Geeky Gareth's Great Guide to…
Dissertation Writing

So your evil & vindictive lecturer is forcing you to write a dissertation. The good news is that they are not as hard to write as most people think. In fact, providing you answer the appropriate questions and include the following sections, it is relatively easy to obtain a high mark. Just use this guide as a check sheet. Although this guide is written specifically for students studying consumer psychology/consumer psychology, the guide will work for most business or psychology dissertations.

Title

The title should be specific, descriptive but concise. It should also be comprehensible to readers outside the subject field.

Abstract

- An abstract is a brief summary of your dissertation. Generally speaking they are between 100 and 300 words long, however different departments will have different rules. Be aware though, the word limit for abstracts is usually strictly enforced.
- This is not just an introduction as it summarises the whole thesis and in most cases it will be read by someone who will not read your whole thesis.
- Generally people read the abstract to quickly understand your research and decide if it is worth reading the whole thesis. Does your abstract sell your research?
- Make sure that your abstract addresses the following points:
    - Purpose: what is the point of this research?
    - Method: what method did you use?
    - Findings: what were your key findings?
    - Practical Implications: why does anybody in the real world care about what you've done?
    - Original value: What makes this research project unique?
- When writing the abstract, try to follow the same structure that your thesis uses.
- Make sure that your abstract is written in the active tense (not the passive tense).
- In order to stay within the word limit, aim to write concisely and remove all unnecessary description. For example rather than saying "the obtained results" just say "results" or instead of "is in contradiction with…" say "contradicts…"
- The abstract should be the last thing you write. It is rather hard to summarize your document when you haven't written it yet!

Introduction

The introduction is a slightly confusing section. Different disciplines often expect very different things from the introduction. For example in most psychology theses, the introduction is predominately just the literature review (and then there is no separate lit review chapter). Personally, this would be my preferred choice to structure a thesis. However, if you are required to have a separate introduction, this is how I would structure it. (Please, PLEASE check with your supervisor before following this guide. This is just my approach; different supervisors & departments may have different expectations).

- The introduction is used to set the scene and provide background information. There is no need to talk about the structure of the final document (I can tell that by reading the contents page) or providing a summary of each chapter. (Your abstract will have provided me with a concise summary of what your thesis says and if the reader would like more information then they can stop being lazy & read the relevant chapter).
- The key objective of the introduction is to provide the overall context for the research from an applied point of view. For example if you were going to be discussing employee theft your introduction would discuss issues relating to: how many employees engage in workplace theft, what are the cost implications for businesses, what does it cost the economy as a whole, what interventions have been tried (and failed) to tackle it, which sectors are effected by it the worse, etc. After reading this it should be clear that employee theft is a substantial problem for businesses and it needs to be tackled.
- Your introduction shouldn't rely on your discuss too much academic theory. The theory behind it will be discussed in the literature review.
- If you are going to be conducting a case study looking at an individual business this is your chance to: introduce the business, describe its size, market size, target segment, history, objectives etc.
- Your introduction should not include any hypotheses. If you are going to include any, these should be derived after you have systematically reviewed the literature (hence they come at the end of the literature review).

Literature Review

- While the role of the introduction is to set the scene for your research (e.g. identify why is your research important from a practical consideration, what are the tangible benefits of this research for businesses, consumers, society at large etc.) the role of the literature review is to identify how your research will advance academic theory. Although you may be able to conduct a research project that has real tangible benefits for a company, a dissertation needs to make a significant academic contribution as well. In reality this means, how will your research help advance academic theory.
    - Are you able to prove that a theory works in a different environmental context?
    - Are you able to prove that a theory only occurs under certain conditions?
    - Can you prove that an established theory is wrong?
- Think very carefully about the structure of your literature review. The aim is to start broad and become more focused. For example, a possible structure for a literature review could be: Shopping, store design, atmospherics, olfactory cues (aromas), the mechanics that olfactory cues change behaviour (e.g. priming, PAD, misattribution of arousal) followed by a research question that seeks to answer a gap in the literature. In this case it could be, could the misattribution of arousal theory be used to explain the increase in sales in a supermarket when arousing aromas are present.
- Try to group or link together articles or topics with a similar theme. Then look for similarities and differences between them (e.g. in the method used, statistical analysis, the conclusion derived.
- Do not just accept what is written in the literature! Critique it! However, many students interpret this to mean 'slagging off the literature' While critiquing does involve identifying the weaknesses in others research (e.g. the sample size was too small, the method was flawed, they made unsubstantiated assumptions). Critiquing also involves

recognising the strengths of the other people's research (e.g. excellent ecological validity, a novel experimental paradigm etc.).

