"><li>• oversee the scheduling of the extended essay process</li><li>• offer lessons and workshops in information literacy and research skills</li><li>• build partnerships with public and university libraries</li><li>• act as a supervisor for extended essay students, if appropriately qualified</li><li>• support students in terms of accessing adequate print and online sources</li><li>• help train students and teachers on using the extended essay guidelines and information</li><li>• provide guidance to students on how to format a formal essay using word processing software</li><li>• support and provide guidance to students on how to develop the Researcher's reflection space</li><li>• provide training and support on the concept of academic honesty, including an introduction to how to cite correctly and consistently.</li></ul> | <ul style="list-style-type: none"><li>• comment on any part of the essay if they are not the supervisor</li><li>• propose or revise research questions</li><li>• undertake searches for information on behalf of students beyond guiding them on how to use search systems</li><li>• provide a pre-formatted template for the extended essay</li><li>• correct bibliographies or citations.</li></ul> |

## Important note on the role of external mentors

Ideally, students should carry out the research for the essay solely under the direction of a school supervisor and within the school. However, in circumstances where the school deems it appropriate, students may undertake their research at an institute or university under the guidance of an external mentor. This must be with the agreement of the school, and the external mentor must be provided with [a letter](#) outlining the nature of the extended essay and clear instructions about the level of guidance that is permitted. Schools are responsible for ensuring that these external mentors are aware of the limits of their role in providing this service. It is important to note that if this is the case the student **must** be allocated a supervisor within the school and undertake his or her reflection sessions with this person. Only a supervisor within the school is permitted to complete the reflection process for the extended essay with the student and provide both signature and comments on the [Reflections on planning and progress form](#) (RPPF). The nature of these comments may be informed by the external mentor but must **not** be provided by them. For further clarification please see the accompanying teacher support material.

The letter, which must be electronically signed by the external mentor, must be inserted in the appendix of the essay as part of the document file rather than as a separate document. If a student has had an external mentor, this signed letter is an important part of the authentication of the essay.

As the extended essay is an independent task and a formal assessment component, students must not receive assistance with any aspect of the research, writing or proofreading of the extended essay beyond that which is permitted through their supervisor. If a supervisor suspects that the extended essay submitted for assessment by a student could not have been completed without assistance they are required to bring this to the attention of the Diploma Programme/extended essay coordinator, who in turn must inform the IB. This may then be investigated as a possible case of academic misconduct.

### Role of external mentor when there is no internal member of staff who can engage with the target language.

When an external mentor is utilized because there is no internal member of staff who can engage with the target language he/she is able to comment on one full draft and conduct the reflection sessions as per the usual rules for a supervisor. Once completed these need to be uploaded and have authenticity attested to by an internal member of staff, who should be working with the external supervisor. As the reflections need to be conducted in the language of registration, then the external mentor in this situation would also need to be responsible for the comments on the RPPF after the candidate has entered theirs.

## Researcher's reflection space

Student reflection in the extended essay is critical. Effective reflection highlights the engagement of the student in an intellectual and personal process and how this has changed the student as a learner and affected the completion of that individual's essay. For those students who have completed the Middle Years Programme, the researcher's reflection space (RRS) can be compared to the process journal. The IB considers this to be a central component of a successful research process as it:

- supports student learning, thinking and critical analysis throughout the research process
- helps to stimulate discussions between the student and supervisor
- aids the reflection process.

### The nature of the RRS

Use of the RRS is strongly recommended as it will allow the student to more clearly articulate and understand their decision-making process. It supports learning, thinking, critical analysis and evaluation, and contributes not only to the development of a successful extended essay but also to skills and competencies for pathways beyond the Diploma Programme.

The RRS is a personal learning environment that can be either a physical or virtual support tool. It is a space in which students are able to record reflections on what they are reading, writing and thinking. The use of the RRS will help students to prepare for their reflection sessions with their supervisors and inform the discussions that take place. In preparing for their reflection sessions students could use their RRS to:

- record their reflections
- respond to artefacts, such as photos, newspaper clippings, twitter feeds, blogs, and so on
- respond to prompts and questions that may arise in the students' subject areas, TOK classes or other aspects of the Diploma Programme
- create MindMaps<sup>®</sup>;
- record emerging questions.

The idea of the RRS is not new and many students already keep research journals in the planning, researching and writing phases of their work on the extended essay. Encouraging students to develop a RRS will provide benefits in terms of the management of their workload and focus on their extended essay.

### The role of the RRS

Created by students to support their engagement in the planning and decision-making process, the RRS helps to develop critical and evaluative thinking skills. It is also a planning tool that helps to scaffold the development of approaches to learning skills and conceptual understandings that occur throughout the research process. Additionally, the RRS tracks the evolution of thought as it relates to the development of an argument. It helps the student to personally connect to the topic and may motivate them in

meaningful ways to successfully complete the extended essay. Finally, supervisors will be able to more effectively authenticate the student voice in that the RRS links directly to elements that will eventually be found in the essay itself. The RRS is intended to make the entire supervision process more meaningful.

Insights and information recorded in the RRS are expected to form the basis for and find direct expression in the essay, reflection sessions and *Reflections on planning and progress form*. Students are expected to share excerpts from the RRS in discussions with their supervisor. Using these reflections as a point of reference in their supervision sessions, students will be able to:

- demonstrate their planning
- discuss what they are learning
- evaluate their progress.

## The student–supervisor relationship

Students can use the RRS to prepare for their reflection sessions with their supervisors.

| Reflection session                             | Description   |
|--|---|
| The first reflection session                   | Students are encouraged to include in their RRS examples of initial topic exploration, possible sources and methods, preliminary research questions and their personal reactions to the issues.<br>In attending their first reflection session with their supervisor, students can use notes made in the RRS as the basis for discussion as well as to demonstrate the progress students have made in the research process.   |
| The interim reflection session                 | As their RRS develops, students can demonstrate the progress of their thinking, the development of their argument and raise any questions they may have with their supervisor.<br>At this stage the RRS may include reactions to readings, progress in the timeline for completion of the extended essay, a possible outline of arguments, challenges encountered and the strategies used to overcome them.   |
| The final reflection session— <i>viva voce</i> | During the <i>viva voce</i> , which takes place at the completion of the extended essay process, the RRS can form the basis for discussion about the process of completing the essay. Students can show what they have learned about the topic, the research process followed, their own learning, as well as outlining new questions they have uncovered. Most importantly, during the <i>viva voce</i> the RRS may help to highlight the personal significance of the work to the student and ultimately contribute to the supervisor's report. |

## Tip

While use of the RRS is not mandated, the IB considers the development of the RRS an essential element of good reflective practice as it will help the student to not only scaffold the extended essay process but also to build skills which transcend the task itself and prepare the student for university study and beyond.

