

## MBA 8211: Data Analysis & Statistics

### Research Project Report Outline

The goal of your report is to clearly communicate the process and the outcomes of your research project. As promised, here are some essential points that *must* be communicated in your report followed by a suggested outline. Of course, no one outline will fit every type of project, but it offers you some starting point.

1. **Introduction:** Should include a clear statement of management dilemma, managerial question, and research question. For a good grade on this part, I need to see a connection between these three. The managerial dilemma (what even got you thinking that this broad issue is worth addressing with your research project?) should lead to the managerial question (what is the question of interest that emerges from the broad issue or problem identified above?) which then clearly leads to a specific research question (so, given the managerial question, what specific aspect of the question do you hope *your* research project will address?) The introduction section should end with a clear statement of the research objectives (that logically emerge from your management dilemma). This is important at this stage because this is the standard I will be holding you to at the end. I want to see if your research project did, in fact, end up addressing some aspect of the management question you specify here. The results of your research must be “actionable” in some way, meaning that it should provide information leading to some actual decision. I should have a clear sense of your dependent variables (and any independent variables you intend to study, if appropriate).
2. **Background Research:** What have other people looked at relating to the broad topic? This is where you can justify a lot of your decisions regarding research design. The background research looks at prior work on the broader topic of your study (e.g., what does the literature say on rewards & recognitions, importance of parking to employees in urban areas, the factors considered when evaluating MBA programs?) I am looking for evidence here that you did a fairly thoughtful and thorough evaluation of past research on the topic you are addressing. A lower grade will result if the background research appears to be superficial or purely done “after the fact” (i.e., you completed the project and *then* looked for research to support your findings). Your research may also provide some standard scales and question designs that you use in your project. Think of it as a spiral – starting with the outside ring (looking at research on your broad topic), you lead to the material that is directly related to your research, the bulls eye. The background should be organized in a logical and integrated way that links it to your research question.
3. **Method:** This is the section where you clearly explain what you *did*. Although some will be longer than others, your report should include the following sections:
  - a. *Sampling Design:* What population are you studying? What sampling method did you use? (nothing wrong with a convenience sample, just make sure you state the assumptions and how you attempted to ensure the representativeness of the sample) What was your sampling frame? How could your sampling decisions

have introduced systematic biases into your data? Make brief mention of these possible errors and your attempts to control for them – major potential issues should be discussed later in the limitations section. The point is to be brief and address the most obvious concerns and your responses here.

- b. *Research Design*: Was the study exploratory, descriptive, or causal? If relevant, you should include details on your experimental design. Otherwise talk about your survey. What were the strengths and weaknesses of your chosen design? Did you do any follow ups to increase response rate? Any equipment you used? Issues with web site which hosted your survey? This will probably be very brief for most of you as you don't have complex research designs. You can also include some details on your questionnaire design here. Talk of question wording issues, attempts to ensure proper interpretation of questions, results of pretests, etc.
  - c. *Data Collection*: This is the part where you describe the specifics of how you collected the data. Did you use a web-based survey? Mail? Did you hand the survey to people you knew? How did you collect the responses? How much time did it take? What controls did you have to ensure data quality? Any efforts you took to ensure that the different sample members experienced the same protocol and procedures? How did you get informed consent? Did you promise confidentiality or anonymity? If so, how did you ensure this? What problems did you encounter in collecting the data? Include brief statements about how your data collection procedure could have impacted your results, but leave the bulk of that discussion to a later section on limitations. Include all issues related to the collection of your data here.
  - d. *Data Analysis*: This should be a very brief section that simply refers to the methods for data analysis and handling (how did you code the data, what software was used for analysis, any assumptions about the analysis you intended to perform, etc.)
4. **Results**: Here, you will present the results of your research. The focus here should be on explaining what you found rather than providing the interpretation and recommendations (that will come in the next section). So, state what your findings were, the outcomes of any statistical tests, the actual means for the relevant variables, etc. Start with basic results regarding the sample you ended up with (age, gender, etc.) so it sets the stage for the reader to interpret the more substantive findings. Make sure your results are explained in meaningful terms that always keep your research question in mind. It makes no sense to say that you did a statistical test that showed older people were significantly more favorable than younger people ( $p < .01$ ) without explaining what the difference in means was. Don't forget that the goal of statistical analyses is to support the substantive conclusions you are making. So, include appropriate tables and graphs here that serve to highlight your findings. You don't need to put *everything* in here, but everything that is relevant to your question of interest. Focus on the substantive results and include appropriate statistical tests and *p*-values to support your findings. If your findings related to several separate questions of interest, use headings and subheadings to organize your results around these topics.