- Identify gaps in the literature (e.g. areas that previous researchers have not investigated).
- When you review the literature, make sure that you are predominately citing journal articles and not textbooks.
- Ideally you should try and cite the most up to date journal articles. However, don't worry about citing old journal articles if they are the most relevant or if they initially proposed the theory you are citing. For example if you were talking about the social conformity effect, it is impossible not to talk about Asch's (1951) study.
- Try to avoid 'cited in'. You should always, aim to get access to the original journal article.
- Do not just regurgitate material from a textbook or journal article. Instead, use them to develop a narrative to guide the reader through the theory behind your topic. You will need to explore both positive and negative aspects of your topic.
- The key point of a lit review is to critique. If you make a statement, think, "Is there an alternative perspective here? Has another academic proposed a different model that could also explain the behaviour/result?" (Generally speaking there is always an alternative perspective or explanation, academies enjoy contradicting each other).
- If you are talking about a model, find some form of empirical evidence to validate it. However, is there an opposite point of view you can talk about?
- At the end of your research question it is common to include a hypothesis. This is a testable statement that your research will set out to either prove or disprove. If you are going to include a hypothesis, it should be obvious to the reader what this is going to be after reading the rest of your literature review. It will build on the theoretical framework discussed. However if you are including a hypothesis remember:
    - A hypothesis is a statement and not a question. So 'Will the introduction of a pleasant aroma increase customer dwell time' is not a hypothesis. This should be rephrased as: 'The introduction of a pleasant aroma will increase customer dwell time'
    - It should be VERY clear – the shorter the better.
    - It MUST be testable.
    - It should clearly identify the IV (Independent Variable) & DV (Dependent Variable) and the relationship between the two. (Ideally your hypothesis should be a one-tailed hypothesis. This makes the direction of the relationship very clear: The differences between the two are:
        - One-tailed Females spend more time shopping than males.
        - Two-tailed There will be a significant difference between the amount of time spent shopping by males & females.
    - If you are unsure the difference between the independent variable & the dependent variables, this might help:
        - *Independent Variable*: This is the variable that the researcher changes. In a good experiment there will only be independent variable (e.g. only one thing changed) and every other variable will remain constant.
        - *Dependent Variable*: This is the variable that the researcher measures (e.g. what they are interested in.

      So if you were conducting an experiment to try and explain the relationship between the amount of alcohol consumed and a participant's chance of 'pulling' the

independent variable (IV) would be the amount of alcohol consumed and the dependent variable (DV) would be the number of people you pull. And just for the record, this is the kind of research that academics do. If your interested read: A hangover and a one-night stand: Alcohol and risky sexual behavior among female students at an Australian University

Method Section

- The emphasis on this section should be on research methods & not methodology (methodology is the study of research methods). Generally speaking, I am not interested in the epistemology or research philosophy, unless you can relate it back to your research project (and even then a paragraph is more than enough). In my research projects I have never once discussed methodology.
- This section is very descriptive. You need to describe exactly what you did and provide enough detail to allow 'a suitable skilled investigator' (such as your good selves or your friends) to fully replicate your study, based on your method. You also need to justify the methods you have used, highlighting the merits of your chosen techniques and why they were the most appropriate to use. Be careful however, not to just list the flaws of other methodological techniques – you need to focus on the methods you have used. It should be very easy to get high marks in this section. However, if there are flaws in your experimental design, this will have knock on effect on both your results and discussion section.
- The commonly used subheadings (and what is expected be included in each) are discussed below.

Participants

- Who are you collecting the data from?
- How will the sample frame be determined?
- What sampling technique will you be using?
- How many people will be included in the sample
- What statistical techniques will you use to work out the sample size? Power analysis etc., representation of the wider population?