A well-used RRS will aid the reflection sessions students have with their supervisor, as elements of it can be used to stimulate and inform discussion. This will help students to move towards a more evaluative understanding of the research process and the choices they make as part of this.

Finally, the RRS will contribute to a richer and more personally rewarding experience with the extended essay overall.

# Introducing students to the extended essay

## Introducing students to the extended essay

Before embarking on the extended essay, it is important for students to understand:

- the nature and aims of the extended essay, including the requirements
- how the extended essay is implemented in their school
- the different stakeholders involved, and their respective responsibilities
- the extended essay's place in the core and Diploma Programme
- what is expected from the task.

It is the responsibility of schools and Diploma Programme/extended essay coordinator to ensure that students are familiar with the above, and to introduce concepts such as research methods, academic honesty and technology literacy (using technology responsibly, specifically in this instance when accessing and using internet based sources of information).

Students should also be introduced to the Researcher's reflection space which will facilitate the planning and monitoring of their progress throughout the research process.

## 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.

## Distinguishing between a supervision session and a reflection session

To support students through the process of undertaking independent research they must be allocated an appropriate 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.

## 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 initial 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. A mark of 0 is awarded for criterion E when a RPPF is not submitted, or is submitted in a language other than that of the essay.

### Reflection sessions

The following sections provide guidance with regard to preparing for and undertaking the three mandatory reflection sessions.

- Preparation for the first reflection session
- First formal reflection session
- Preparation for the interim reflection session
- The interim reflection session
- Accommodating a change of direction
- Commenting on a draft version of the extended essay
- Submission requirements
- Preparation for the final reflection session (*viva voce*)
- Final reflection session (*viva voce*)

## 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<sup>®</sup> 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.

### Tip

Following this first session, the student is required to complete the first student comment section of the [Reflections on planning and progress form](#) and submit it to their supervisor who must then initial and date the form. Please refer to the section "Protocols for completing and submitting the *Reflections on planning and progress form*" for more information.

## 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.

## The interim 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.

### Tip

Following this interim session, the student is required to complete the second student comment section of the [Reflections on planning and progress form](#) and submit it to their supervisor who must then initial and date the form. Please refer to the section “Protocols for completing and submitting the *Reflections on planning and progress form*” for more information.

## 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 the 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?
- **Issue:** the essay has an incomplete citation.  
**Comment:** you need to check this page for accuracy of referencing.



### 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.

### Tip

If students give their supervisor sections of their extended essay to read, this is permissible but the same section of work should not be looked at repeatedly by the supervisor, nor should it be heavily annotated or edited. Students and supervisors must be clear that only one complete draft of the essay is permitted to be looked at by the supervisor.

## 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.

## Preparation for the 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.

### Tip

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.

## Final reflection session (*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 submitted the final version of their extended essay. 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 by the student 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.

## Tip

Following this final session, the student is required to complete the last student comment section of the *Reflections on planning and progress form* and submit it to his or her supervisor, who must then add his or her own comments, and initial and date the form. Note that the maximum total word limit for the three reflections on the RPPF is 500. The supervisor must then upload the form into the e-coursework system, confirm the authenticity of both the form and essay, and submit them to the IB for assessment as one portfolio. Please refer to the section “Protocols for completing and submitting the *Reflections on planning and progress form*” for more information.

An RPPF that is blank, unsubmitted, or written in a language other than that of the essay, will be awarded 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 Diploma Programme *Assessment procedures*).

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 Diploma Programme *Assessment procedures* 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 *Diploma Programme Assessment procedures*.

## 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.

Diploma Programme/extended essay coordinators, with the support of their school leadership team, must determine a system for the administration of the RPPF that ensures that both students and supervisors have access to it in order to complete the required summative comments. This system also needs to ensure the integrity of the form.

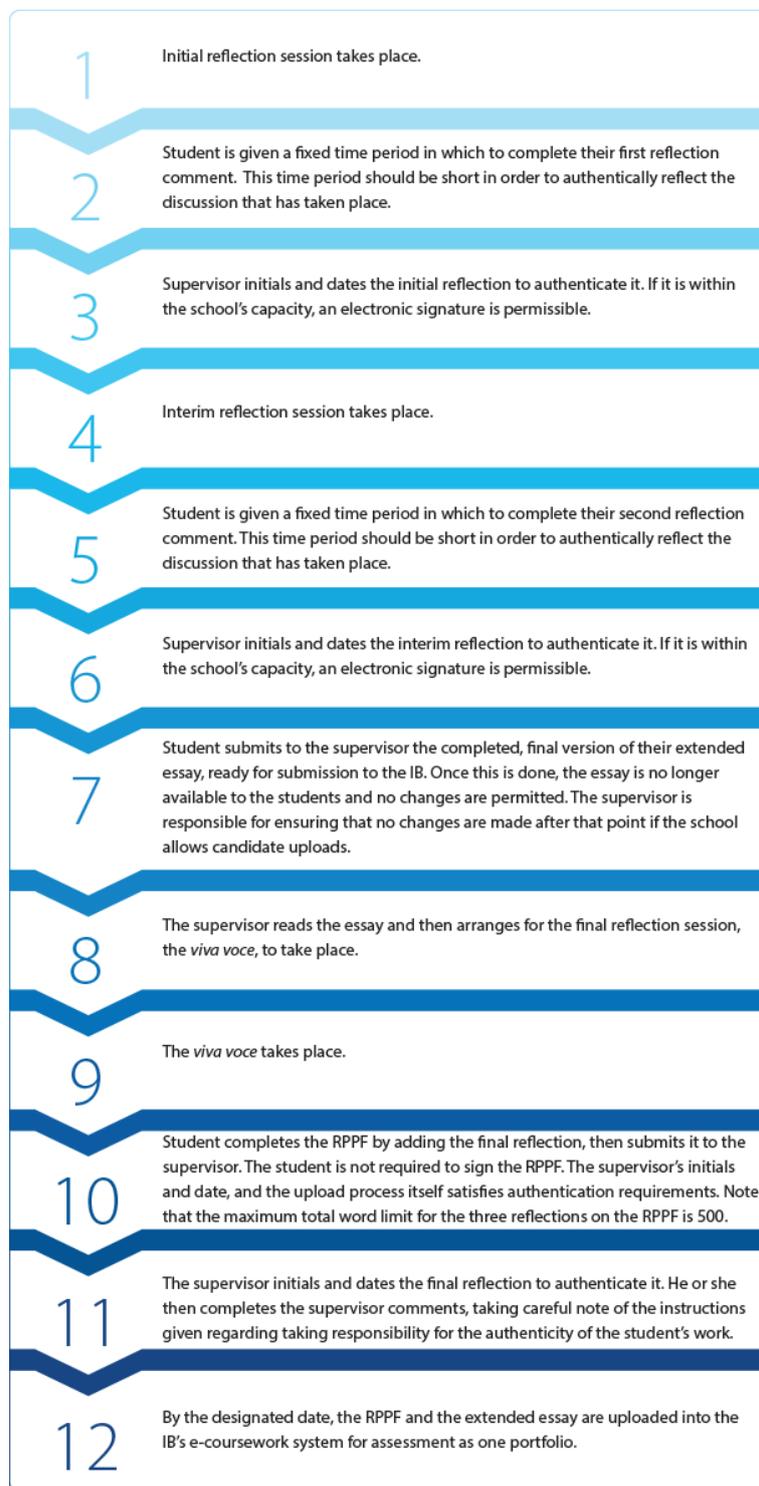
The maximum total word limit for the three reflections on the RPPF is 500 words. Examiners will not read or assess beyond the maximum limit. Students whose word count exceeds this will compromise the assessment of their reflection as higher order reflections are more likely to be present in the latter stages of the reflection process.

