**Year 10 Marine Science IA3 – Students Monitoring**

Use this to self-evaluate your research investigation, and improve your task where required.

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|  | **Student Reflection**  **(completed before submitting)** | | | **Teacher Feedback** |
| **Features** | Complete | Incomplete | No attempt | Priority/ needs attention |
| **Rationale** | | | | |
| 1. Paragraph 1:    * Introduce the claim “Commercial fishing operations are leading to a decline in marine biodiversity”. 2. Paragraph 2:    * Introduces the different types of commercial fishing practices leading to a decline in marine biodiversity.    * Includes broad research question. 3. Paragraph 3:    * Narrow down on the ecosystem this commercial fishing practice occurs in (context) and introduce the measured impacts on biodiversity.    * Introduces specific and relevant research questions.    * Introduces the articles to be analysed. 4. Throughout rationale:    * Uses articles as examples    * In-text referencing throughout | ☐    ☐  ☐  ☐  ☐  ☐  ☐  ☐ | ☐    ☐  ☐  ☐  ☐  ☐  ☐  ☐ | ☐    ☐  ☐  ☐  ☐  ☐  ☐  ☐ | ☐    ☐  ☐  ☐  ☐  ☐  ☐  ☐ |
| **Research Question** | | | | |
| Includes the following details:   * Independent variable (commercial fishing operation) and target species * Dependent variable (ecological impact and how it is measured) * Context (ecosystem/location) | ☐  ☐  ☐ | ☐  ☐  ☐ | ☐  ☐  ☐ | ☐  ☐  ☐ |
| **Research and Planning Criterion Teacher Comments** | | | | |
|  | | | | |
| **Analysis of Evidence** | | | | |
| Student has 2-3 data sets that are relevant to the RQ | ☐ | ☐ | ☐ | ☐ |
| Each data set has the following information:   1. Introduce who compiled the data (the study). 2. Briefly summarise the method used to collate the data. 3. Insert the graphs/tables/diagrams used in the investigation (include a figure/table heading). 4. State the trends/relationships that the data shows. 5. Analyse the data in more detail by using evidence to support this trend/relationship (use numbers). 6. Justifies any correlations and uncertainty/limitations of evidence   e.g., p-values, error bars or R2 values | ☐  ☐  ☐  ☐  ☐  ☐ | ☐  ☐  ☐  ☐  ☐  ☐ | ☐  ☐  ☐  ☐  ☐  ☐ | ☐  ☐  ☐  ☐  ☐  ☐ |
| **Analysis of Evidence Criterion Teacher Comments** | | | | |
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| **Evaluation** | | | | |
| Limitations of data is discussed by comparing sample size, uncertainty and/or biasness. | ☐ | ☐ | ☐ | ☐ |
| Limitations of data collection is discussed by comparing how each study collected the data and evaluated in terms of validity and/or reliability by:   1. considering uncertainty (for reliability) 2. both the design and the methods of data collection (for validity). | ☐  ☐ | ☐  ☐ | ☐  ☐ | ☐  ☐ |
| Limitations of data analysis and use of models:   1. Compares where and when each study was completed and what this implies. 2. Discusses the consistency of data collected across the studies or if there was limited data on this topic/hard to find. | ☐  ☐ | ☐  ☐ | ☐  ☐ | ☐  ☐ |
| **Conclusion** | | | | |
| A summary of your results – describes how each study relates to each other. | ☐ | ☐ | ☐ | ☐ |
| A justified conclusion is drawn using evidence from the studies analysed. | ☐ | ☐ | ☐ | ☐ |
| States whether the research questions can be answered | ☐ | ☐ | ☐ | ☐ |
| Links back to the claim | ☐ | ☐ | ☐ | ☐ |
| Concluding statement regarding the quality of evidence collected | ☐ | ☐ | ☐ | ☐ |
| **Further Investigations** | | | | |
| Recommendations made that state what studies could be carried out to help increase the validity of the findings in relation to your claim. | ☐ | ☐ | ☐ | ☐ |
| Accurate description of suggested improvements and how this investigation could be extended which could improve the reliability and validity. | ☐ | ☐ | ☐ | ☐ |
| Discusses the possible future/long term implications of the investigation in relation to the claim. | ☐ | ☐ | ☐ | ☐ |
| Evidence and concepts are supported by scientific literature to support the conclusion. | ☐ | ☐ | ☐ | ☐ |
| **Interpretation and Evaluation Criterion Teacher Comments** | | | | |
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| **Communication (and general communication)** | | | | |
| Genre conventions (past-tense and third person) no personal pronouns. | ☐ | ☐ | ☐ | ☐ |
| Units and symbols used correctly. | ☐ | ☐ | ☐ | ☐ |
| Correct use of species names (*Italics*). | ☐ | ☐ | ☐ | ☐ |
| Table headings above  Figure (graph) below | ☐ | ☐ | ☐ | ☐ |
| Reference list complete APA 6 & in-text references used e.g. (Risk Assess, 2021) | ☐ | ☐ | ☐ | ☐ |
| **Communication Criterion Teacher Comments** | | | | |
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