Equipment/Data Collection Tools

- What data collection tool will you use?
- Why was this data collection tool selected?
- How was this data collection tool developed?
- How will you ensure the reliability & validity of your data?
- If using a questionnaire, make sure that you adequately describe this. For example, tell me how many items it includes. How do participants respond? On a scale between 1-5 or 1-7? Is it a likert type scale? Etc. Also include a copy in your appendix!

  If using a pre-validated scale:
  - What was it developed for?
  - How was it developed? Factor analysis?
  - What is the Cronbach Alpha of the scale?
  - How does it correlate to other scales measuring similar variables?

  If creating your own scale?
  - How have you developed this scale? Have you conducted a Factor Analysis (e.g. see Gerbing & Anderson, 1988).

- When it comes to describing the scale, make sure you describe it in sufficient depth? Also justify why you have made your decisions. So are the questions required to make a forced choice or not? (e.g. Do participants have the option of selecting a middle option – such as neither agree nor disagree). What options do participants respond on, likert type scale, numeric, are they provided with any hints?
- If you have created a scale, how many items does the final scale have? (This means having multiple items exploring a similar construct. For example if your item was investigating price consciousness you could ask: I buy as much as possible at sales prices; the lowest price products are usually my choice; I look carefully to find the best value for money. Here we have three items, but they all explore the same construct – price consciousness.
- If you used a factor analysis how did you create your initial sample pool?
- How will you ensure the reliability of you scale? For example have you used Cronbach Alpha (to test for inter-item reliability) or have you considered either the test-rest or inter-method reliability technique?
- How will you ensure the validity of you scale? Does your scale correlate with other scales measuring a similar construct?
- How do you know it works? Have you conducted a pilot study? If so how big was the pilot study? Did it show up any problems? How did you address these problems?

Procedure

- What are you actually proposing to do? Talk me through your experiment stage by stage (imagine it is a recipe). It often helps to use a numbered list to start with and then delete the numbers when you finish. Just make sure that your paragraph still flows.

Data Analysis

- How are you planning on analysing your data? List all of the statistical tests that you are going to be using to test each hypothesis. In order to save words you could present this in a table.
- Make sure you list that program you are going to use to conduct the analysis. If you plan on conducting quantitative analysis the most common statistical programs are: SPSS, mini-tab, maclab & 'r' however, if you have specialist data you may be required to use a different program (e.g. PERMANOVA, Primer etc.). If you are unsure, ask your supervisor for guidance. However please make sure you specify which version of the program you are going to use: e.g. SPSS v. 21.0
- Remember that each statistical test has a set of assumptions make sure that you meet these assumptions and do not violate it. In some cases you may be required to conduct a statistical test just to prove you are not violating the assumption of a statistical test. A good example of this would be to prove that your data is normally distributed; you may be required to conduct a Kolmogorov–Smirnov test.
- The most common statistical (quantitative) tests are:
  - ***Power Analysis***: This is one of the most underused statistical tests. When it comes to designing an experiment researchers frequently fail to consider whether the sample size is large enough (or in other words, do they have enough statistical power?) to be able to reject the null hypothesis. If your sample size is not big enough it doesn't really matter what your results are, you'll never be able to reject the null hypothesis. A power analysis relises on the relationship between the statiscal critera, the effect size, and sample size. So if you know two of these variables, you can

calcualte the third (or a free online calculator such as G*Power can do this for you)! *I would expect to see a power analysis included in every quantatatiative study.*

Although it is possible to conduct a retrospective power analysis (refered to as a post-hoc power analysis); in reality there is no point in doing this. If you have failed to reject the null hypothesis, then by conducitng a power analysis will not provide you with any new information (the mechanics behind the statistics are also a little bit squiffy).