It should be noted that the RPPF must be completed in the language of the student's extended essay submission. Please be aware that RPPFs submitted in a language other than that of the essay will be awarded 0 for this criterion. This is in keeping with article 10.3 of the general regulations stating that all components of an assessment must be submitted in the same language of registration.

If the RPPF is not submitted, or is blank, a 0 will be awarded for criterion E.



The following steps are offered as guidance:



An RPPF that is blank, unsubmitted, or written in a language other than that of the essay will score a 0 for criterion E.

## An important note:

Once students have written their reflection and this has been initialled and dated by their supervisor they must not make changes to these comments. Examiners want to see the progression of ideas through the three reflection comments and if students make amendments at a later stage of the process this will undermine the authenticity of their experiences and affect the way in which examiners apply criterion E.

In appropriate circumstances, as long as reflection statements are not qualitatively changed, supervisors may oversee and authorise the deletion of content from the first and interim reflections in order to enable a student to include sufficient words in his/her final reflection. It is, however, expected that early in the extended essay process students will receive appropriate guidance regarding the allocation of words to the three reflection statements.

# The research and writing process

## Initial guidance on research and writing

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

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

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

## A note on topic, title and research question

It is important that students understand the distinction between the terms **topic**, **title** and **research question**.

- The **topic** of the extended essay is the subject, issue or theme that you are investigating within a specific DP subject or world studies area of study. The topic, which develops during the initial thinking about the EE, should later be reflected in the wording of the title.
- The **title** of the EE is a clear, summative statement that specifically focuses the topic being researched. It appears on the title page. A title should:
  - be short, descriptive and succinct
  - not be phrased as a question
  - use key words that connect with the topic and the DP subject or world studies area of study
  - attract the interest of the reader.
- The **research question** derives from the title and is expressed as a question that is intended to be answered through researching and writing the EE. It appears on the title page and could also be visible as a header throughout the essay. It should:
  - be clear and focused
  - provide a path through which you can undertake achievable research
  - use key words that connect with the topic, the title, and the DP subject or world studies area of study
  - support the development of an argument.

## Developing a research question

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

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

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

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

Supervisors should note that unfortunately the IB is unable to comment on the suitability of individual research questions. This is because the development of an appropriate research question forms part of the assessment. Should supervisors require support or advice with regard to possible research questions, they can access extended essay discussions in the Programme Communities via [MyIB](#).

## Five steps to developing a research question



### **Choose a subject and topic that is of interest.**

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



### **Carry out preliminary reading.**

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

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



### **Consider the emerging questions.**

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



### **Evaluate the question.**

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

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

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

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



### **Consider research outcomes.**

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

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

## Sample research questions

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

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

### An important note:

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

## Writing the extended essay

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

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

Six required elements of the extended essay:

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

### Title page

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

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

If footnotes have been used for anything other than referencing, the word count stated on the coversheet should include the footnotes, with an explicit statement that the stated word count includes explanatory footnotes.

### An important note:

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

### The title

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

| Title   | Research question  |
|---|--|
| Negative externalities of consumption: Australian policy on cigarette packaging | How effective has the Australian policy of plain cigarette packaging been in reducing the negative |

| Title   | Research question   |
|---|---|
|   | 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.

## References and bibliography

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

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

## Presentation

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 suggested.

- the use of 12-point, readable font
- double spacing
- page numbering
- no candidate, supervisor, or school name on the title page, page headers, appendices or acknowledgment pages
- the file size must not be more than 10 MB. (Note that the RPPF is uploaded separately and is **not** part of the overall file size of the essay.)

Submitting the extended essay in the required format will help set the tone of the essay and will aid readability for on-screen assessment by examiners.

## Word counts

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)  |

| ✓                          | ✗  |
|----------------------------|--|
| Included in the word count | Not included in the word count                       |
|                            | The bibliography                                     |
|                            | The <i>Reflections on planning and progress form</i> |
|                            | Headers  |

Please refer to the document entitled [Assessment principles and practices—Quality assessments in a digital age](#) for further clarification of word count requirements.

*A note for students writing in Chinese and Japanese:*

Students writing their extended essay in Japanese or Chinese should use the following conversions.

