Environmental Systems and Societies

Overall grade boundaries

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<th>Grade</th>
<th>E</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
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<tbody>
<tr>
<td>Mark range:</td>
<td>0-6</td>
<td>7-13</td>
<td>14-20</td>
<td>21-26</td>
<td>27-34</td>
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The range and suitability of the work submitted

The multidisciplinarity of the subject makes Environmental Systems and Societies an ideal subject for exploring an environmental topic or issue of particular interest for the candidates or relevance for their communities. A wide range of essays varied in standard from excellent to very poor. Almost all of the presented essays covered topics appropriate for Environmental Systems and Societies. The best essays tended to have two things in common; the student had a genuine ownership of, and interest in the whole process and the investigation contained experimental or field work. However, some essays forgot or undervalued the relevance of the society’s role in the subject and tried to justify it with vague references to the population affected by the problem or by means of rather superficial opinion surveys. In those samples the analysis was not focused on the research question.

Many students submitted essays that look like a longer internal assessment following the expected requirements of the internal assessment component instead of the extended essay. However, it was evident that the majority of the candidates had been instructed on the requirements of the new guidelines for extended essays and the holistic approach. Noteworthy is the poor treatment of references and citations. Even strong candidates had significant errors regarding incorrect or missing bibliographic references. Students and supervisors should revisit the document entitled Effective citing and referencing, available on the PRC.

Candidate performance against each criterion

Criterion A: focus and method

The majority of candidates selected topics and research questions that were suitable for an extended essay on Environmental Systems and Societies. However, only the good essays focused upon the interaction of the natural environmental and human societies. Some essays would have been better submitted under one of the more specialized subject areas, such as biology. Generally, the research question was clearly defined, although it was not always properly discussed throughout the essay. Some candidates showed difficulties demonstrating
that the research has been well planned and they have selected an appropriate approach to address the research question. In some cases, the research question was misleadingly defined or not defined at all. Some candidates from the same school selected very similar research questions.

The lower marks in this criterion were usually due to an inappropriate choice of sources or limited sources. It was a common issue to use web pages, non-academic, commercial or obviously biased as valid sources – students should be trained to select sources that are reliable. In only a few cases did students select peer-reviewed, academic publications. Very few essays based on secondary data demonstrated a sufficiently wide and reliable selection.

**Criterion B: knowledge and understanding**

In most extended essays candidates demonstrated a good knowledge and understanding of the subject matter, but in some cases there was serious conceptual confusion. It is common to corroborate good knowledge in the initial theoretical explanation, but the treatment of the issue indicated at times a poor understanding. Rarely the top marks are achieved because they tended to pay little attention to the academic context. It is common that quotations referred to the theoretical basis, but not to the method of study, which seemed to indicate that the candidate improvised the development of research. As already mentioned, some essays were penalized because they did not address the society’s role. Those essays normally demonstrated knowledge and use the terminology of one of the experimental or human sciences. Appropriate and clear language was often seen, and where it was not, it was often due more to lack of plan and clear ideas than linguistic problems. In some cases, the candidates used colloquial expressions and localisms which are not appropriate for formal, academic writing.

**Criterion C: critical thinking**

This year there was a larger number of essays in Environmental Systems and Societies that carried out the research based on literature sources instead of data collected by the students themselves. Many extended essays do not collect sufficient data and, in the essays that use secondary data sometimes from the range of sources was incomplete or of little academic value. The lack of firm and clear data often prevents a full development of analytical and evaluative skill. A significant number of students decided to include a survey, but unfortunately the surveys tended to be very low-quality and failed to characterize or balance the sample.

The discussion and evaluation of the research undertaken tended to be one of the most challenging criteria for the candidates. In many cases the ideas were presented without clearly indicating their relationship with the research question - and the arguments usually have obvious gaps, not taking into account the information provided. Only the higher quality extended essays usually had sufficient data to develop a proper reasoning. With regards to the application of analytical and evaluative skills: there are a similar number of extended essays in which the conclusion is consistent with the evidence as essays where the conclusion is superficial. Very few essays evaluated their research in terms of unresolved issues or suggesting possible further research questions.
Criterion D: presentation

The great majority of the essays conformed to academic standards regarding the formal presentation and expected layout, such as title page, table of contents and page numbers. The loss of points on this criterion is related mainly with oversights and inconsistencies in the quotations from sources or lack of graphic material. Noteworthy is the poor characterization of locations; normally use google maps with incomplete data on topography, climate, lack of scale in maps, etc. Other aspects of the presentation are usually well-maintained. Some candidates used too many graphs, charts and tables making it very hard and unappealing for the reader. Some candidates also overused the appendix, including information that is not relevant for the essay.

Criterion E: engagement

The addition of the process of reflection in the grading of the essays represented one of the main novelties for the candidates. Strong candidates provided a clear insight into their process of selection of research question; decisions made during the process and suggested valid improvements. However, many candidates had a very superficial description of the different stages of this process. It is very stimulating reading original extended essays with clear participation of the student in the intellectual and decision taking moments. The guide sets out the responsibilities of the student, the school and the supervisor.

Recommendations for the supervision of future candidates

Supervisors must assist candidates with the fact that assessment criteria are applied holistically to the whole extended essay. Students should play a definitively active role on the discussion and selection of the research topic and its exploration. It is very difficult to score a high grade on criterion E (Engagement) when the whole process is driven by the supervisor.

While literature-based essays are suitable, those that rely exclusively on web-based sources run the risk of failing to adequately meet particular criteria. Elementary errors in formal aspects: quotes from sources without following any admitted criteria; absence of title and number in tables and graphs; absence or shortage of references to footnotes. On many occasions an extended essay is partially unsuccessful by not have been able to obtain sufficient data to treat the problem. It is recommended that the student is sure that they are able to obtain data appropriate for the research question before starting to devote too much effort and work. Students need to improve or learn to apply criteria to choose bibliographic sources in a more critical way. Another area to improve is establishing the validity of the data or source. In the case of the primary data, often the method followed is not properly documented, sometimes very little data are obtained. Some extended essays carried out surveys of dubious validity, without characterizing the sample at all or only quoting the city or neighbourhood they were made. It would be desirable to inform the candidates about the characteristics make a survey credible and reliable in a formal piece of writing. In some cases students reached obvious conclusions but without discussing the facts upon which the conclusions were based.