- Teat for normal distribution and equal variances...Explain difference between parametric and non-parametric – it's really quite important! Perhaps a sentence on why it's important – that certain, strong tests are amazing but they require the data to conform to their rules, otherwise they'll produce some potentially 'squiffy' results that any respectable researcher wouldn't touch with a barge pole (unless is was an abnormally long one, and they were a desperate biologist)!
- ***Kolmogorov–Smirnov test***: Although sounding like a cheap Russian Vodka, this statistical test has multiple purposes. However, for dissertations it is commonly used to test if your data is normally distrubuted or not. (This is a prerequisite of any parametric test (e.g. T-test, ANOVA, ANCOVA, MANOVA, MANCOVA etc.
- **Shapiro-Wilk Test**: A similar test to the Kolmogorov–Smirnov (without the cool name) that is also used to test for normal distrubution. It is genreally adivsed to use this test if you have a sample size of under 50 (although it can cope with up to 2,000 participants). However, if you have over 50 participants I would recommend using the Kolmogorov–Smirnov test.
- ***T-Test***: A statistical test used to compare the means between *TWO* groups. However, the data must be parametric (normally distributed, have equal variances)
- ***ANOVA***: Similar to the T-test, but this test is used to compare the means between *THREE* or more groups. However, an ANOVA will just tell you that a significant difference occurs between groups, it will not tell you were the significant difference lies. Consequently, you will be required to conduct a post-hoc test to tell you which groups are different to each other. Although there are a huge range you can choose for the two most common are: Gabriel test (used when your groups are of an uneven size) or a Tukey HSD test (used when you have an even(ish) number in each group). This test has the same basic assumptions as a T-test: normally distributed data and equal variances.
- ***Chi Square: A test of independence***: A non-parametric test that is used to establish if there is a significant association between two categorical variables.
- ***Fishers Exact Test of Significance***: Very similar to a Chi-squared test, but this test is a better suited if you have a 2 by 2 matrix only (e.g. male vs. female & student vs. non-student) and a small sample size (under 100).
- ***Correlation***: A fairly simple statistical test (can easily be calculated in excel) that is used to describe the relationship between two variables. However, it is very important to remember correlation does not equal causality! So just because to variables are correlated, this does not imply one causes the other.
- ***Regression***: Although very similar to correlation, allowing the researcher to estimate the relationship between an independent variable (IV) and a dependent variable (DV). The difference between a correlation and regression is that a regression assumes that there is a causal relationship between the IV on the DV. If you can not establish before conducting the research that the IV has a causal impact on the DV then you should use a correlation.

- ***Factor Analysis***: Although having numerous purposes, a factor analysis is most commonly used in dissertations for the development of scales. It allows the researcher to take a large number of variables (e.g. questions on a questionnaire) and create subscales (sometimes referred to as latent variables) based on which items correlate with each other.
- **A mediation analysis**: is a statistical tool to test for a mediating relationship between three variables (the IV, DV & an extraneous (or mediating) variable). So although the IV may correlate with the DV, you suspect that the IV does not directly influence the DV. The IV causes a change in another variable (the Mediating Variable or MV) and it is the MV that correlates with the DV. An actual example of this in practice could be, the relationship between pay and performance. At first it may appear that that an employees pay correlates with an employees performance. In reality, the relationship is more complicated as the relationship is mediated by happiness. The more an employee is paid, the happier they are. Then the happier they are, the happier the better they work. As a result of this, we can say that pay does not directly change employees performance as the relationship is mediated by happiness.

  Probably the most recognized technique to test for mediation is the *Baron and Kenny (1986)* technique. However, this approach has started to fall out of favour with the advances made with (and the number of software packages that can now conduct) *Structural Equation Modelling*. However, although SEM can conduct explore far more complicated relationships, it far more complicated technique to analyse your data (and requires a specialist software package)

- The most common qualitative data analysis techniques are:
  - ***Content analysis***: This is a systematic technique that allows a researcher to transform qualitative data (usually collected via open ended questions) into quantitative data. Each time the participant mentions a word that is of interest to the research, (e.g. drink, wine, alcohol) the research records this. After reviewing s paragraph. After reviewing whole page the researcher is able to tell what topics were discussed the most.
  - ***Thematic analysis***: A thematic analysis is very similar to the content analysis but rather than coding each time they say an exact word, the researcher groups words into relevant topics. For example the participant may mention: 'drinking booze' & 'drunken dancing'. The researcher may decide to group these topics under the heading 'partying'.