- Japanese: 1 word = approximately 2 Japanese characters (upper limit 8,000 characters)
- Chinese: 1 word = approximately 1.2 Chinese characters (upper limit 4,800 characters)

When typing in Chinese, word processing software is likely to include the number of characters **and** punctuation in the word count. Students are asked to **not** include punctuation in the word count for assessed work. The word count should only take into account the number of characters typed.

*A note about acknowledgments and dedications:*

An acknowledgment/dedications page may be included in the EE if this is important to the student, but it must contain no “identifiers”, for example, people should not be detailed in any way that makes the student’s school identifiable. An acknowledgment/dedications page is not a formal requirement of the EE, so it does not contribute to either the word count or assessment.

## 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.

## Tables

The use of tables should be considered carefully and are only really appropriate in certain subjects. Tables must not be used in an attempt to circumvent the word limit.

## Headers

Students may wish to use the header function for their research question, so that it appears on each page. This may help retain focus.

## 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.

One appropriate use of footnotes is for the placement of the original quotation (where the original quotation is in a language other than the language of registration).

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.

## Specimen materials

Specimen materials used in, or produced by, investigations do not form part of the extended essay and must **not** be submitted. Photographic evidence may be submitted in place of such material.

## 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.

## Referencing

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 are summarized in the document entitled *Effective citing and referencing*.

## Referencing sources not in the language of submission

An extended essay can use sources in languages other than that of submission where appropriate. In these situations, the IB advises that the sources be used as necessary, and that

1. When referred to in the body of the extended essay as a quotation, the translation is given and the original quotation is placed as a footnote.
2. When a source is acknowledged in the bibliography, it should be referenced in its original language. Where there is no official published translation, the student should write a brief summary alongside the source in the language of submission of a) the title, b) name of the author, c) the focus of the work and d) any other relevant details. This way, the examiner can assess the relevance and suitability of the source as required.
3. The translation of the text should be done by the student if there is no official translation. The supervisor should help ensure as best as possible that the translation is accurate and representative of the original text. If the student finds the translation task beyond their capabilities, then it is advisable not to include that source in his/her research. In selecting sources, the nature of the subject in question needs to be considered—for example, in a language acquisition essay, it is vital that students work mostly with authentic materials in the target language.

## 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 sources: technology literacy—using 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.

The following table contains a series of questions students can apply to determine the reliability and validity of information presented on the internet. It could equally apply to print resources.

| Desirable source attribute  | Questions to consider in order to determine this   |
|-----------------------------|--|
| Authority                   | <ul style="list-style-type: none"> <li>• Is the author of the information identified?</li> <li>• If the author has chosen to remain anonymous, why might this be? Is this significant in terms of your evaluation of the information presented?</li> <li>• Is there enough information available to establish the author’s credibility?</li> <li>• Is the author affiliated to an academic institution or credible organization?</li> <li>• Is the author qualified to write about the subject?</li> </ul> |
| Audience appropriate        | <ul style="list-style-type: none"> <li>• Who is the intended audience?</li> <li>• Does the information presented appropriately address the target audience?</li> <li>• Is the information relevant to your area of research?</li> </ul>  |
| Reliability and credibility | <ul style="list-style-type: none"> <li>• Does the information appear to be valid and well researched?</li> <li>• Can it be supported by evidence?</li> </ul>   |

| Desirable source attribute | Questions to consider in order to determine this   |
|----------------------------|--|
|                            | <ul style="list-style-type: none"> <li>• Can the information be verified through other sources?</li> <li>• Is there a non-web equivalent of this material that could be used to verify the information?</li> <li>• Does the URL (web address) give you any indication of the source of the information?</li> </ul>   |
| Accuracy                   | <ul style="list-style-type: none"> <li>• Is there an indication as to who has responsibility for the accuracy of the information provided?</li> <li>• Do you know if the information has been reviewed?</li> <li>• Are there grammatical, spelling or typographical errors? If there are, what does this suggest about the source?</li> <li>• Is there a bibliography?</li> </ul>  |
| Objectivity                | <ul style="list-style-type: none"> <li>• Is the information fact or opinion?</li> <li>• Is the language used free of bias?</li> <li>• Is the author's point of view objective or do they make it clear when they are expressing a personal opinion?</li> <li>• Is it a personal website?</li> <li>• Is the author affiliated with any institution or organization which might create a bias in the information?</li> </ul> |
| Currency                   | <ul style="list-style-type: none"> <li>• Is the information kept up-to-date?</li> <li>• Is there any indication of when the information was last updated?</li> <li>• Are any links up to date and working?</li> </ul>  |

## Using online encyclopedias and other similar information websites

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.

## Use of computer programs

The use of computers is encouraged where they are appropriate as tools for analysing data relevant to the subject of the extended essay. Material such as a hard copy of computer output may be included in the extended essay, but any associated program should be referred to or reproduced, if original, only as an appendix.

Computer programs may only be included (in particular circumstances) in computer science and physics essays. (See the “Computer science” and “Physics” sections for further details.)

## Proofreading

The whole essay needs to be proofread carefully by the student (computer spelling and grammar checkers are useful but will not do everything). They must not ask someone else to proofread their work as this is an important part of the learning experience.

## Assessment in the Diploma Programme

### General

Assessment is an integral part of teaching and learning. The most important aims of assessment in the Diploma Programme are that it should support curricular goals and encourage appropriate student learning. Both external and internal assessments are used in the Diploma Programme. IB examiners mark work produced for external assessment, while work produced for internal assessment is marked by teachers and externally moderated by the IB.

There are two types of assessment identified by the IB.

- Formative assessment informs both teaching and learning. It is concerned with providing accurate and helpful feedback to students and teachers on the kind of learning taking place and the nature of students' strengths and weaknesses in order to help develop students' understanding and capabilities. Formative assessment can also help to improve teaching quality, as it can provide information to monitor progress towards meeting the course aims and objectives.
- Summative assessment gives an overview of previous learning and is concerned with measuring student achievement.

The Diploma Programme primarily focuses on summative assessment designed to record student achievement at, or towards the end of, the course of study. However, many of the assessment instruments can also be used formatively during the course of teaching and learning, and teachers are encouraged to do this. A comprehensive assessment plan is viewed as being integral with teaching, learning and course organization. For further information, see the IB *Programme standards and practices* document.

The approach to assessment used by the IB is criterion-related, not norm-referenced. This approach to assessment judges students' work by their performance in relation to identified levels of attainment, and not in relation to the work of other students. For further information on assessment within the Diploma Programme please refer to the publication *Assessment principles and practices—Quality assessments in a digital age*.

