Extended Essay Assessment Criteria plus commentary/International Baccalaureate Organization

**A: Research Question**

This criterion assesses the extent to which the purpose of the essay is specified. In many subjects, the aim of the essay will normally be expressed as a question and, therefore, this criterion is called the “research question.” However, certain disciplines may permit or encourage different ways of formulating the research task.

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| Achievement Level | Descriptor |
| 0 | The research question is not stated in the introduction **or** does not lend itself to a systematic investigation in an extended essay in the subject in which it is registered. |
| 1 | The research question is stated in the introduction but is not clearly expressed **or** is too broad in scope to be treated effectively within the word limit. |
| 2 | The research question is clearly stated in the introduction and sharply focused, making effective treatment possible within the word limit. |

*To meet this criterion, sharply focused research question defining the purpose of the essay must be stated clearly within the introduction. It is not sufficient simply to include it on the title page or in the abstract. To make “effective treatment possible,” first, it must not be too broad, which will lead to superficial treatment. Second, it must allow for critical argument, and not simply require a descriptive or narrative treatment. For example, “To what extent is X like Y?” allows argument, whereas “What is X like?” only invites simple description.*

*In this subject, it can be quite acceptable to formulate the research question as a clearly stated hypothesis. This may be particularly appropriate, for example, in experimental investigations. A hypothesis, as the starting point of an experimental investigation, will always lead to the implicit critical argument concerning the extent to which the results support or refute it.*

**B: Introduction**

This criterion assesses the extent to which the introduction makes clear how the research question relates to existing knowledge on the topic and explains how the topic chosen is significant and worthy of investigation.

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| Achievement Level | Descriptor |
| 0 | Little or no attempt is made to set the research question into context. There is little or no attempt to explain the significance of the topic. |
| 1 | Some attempt is made to set the research question into context. There is some attempt to explain the significance of the topic and why it is worthy of investigation. |
| 2 | The context of the research question is clearly demonstrated. The introduction clearly explains the significance of the topic and why it is worthy of investigation. |

*The introduction should set the research question or hypothesis in context. For example, it might outline necessary theoretical principles on which the topic depends, summarize other related research conclusions or give a brief history or geographical location of the issue under discussion. The introduction should also indicate the significance of the question being researched—Why is it important to answer it? What value might it have to others? What implications could the finding have?*

*It is also important that the introduction does not become too long. Material should only be included where it is directly required in order to follow the overall argument of the essay.*

**C: Investigation**

This criterion assesses the extent to which the investigation is planned and an appropriate range of sources has been consulted, or data has been gathered, that is relevant to the research question. Where the research question does not lend itself to a systematic investigation in the subject in which the essay is registered, the maximum level that can be awarded for this criterion is 2.

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| Achievement Level | Descriptor |
| 0 | There is little or no evidence that sources have been consulted or data gathered, and little or no evidence of planning in the investigation. |
| 1 | A range of inappropriate sources has been consulted, or inappropriate data has been gathered, and some relevant material has been selected. There is evidence of some planning in the investigation. |
| 2 | A limited range of appropriate sources has been consulted, or data has been gathered, and some relevant material has been selected. There is evidence of some planning in the investigation. |
| 3 | A sufficient range of appropriate sources has been consulted, or data has been gathered, and relevant material has been selected. The investigation has been satisfactorily planned. |
| 4 | An imaginative range of appropriate sources has been consulted, or data has been gathered, and relevant material has been carefully selected. The investigation has been well planned. |

*Where the study involves experimentation or practical fieldwork, a detailed description of the procedures used, possibly with diagrams or photographs, should be given, such that an independent worker could effectively repeat the study. Careful attention should be given to the design of experiments to include use of, for example, quantification, controls, replication and random sampling, where appropriate. The selection of techniques should be explained and justified, and any assumptions upon which they depend should be clearly stated.*

*If the study is based on the research of secondary data, students need to ensure that the selection of sources is sufficiently wide and reliable. Where Internet-based sources are used, for example, students should be particularly aware of their potential unreliability. Their process of selecting sources and data should be described and justified, and, in cases where there is a variety of relevant perspectives held, the selection of sources should reflect this. Where appropriate, there should be an indication of the methods by which the secondary data has been generated or the evidence upon which is founded.*

**D: Knowledge and Understanding of the Topic Studied**

Where the research question does not lend itself to a systematic investigation in the subject in which the essay is registered, the maximum level that can be awarded for this criterion is 2. “Academic context”, as used in this guide, can be defined as the current state of the field of study under investigation. However, this is to be understood in relation to what can reasonably be expected of a per-university student. For example, to obtain a level 4, it would be sufficient to relate the investigation to the principal lines of inquiry in the relevant field; detailed, comprehensive knowledge is not required.