Results Section

- If your data is parametric then report the mean and a measure of sampling distribution for each result (e.g. standard error, standard deviation, or confidence interval). Generally speaking it does not matter which one you use, just be consistent. However, I would suggest that you use confidence intervals.
- If your data is non-parametric, report the median and the interquartile range.
- For data to be classified as parametric it needs to meet five assumptions:
  - *Level of measurement:* The dependent variable uses a continuous scale (e.g. the participant could respond between 1 & 20) rather than a discrete category (e.g. male or female).
  - *Random Sampling*: The data is drawn from a random sample of the population.

- *Independence of Observations:* That each data point is independent from one another. If you break this assumption you are in serious trouble (you have a flawed research design and non parametric stats wont help here). It is actually surprising for this to occur in certain situations. For example, if you want to assess the amazing teaching quality of the very modest Gareth Harvey (for example), by sampling all students in the class you end up violating this assumption. This is because all students' performance could potentially be impacted by one trouble maker in the class. (Pallant, 2007). If you are collecting data in a group setting or where participants are required to interact with each other you are highly likely to violate this assumption. (Pallant, 2007). Consequently, if this is the case then you will need to consider some specialist data analysis, multi-level modelling (speak to your supervisor for advice on this)
- *Normal Distribution:* The population from which the sample is drawn is normally distributed (i.e. where the data tends to be clustered around a central value (the mean) and if the data is put into a histogram it follows a bell shaped curve or as it is sometimes referred to as 'an inverted u shape'. However, must parametric techniques are pretty robust and will still work even if you violate this assumption as long as your sample size is over 30 (but I didn't say that).
- *Homogeneity of Variance:* This means that the variability within both populations from which the data is drawn is equal. The only real way to test this is to use the Levene's test for equal variance. However, unlike most statistical tests you want the result to be NON-SIGNIFICANT (greater than 0.05).

- Make sure you include the effect size statistic. A 'P' value statistic is more or less meaningless unless you include the appropriate effect size statistic.
- Make sure you include all of the appropriate statistical data. An example for an ANOVA would look something like this: "There was a significant (not a significant) effect of IV _____ on DV _____ at the p<.05 level for the three conditions [F(df between groups value, df within group value) = ___, p = _____], effect size = ___. A completed example would read as: "A one-way ANOVA did reveal a significant difference with how humorous participants rated the posters, F (2,58) = 16.99, p = 0.00, effect size = 0.16. A Tukey post-hoc analysis demonstrated that participants rated the parodic posters (M = 3.20, SD = 0.63) significantly more humorous than both the motivational posters (M = 2.01, SD = 0.85) and the neutral posters (M =2.10, SD = 0.79).
- Only report the results of post-hoc tests (for ANOVAs) if the initial ANOVA was statistically significant (e.g. the p value <0.05)
- Don't just copy & paste the data direct from SPSS. This will generally include lots of irrelevant information. This is true of any output.
- Use a zero before the decimal point with numbers that are less than 1 when the statistic can exceed 1 (e.g. 0.45 cm, Cohen's d = 0.7) but do not use a zero before a decimal fraction when the statistic cannot be greater than 1 (e.g. correlations, proportions & levels of statistical significance).
- Round numbers as much as possible while keeping statistical precession in mind. Generally most research papers round to either two or three decimal places.
- If using graphs:

- Make sure you include error bars on your graphs (standard deviation, standard error or confidence intervals – your choice but see what your supervisor suggests you use)
- Make sure you label both axes on your graphs
- Figures (aka graphs) require a legend that should be placed directly below the figure. Include a short title for the figure/graph, followed by a short legend providing the reader with a concise explanation of the figure.
- The error bars are usually different for each column (see below).
- A technically correct graph is shown below.