To support teachers in the planning, delivery and assessment of the Diploma Programme courses, a variety of resources can be found on the programme resource centre or purchased from the IB store (<http://store.ibo.org>). Additional publications such as specimen papers and markschemes, Teacher support material, subject reports and grade descriptors can also be found on the programme resource centre. Past examination papers as well as markschemes can be purchased from the IB store.

## Methods of assessment

The IB uses several methods to assess work produced by students.

### Assessment criteria

Assessment criteria are used when the assessment task is open-ended. Each criterion concentrates on a particular skill that students are expected to demonstrate. An assessment objective describes what students should be able to do, and assessment criteria describe how well they should be able to do it. Using assessment criteria allows discrimination between different answers and encourages a variety of responses. Each criterion comprises a set of hierarchically ordered level descriptors. Each level descriptor is worth one or more marks. Each criterion is applied independently using a best-fit model. The maximum marks for each criterion may differ according to the criterion's importance. The marks awarded for each criterion are added together to give the total mark for the piece of work.

### Markbands

Markbands are a comprehensive statement of expected performance against which responses are judged. They represent a single holistic criterion divided into level descriptors. Each level descriptor corresponds to a range of marks to differentiate student performance. A best-fit approach is used to ascertain which particular mark to use from the possible range for each level descriptor.

### Analytic markschemes

Analytic markschemes are prepared for those examination questions that expect a particular kind of response and/or a given final answer from students. They give detailed instructions to examiners on how to break down the total mark for each question for different parts of the response.

### Marking notes

For some assessment components marked using assessment criteria, marking notes are provided. Marking notes give guidance on how to apply assessment criteria to the particular requirements of a question.

## Assessment of the extended essay

Assessment of the extended essay is a combination of formative assessment (the [Reflections on planning and progress form](#)) and summative assessment (the extended essay itself).

Generic assessment criteria are used with subject-specific interpretations.

## Inclusive assessment arrangements

Inclusive assessment arrangements are available for students with assessment access requirements. These arrangements enable students with diverse needs to access the examinations and demonstrate their knowledge and understanding of the constructs being assessed.

The IB document [Candidates with assessment access requirements](#) provides details on all the inclusive assessment arrangements available to students with learning support requirements. The IB document [Learning diversity and inclusion in IB programmes](#) outlines the position of the IB with regard to students with diverse learning needs in the IB programmes.

For students affected by adverse circumstances, the IB documents [General regulations: Diploma Programme](#) and the Diploma Programme [Assessment procedures](#) provide details on access consideration.

## Responsibilities of the school

The school is required to ensure that equal access arrangements and reasonable adjustments are provided to students with learning support requirements that are in line with the IB documents [Candidates with assessment access requirements](#) and [Learning diversity and inclusion in IB programmes](#).

## Overview of the assessment criteria for the extended essay

### Overview

| Criterion A: focus and method   | Criterion B: knowledge and understanding  | Criterion C: critical thinking  | Criterion D: presentation  | Criterion E: engagement  |
|---|---|---|--|--|
| <ul style="list-style-type: none"><li>• Topic</li><li>• Research question</li><li>• Methodology</li></ul> | <ul style="list-style-type: none"><li>• Context</li><li>• Subject-specific terminology and concepts</li></ul> | <ul style="list-style-type: none"><li>• Research</li><li>• Analysis</li><li>• Discussion and evaluation</li></ul> | <ul style="list-style-type: none"><li>• Structure</li><li>• Layout</li></ul> | <ul style="list-style-type: none"><li>• Process</li><li>• Research focus</li></ul> |
| Marks   | Marks   | Marks   | Marks  | Marks  |
| 6   | 6   | 12  | 4  | 6  |

Total marks available: 34

## Best-fit approach and markbands

Assessment criteria must be used in conjunction with the relevant specific-subject interpretations as these interpretations articulate how the generic assessment criteria are understood and applied to each subject.

Levels of performance are described using multiple indicators per level. In many cases the indicators occur together throughout the essay, but not always. Also, not all indicators are always present. This means that a student can demonstrate performances that fit into different levels. To accommodate this, the IB assessment models use markbands and advise examiners and teachers to use a **best-fit approach** in deciding the appropriate mark for a particular criterion. From various assessment trials we know that introducing markbands and using the best-fit model is not always self-evident, and guidance is needed to help with their application. While the extended essay is an externally assessed component of the DP, supervisors are required to submit a predicated grade and understanding the way in which the criteria are applied by examiners will assist with the guidance given to students. The following explains how markbands are used by examiners. The aim is to find the descriptor that conveys most accurately the level attained by the student's work, using the best-fit approach. A best-fit approach means that compensation will be made when a piece of work matches different aspects of a markband at different levels. The mark awarded will be 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 rewarded. (For example, if student work matches two of the three requirements within a markband but one is seriously lacking, the student should be awarded for the strands that have been met well, but the mark awarded should be at the lower end of the markband to compensate for what is lacking in one strand. If the level of student work spans multiple markbands for criterion C only, compensation depends on the performance in the higher order skills of evaluation (AO3), discussion (AO3) and analysis (AO2) (see the example below). The strands in criteria A, B, D and E have the weighting built into the wording already. For example, the requirements for knowledge and understanding need to be “good” for a 3–4 mark, while use of terminology and concepts only needs to be “adequate” for the same markband. The assessment objective levels for a given subject can be found at the back of that subject’s DP subject guide.

### Criterion C: Critical thinking

|                       |   |                       |   |
|-----------------------|---|-----------------------|---|
| Research              | Excellent (10–12)   | Research              | Good (7–9)  |
| Analysis              | Good (7–9)  | Analysis              | Good (7–9)  |
| Discussion/evaluation | Adequate (4–6)  | Discussion/evaluation | Adequate (4–6)  |
| Mark awarded          | 8/9 (The 7–9 markband is appropriate because communication of research is a lower order skill compared to analysis and evaluation.) | Mark awarded          | 7 (The bottom end of the 7–9 markband is appropriate since the achievement level is lower for the higher order skill of discussion/evaluation.) |

- When assessing a student’s work, in light of the IB approach to positive marking, examiners will read the level descriptors from the highest markband down until they reach a descriptor that most appropriately describes the level of the work being assessed.
- If a piece of work seems to fall between two descriptors, both descriptors will be read again and the one that more appropriately describes the student’s work will be chosen. In relation to criterion C, examiners will bear in mind the higher order skills being assessed.
- There are a number of marks available within a level; examiners will award the upper marks if the student’s work demonstrates the qualities described to a greater extent. Examiners will award the lower marks if the student’s work demonstrates the qualities described to a lesser extent.
- The highest level descriptors do not imply faultless performance and should be achievable by a student. Examiners will not hesitate to use the extremes if they are appropriate descriptions of the work being assessed.

