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DESIGN TECHNOLOGY

Overall grade boundaries

Grade:	E	D	C	B	A
Mark range:	0 - 7	8 - 15	16 - 22	23 - 28	29 - 36

The range and suitability of the work submitted

As in previous years there were a wide range of interesting and innovative topics. The most successful essays were focused and resulted from student's first hand experiences. The bulk of information and data originated from primary sources which were successfully analyzed in combination with secondary research. It remains essential that the topic chosen is appropriate for a design technology essay and not merely a review of a technological product or new technological development.

Unfortunately, this session, there appeared to be fewer creative and innovative essays which involved designing something, followed by the subsequent evaluation and analysis of how the design process undertaken met the various aspects of the design cycle. Instead, there were too many historical accounts about a design concept or technological topic. These simply traced the history of a product (or concept) and considered their impact on society.

The best of these essays were detailed with candidates demonstrating good knowledge and understanding. But their reliance on theoretical, usually solely web based, research often resulted in a lack of analysis and argument.

Before embarking on a design technology extended essay it is imperative that both student and supervisor are fully aware of what comprises a design technology extended essay topic.

Candidate performance against each criterion

A: research question

Most candidates successfully stated the research question in the introduction of their essay. Though there were candidates who detailed their research question in their abstract but failed to set out their research question prominently in their introduction. The research question was generally a question but it was not always focused or clearly stated in the introduction.

B: introduction

The introduction of the least successful essays focused on historical background and did not fully explain the significance of the topic and why it was worthy of investigation.

C: investigation

This criterion was one of the most successfully tackled.

D: knowledge and understanding of the topic studied

A majority of the students had good to excellent understanding of their topic. It was clear that many had chosen a subject of interest. They had undertaken extensive research, even though a number were not well suited for design technology or were too broad. The most successful candidates were able to support their ideas with practical activity and testing and were able include a comprehensive evaluation of their artefact or system. For candidates to be successful it is important that they demonstrate an understanding of the design cycle.

E: reasoned argument

The marks for this criterion suggest that the presentation of an argument continues to prove difficult for the majority of candidates.

F: application of analytical and evaluative skills appropriate to the subject

Too many essays tended to be narrative and descriptive rather than analytical or critical.

G: use of language appropriate to the subject

The subject language was generally adequate. To be successful candidates would be expected to make effective and appropriate use of scientific and technological language. Where relevant this includes the use of charts, graphs, drawings etc.

H: conclusion

Most conclusions repeated earlier arguments and few suggested future avenues of research.

I: formal presentation

The presentation of most essays was either satisfactory or good. Nearly all essays had good layout, footnotes, bibliographic references, contents pages and abstracts.

 The use of illustrative material proved to be the major flaw of many essays. The very nature of the subject lends itself to the use of diagrams, charts, graphs, illustrations and photographs. These are often essential yet many candidates fail to include them. Often, even when included, the quality was poor. Essential pictures and diagrams were too small, unclear, poorly printed, not annotated and graphs over complicated. When pictures and diagrams are copied from websites their source must be indicated. Where appropriate it is fine to include hand drawn diagrams and illustrations. The best essays had extensive bibliographies which were from reputable sources.

J: abstract

Abstracts should be checked carefully to ensure all three requirements are met, research question, how the investigation was undertaken and conclusion reached.

K: holistic judgment

Outstanding essays should include original thoughts and ideas demonstrating creativity and innovation.

The most successful candidates demonstrate an ability to solve problems and consider a range of alternative solutions to their design problem.

Recommendations for the supervision of future candidates

Supervisors are encouraged to ensure that the research question is focused and appropriate for the subject. If the student and supervisor are not familiar with the design technology course they must read the design technology section of the extended essay guide very carefully. They are also encouraged to read the design technology syllabus to ensure that they understand the nature of the subject and understand the significance of the design cycle. Supervisors of design technology essays must make the effort to investigate the nature of the subject in order to provide appropriate supervision.

Avoid broad historical essays charting the development of a technological topic or essays promoting a futuristic concept. The least successful essays rely solely on secondary internet based research and lack practical activity.

Supervisor's comments are very useful and often provide greater insight into the work undertaken by the candidate.

Unfortunately some supervisors write nothing in the comments box. They have not been involved throughout the process and are merely doing a final check. Supervisors should discuss the essay at the onset of the work in order to determine if the essay is suitable for consideration as a design technology extended essay.

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