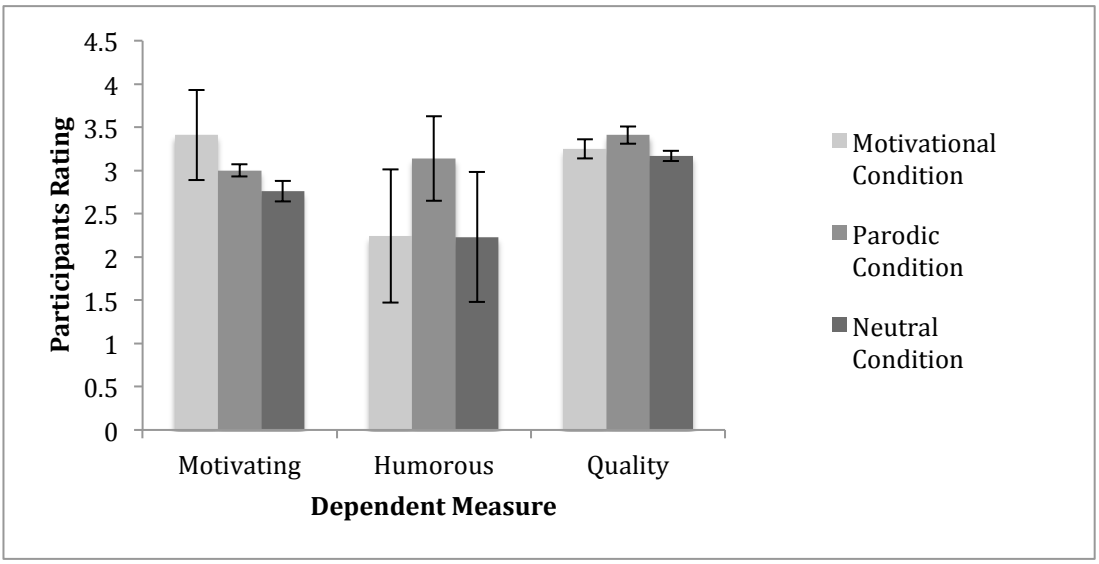

Figure 6: Participants perception of the posters used in the experiment by condition. Analysis indicated that participants perceived the motivating posters to be significantly more motivating and the parodic posters were significantly more humorous. There was no significant difference in the perceived quality of the posters. Error bars are based on standard errors of the means

- If presenting results in tabular format.
  - Do you actually need to present results in tabular format? Generally speaking, if your table only requires two columns and rows then you should aim to present the data in the text. It also worth considering, would the data be better presented as a graph?
  - Arrange the data in a logical format so it makes intuitive sense to the reader.
  - Statistical information (means, Standard Deviation / standard error / confidence interval, N values, effect size, p- and F-values) should be presented in separate sections of the table.
  - To indicate a statistical difference between groups use a subscript to indicate a differences (an example of this can be seen in the table bellow (table 1). The mean score of the motivating posters in the motivational condition was 3.41; however next to the number is a small letter 'a'. This denotes that this score is statistically different (at the 0.05 criteria) from the other number in the same row that also has a small letter 'a' next to it; in this case 2.76.
  - Make sure that every column has a heading?
  - Remove all vertical lines (Scientific Tables should not have ANY vertical lines, again see the example below).

- Horizontal lines can be used to separate information, but use them sparingly. (For example you may choose to use a line to separate the heading from the main body section.
- Make sure you refer to the table in the text.
- Each table should have an individual title, italicized and presented with each word capitalized (except *and*, *in*, *of*, *with*, etc.). For example: *Correlations Between Age and Test Scores.*
- Table legend...above table with title.
- *A technically correct table is shown below (including all the appropriate statistical data)*

Table 1: Participants' performance across conditions

	Motivational		**Paradoic**		**Neutral**					
	M	*SE*	*M*	*SE*	*M*	*SE*	*df*	*F*	*p*	η^2
				Appraisal of poster						
Motivating	3.41 [ab]	0.52	3.00 [a]	0.07	2.76 [b]	0.12	2,60	9.84	<.001	0.247
Humorous	2.24[a]	0.77	3.14[ac]	0.49	2.23 [c]	0.75	2,60	12.10	<.001	0.287
Quality	3.25	0.11	3.41	0.10	3.17	0.06	2,60	1.56	.22	0.049
				Post poster affect						
Positive Affect	29.13	1.53	30.64	1.22	29.80	1.51	2,58	0.29	.75	0.010
Negative Affect	16.60	1.70	14.48	0.97	14.50	0.89	2,58	0.97	.39	0.032
Matrices Solved	13.00	1.37	13.38	1.23	10.14	1.58	2,60	1.60	.21	0.051
Sudoku puzzles Solved	3.90	0.48	4.10	0.42	3.33	0.48	2,60	0.75	.48	0.051
Sudoku number correct	97.29	9.51	106.29	9.17	92.86	10.31	2,60	0.50	.61	0.016

Note: Means in a row sharing a subscripts are significantly different from each other at the .05 level.