# The assessment criteria

## Criterion A: Focus and method

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.

| Level | Descriptor of strands and indicators   |
|-------|--|
| 0     | <b>The work does not reach a standard outlined by the descriptors below.</b>   |
| 1–2   | <b>The topic is communicated unclearly and incompletely.</b> <ul style="list-style-type: none"><li>• 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.</li></ul> <b>The research question is stated but not clearly expressed or too broad.</b> <ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li></ul> <b>Methodology of the research is limited.</b> <ul style="list-style-type: none"><li>• The source(s) and/or method(s) to be used are limited in range given the topic and research question.</li><li>• There is limited evidence that their selection was informed.</li></ul> |
| 3–4   | <b>The topic is communicated.</b> <ul style="list-style-type: none"><li>• Identification and explanation of the research topic is communicated; the purpose and focus of the research is adequately clear, but only partially appropriate.</li></ul> <b>The research question is clearly stated but only partially focused.</b> <ul style="list-style-type: none"><li>• The research question is clear but the discussion in the essay is only partially focused and connected to the research question.</li></ul> <b>Methodology of the research is mostly complete.</b> <ul style="list-style-type: none"><li>• Source(s) and/or method(s) to be used are generally relevant and appropriate given the topic and research question.</li><li>• There is some evidence that their selection(s) was informed.</li></ul> <b>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.</b>  |
| 5–6   | <b>The topic is communicated accurately and effectively.</b>   |

| Level | Descriptor of strands and indicators  |
|-------|---|
|       | <ul style="list-style-type: none"> <li>• Identification and explanation of the research topic is effectively communicated; the purpose and focus of the research is clear and appropriate.</li> </ul> <p><b>The research question is clearly stated and focused.</b></p> <ul style="list-style-type: none"> <li>• The research question is clear and addresses an issue of research that is appropriately connected to the discussion in the essay.</li> </ul> <p><b>Methodology of the research is complete.</b></p> <ul style="list-style-type: none"> <li>• An appropriate range of relevant source(s) and/or method(s) has been selected in relation to the topic and research question.</li> <li>• There is evidence of effective and informed selection of sources and/or methods.</li> </ul> |

## Criterion B: Knowledge and understanding

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.

| Level | Descriptor of strands and indicators   |
|-------|--|
| 0     | <b>The work does not reach a standard outlined by the descriptors below.</b>   |
| 1–2   | <p><b>Knowledge and understanding is limited.</b></p> <ul style="list-style-type: none"> <li>• The application of source material has limited relevance and is only partially appropriate to the research question.</li> <li>• Knowledge of the topic/discipline(s)/issue is anecdotal, unstructured and mostly descriptive with sources not effectively being used.</li> </ul> <p><b>Use of terminology and concepts is unclear and limited.</b></p> <ul style="list-style-type: none"> <li>• Subject-specific terminology and/or concepts are either missing or inaccurate, demonstrating limited knowledge and understanding.</li> </ul>  |
| 3–4   | <p><b>Knowledge and understanding is good.</b></p> <ul style="list-style-type: none"> <li>• The application of source material is mostly relevant and appropriate to the research question.</li> <li>• Knowledge of the topic/discipline(s)/issue is clear; there is an understanding of the sources used but their application is only partially effective.</li> </ul> <p><b>Use of terminology and concepts is adequate.</b></p> <ul style="list-style-type: none"> <li>• The use of subject-specific terminology and concepts is mostly accurate, demonstrating an appropriate level of knowledge and understanding.</li> </ul> <p><b>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.</b></p> |

| Level | Descriptor of strands and indicators  |
|-------|---|
| 5–6   | <p><b>Knowledge and understanding is excellent.</b></p> <ul style="list-style-type: none"> <li>• The application of source materials is clearly relevant and appropriate to the research question.</li> <li>• Knowledge of the topic/discipline(s)/issue is clear and coherent and sources are used effectively and with understanding.</li> </ul> <p><b>Use of terminology and concepts is good.</b></p> <ul style="list-style-type: none"> <li>• The use of subject-specific terminology and concepts is accurate and consistent, demonstrating effective knowledge and understanding.</li> </ul> |

## Criterion C: Critical thinking

This criterion assesses the extent to which critical-thinking skills have been used to analyse and evaluate the research undertaken.

| Level | Descriptor of strands and indicators  |
|-------|---|
| 0     | <b>The work does not reach a standard outlined by the descriptors below.</b>  |
| 1–3   | <p><b>The research is limited.</b></p> <ul style="list-style-type: none"> <li>• The research presented is limited and its application to support the argument is not clearly relevant to the research question.</li> </ul> <p><b>Analysis is limited.</b></p> <ul style="list-style-type: none"> <li>• There is limited analysis.</li> <li>• Where there are conclusions to individual points of analysis these are limited and not consistent with the evidence.</li> </ul> <p><b>Discussion/evaluation is limited.</b></p> <ul style="list-style-type: none"> <li>• An argument is outlined <b>but</b> this is limited, incomplete, descriptive or narrative in nature.</li> <li>• The construction of an argument is unclear and/or incoherent in structure hindering understanding.</li> <li>• Where there is a final conclusion, it is limited and not consistent with the arguments/evidence presented.</li> <li>• There is an attempt to evaluate the research, but this is superficial.</li> </ul> <p><b>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.</b></p> |
| 4–6   | <p><b>The research is adequate.</b></p> <ul style="list-style-type: none"> <li>• Some research presented is appropriate and its application to support the argument is partially relevant to the research question.</li> </ul> <p><b>Analysis is adequate.</b></p>  |

