

## Experimental Report Format (APA)

- TITLE PAGE
- INTRODUCTION
  - ABSTRACT
    - Brief summary of the contents of the paper
    - An explanation of the purpose of the study, a statement of the research question(s) the study intends to address.
  - LITERATURE REVIEW
    - A critical assessment of the work done so far on this topic, to show how the current study relates to what has already been done.
- METHODS
  - How the study was carried out
    - (e.g. instruments or equipment, procedures, methods to gather and analyze data)
- RESULTS
  - Exactly what was found in the course of the study.
- DISCUSSION / CONCLUSIONS
  - An interpretation of the results and what they mean
  - State the conclusions and implications of the results, and discuss how it relates to the work reviewed in the literature review; also, point to directions for further work in the area
- REFERENCES
- APPENDIXES (if necessary)
- TABLES AND/OR FIGURES (if necessary)

## RESULTS

- The results section presents a summary of the data collected in the experiment.
- First, state the main finding of the experiment.
  - You should be very careful to state only what the data show, not an interpretation of the data.
  - For example, if the data from the study described above showed that there were more correct identifications of the tone when the subject did not have a distracting task, the results section could begin:
    - "Participants' accuracy in identifying the target tone was lower in trials when the distracting task was presented than on trials when it was not presented. The mean percent correct for all participants on trials with distraction was 65% and without distraction was 80%."
- There is usually data to be presented in tables and figures.
  - You must verbally describe in the results section any tables or figures you wish to include. However, discuss only the highlights in the text; if every item is discussed, the table becomes unnecessary.
  - The paragraph following the one in quotes above might be:
    - "Table 1 presents the mean percent correct at each duration of the tone. Percent correct is shown separately for trials with distraction and without distraction. These data show that percent correct increases as the duration of the tone increases. Also, percent correct is higher for trials without distraction at most durations."
- Do not present data in tables or figures when it can be presented as well in a few sentences in the text.
  - You should refer to data concerning the effects of all independent variables, even if they are counter to your hypothesis.
- If you know the proper statistical tests to perform on your data, by all means perform the tests and report the results.
  - However, it is of no use to anyone for you to find a statistical test that you do not understand and apply it blindly in a "cookbook" fashion.
  - Remember that the reader is interested in statistical tests only to determine that they estimate the reliability of your results.
  - The descriptive statistics (means, percentages, scale values, etc. are what the reader wants to know, and they should be presented clearly and completely.)

## Common Errors

- The first point to make about this section is that it must be written in continuous prose.
  - The mistake many students make is that they provide tables or graphs of means and do not provide text that explains the figures.
  - The tables and graphs are there to complement the text, not to replace it.
- One further problem students have is with how much information they need to put in this section.
  - Students often provide too much information, for example graphs of participant's individual scores.
  - If you are looking at only one effect, then only one graph and also perhaps a table are necessary.

## DISCUSSION

- The aim of the discussion is to outline and explain the results and to relate them to others' theories and results.
  - It also should include some discussion and perhaps evaluation of the methodology of the experiment and provide suggestions for further research.
- There are three main sections to a "Discussion" section
  - The Summary and Discussion of the Results
    - It is important that you do not repeat the results section here, this should be a simple summary of what was found. Do not include figures from the results (e.g. means, standard deviation etc.), as this should be a purely verbal summary.
    - After the brief summary, the findings should be then related to other research findings and theoretical models in an attempt to explain the results. At this point you should relate what you have found to the research that was outlined in the introduction
  - The Evaluation of the Methodology
    - The next step is to analyze the methodology that was used.
      - Were there any weaknesses that could have affected the results?
      - What you are considering here is the following: were your experimental results due to the manipulation of the independent variable or were they due to some other factor?
  - Suggestions for Further Research
    - The role of the next part of the discussion is to suggest, in light of your results, what further research could be done.
    - An attempt should be made to move beyond simply saying that there should be more participants or that the experiment should "be more controlled".
    - While these may be useful suggestions, they don't really indicate a full grasp of the methodology or the actual area being studied.
      - You should try to give more thought to what the implications of your results are and how further studies could elaborate on your findings.
    - Finally the discussion should end with a brief summary, stating what the conclusions of the study were.
- Common Errors
  - The main error that students make is failing to provide a comprehensive discussion.
    - It is important that the discussion does not merely repeat the findings but actually discusses them, compares them to other findings and relates them to important models or theories.
    - Also the other issues outlined above, evaluation of the methodology and suggestions for further research, should be considered.
  - Another problem is that of students repeating the results section at the beginning of the discussion.
    - The summary of the findings should be concise and verbal.
  - Perhaps the most problematic error is lack of thought and imagination, especially as regards the suggestions for further research.

<http://www.psychology.pomona.edu/materials/manual.html>  
<http://staff.psy.gla.ac.uk/~paul/tutorials/report/infer.htm>