

## STAT 371 – PROJECT REPORT

### General Information and Format of Final Written Report

- The entire report use Times New Roman Font, size 12, which is a standard font that is used in most of the independent research projects as well as a requirement for most publishers.
- The document should be printed two-sided on letter size (8 ½ by 11 inches) paper with margins of about 2.54 cm (1 inch) on all sides.
- All pages should be numbered. (You may hide the number on the title page, if you wish, though it should be counted as page 1.)
- The report may range from 10 to 15 pages, but if you wish to include appendices, it may go over 15 pages.

### Structure and Components of the Final Written Report

The final report should include all the components/headings indicated below.

- **Title Page**
  - Show the title of your project, your name, institutional affiliation (in this case, MacEwan University), STAT 371 and the year on the first page.
- **Abstract**
  - The abstract (not more than 200 words) and key words (up to 5 words) should be together on the second page.
  - It should give only the most important points from the introduction (particularly, the purpose of the study), methods, main results, conclusions, and only significant recommendations.
  - It should mention the variables studied and the target population or population of interest.
- **Introduction**
  - Should be brief, going from general (broad) to specific.
  - May have subheadings if you wish, such as Statement of the Research Problem, Literature Review, Hypotheses, and Significance of the Study), but these can be quite flexible.
  - Concisely and clearly defines the research problem/question
  - Provides the overall topic of your study, which puts your research into context.
  - Briefly states what is already known about the topic, that is, a literature review.
  - States what is yet to be investigated.
  - Then focuses in on what you investigated in your project; thus, it flows from general to specific
  - States the overall aim/purpose and main objectives of your project.
  - Describes the main or overall explanatory and response variables that are involved in your project.
  - Defines and describes the target population (population of interest).
  - Should mention the study area (not study sites), if the geographical setting is important.
  - Shows your research hypothesis or hypotheses towards the end of the Introduction.
  - Describes the significance/importance of your study.
- **Methods (or Materials and Methods)**
  - Briefly describes the research design and techniques for recording data
  - States the type of data analysis you used.
  - Cite references where necessary.
  - May have subheadings, but these can be quite flexible.
- **Results**
  - Written in past tense.
  - You need to skilfully merge data presentation with scientific writing.
  - May be divided into subsections which:
    - May be identical to, or similar to, the subsections of the Methods section,

- Or, which are related to the hypotheses tested in various aspects of your study,
  - Or, which are arranged according to various study sites examined.
- In this section, you describe your own results without any mention of the findings of others.
- Do not show raw data, but rather present analyzed or summarized data in tables or figures.
- Number tables and figures (which includes graphs, diagrams, and photographs) consecutively, but use a separate sequence of numbers for tables, figures.
- Table captions (titles) appear above the table, while figure captions (titles) appear below the figure.
- Tables and figures should indicate units, standard deviations or standard error and sample sizes.
- The main trends shown in each table and figure must be briefly described in the text and the number of the table or figure must be shown in parentheses.
- Tables and Figures should be placed as closely as possible after the first citing in the text.
- **Discussion**
  - Focus on discussing your results
    - in relation to your hypotheses (predicted outcomes) and
    - in comparison with the findings of others.
  - Try to give scientific explanations as to why your findings are the same as, or are different from, the findings of others and what you hypothesized.
  - Explain and discuss the factors and give logical reasons that may have led to your research hypotheses either being supported or not supported.
  - Try to discuss logical reasons for your results either supporting or not supporting your hypotheses.
  - Point out any possible limitations of your study or discuss possible sources of error in an objective way, particularly if your findings are not consistent with those of others or what you predicted.
- **Future Work**
  - Expand your conclusions to provide implications of your findings in terms of the broad field of research
  - Three main types of recommendations can be given:
    - Possible improvements that could be made in your methodology.
    - Application of your findings.
    - Suggestions for further research and formulation of new hypotheses that need investigation.
- **References**
  - All literature cited in the text must be given in the reference section alphabetical order by author(s) and no literature should be listed in the reference section that is not cited in the text.
  - For in-text citations and references, please follow either the APA style or the style specified for BIOL 498 Independent Research (since those cover the styles that most of you in this class are used to). However, if any of you prefer to use some other format, you should talk to me in advance about it and provide me with information on the style you are using.

### Marking Scheme for Final Written Reports

It is not required that your report have all the subheadings shown in the marking scheme below. You may have different subheadings, but your report should contain the information indicated.

Component	Marks		Comments
Title page		/2	
Abstract and key words		/10	
Introduction			
Statement of the Research Problem	/4		
Background information/ Literature Review	/4		
Purpose of the study and Hypotheses	/5		
Subtotal for Introduction		/14	
Methods			
Research Design/Sampling Strategy	/3		
Procedures/Techniques	/2		
Data Analysis	/10		
Subtotal for Methods		/15	
Results			
Text statements			
Statistical analysis presented			
Tables			
Figures		/24	

Discussion			
Discussion of findings of study in relation to the hypotheses			
Comparison with findings of others			
Discussion of the limitations of the study and possible sources of error		<b>/10</b>	
Future Work		<b>/6</b>	
In-text Citations		<b>/2</b>	
References (Literature Cited)		<b>/2</b>	
Overall Quality of the Report			
Format and consistency	<b>/4</b>		
Clarity	<b>/8</b>		
Sentence structure and punctuation	<b>/3</b>		
Subtotal for Overall Quality		<b>/15</b>	
<b>TOTAL</b>		<b>/100</b>	

Additional Comments: \_\_\_\_\_

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