- (for further guidance on presenting data in graphs & tables, see the American Psychological Association (APA) publishing handbook)

Discussion Section

- Your discussion section is the part of your dissertation where you explain why your results occurred. However, the first paragraph of your results section should simply summarise your results section, while omitting any 'scary' statistical data. So after reading the first paragraph the reader should understand all of the results from your study. However, make sure you do not introduce any new results here. All your results should be included in the results section.
- If you have any hypotheses, make sure that you explicitly state whether you have accepted, partially accepted, or rejected them.
- The key purpose of the discussion section is to explain why your results occurred. If you accepted your hypothesis, link your results back to your literature review. However, if

you are forced to reject your hypothesis, then explain why your experiment disproved your hypothesis. Is their some competing theory that explains why the result occurred? Is it just down to poor experimental design?

- There is nothing wrong with finding no-significant differences; in fact this may actually make your life easier, as it gives you more things to talk about. For example, why didn't you find any difference? Is there a different theoretical explanation? Just remember while it is perfectly acceptable to have non-significant results, it is a mistake to claim that insignificant or week results indicate or imply more than they actually do!
- In reality if you accept your hypothesis it's quite hard to expand on this (because you've already explained why this should happen in the literature review.) Consequently, your discussion session is likely to be relatively short.
- While you should explain your results in light of theory, make sure you are not just regurgitating your introduction or literature review.
- Other factors to consider include:
    - Do your results corroborate the findings from previous studies?
    - Do your results clarify any ambiguity caused in previous studies (e.g. if two papers have shown conflicting findings or suggested conflicting explanations for why a result occurs)?
- Your results section still needs to emphasize the '*so what*' factor. Why should I care about your results, how have they advanced either academic theory or business practice.
- It is also important to acknowledge and address the limitations of your study? However, don't go overboard on this section (It's also not a good idea to totally undermine your study. If you critique your method/experiment too much the reader will start to question if the results mean anything!) Generally speaking one or two paragraphs (max) should suffice, but make sure do acknowledge the limitations, and don't just dismiss them. Was there anyway they could have been avoided (could this be changed if you were to repeat the experiment)? Should you have foreseen these problems?
- How could this research be extended to conduct a subsequent research project? Weaker students tend to just address flaws in the experimental design (e.g. problems in the method, such as a small sample size, lack of ecological validity, biased questionnaire etc.), whereas stronger students will work out how it creates a new gap in our academic knowledge. Consequently, what new ideas for an experiment does this promote?

Conclusion

- Your conclusion is your final chance to summarize all your research, set it in context and make sure that the reader understands your ideas.
- However, make sure that your conclusion answers the initial research question from your introduction.
- Make sure that no new information is introduced in the conclusion.
- A good conclusion should:
    - Summarise the benefits of this research, has it advanced theory or are their practical benefits.
    - State what the applications of this research are (the '*so what*' factor – why do we care!).
    - If there are still any unresolved issues or topics that need further research, briefly mention them.

- However, your conclusion should not be a list of unsubstantiated claims. It should be a logical extension of your research.
- Don't start waffling! Brevity is your friend!

