**Nanyang Research Programme Junior Researcher**

**Project Code - Title of NRP*jr* Project**

Name of Student 1

Name of Student 2

School of Students

(Font: Arial / 12-point / Center)

Name of NRP Supervisor

School of NRP Supervisor

(Font: Arial / 12-point / Center)

***Abstract* *-*** An abstract is NOT another introduction. Its purpose is to enable the potential reader to determine whether your work is relevant to the work he or she is undertaking. When searching the Index and Abstract databases of the library to acquire suitable material to start your literature research you will have used abstracts for the same purpose. Most likely you will have wanted the author to keep it concise and to the point.

The abstract should consist of the following two or three parts:

* A short statement of the problem
* A brief description of the methods and procedures used in collecting the data
* A condensed summary of the findings of the study. This is optional and in practice depends on the complexity of the findings.

The abstract may be written in a structured or unstructured form. In the most basic form, a structured abstract is based on the following headings where possible: Aims and objectives; Background, stating what is already known about the topic; Design; Methodology; Results; Conclusion, stating what this study adds to the topic. The abstract should accurately reflect the content of the paper. The abstract should not include references or abbreviations. The abstract should be followed by two to six keywords, which accurately identify the paper’s subject, purpose and focus. The abstract should also emphasise new and important aspects of the study or observations. Authors must be able to use this document as a basis for their articles. Abstracts should not exceed 200 words.

**Keywords:** article template, guidelines for authors

# 1 INTRODUCTION

The introduction basically explains to the reader in detail some or all of the following points:

* The reasons for undertaking the study
* The assumptions which were made in the study
* Definitions of relevant terms used in the report
* The scope of the investigation, i.e. what is covered and what is not
* The methods used (often included in a separate methodology section)
* The theories which form the context for this study (often included in a separate literature review section)
* The limitations inherent in the study
* An outline of the structure of the report

# 2 AIMS / OBJECTIVES

You can only complete a literature review if you understand your aims. Therefore, before you start your research, write down the research aims. Once you understand the aims, you can extract the necessary and relevant information from the past literature for your review. Your aims should also be stated explicitly at the end of your Introduction.

# 3 FORMAT OF PAPER

In order to achieve consistency, you are to format your paper in the following manner.

1. **NRP*jr* Project Code**

Indicate the NRP*jr* Project Code in the heading.

1. **Page and Text**

* Page: Each research paper **should not exceed 12 pages**, inclusive of tables and figures.
* Page size: A4
* Text: Use 10-point Arial, line spacing at least 12-point.

1. **Heading and Sub-heading**

* Heading: Use 12-point Arial, bold and capitalised. Line spacing before 12-point and line spacing after 6-point.
* Sub-heading: Use 11-point Arial, bold and capitalised each word. Line spacing before 12-point and line spacing after 6-point.
* Sub-heading numbering: Roman numerals.

1. **Identifying the Heading**

Headings are organisational devices that are used to guide the reader through your paper. You need not follow strictly the numbering sequence for the headings or restrict yourself to what has been shown in this template.

1. **Figures, Graphic and Tables**

Large figures and tables may span across both columns. Figure captions should be below the figures; table headings should appear above the tables. Insert figures and tables after they are cited in the text.

* Table Captions: Use 8-point Arial

Table 1: Type Sizes for Camera-Ready Papers

| Table Head | Table Column Head | | |
| --- | --- | --- | --- |
| Table column subhead | Subhead | Subhead |
|  |  |  |  |

* Graphic

Use a text box, such as this frame, to insert a graphic. Ideally, your graphics should be a TIFF/JPEG or EPS files, with resolution of 300 dpi and with all fonts embedded.

### Figure Captions: Use 8-point Arial

Figure 1. Example of a figure caption

# 4 METHODOLOGY / MATERIALS

In analytical reports, like business reports, this would include a description of survey methods, participants, focus groups and the use of secondary sources. In scientific reports, it would include a description of participants, materials, equipment, design and procedure.

This section is important and should be written concisely and clearly so that a fellow researcher will be able to reproduce your work and arrive at similar results by reading and following your reported methodology. Therefore, all the steps used must be presented clearly, so that they can be reproduced by others seeking to build on your research.

Where appropriate, describe your selection of experimental samples and controls, and the reasons for selecting them. Describe the methods and tools or apparatus used to carry out your experiment or survey, giving references to published methods you have followed. If you have developed your own methods or tools, refer to the literature on which the ideas were based. Illustrations, if applicable, are very useful to help describe and illustrate the experimental set-up you adopted. Present the degree of precision and accuracy obtained using the methods you have employed.

# 5 RESULTS / DISCUSSION

Present your results and findings in a logical sequence of text, tables and figures, in a clear, concise manner. Do not repeat, in your text, all the data given in the tables and figures; instead, emphasise or summarise the important observations from the tables and figures. Present your error analysis and your estimates for any measurements made.

Only original results must be submitted. All figures should be digitally created with the exception of biological drawings, which may be drawn by hand.

The significance and interpretation of the results of your study should be clearly presented in your discussion. Emphasise any new and important aspects that have been identified as a result of the study, and any conclusions you can draw that follow from these findings.

Include in your discussion the implications of the findings, and the limitations, and relate your observations to other relevant studies covered in your literature survey.

Link the conclusion of your discussion with the aims or goals of your study. Avoid unqualified statements and conclusions not completely supported by your data.

You may choose to merge your results and discussion, presenting them concurrently under the heading RESULTS and DISCUSSION or separately by inserting another heading for DISCUSSION.

# 6 CONCLUSION

The conclusion serves the important function of drawing together the various sections of the written report. The conclusion is a *summary,* and the developments of the previous sections or chapters should be succinctly restated, important findings discussed and conclusions drawn from the whole study. In addition, you may list questions that have appeared in the course of the study that require additional research, beyond the limits of the project being reported. Where appropriate, recommendations for future work may be included.

The conclusion should, however, leave the reader with an impression of completeness and of gain.

# ACKNOWLEDGEMENTS

You should briefly acknowledge all assistance given by other people in producing your work. This should include your supervisor(s). It is also customary to acknowledge financial or other assistance given by employers, research organisations, government and other funding bodies – you may list all contributors who do not meet the criteria for authorship, such as a person who provided purely technical help, writing assistance, or a department chair who provided only general support.

Any work that is not your own must be clearly acknowledged; otherwise, you will be guilty of plagiarism. The acknowledgments and references must make clear to the reader the extent of your own contribution.

# REFERENCES

Referencing has a number of purposes:

* To enable your readers to find the source of your information either to verify or clarify what you say or to expand on the information – it may be relevant to their research. Therefore, make sure there is adequate information to help the reader locate the source.
* The credibility of your information source adds to the credibility of your own research finding and by extension, that of your research paper.
* To acknowledge your information sources as a matter of courtesy.
* To acknowledge your information sources (including diagrams, photographs, tables, etc.) to avoid issues of plagiarism and possible breach of copyright.
* To help you, the writer, do future checks on details in your own study.

Referencing should take place throughout your report or thesis, not just in the literature review.

Number the references consecutively within brackets [1]. The sentence punctuation follows the bracket [2]. Refer simply to the reference number, as in [3] - do not use “Ref. [3]” or reference [3]” except at the beginning of a sentence: “Reference [3] was the first …”

Number footnotes separately in superscript. Place the actual footnote at the bottom of the column in which it was cited. Do not put footnotes in the reference list.