**Investigation 6: Moderator comments**

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| **Personal engagement  x/2** | **Exploration  x/6** | **Analysis  x/6** | **Evaluation  x/6** | **Communication  x/4** | **Total  x/24** |
| 2 | 5 | 5 | 4 | 3 | 19 |

**Personal engagement**

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| **Mark** | **Descriptor** |
| 1 | * The justification given for choosing the research question and/or the topic under investigation does not demonstrate **personal significance, interest or curiosity**. 1 |
| 2 | * There is evidence of **personal input and initiative** in the designing, implementation or presentation of the investigation. 2 |
| **Moderator’s award**  2 | **Moderator’s comment**  Though the report justifies the choice of the research question there is no sign of personal interest or curiosity.  There is evidence of personal input and initiative in the design and implementation of the investigation. |

**Exploration**

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| **Mark** | **Descriptor** |
| 1–2 | * The report shows evidence of limited awareness of the significant safety, ethical or environmental issues that are **relevant to the methodology of the investigation**. 2 |
| 5–6 | * The topic of the investigation is identified and a relevant and fully focused research question is clearly described. 5 * The background information provided for the investigation is entirely appropriate and relevant and enhances the understanding of the context of the investigation. 6 * The methodology of the investigation is highly appropriate to address the research question because it takes into consideration all, or nearly all, of the significant factors that may influence the relevance, reliability and sufficiency of the collected data. 5 |
| **Moderator’s award**  5 | **Moderator’s comment**  The topic is identified and the research question is reasonably focused.  Entirely relevant background is used.  The methodology is appropriate and it takes into consideration most of the factors influencing the investigation. More descriptive detail of the database would have been helpful.  There are no significant safety, ethical or environmental issues apparent though a risk assessment would be expected for the practical side of the investigation. |

**Analysis**

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| **Mark** | **Descriptor** |
| 5–6 | * The report includes sufficient relevant quantitative and qualitative raw data that could support a detailed and valid conclusion to the research question. 5 * Appropriate and sufficient data processing is carried out with **the accuracy** required to enable a conclusion to the research question to be drawn that is fully **consistent** with the experimental data. 5 * The report shows evidence of full and appropriate consideration of the impact of measurement uncertainty on the analysis. 5 * The processed data is correctly interpreted so that a completely valid and detailed conclusion to the research question can be deduced. 5 |
| **Moderator’s award**  5 | **Moderator’s comment**  More repeats in the amylase experiment would have been useful but there is sufficient range and there are adequate intervals. Overall, there is adequate raw data (both quantitative and qualitative) recorded to support a valid conclusion. There is sufficient, accurate appropriate processing of the data.  Uncertainties are considered though the data does not permit extensive analysis of the uncertainties.  There is a valid interpretation of the data. |

**Evaluation**

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| **Mark** | **Descriptor** |
| 3–4 | * A conclusion is **described** which is relevant to the research question and supported by the data presented. 4 * A conclusion is described which makes some relevant comparison to the accepted scientific context. 4 * Strengths and weaknesses of the investigation, such as limitations of the data and sources of error, are **described** and provide evidence of some awareness of the **methodological issues** involved in establishing the conclusion. 4 * The student has **described** some realistic and relevant suggestions for the improvement and extension of the investigation. 3 |
| **Moderator’s award**  4 | **Moderator’s comment**  A relevant conclusion is made which is supported by the data though there is limited explanation or justification.  There is some reference to the scientific background.  The evaluation of the weaknesses and strengths of the investigation is satisfactory.  Some feasible relevant improvements are suggested though no extension is proposed. |

**Communication**

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| **Mark** | **Descriptor** |
| 3–4 | * The report is well structured and clear: the necessary information on focus, process and outcomes is present and presented in a coherent way. 3 * The report is relevant and concise thereby facilitating a ready understanding of the focus, process and outcomes of the investigation. 3 * The use of subject-specific terminology and conventions is appropriate and correct. Any errors do not hamper understanding. 4 |
| **Moderator’s award**  3 | **Moderator’s comment**  The report is well structured and reasonably clear.  The content is relevant but could be more concise in places.  The terminology used is appropriate and correct. |