| AEPSY2023  **Year 11 ATAR PSYCHOLOGY Name:** | |
| --- | --- |
| Task No: | 2 |
| Task Type: | Inquiry: Practical |
|  |  |
| Content: | Hemispheric Dominance |
|  |  |
| Total Marks | 40 |
|  |  |
| Weighting | 15% |
| Description | Planning and research (1 week at home)  Experiment and lab report (1 week class time) |

**Relationship between handedness and hemispheric dominance**

The tendency for one hemisphere of the brain to control language production and comprehension and to initiate movement more often than the other is referred to as hemispheric dominance. This dominance occurs because the dominant hemisphere sends inhibitory messages to the other hemisphere via their connection with the corpus callosum (van Iersel *et al*., 2005). This dominance usually refers to hemispheric dominance for language and movement, but it is possible for individuals to have preferences for left- or right-brain styles of thought.

Dominance is also prevalent in handedness, which refers to which hand an individual prefers to use. For example, ninety per cent of all humans are right-handed; ten per cent are left-handed (Hackett, 2007).

The aim of this investigation is to establish and examine the relationship between handedness (left- or right-hand preference and strength) and hemispheric dominance (left- or right-brained).

**You will be presenting your results as a formal lab report, .**

Your formal report will include:

* an introduction – provide information and research related to the topic for the investigation
* method – describe the participants, materials and procedures so that the investigation can be replicated
* results – represent data in a written summary, tables and graphs
* discussion
  + discuss the results of the investigation and how they relate to relevant psychological theories
  + evaluate the design of the investigation and explain how the investigation could be improved
  + discuss how ethical issues were addressed
  + explain the relevance of the results to the population from which the sample was drawn, and to theory or other research
* conclusion - relate the results to the hypothesis or research question
* references – provide an alphabetical list of any references used in the report
* appendix – attach your data

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| --- | --- |
| **Marking key** | **Marks** |
| **Introduction** | |
| * makes a relevant statement about hemispheric dominance, describing its main features | 2 |
| * makes some comments about hemispheric dominance | 1 |
| * supports above information with reference to relevant research | 2 |
| * refers to some research without making links to the topic | 1 |
| * writes research question/prediction as an operational hypothesis that follows on logically from the aim | 2 |
| * poses a research question/prediction | 1 |
| **Subtotal** | **6** |
| **Method** | |
| * describes participants in sufficient detail to be replicated, e.g. number, age, gender * describes the selection process | 1–2 |
| * describes materials * provides sufficient detail to be replicated | 1–2 |
| * describes the procedure, including:   + addresses anonymity   + describes the process for allocating participants to groups and roles   + describes task in sufficient detail to be replicated   + describes the collection, collation and presentation of results | 1–4 |
| **Subtotal** | **8** |
| **Results** | |
| * organises all relevant data logically in correctly labelled tables   + correctly organises table   + correctly labels table, including units, where appropriate   + includes relevant data | 1–3 |
| * presents data in a graph   + correctly graphs data   + uses appropriate labelling   + uses appropriate titles | 1–3 |
| * states results of the investigation * provides an accurate summary of the data | 1–2 |
| **Subtotal** | **8** |
| **Discussion and evaluation** | |
| * discusses the results of the investigation, relates the results to the hypothesis and explains how they relate to relevant psychological theories | 4 |
| * discusses the results of the research supports, comments on the hypothesis and describes relevant psychological theories | 3 |
| * describes what happened in the investigation and cites relevant psychological theories | 2 |
| * describes what happened in the investigation | 1 |
| * evaluates the investigation design:   + discusses any methodological flaws   + explains steps taken to ensure reliability and how it could be improved | 3 |
| * explains how variables were controlled and suggests ways to improve reliability | 2 |
| * states that variables need to be controlled and suggests how to improve reliability | 1 |
| * discusses ethical issues and describes how these were addressed | 2 |
| * refers to ethical issues that were considered in the investigation | 1 |
| * discusses relevance of results to the population from which the sample was drawn as well as to theory or other research referred to in the introduction | 2 |
| * suggests how the investigation might be of relevance to science or society | 1 |
| * makes accurate conclusions that relate to the hypothesis or research question | 2 |
| * forms an accurate conclusion but does not relate it to the hypothesis or research question | 1 |
| **Subtotal** | **13** |
| **References** | |
| * relevant references * Correct in-text referencing (inc. quantity) * Correct end-text referencing * listed alphabetically | 1–4 |
| **Subtotal** | **4** |
| **Appendix** | |
| * Appends data sheet | 1 |
| **Subtotal** | **1** |
| **Total** | **40** |