| Level | Descriptor of strands and indicators  |
|-------|---|
|       | <ul style="list-style-type: none"> <li>• There is analysis <b>but</b> this is only partially relevant to the research question; the inclusion of irrelevant research detracts from the quality of the argument.</li> <li>• Any conclusions to individual points of analysis are only partially supported by the evidence.</li> </ul> <p><b>Discussion/evaluation is adequate.</b></p> <ul style="list-style-type: none"> <li>• An argument explains the research <b>but</b> the reasoning contains inconsistencies.</li> <li>• The argument may lack clarity and coherence but this does not significantly hinder understanding.</li> <li>• Where there is a final or summative conclusion, this is only partially consistent with the arguments/evidence presented.</li> <li>• The research has been evaluated but not critically.</li> </ul>  |
| 7–9   | <p><b>The research is good.</b></p> <ul style="list-style-type: none"> <li>• The majority of the research is appropriate and its application to support the argument is clearly relevant to the research question.</li> </ul> <p><b>Analysis is good.</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Conclusions to individual points of analysis are supported by the evidence but there are some minor inconsistencies.</li> </ul> <p><b>Discussion/evaluation is good.</b></p> <ul style="list-style-type: none"> <li>• An effective reasoned argument is developed from the research, with a conclusion supported by the evidence presented.</li> <li>• 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.</li> <li>• The research has been evaluated, and this is partially critical.</li> </ul> |
| 10–12 | <p><b>The research is excellent.</b></p> <ul style="list-style-type: none"> <li>• The research is appropriate to the research question and its application to support the argument is consistently relevant.</li> </ul> <p><b>Analysis is excellent.</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Conclusions to individual points of analysis are effectively supported by the evidence.</li> </ul> <p><b>Discussion/evaluation is excellent.</b></p>   |

| Level | Descriptor of strands and indicators   |
|-------|--|
|       | <ul style="list-style-type: none"> <li>• An effective and focused reasoned argument is developed from the research with a conclusion reflective of the evidence presented.</li> <li>• 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.</li> <li>• The research has been critically evaluated.</li> </ul> |

## Criterion D: Presentation

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.

| Level | Descriptor of strands and indicators   |
|-------|--|
| 0     | <b>The work does not reach a standard outlined by the descriptors below.</b>   |
| 1–2   | <p><b>Presentation is acceptable.</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Some layout considerations may be missing or applied incorrectly.</li> <li>• Weaknesses in the structure and/or layout do not significantly impact the reading, understanding or evaluation of the extended essay.</li> </ul> |
| 3–4   | <p><b>Presentation is good.</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Layout considerations are present and applied correctly.</li> <li>• The structure and layout support the reading, understanding and evaluation of the extended essay.</li> </ul>  |

## Criterion E: Engagement

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, and is based solely on the candidate's reflections as detailed on the [RPPF](#), with the supervisory comments and extended essay itself as context. Only the first 500 words are assessable.

| Level | Descriptor of strands and indicators  |
|-------|---|
| 0     | <b>The work does not reach a standard outlined by the descriptors, an RPPF has not been submitted, or the RPPF has been submitted in a language other than that of the essay.</b> |
| 1–2   | <b>Engagement is limited.</b>   |

| Level | Descriptor of strands and indicators  |
|-------|---|
|       | <ul style="list-style-type: none"> <li>• Reflections on decision-making and planning are mostly descriptive.</li> <li>• These reflections communicate a limited degree of personal engagement with the research focus and/or research process.</li> </ul>   |
| 3–4   | <p><b>Engagement is good.</b></p> <ul style="list-style-type: none"> <li>• Reflections on decision-making and planning are analytical and include reference to conceptual understanding and skill development.</li> <li>• These reflections communicate a moderate degree of personal engagement with the research focus and process of research, demonstrating some intellectual initiative.</li> </ul>  |
| 5–6   | <p><b>Engagement is excellent.</b></p> <ul style="list-style-type: none"> <li>• Reflections on decision-making and planning are evaluative and include reference to the student’s capacity to consider actions and ideas in response to challenges experienced in the research process.</li> <li>• 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.</li> </ul> |

# Assessment grade descriptors for the extended essay

Effective May 2018

## Grade descriptors

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 the extended essay should be based on the qualitative grade descriptors for the extended essay. These descriptors are what will be used by senior examiners to set the boundaries. While boundaries are subject to change, it is the grade descriptors that remain consistent. Please refer to the document [Assessment principles and practices: Quality assessments in a digital age](#).

|   |
|---|
| Grade 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; effective engagement with relevant research areas, methods and sources; excellent knowledge and understanding of the topic in the wider context of the relevant discipline; the effective application of source material and correct use of subject-specific terminology and/or concepts further supporting this; consistent and relevant conclusions that are proficiently analysed; sustained reasoned argumentation supported effectively by evidence; critically evaluated research; excellent presentation of the essay, whereby coherence and consistency further supports the reading of the essay; and present and correctly applied structural and layout elements.</p> <p><b>Engagement with the process is conceptual and personal, key decision-making during the research process is documented, and personal reflections are evidenced, including those that are forward-thinking.</b></p> |
| Grade B   |
| <p>Demonstrates appropriate research skills resulting in a research question that can be explored within the scope of the chosen topic; reasonably effective engagement with relevant research areas, methods and sources; good knowledge and understanding of the topic in the wider context of the relevant discipline; a reasonably effective application of source material and use of subject-specific terminology and/or concepts; consistent conclusions that are accurately analysed; reasoned argumentation often supported by evidence; research that at times evidences critical evaluation; and a clear presentation of all structural and layout elements, which further supports the reading of the essay.</p> <p><b>Engagement with the process is generally evidenced by the reflections and key decision-making during the research process is documented.</b></p>   |
| Grade 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; 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; some knowledge and understanding of the topic in the wider context of the discipline, which is mostly relevant; the attempted application of source material and appropriate terminology and/or concepts; an attempted synthesis of research results with partially relevant analysis; conclusions partly supported by the evidence; discussion that is descriptive rather than analytical; attempted evaluation; satisfactory presentation of the essay, with weaknesses that do not hinder the reading</p>   |

of the essay; and some structural and layout elements that are missing or are incorrectly applied.