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| Achievement Level | Descriptor |
| 0 | The essay demonstrates no real knowledge or understanding of the topic studied. |
| 1 | The essay demonstrates some knowledge but little understanding of the topic studied. The essay shows little awareness of an academic context for the investigation. |
| 2 | The essay demonstrates an adequate knowledge and some understanding of the topic studied. The essay shows some awareness of an academic context for the investigation. |
| 3 | The essay demonstrates a good knowledge and understanding of the topic studied. Where appropriate, the essay successfully outlines an academic context for the investigation. |
| 4 | The essay demonstrates a very good knowledge and understanding of the topic studied. Where appropriate, the essay clearly and precisely locates the investigation in an academic context. |

*Students are expected to have a sound knowledge and understanding of environmental systems and societies, as detailed in the Environmental systems and societies guide. For many topics, this knowledge will need to be supplemented through independent study. Ultimately, the student should possess sufficient knowledge of the topic to handle the issues and arguments effectively. To score highly on this criterion, a student would also need to show clear and perceptive links between their own study and the body of theoretical knowledge associated with this subject.*

**E: Reasoned Argument**

This criterion assesses the extent to which the essay uses the material collected to present ideas in a logical and coherent manner, and develops a reasoned argument in relation to the research question. Where the research question does not lend itself to a systematic investigation in the subject in which the essay is registered, the maximum level that can be awarded for this criterion is 2.

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| Achievement Level | Descriptor |
| 0 | There is no attempt to develop a reasoned argument in relation to the research question. |
| 1 | There is a limited or superficial attempt to present ideas in a logical and coherent manner, and to develop a reasoned argument in relation to the research question. |
| 2 | There is some attempt to present ideas in a logical and coherent manner, and to develop a reasoned argument in relation to the research question, but this is only partially successful. |
| 3 | Ideas are presented in a logical and coherent manner, and a reasoned argument is developed in relation to the research question, but with some weaknesses. |
| 4 | Ideas are presented clearly and in a logical and coherent manner. The essay succeeds in developing a reasoned and convincing argument in relation to the research question. |

*There should be a clear step-by-step logical argument linking the raw data to the final conclusions. Each step or proposition on the way should be defended against any plausible alternatives and potential criticisms with clear evidence. Personal opinions are acceptable, but again should be convincingly substantiated by the available evidence. The argument must directly answer the research question in the precise way that it has been formulated.*

F: **Application of Analytical and Evaluative Skills Appropriate to the Subject**

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| Achievement Level | Descriptor |
| 0 | The essay shows no application of appropriate analytical and evaluative skills. |
| 1 | The essay shows little application of appropriate analytical and evaluative skills. |
| 2 | The essay shows some application of appropriate analytical and evaluative skills, which may be only partially effective. |
| 3 | The essay shows sound application of appropriate analytical and evaluative skills. |
| 4 | The essay shows effective and sophisticated application of appropriate analytical and evaluative skills. |

*Analytical skills can be demonstrated in the selection, manipulation and presentation of quantitative or qualitative data gathered from either primary or secondary sources. They will be most obviously apparent in the employment of such things as graphical representations, mathematical manipulations or flow diagrams. Analytical skills may also be evident in the student’s ability to select specific data from sources, identifying their relevance and relationships to one another, and reorganizing them into an effective verbal argument.*

*Evaluative skills will be apparent in the students’ reflections on the reliability and validity of the data gathered, and their subsequent interpretations. For essay s concerned largely with collecting primary data, this will involve discussing inadequacies in the experimental design, the validity of assumptions made, limitations of the investigation, and any systematic errors and how they might have been avoided. For essays concerned largely with collecting secondary data, similar considerations should be applied to the sources that were accessed.*

G: **Use of Language Appropriate to the Subject**

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| Achievement Level | Descriptor |
| 0 | The language used is inaccurate and unclear. There is no effective use of terminology appropriate to the subject. |
| 1 | The language used sometimes communicates clearly but does not do so consistently. The use of terminology appropriate to the subject is only partly accurate. |
| 2 | The language used for the most part communicates clearly. The use of terminology appropriate to the subject is usually accurate. |
| 3 | The language used communicates clearly. The use of terminology appropriate to the subject is accurate, although there may be occasional lapses. |
| 4 | The language used communicates clearly and precisely. Terminology appropriate to the subject is used accurately, with skill and understanding. |

*Students are expected to use appropriate scientific and systems terminology, as employed in the current Environmental systems and societies guide.*

**H: Conclusion**

The criterion assesses the extent to which the essay incorporates a conclusion that is relevant to the research question and is consistent with the evidence presented in the essay.

