

In all cases the marking was over generous. All the criteria were impacted by the moderation with Analysis being affected the most. It is recommended that the teacher attend an IB workshop and should consult the teacher support material on MyIB.

Personal Engagement

In many cases there was some insight, or the work was set in a real world context but there was not much expression of personal significance.

Exploration

In all cases the research question was not focused. The background information could be relevant, but the independent variable was usually not clearly defined. Many candidates could not identify the independent variable properly not could explain or conceive their dependent variable. Most of the investigations made qualitative observations there was no measurement carried out.

Either the candidates did not consider safety, ethics and environmental impact or they grossly underestimated it.

Analysis

In all cases qualitative observations were made and sometimes they were very complete. However, if no quantitative data is collected then no processing can be carried out. Where there were both qualitative and quantitative data they were sometimes mixed in the same table.

No measurement uncertainties were given even when measurements were taken. How precise were the rulers or the pH paper? It is expected that the candidates appreciate the limitations of their tools. In biological investigations it is also expected that the candidates show an appreciation for the variations in the material they are using as expressed by standard deviations or ranges. In most cases the interpretation was limited to the qualitative observations, which made them very superficial

The lack of processing and treatment of uncertainties seem to have no impact on the mark awarded by the teacher.

Evaluation

The discussion of the results was not always clear and conclusions were made that are not supported by the data. There was limited reference to the scientific context. In most cases there was no evaluation of the investigation, no suggested improvements or no proposed extension.

The evaluation of the data requires that the candidate should identify the main strengths and weaknesses of the data and the method. The degree of impact of the weaknesses then need to be discussed and for every weakness identified a realistic improvement needs to be proposed.

In most cases the report of the investigation seemed to stop at the conclusion.

Communication

Generally, there were a lot of missing details from the methods and the analysis that make processing and outcomes difficult to follow.

Title pages and content list were given when these are not necessary. This sample contained assessments with candidate work that exceeded 12 pages which has not been marked.

In terminology and conventions numerous errors were observed: Missing units, no measurement uncertainties, units in the table instead of in the column headers and decimal places that were variable. No scientific names were given for the biological material used.

There were just some limited general comments by the teacher.