

## May 2018 extended essay reports

### ITGS

#### Overall grade boundaries

<b>Grade:</b>	E	D	C	B	A
<b>Mark range:</b>	0-6	7-13	14-20	21-26	27-34

#### The range and suitability of the work submitted

The ITGS extended essays submitted for the May 2018 session covered a wide range of research topics. The chosen topics were generally suitable, lending themselves to appropriate primary and secondary research, although they were not always properly explored. They were generally appropriate, if they were locally focused with candidates having access to personnel in the businesses investigated, but they were weak where access was not possible or the investigation was too broad.

There was a change in pattern noticed this session in terms of selection of areas of research and a large number of students were found to be selecting topics pertaining to latest technological innovations that are making an impact to the society. Some of these topics included 3D printing technology in the field of medicine/organ transplantation, cryptocurrency such as bitcoin, M-wallet services, use of drones in countering terrorism, robotic surgeries, etc., which is a good indication in terms of increase in the level of the thought processes of the ITGS students who looked to be more focused towards exploring the unexplored domains than sticking to conventional and overly explored topics, such as social networks, online gaming, Internet piracy, etc.

On the negative side, some essays were peripheral to ITGS and some were very vague, indicating a failure to grasp the purpose of an extended essay in the subject being studied. In many cases, students used only a limited number of sources to write their Extended Essays; obviously, those essays were very far from being successful. In other situations, there was a lack of appropriate secondary sources and an over reliance on primary sources, in most cases extrapolating the results of a small sample to a much larger universe. Worse than that was when candidates wrote their essays based solely on observation, opinions, and speculation.

While it was good to see students choosing topics from the areas of new technological developments, most of them seemed to have experienced difficulties in properly conducting

primary research; as a result, they were too dependent on secondary sources. It is advised that if the students don't find access to primary stakeholders locally, they should use other ways of communication such as emails, video or phone calls, and find other possible ways to conduct primary research to keep a balance in research methodologies. In some essays, there were references to primary investigation, but no evidence such as transcripts of the interviews and/or samples of the surveys were found in the appendix. The candidates must include all such documents in the appendix; without proper evidence, the investigation cannot be considered valid for the arguments and analysis raised in the essay and for the conclusions which are drawn. The lack of citation of sources and/or the lack of support from evidences led to low marks in several criteria, such as A (Focus and Method) and C(Critical Thinking).

Due to the change in grading pattern from M18, some candidates were found to be still following the old pattern, which was evident through the use of an abstract in some essays. There was a lot of confusion seen in the reflections part as many of the reflections were found to be descriptive, missing upon attributes such as effective decision making and planning. In some cases, candidates focused too much on one area and left very little scope for the other two areas of the ITGS triangle. Candidates writing essays in ITGS must keep in mind that the essay should cover all areas of the ITGS triangle (particular scenario, IT systems, social and ethical considerations) and avoid covering only one of these areas.

## Candidate performance against each criterion

### 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. The Research Question is expected to be focused, clear and precise, covering all the elements of the ITGS triangle. The research topic must be relevant to ITGS.

Most of the students included the Research Question on the title page, as required. Some of the Research Questions were well focused; however; the majority of these questions were too broad in scope.

As this was the first session when Criterion A was not just limited to the Research Question, but also included the methodology of the research, a large number of essays were found to be missing this important element. In some cases, the methodology used was not properly explained.

For the majority of the extended essays, the sources and methods used were generally relevant and appropriate to the topic which was investigated. Good extended essays require both, primary and secondary sources, for investigation. The primary research is required to complement and buttress the facts obtained from secondary research or to offer a different perspective; however, a large number of candidates wrote their essays based solely on secondary research. Only a small minority of candidates gathered a good quantity of material

from a wide range of appropriate sources. Besides, several extended essays had many sources in the bibliography which did not match the references in the body of the essay. Many candidates did not attempt, or failed to document the primary research, in which case as already explained, invalidates the claims made based on such research. The focus of the research has to be maintained throughout the essay. The research topic is expected to be analysed throughout the body of the essay and answered in the conclusion. The ability of the candidate to properly develop an investigation, which leads to solid arguments that will aid in bringing valid conclusions, demonstrates how focused on the research question the essay is.

### 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. Some candidates demonstrated excellent IT knowledge, but a larger number failed to demonstrate knowledge of relevant IT systems much beyond general knowledge. One of the most common problems here was that IT terms were not explained, or the explanation was inaccurate or not clearly expressed. In the case of candidates who did a good job in this criterion, they described most of the specific IT systems using the appropriate terminology and concepts, many times making proper use of diagrams, images and screenshots. However, those were not useful when they were illegible or had little connection with the topic being discussed.