5. **Conclusion & Limitations:** This is the final section of your paper and will take the results and provide interpretations and recommendations based on the results. This section must at least contain the following subsections (or the information in these subsections):
  - a. *Summary:* Since the “Results” section included all the analysis of your data, here you summarize the key findings that form the basis of your recommendations. The most important findings should be summarized here and should tie in well with the management question you started your report with.
  - b. *Recommendations:* This brief section should develop some very clearly stated recommendations based on your research findings. This will be evaluated based on how well your research findings answered the management question at the start of your report. There should be something that is clear and actionable at this point (even if it is clear and specific direction for an additional research study). For a good grade, make sure your recommendations are clear, specific, and linked to the management question/dilemma.
  - c. *Limitations:* This is an important part of your report for this class. Given the time constraints on doing this project, there should be several things that could have or should have been done better. Here is where you get to lay out all the problems with your research project. What are all the things you should have done differently? How did these “flaws” impact your results? It may be better to simply number these limitations (just as I have done in this outline) and give a brief subhead before explaining how this limitation may have impacted your results. Don’t arbitrarily put things in here that couldn’t possibly have had an impact on your particular study. However, the more you are able to identify possible sources of error and bias, and explain how it could have affected your results, the better your grade will be.
6. **References:** Include a detailed bibliography. Please follow a consistent format. I am partial to the APA style (because that is what I am used to) both for citations within your report and the format of the references. However, you can use your preferred style (e.g., Chicago Manual) as long as it is consistent throughout the paper and through all the references.
7. **Appendices:** Include details here that would have disrupted the flow of the paper. So, you can include things like full sample questionnaire, consent statement, SPSS printouts, any visual stimuli you used, etc.
8. **CD:** In your packet, please include a CD with your raw SPSS data file (the one with the .SAV extension) as well as the output file (.SPO extension).

On the following page is the sheet I will be using to evaluate your written reports.

## MBA 8211 – Report Evaluation Sheet

Group: \_\_\_\_\_

Semester: \_\_\_\_\_

	Poor 1	2	3	4	Excellent 5
<b>Intro and Background Research</b> <ul style="list-style-type: none"> <li>• Clearly defined problem statement</li> <li>• Clear link from mgt dilemma to research question</li> <li>• Thorough analysis of surrounding issues</li> <li>• Flowed well and led to hypotheses/objective</li> <li>• Was appropriately cited &amp; referenced</li> </ul>					
<b>Study Design</b> <ul style="list-style-type: none"> <li>• Justified research design</li> <li>• Appropriate question wording</li> <li>• Justified sampling procedure</li> <li>• Data collection procedure appropriate</li> </ul>					
<b>Results and Analysis</b> <ul style="list-style-type: none"> <li>• Were appropriate for data</li> <li>• Were well explained</li> <li>• Focused on substantive outcomes</li> <li>• Were thorough and complete</li> </ul>					
<b>Discussion &amp; Conclusions</b> <ul style="list-style-type: none"> <li>• Summarized substantive issues</li> <li>• Completely discussed limitations</li> <li>• Discussed business implications well</li> <li>• Clearly addressed research questions</li> <li>• Clear and actionable outcomes</li> </ul>					
<b>Overall</b> <ul style="list-style-type: none"> <li>• Was well written (grammar, spelling)</li> <li>• Had a professional appearance</li> <li>• Was well organized and structured</li> </ul>					

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

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Final Report Grade: \_\_\_\_\_