**Engagement with the process is evidenced but shows mostly factual information, with personal reflection mostly limited to procedural issues.**

#### Grade D

Demonstrates a lack of research, resulting in unsatisfactory focus and a research question that is not answerable within the scope of the chosen topic; at times engagement with appropriate research, methods and sources, but discrepancies in those processes that occasionally interfere with the planning and approach; some relevant knowledge and understanding of the topic in the wider context of the discipline, which are at times irrelevant; the attempted application of source material, but with inaccuracies in the use of, or underuse of, terminology and/or concepts; irrelevant analysis and inconsistent conclusions as a result of a descriptive discussion; a lack of evaluation; presentation of the essay that at times is illogical and hinders the reading; and structural and layout elements that are missing.

**Engagement with the process is evidenced but is superficial, with personal reflections that are solely narrative and concerned with procedural elements.**

#### Grade E (failing condition)

Demonstrates an unclear nature of the essay; a generally unsystematic approach and resulting unfocused research question; limited engagement with limited research and sources; generally limited and only partially accurate knowledge and understanding of the topic in the wider context of the relevant discipline; ineffective connections in the application of source material and inaccuracies in the terminology and/or concepts used; a summarizing of results of research with inconsistent analysis; an attempted outline of an argument, but one that is generally descriptive in nature; and a layout that generally lacks or incorrectly applies several layout and structural elements.

**Engagement with the process is limited, with limited factual or decision-making information and no personal reflection on the process.**

## 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:

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| <p>Markband<br/>1–2</p>    | <p><b>(Strand)</b> The topic is communicated unclearly and incompletely.<br/>(Indicators of the strand)</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p><b>(Strand)</b> The research question is stated but not clearly expressed or too broad.<br/>(Indicators of the strand)</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul> <p><b>(Strand)</b> Methodology of the research is limited.<br/>(Indicators of the strand)</p> <ul style="list-style-type: none"> <li>• The source(s) and/or method(s) to be used are limited in range given the topic and research question.</li> <li>• There is limited evidence that their selection was informed.</li> </ul> |
| <p>Criterion</p>           | <p>Unpacking the criterion</p>  |
| <p>A: Focus and method</p> | <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 title 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"> <li>1. The topic chosen is identified and explained to readers in terms of contextualizing and justifying its worthiness. <ul style="list-style-type: none"> <li>• How well does the research paper identify and communicate the chosen topic?</li> </ul> </li> <li>2. The title is a formal requirement on the title page of the essay. If the title is missing, it will be considered on balance with the other formal requirements against criterion D. While there is no explicit penalty in criterion A, the title will help address the requirements</li> </ol>  |

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|                                       | <p>as it expands on the student’s intended focus. Without a title, students lose an opportunity to clarify their focus.</p> <p>3. 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"> <li>• 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?</li> <li>• Is the research question clearly stated, focused and based on/ situated against background knowledge and understanding of the chosen subject/topic area?</li> <li>• Is the focus of the research question maintained throughout the essay?</li> </ul> <p>4. 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"> <li>• 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?</li> </ul> <p>5. 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. The quality of the research question itself is not considered when assessing source selection on balance.</p> |
| <p>B: Knowledge and understanding</p> | <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> <ol style="list-style-type: none"> <li>1. The research question being investigated is put into the context of the subject/discipline/issue. <ul style="list-style-type: none"> <li>• Demonstration of the appropriate and relevant selection and application of the sources is identified.</li> </ul> </li> <li>2. Knowledge and understanding of the topic chosen and the research question posed is demonstrated with appropriate subject-specific terminology.</li> </ol>   |

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|                      | <ul style="list-style-type: none"> <li>• The use of subject-specific terminology and/or concepts is an indicator of knowledge and understanding of the discipline(s)/ issue discussed.</li> </ul> <p>3. Sources/methods are assessed here in terms of their application to support knowledge and understanding in response to the research question.</p>   |
| 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"> <li>1. The appropriateness of sources/methods in terms of how they have been used in the development of the argument presented.</li> <li>2. The analysis of the research is effective and focused on the research question.</li> <li>3. The discussion of the research develops a clear and coherent reasoned argument in relation to the research question.</li> <li>4. There is a critical evaluation of the arguments presented in the essay.</li> <li>5. Unlikely or unexpected outcomes can also demonstrate critical thinking.</li> </ol>   |
| 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"> <li>1. <b>Structure:</b> 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.)</li> <li>2. <b>Layout:</b> 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"> <li>• The referencing system should be correctly and consistently applied and should contain the minimum information as detailed in the <i>Effective citing and referencing</i> document.*</li> <li>• The extended essay has not exceeded the maximum word limit.**</li> </ul> </li> <li>3. <b>Formal requirements:</b> <p>Formatting</p> <ul style="list-style-type: none"> <li>• The use of 12-point, readable font</li> <li>• Double spacing</li> <li>• Page numbering</li> <li>• No candidate or school name on the title page or page headers</li> </ul> </li> </ol> |

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|               | <ul style="list-style-type: none"> <li>• File size of not more than 10 MB (Note that the RPPF is uploaded separately and is not part of the overall file size of the essay.)</li> </ul> <p>A title page, including only:</p> <ul style="list-style-type: none"> <li>• the title of the essay</li> <li>• the research question</li> <li>• 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)</li> <li>• word count.</li> </ul> <p>* Referencing and bibliographies are only assessed against criterion D based on their visual layout (for example, consistent presentation of footnotes) and presence (bibliography as a structural requirement). The content and completeness of a reference or bibliography should not be assessed. Insufficient or incomplete references or bibliographies will be raised by examiners as a case of “suspected malpractice” for further investigation prior to issue of results, with no undue assessment penalties applied.</p> <p>** While there is no explicit penalty in criterion D for exceeding 4,000 words, students should be aware that examiners will not read beyond the 4,000-word limit. Criterion D specifically may be impacted if, in exceeding 4,000 words, one of the structural requirements of the essay (for example, the conclusion, or important illustrative material) is unassessed by the examiner because he or she is not required to read beyond 4,000 words.</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 <i>Reflections on planning and progress form</i>.</p> <ol style="list-style-type: none"> <li>1. <b>Engagement with the process:</b> 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.</li> <li>2. <b>Engagement with their research focus:</b> 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?</li> </ol>  |

## Subject-specific guidance has been moved

Please note that the subject-specific guidance section, and all of the content related to extended essays in specific subjects, has been moved to the “In practice” section of the extended essay website.