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| Achievement Level | Descriptor |
| 0 | Little or no attempt is made to provide a conclusion that is relevant to the research question. |
| 1 | A conclusion is attempted that is relevant to the research question buy may not be entirely consistent with the evidence presented in the essay. |
| 2 | An effective conclusion is clearly stated; it is relevant to the research question and consistent with the evidence presented in the essay. It should include unresolved questions where appropriate to the subject concerned. |

*It is highly recommended that this aspect of the essay is given a separate section with its own heading. It should contain a brief, concise statement of the conclusion that is in direct response to the research question or hypothesis. This should not involve new information or arguments, but should be a summary of what can be concluded from, and is supported by, the evidence and argument already presented.*

*In addition to the concluding statement, students should identify outstanding gaps in their research or new questions that have emerged and deserve further attention.*

**I: Formal Presentation**

This criterion assesses the extent to which the layout, organization, appearance and formal elements of the essay consistently follow a standard format. The formal elements are: title page, table of contents, page numbers, illustrative material, quotations, documentation (including references, citations and bibliography) and appendices (if used).

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| Achievement Level | Descriptor |
| 0 | The formal presentation is unacceptable, or the essay exceeds 4,000 words. |
| 1 | The formal presentation is poor. |
| 2 | The formal presentation is satisfactory. |
| 3 | The formal presentation is good. |
| 4 | The formal presentation is excellent. |

*This criterion relates to the extent to which the essay conforms to academic standards about the way in which research papers should be presented. The presentation of essays that omit a bibliography or that do not give references for quotations is deemed unacceptable. (level 0) Essays that omit one of the required elements—title page, table of contents, page numbers—are deemed no better than satisfactory (maximum level 2), while essays that omit two of them are deemed poor at best (maximum level 1).*

*Particular attention should be paid to the use of graphs, diagrams, illustration and tables of data. These should all be appropriately labeled with a figure or table number, a title, citation where appropriate and be located in the body of the essay, as close as possible to their first reference. Any downloaded or photocopied material included should be clearly legible.*

**J: Abstract**

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| Achievement Level | Descriptor |
| 0 | The abstract exceeds 300 words or one or more of the required elements of an abstract (listed above) is missing. |
| 1 | The abstract contains the elements listed above but they are not all clearly stated. |
| 2 | The abstract clearly states all the elements listed above. |

The requirements for the abstract are for it to state clearly the research question that was investigated, how the investigation was undertaken and the conclusion(s) of the essay.

The abstract is judged on the clarity with which it presents an overview of the research and the essay, not on the quality of the research question itself, nor on the quality of the argument or the conclusions.

**K: Holistic Judgment**

The purpose of this criterion is to assess the qualities that distinguish an essay from the average, such as intellectual initiative, dept of understanding and insight. While these qualities will be clearly present in the best work, less successful essays may also show some evidence of them and should be rewarded under this criterion.

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| Achievement Level | Descriptor |
| 0 | The essay shows no evidence of such qualities. |
| 1 | The essay shows little evidence of such qualities. |
| 2 | The essay shows some evidence of such qualities. |
| 3 | The essay shows clear evidence of such qualities. |
| 4 | The essay shows considerable evidence of such qualities. |

*This criterion invariably favors those students who have some direct involvement or personal contact with the environmental issue under study, and this should be encouraged wherever possible. It is more challenging for a student to clearly demonstrate personal engagement, initiative and insight in a topic with which their sole contact has been through the internet or library bookshelves.*

*“Intellectual initiative” may be apparent in the formulation of a novel and penetrating research question, or in the design or inventive modification of an experimental procedure, or in a creative identification and selection of secondary source material, for example. A major theme of this subject is the interrelatedness of systems and components within them, and many common principles can be applied to a wide variety of systems. An essay that overtly recognizes these underlying principles and the interrelatedness of components will most clearly demonstrate an element of the “insight and depth of understanding” referred to in this criterion.*