*Delete all guidelines under each heading once you have completed your Project Report*

**PROJECT TITLE: …**

**SUBTITLE** *(if applicable)* …

First Name(s):

Surname:

Category:

Sub-category:

Province and Region:

School:

Grade:

(Cover page: All project reports must have a cover page with the above details)

This is guide and template on how to write an social science type project report to bring to the Eskom Expo for Young Scientists’ fair. It gives detailed instructions, that you need to read and follow. Ask your teacher/Regional Science Fair Director if you do not understand any part of this section of the report guide.

Pages should have 2.5-cm margins. It is preferable to use 12-point Sans-serif fonts that are easy on the eyes, i.e. Gill Sans MT, Times New Roman. Use 1.5-line spacing. Include page numbers on the bottom centre or right corner of each page. Spelling, grammar usage and punctuation should conform to the Oxford English Dictionary for UK English (not US English).

Paragraphs are useful tools for separating and organising your ideas. Different ideas should be split into separate paragraphs and common ideas should be grouped in the same paragraph. Your paragraph should have a topic sentence which gives the reader an indication of what to expect in that paragraph. If you present two hypotheses/engineering goals in the Introduction, then you should deal you should deal with those hypotheses/goals in the same order in the Methods, Results, and Discussion sections.

*Abbreviations*

Use abbreviations sparingly and only if they will save substantial redundancy throughout your project report. Adding abbreviations (particularly abbreviations that are common in your choice of category) can make your writing more concise, but overuse simply adds confusion. Be sure to define abbreviations in full at first use by writing out the term in full, and then placing the abbreviation in parentheses; e.g., Schedule for Affective Disorders and Schizophrenia (SADS). Do not begin a sentence with an abbreviation.

*Tables and Figures*

Tables must have a title (above the table) and figures must be accompanied by a caption (below the figure). Both tables and figures must be referred to in the text. Thus, provide a brief description of the data and the column headings, and be sure to explain any abbreviations you use.

When planning your figures, begin by deciding what the figure should look like. Normally, one places the independent variable (i.e., perceived to be causing the relationship) on the X-axis and the dependent or response variable (i.e., perceived to be affected by the independent variable) on the Y-axis.

If both variables are continuous (e.g., measurements, counts, time) a line graph is appropriate.

If the X-axis is categorical (e.g., male/female, young/old, tec.), then a bar graph is appropriate.

Each graph should have values along the X and Y axes, clear labels for each axis (with units), and a complete description.

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# Introduction

In the introduction, present a brief overview sufficient enough to establish the need for your research project. It sets the project in its broader context and narrows it down by identifying and explaining the motivation for the project. It ranges between two to four pages. Never put your results or conclusion in the Introduction.

## Literature Review

Briefly review relevant literature (e.g. journal articles, books, technical reports, etc.) to orientate the reader. You present an overview of what is known about the research project. In doing so, you will read previous and recent research done around your project report and write what is most relevant to it. As you near the end of the literature review (*i.e.,* at the beginning of the last paragraph), identify the important gap that you are trying to fill. You need to build up to why you are doing this research project.

### Problem Statement or Phenomena

Based on the gaps/ knowledge you found in the literature review, clearly write either a problem statement or phenomena. Give a basic statement of the problem or explain the importance of the phenomena.

### Aim

Clearly and concisely state your aim.

### Research Question or Hypothesis

Clearly state the research question you want to answer or the hypothesis.

# Method

The method section describes what you did, why you did it and how you did it. This section must explicitly explain how you went about testing the research question/ hypothesis, to solve the problem. Describe your methods in enough detail that someone else could replicate your project. In other words, anyone should be able to duplicate your methods to verify or refute what you found. Briefly explain the reasons for the data you collected.

## Participants

This section indicates the number of participants that took part, and an indication of their gender, age, and other demographics that may be relevant to the project. Include information on how they were recruited to participate in the project.

## Instruments/ Sources

List all the instruments/ sources used for your project. This section is included only if you have the participants filling out questionnaires, or completed tests. Include any observation/interview, schedules and tests (Pre- and Post-, Behavioural and Psychometric). If you use existing data, provide details on where you found it, and give details on how you got permission to use the information.

## Procedure

Describe the procedure used. What were the variables (if any)? How were they manipulated? – between or within participants? Describe the procedure in terms of what the participants did, rather than what you did e.g. “the participants, read a set of instructions, completed a block of four practice trials and completed two questionnaires.” Items/questions in data collection method must be related to the aim. Remember to always maintain objectivity. This ensures that you minimise errors and bias.

A sample of the questions asked on the tests/questionnaire must be put in the Appendix section. Also, explain how you maintain confidentiality when reporting on the participants: Identifiers e.g. names, photographs, personal details of participants; must not be used.

# Results

The overall purpose of this section is to describe patterns, not to explain or interpret them. Think of the Results section as telling a story about what you found in your questionnaire or interviews. You need to set the context within which the data were collected. That will help the reader to understand more fully the data and analyses specific to your hypothesis/ research question.

Results should be presented in a way that it aligns with the hypothesis/ research question. Begin by thinking about what information the reader will need to assess whether you achieved your aim or not. It should be presented in a form that is easy to read, which usually means putting it in a graph or a table.

# Discussion

The discussion interprets patterns you found., you analyse your results here. Explain why you found what you found, backing it up with relevant literature. This is done by reviewing and comparing literature. Literature used must be cited and referenced (see referencing guide, Appendix J). How are they similar or different? Why might there be differences between your project and others?

It explains what the patterns mean (i.e., why you found the results you did). The discussion must be linked to the hypothesis/ research question.

# Limitations and errors

Briefly describe any errors that affected your measurement but which you cannot do anything about, given certain constraints. This includes sources of errors in your methods that bias your results.

# Recommendations for Future Research

Make concrete suggestions about how this project could be extended.

# Conclusion

Clearly state your results and importantly, be sure to address the importance of your work. Write your conclusions to address one all-important question: - So what? What is the overall importance of your results? Why should anyone care? You must refer to the hypothesis/ question and to the most important results and you must state whether your hypothesis is supported or rejected, or your research question has been answered.

# Acknowledgments

Any person who made a direct contribution to the study should be acknowledged. If applicable, funding sources should be mentioned.

# References

Referencing is a way to validate that you have done further reading, learning and comprehension by using relevant sources. Eskom Expo for Young Scientists uses the Harvard format for referencing. Formatting has to be consistent throughout the report.

# Appendix

An appendix is placed at the end of your report, the full version is either inappropriate or too detailed for the body of the report. There may be more than one appendix, in which case the series is called the appendices. Examples of material suitable for an appendix are a new computer program specifically designed for the research, an unpublished test and its validation, or a list of stimulus materials