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**PSYCHOLOGY ATAR – YEAR 11 2023  
Unit 2**

**Task 6: Science Inquiry (Practical)**

*Science Inquiry and Social Influences*

*Part B*

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Syllabus Points:**

* Science Inquiry
* Social Influences: Conformity

**Conditions**

You will have 50 minutes in class to complete an in-class inquiry under supervised conditions by answering short answer response questions. You are permitted to bring your final report into the assessment. No other notes are permitted.

* Reading time: 5 minutes
* Working time: 50 minutes

**Task weighting**

* 15% in total
  + Part A due Tuesday, 19 September 2023, submitted by 11:59pm via SEQTA, worth 5%
  + Part B to be completed in class on Wednesday, 20 September 2023 worth 10%

**Structure of this paper**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Section | Number of questions available | Number of questions to be attempted | Suggested working time  (minutes) | Marks | Score |
| Section One:  Short Answer Response | 3 | 3 | 50 | 30 |  |
|  |  |  | **Total** | 30 |  |

**Section One: Short Answer Response (30 marks)**

This section has **three** questions. Write your answers in the spaces provided.

Suggested working time: 50 minutes

**Question One (11 marks)**

1. State the type of research method used in your experiment and justify your response. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Experimental | 1 |
| Correct reasoning  For example: *Experiment as variables being manipulated* | 1 |
| **Total** | **2** |

1. State the type of data that you collected in your study and justify your response. (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly states one of the following (1):   * Quantitative * Qualitative | 1 |
| Correct reasoning (1):   * Objective quantitative: Numerical data based on fact * Subjective quantitative: Numerical data based on opinion / feelings * Qualitative: Descriptive data not in numerical form | 1 |
| Applies to their research study | 1 |
| **Total** | **3** |

1. Identify the variables present in your study which were used to predict, measure and control an outcome. Describe how each category of variable applied to your research. (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly states the following:   * Independent variable (1) * Dependent variable (1) * Controlled variable (1) | 1 - 3 |
| Correctly describes in the context of their study:   * Independent variable (1) * Dependent variable (1) * Controlled variable (1) | 1 - 3 |
| **Total** | **6** |

**Question Two (6 marks)**

There were 11 participants in the original study. Their results are displayed in the table below:

|  |  |
| --- | --- |
| **Group Size** | **SMEQ Score** |
| 2 | 90 |
| 2 | 80 |
| 4 | 105 |
| 4 | 75 |
| 4 | 110 |
| 4 | 75 |
| 5 | 105 |
| 5 | 70 |
| 5 | 85 |
| 5 | 105 |
| 5 | 52 |

1. Construct an appropriate graph of the results on the grid below to demonstrate the relationship between group size and social loafing. (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Appropriate title | 1 |
| Correct labelling of X axis, with units if appropriate | 1 |
| Correct labelling of Y axis, with units if appropriate | 1 |
| Appropriate scaling | 1 |
| Appropriate plotting in line with hypothesis | 1 |
| Correct type of graph | 1 |
| **Total** | **6** |

**Question Three (13 marks)**

1. State **one** uncontrolled variable from the study and describe how this variable was managed in the investigation design. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Correctly states an uncontrolled variable (1) | 1 |
| Correct description linked to research (1) | 1 |
| **Total** | **2** |

1. Imagine that an R value was calculated for your study. The R value was -0.8.
2. What does the term correlation mean? (1 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| A measure of the extent to which two variables are related. | 1 |
| **Total** | **1** |

1. What does an R value of -0.8 imply about your results? (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| There is a high (1) negative (1) correlation | 1 - 2 |
| **Total** | **2** |

1. What is one conclusion could you make for your study based on this R value? (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| The more people within a group (1), the less effort individuals put into the task (1) | 1 - 2 |
| **Total** | **2** |

1. Explain one source of error in the study. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Identifies one of the following (1):   * Instrumental error * Environmental error * Procedural error * Human error * Hawthorne effect * Single-blind procedure * Experimenter effect * Unrepresentative sample * No random allocation | 1 |
| Correct reasoning appropriate to the study (1) | 1 |
| **Total** | **2** |

1. Explain a method for reducing the error that you described in 2(c). (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| States any one of the following (1):   * Random allocation * Use of placebo * Alternate sampling method (must state which type to get 1 mark) * Double-blind procedures   *Accept other relevant responses provided they are relevant and appropriate* | 1 |
| Correct reasoning appropriate to the study (1) | 1 |
| **Total** | **2** |

1. Based on your investigation design, give **two** reasons why the findings from the study could (or could not) be generalised. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| States any two of the following:   * The sample used must be relevant to the population (1) * Group of participants (for each condition) must be equivalent (the same in terms in characteristics) (1) * Extraneous or controlled variables must be controlled (1) * The measures used must be reliable and valid (1) | 1 - 2 |
| **Total** | **2** |