

The internal assessment report: report format

General presentation

- The report must be word-processed
- Pages should be numbered consecutively with the introduction being page 1.
- Candidates should refer to the people taking part in the experiment as ‘the participants’.
- The report must be within the word limits: HL 1500-2000 and SL 1000-1500. The sections included in the word count limit are marked with an asterisk below.
- The report must include the following sections:
 - Title page
 - Abstract
 - Introduction* (start numbering at page 1)
 - Method*
 - Design*
 - Participants*
 - Materials*
 - Procedures*
 - Results*
 - Discussion*
 - References
 - Appendices



Each candidate must produce a written report using the following format (see psychology guide for further details).

	Higher level	Standard level
Title page	<ul style="list-style-type: none"> Title Candidate name and number Subject and level Date, month and year of submission 	<ul style="list-style-type: none"> Title Candidate name and number Subject and level Date, month and year of submission
Abstract	<ul style="list-style-type: none"> Summary of aims Summary of methods Summary of results Conclusion 	<ul style="list-style-type: none"> Summary of aims Summary of methods Summary of results Conclusion
Introduction	<ul style="list-style-type: none"> Research question Literature review Hypotheses 	<ul style="list-style-type: none"> Research question Literature review Hypotheses
Method	<ul style="list-style-type: none"> Design: type and justification of design, controls, ethical considerations, identification of variables Participants: characteristics of target population, sampling techniques Materials: list of materials used, reference to copies in appendices Procedures: itemized in sufficient detail to allow full replication 	<ul style="list-style-type: none"> Design: type and justification of design, controls, ethical considerations, identification of variables Participants: characteristics of target population, sampling techniques Materials: list of materials used, reference to copies in appendices Procedures: itemized in sufficient detail to allow full replication
Results	<ul style="list-style-type: none"> Interpretation of descriptive statistics Analysis using inferential statistics and justification for their use Graphs/tables where appropriate (may be computer generated) 	<ul style="list-style-type: none"> Interpretation of descriptive statistics Graphs/tables where appropriate (may be computer generated)
Discussion	<ul style="list-style-type: none"> Discussion of results Linking of results to literature review in the Introduction Identification of strengths and limitations of the methodology Suggestions for modification and further research 	<ul style="list-style-type: none"> Discussion of results Linking of results to study being replicated Identification of strengths and limitation of methodology Suggestions for modification and further research
References	<ul style="list-style-type: none"> Works cited within the report 	<ul style="list-style-type: none"> Works cited within the report
Appendices	<ul style="list-style-type: none"> Supplementary information One copy of the instrument(s) used Copy of standardized instructions and debriefing notes 	<ul style="list-style-type: none"> Supplementary information One copy of the instrument(s) used Copy of standardized instructions and debriefing notes
Words	1500-2000	1000-1500
Marks	25	20

The following paragraphs indicate the information candidates should include under each heading of the report

Title page

The title page provides essential information about the candidate and the piece of work. The title should give a clear indication of the experimental method and the specific topic of the study. The hypothesis will determine how the title is constructed. For example, if the operationalised research hypothesis is “The mean number of words correctly recalled by a group using a list with category headings will be greater than the mean number of words correctly recalled by a group not using category headings”, then an appropriate title could be “An experiment to investigate the effect of category headings on the recall of a list of words”. A title such as “An experiment on memory” is not specific and is therefore insufficient. The title must include the method used (experiment), the topic under investigation (recall), and the variables (category headings and their impact on word recall).

Abstract (max 200 words)

The abstract contains a summary of important information about the study. It allows the reader to understand quickly what the researcher expected, how the study was carried out, the results and the conclusions drawn. The abstract should be the last section of the report to be written: it should contain fewer than 200 words.

Introduction

The introduction provides the background and justification for the research study. At SL, this section includes the study that is being replicated and the aim of the study at hand. At HL, the introduction is longer and includes a more thorough review of the background literature related to the study. Candidates should use this section to justify the prediction they are making in their research hypothesis. By reviewing related research studies, candidates can explain how a previous study relates to their own study and explain the reason behind their prediction. This section should move from broad concepts to more specific studies that are directly related to the current study. This section should end in a clearly identified research question/aim (SL) or operationalised research and null hypotheses (HL).

The introduction should follow the order below:

- A general introduction to the **psychological subject area** under investigation
- A **summary of the key theories and research studies**. This must include **proper references**, for example, Zajonc (1965). Candidates at SL must cite one reference, and at least three are recommended for HL.
- A **rationale and justification** for the study
- The aim (HL and SL) and hypotheses (HL only)

Aim (HL and SL)

The aim of the study is a statement about what is being investigated and what is expected. It is less precise than an operationalised research hypothesis, for example: “The aim of this study is to investigate how the use of category headings affects the number of words that people can recall”.

Hypotheses (HL only)

Research hypothesis (H_1)

The research hypothesis must be a clear, concise prediction of what is expected to be demonstrated in the experiment. This must be operationalised, i.e. it must be evident how the variables will be quantified, and whether the research is one-tailed (directional) or two-tailed (non-directional).

Null hypothesis (H_0)

The null hypothesis states that no significant difference is expected to be found between the groups on the measure of the dependent variable, and that any difference found is due to random variables. Candidates should make it clear that they understand that this is not the opposite of the research hypothesis.