References:

- Although there is no reason why you can't complete a reference section by hand, it is a lot easier (and quicker) to use specialist reference management software, sometimes referred to as bibliographic management software (must universities have a subscription to at least one). The most common packages are: endnote (PC or Mac), Papers 3, (PC or Mac), Mendeley (PC or Mac), Refworks (PC or Mac). Generally speaking endnote is the most commonly used, although Papers 3 is the most advanced. It contains numerous extra features including, journal library (think of it as iTunes for journal articles), the ability to comment and make notes on journal articles and share journals with friends (or strangers) including your notes. While I would certainly recommend the Mac version, although I've heard that the PC version is not as strong. Students get a big discount on this software.
- Although word does have reference capabilities it is not overly accurate. If you use it, make sure that you check the references are accurate.
- If you are compiling your reference section by hand:
    - Do not number your references (unless your referencing convention specifically requires this)
    - Do not split your references into subcategories e.g. Journals, Textbooks & websites.
    - Do not include a bibliography section (unless specifically asked). A reference section should include all of the work you have cited in your thesis, whereas a bibliography includes all of the relevant material that you have read, but not directly cited.
    - Make sure your reference list is in alphabetical order.
    - A brief guide to referencing the most common resources (using APA 6.0) is included below. APA six is a version of Harvard
    - If you are still unsure how to reference find the article on Google Scholar and rather than clicking on it, click the word 'cite', listed below the brief summary. This tells you how the article should be referenced in the three most common conventions: MLA, APA & Chiago. Please be aware, sometimes not all of the information is listed, e.g. it rarely includes the DOI if you select the APA option.

Journal Articles

Author, Initial. (Year). Title of article. *Title of Journal*. Volume, Page numbers. doi:

Vakratsas D., & Ambler, T. (1999). How Advertising Works: What Do We Really Know? *Journal of Marketing*, *63*, 26–43. doi:10.2307/1251999

Note: A DOI is a Digital Object Identifier, used to uniquely identify an online source. Add http://dx.doi.org/ in front of the DOI number to create the URL

BOOKS

Author/s. (Year). *Title of work*. Edition (if relevant). Location of Publication: Publisher.

1 author: Mitchell, A. (2005). *Dancing at the Dead Sea: a journey to the heart of environmental crisis.* London: Eden Project.

2 authors: Issar, A.S., & Zohar, M. (2007). *Climate change: environment and history of the Near East*. 2nd ed. New York: Springer.

3 authors: Roaf, S., Crichton, D., & Nicol, F. (2005). *Adapting buildings and cities for climate change: a 21st century survival guide.* Boston: Architectural Press.

4 or more authors: Fry, J. et al. (2010). *The encyclopedia of weather and climate change: a complete visual guide.* Berkeley, California: University of California Press.

EDITED BOOK

Editor/s. (eds). (Year). *Title*. Edition. Place of Publication: Publisher.

Crate, S.A., & Nuttall, M. (eds). 2009. *Anthropology and climate change: from encounters to actions.* Walnut Creek, California: Left Coast Press.

Chapter/paper in an edited book

Chapter author. (Year). Chapter title. In: Editor/s (eds). *Title*. Edition (if relevant) (Chapter page numbers). Locatin of Publication: Publisher.

Strauss, S. 2009. Global models, local risks: responding to climate change in the Swiss Alps. In: S.A. Crate, & M. Nuttall, (eds). *Anthropology and climate change: from encounters to actions (*166-174). Walnut Creek, CA: Left Coast Press.

Note: If the publication date of the chapter is different from the edited book, add the date of the edited book after (eds): e.g. Brown, B. & Green, G. (eds). 2010.

Websites

Last, F. M. (Year, Month Date Published). Article title. *Website Title*. Retrieved Month Date, Year, from URL.

Satalkar, B. (2010, July 15). Water aerobics. *Buzzle*.com. Retrieved July 16, 2010, from http://www.buzzle.com.

Cain, K. (2012, June 29). The Negative Effects of Facebook on Communication. *Social Media Today RSS*. Retrieved January 3, 2013, from http://socialmediatoday.com.

Blog Post

Last, F. M. (Year Month Date Published). Article title [Type of blog post]. Retrieved Month Date, Year, from URL

Schonfeld, E. (2010, May 3). Google throws $38.8 million to the wind [Web log post]. Retrieved May 4, 2010, from http://techcrunch.com.

Jenkins, G.E. [Web log post]. (2013, January 3). Retrieved January 3, 2013, from Schonfeld, E. (2010, May 3). Google throws $38.8 million to the wind [Web log post]. Retrieved May 4, 2010, from http://techcrunch.com.