### Criterion C: critical thinking

This criterion assesses the extent to which critical-thinking skills have been used to analyse and evaluate the research undertaken. Students are expected to demonstrate effective research skills through the effective application of source material and by maintaining a good balance between secondary and primary research and ensuring that the application of research is consistently relevant to the RQ. While some of the essays submitted this year demonstrated a good evidence of appropriate analytical and evaluative skills, there were many others that could only satisfy adequate or limited level towards research, analysis and evaluation.

Many of these essays were found to be weak in maintaining consistency with the evidences in the conclusion - the discussion, evaluation and analysis lacked depth; the construction of the argument was unclear; the final conclusion was superficial and/or did not answer the research question. In many instances, there were very weak comparisons between the primary and secondary research findings; hence, making the arguments weak. A few candidates supported arguments well, but many based their claims on unsubstantiated opinion. It must be stressed out that in order to consider the arguments and analysis as valid ones, they must be supported by primary and/or secondary sources. If the primary and/or secondary sources have not been properly referenced in the body of the essay and listed in the bibliography (and documented in the appendix, in the case of primary sources), they cannot be considered valid to support the arguments and analysis.

### 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. General performance in this criterion was at an acceptable level. Most essays followed the presentation standard format expected for the academic writing. Some candidates provided a section and sub-section structure to their essays, with informative headings. This boosted the flow of the essay arguments staying focused on the issues being addressed. Some of the essays had references with the name of author, date of publication and title of source. Title page, table of contents, page numbers, etc. were also well presented in most of the essays submitted, with minimum omission.

On the other hand, among other issues, many candidates did not achieve high marks due to citing sources in the essay but not listing them in the bibliography, listing sources in the bibliography which were not referred to in the body of the essay, citing sources in an illogical order in the bibliography, not listing illustrative materials in the bibliography, and not including transcripts of interviews in the appendix. In addition to this, another shortcoming that was found in some essays was a mismatch between page numbers mentioned in the table of contents and the actual page numbers in the body of the essay. Also, some essays did not follow line spacing properly and images and graphics were not legible or were not meaningful to the discussion.

### Criterion E: engagement

This criterion assesses the student's engagement with their research focus and the research process and is based solely on the candidate's reflections as detailed on the RPPF, with the supervisory comments and extended essay itself as context.

Most candidates provided reflections on the planning process undertaken in completing the essay. Candidates explained the challenges they faced before settling on the final topic and/or research questions. Similarly, most candidates explained how it was crucial to plan and develop research skill throughout the process. Besides, candidates affirmed that the essay writing process was a learning process on time management, a skill they require to write academic papers at the university.

While almost all students presented the reflections within the prescribed word limit, many of them failed to get high grades due to limitations in the quality of the reflections in terms of demonstrating decision-making and planning and establishing a strong link to conceptual understanding and skill development. Many of these reflections could only demonstrate a moderate level of intellectual initiative. Most of them were descriptive and not reflexive.

## Recommendations for the supervision of future candidates

The assessment criteria must be clearly explained and made available to the candidates before they embark on the development of their extended essays. Teachers must take note of the requirements for each criterion. Teachers need to ensure that candidates have a clear understanding of the meaning of the criteria against which they will be assessed.

Encourage students to conduct primary research as well as secondary research. Where this is the case, the student should submit transcripts of the interview/survey in the appendix of the essay.

The research question should be clearly stated and focused. Students should not work with a research question that is too broad or too vague, too narrow, or too difficult or inappropriate. A good research question asks something worth asking and that is answerable within 40 hours/4,000 words. If a student does not know what evidence is needed to answer the research question, or cannot collect such evidence, then it will not be possible to answer the research question.

In addition, students should not:

- forget to analyse the research question
- ignore the assessment criteria
- collect material that is irrelevant to the research question
- use the Internet uncritically
- plagiarize
- merely describe or report (evidence must be used to support the argument)
- repeat the introduction in the conclusion
- cite sources that are not used.
  - Too many candidates still do not understand the concept of an extended essay being an in-depth study of a focused topic.
  - Many candidates do not understand the concept of referencing material from sources and producing a bibliography, listing sources used from which a reader can check the sourced material. All these need to be clearly explained by the teacher.

Teachers should guide their students to perform the following tasks before starting the actual writing of their extended essays:

- read the assessment criteria
- read previous essays to identify strengths and possible pitfalls
- spend time working out the research question (imagine the finished essay)
- work out a structure for the essay
- take note of the first reflection session

Teachers should guide their students to perform the following tasks during the research process, and while writing their essays:

- start work early and stick to deadlines
- maintain a good working relationship with their advisor
- construct an argument that relates to the research question
- use the library and consult librarians for advice
- record sources as they go along (rather than trying to reconstruct a list at the end)
- choose a new topic and a research question that can be answered if there is a problem with the original topic
- use the appropriate terminology for the subject
- take note of interim reflection session

Teachers should guide their students to perform the following tasks after the completion of their essays:

- write the final reflection session—viva voce
- check and proofread the final version carefully