Method

This section is where the candidates describe how their own study was designed and carried out. This is the only section of the report that should be subdivided into four parts, each with a label: design, participants, materials, procedures. Precision and clarity are necessary in this section as this is where candidates demonstrate their understanding of the quantitative research methodology topics included in the Psychology guide.

Design

Candidates must state the experimental method used, give details of the type of design (for example, independent samples, repeated measures) and explain and justify why this method and design were chosen. They must identify and explain any controls that were used, and address ethical considerations. Independent and dependent variables must be clearly identified.

Participants

A sample of 15-20 participants is sufficient. The characteristics of the general populations being sampled should be identified, in terms of, for example, the number of participants, age, gender distribution, even if some variables (for example, gender and age) are not under investigation. Selection and allocation procedures should be identified and justified. If sampling is not done randomly, this must be clearly justified.

Candidates must be clear that very large sample sizes are not necessary. Teachers and candidates should keep in mind logistical issues when determining sample size. Especially at HL, the use of large samples may affect the use of inferential statistics, and mathematical modifications may need to be made for large samples.

Materials

This section may be a list of materials developed for use in the experiment. Basic materials such as tables, chairs, paper and pencils need not be listed. Any materials that were specially developed for the experiment should be listed and referenced to a sample copy to be included in the appendix. The full text of, for example, standardised instructions, informed consent and debriefing notes should be included in the appendix.

Procedures

Candidates must carefully and accurately describe how they carried out the experiment. This should be done in chronological order beginning with the development of materials. Enough details should be provided so that another researcher could replicate the experiment. It must include reference to any ethical issues that were addressed (for example, when debriefing was carried out).

Results

This section includes numerical and graphical reporting of the data collected by the candidate. The results should be stated in **narrative form** (i.e. by means of a written statement) and in **graphical form**. The reader should be able to understand the results by reading only the text or by looking only at the graph. The data should be reported in a way that reflects the claims made in the aims and hypothesis. If the hypothesis predicts that one group will perform better on a task than the other group, then the results and the graph should show how each group performed.

The use of **descriptive statistics** is required at both levels. Candidates should use the descriptive statistics that best suit their study. Ideally, candidates will measure both the central tendency and dispersion as appropriate. Raw data should not be included here (but must be in the appendix). Ordinal and interval levels of measurement usually lend themselves to more effective statistical analysis. These are particularly useful for analysis using descriptive statistics as nearly all measures of both central tendency and dispersion can be calculated. Nominal level data has fewer appropriate descriptive statistics that may be calculated and the only appropriate calculation if the mode.

Graphs and tables may be drawn using a computer. However, they must accurately reflect the data in relation to the prediction of the aims and hypothesis. One graph is usually sufficient. Computers can create many different graphs but candidates should be advised against producing irrelevant graphs. Too many graphs do not add to the report if they are imprecise and irrelevant. Candidates must not include graphs showing each individual participant's score.

At **HL**, **inferential statistical analysis** of the results is included in this section. Candidates must justify the use of the inferential statistical test chosen. Any calculations should not be included here, but must be in the appendix. The use of parametric tests of significance (for example, related t-test, unrelated t-test) is not acceptable as the candidates at this level do not need to fulfil all parametric assumptions in their experiments (i.e. interval level data, homogeneity of variance and that the sample is drawn from a normally distributed population).

Discussion

The purpose of this section is to discuss the following:

- The results of the current study and its relation to the studies cited in the introduction
- The strengths and limitations of the methodology used
- Any relevant modifications and areas of further investigation
- An informed conclusion

This section allows the candidates to interpret their own results in the light of previous research. They must relate their findings to theories or studies referred to in the introduction. No new studies or citations should be introduced.

Candidates should analyse and evaluate their own methodology. They should discuss any flaws or limitations that may have affected the outcome of the experiment. The strongest reports will identify possible confounding variables that may have influenced the study and not rely on a simplistic evaluation such as “the experimental study should have used a larger sample”. Modifications that would remedy any limitations should also be included.

During the course of the experiment, candidates may come across unusual results or related topics that may be interesting to investigate experimentally. Candidates should make special note of any such thoughts that arose during the study. They should look forward to other topics that may be of further interest to study and mention these. Finally, a brief conclusion should be presented, summarising the results of the experiment.

References

In this section, candidates must include a complete set of references to the works cited in the study. An approved reference format should be used, such as that of the American Psychological Association or British Psychological Society. These formats are freely available on the Internet.

Appendices

In this section, candidates must include blank copies of any supplementary information, a list of the materials used, such as standardised instructions, debriefing notes, informed consent statements and calculations. This section provides all the materials necessary to allow the experiment to be replicated. Tables of raw data must be included. However, it is not necessary to include all participant responses: one blank copy or a sample is sufficient.

Participant informed consent

Informed consent is an integral and required part of the internal assessment process. All candidates must ensure all participants who are 16 years or older sign and informed consent statement. For experiments with participants under the age of 16, parental consent must be obtained. Candidates should include one blank copy of their

informed consent statement as an appendix. Below is a sample consent form that could be modified by candidates.

Sample Consent Form

- I have been informed about the nature of the experiment
- I understand that I have the right to withdraw from the experiment at any time, and that any information/data about me will remain confidential
- My anonymity will be protected as my name will not be identifiable.
- The experiment will be conducted so that I will not be demeaned in any way.
- I will be debriefed at the end, and have the opportunity to find out the results.

I give my informed consent to participating in this experiment

NAME and date _____

Contact number _____