

## Writing an Academic Discussion

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### Introduction

Over many years of marking students' submitted academic work and reviewing papers for publication in academic journals it is clear to me that some guidance is needed to assist writers to write an academic discussion. The discussion is where the real thought goes into the paper, yet consistently I find that writers have their greatest difficulty with this, the most important part. The following few thoughts, based on this experience and some general reading, are provided to assist writers to strengthen the discussion of their findings.

### Characteristics of a good discussion

#### **Structure**

Docherty and Smith summarized the structural characteristics of a good discussion as; a statement of principal findings, the strengths and weaknesses of the study, the strengths and weaknesses in relation to other studies, discussing particularly any differences in results, the meaning of the study and possible mechanisms and implications for clinicians or policymakers and the identification of unanswered questions and the need for future research.

#### **Logical consistency**

It is important to know the logical approach you are using in your study and where you have started from. Most scientific papers are based on either inductive or deductive logic. You need to know what logical approach you are using before you can mount a coherent discussion that pulls the paper together.

Inductive work starts with gathering information in an attempt to generate an explanation of the phenomenon being studied. It generates what might be called a proto-theory or a hypothesis that appears to explain the results. But the hypothesis generated remains to be tested. Many writers present their hypothesis as if it is a definitive universal theory (applies to all circumstances of the phenomenon under study), but each study is based on a singular set of findings (i.e. one study). But in order for a theory to be considered universally valid it must first be tested in many situations, not just the one. The 'problem of induction' is that it only takes a singular result to refute what may have been proposed as a universal theory. The classic example is the hypothesis that 'all swans are white' which is immediately refuted as a universal theory once a black swan is observed. So, inductive work starts with the data collected and generates an explanation.

Deductive work starts with a theory (or hypothesis) and attempts to confirm that it has a valid predictive value. If the theory is universally true the results of any study of the phenomenon can be predicted. Deduction attempts to falsify the theory by showing that the predictions arising from it are not always true. So if your study findings are not what the theory predicts you have refuted it (or partially refuted it).

In order to create logical consistency and cohesion in the paper you need to know what you are doing – what logical approach

you have used. You are either generating an explanation or testing a theory. This then becomes an essential feature upon which to build your discussion.

***Discuss the implications of the findings, don't repeat them***

The discussion is about interpreting the results. If you find yourself bringing numbers into the discussion from the findings, or re-stating the numbers in word form, you are merely reproducing the results. Discuss the implications of the results, how they relate to the findings in the literature review, either agreeing with or disagreeing with what is already known and how they shed light, or not, on the phenomenon being studied. You might either confirm or dispute the current state of knowledge identified in the literature, or highlight issues that are still unresolved. The discussion should be no longer than necessary to explain the implications. Rambling on will only confuse the reader.

***Identify the study's limitations and discuss them***

Discuss the limitations of the methods you have used (e.g. a non-random sampling procedure), and how that may bias the results, or discuss issues related to the type of method you have used (e.g. a qualitative study of something previously quantified, or a new approach that provides a new way of researching the issue). It is important that you identify the limitations of your study yourself, or others will do it for you thinking that you have not thought about them. Every discussion should include a comment on the study's limitations and strengths.

***Stick to the evidence***

If you find yourself discussing something that is not demonstrated in your findings you are off track. The evidence in the paper creates the limitations for your discussion. You can only discuss the implications of what you have found or not found. For instance, you cannot claim an association between variables that is not demonstrated in the results, nor can

you assume that the findings are 'suggestive of an association' – you can only claim that it was not established – and that further work is needed to either confirm or refute it.

The legal 'rules of evidence' can also be applied to research evidence.

- Disclose all facts – even those that appear anomalous
- The burden of proof (or counter-proof) lays with you the researcher
- The proof should be 'beyond all reasonable doubt'. Statistics in quantitative work and triangulation in qualitative work should be convincing
- Circumstantial evidence is permitted provided it is supported by documentary evidence from another publication
- Hearsay evidence is prohibited. Intuition, guesswork, surmises and personal opinions have no place
- If there is a counter argument for explaining your results you should present it – don't let others find it for you. But come down on the side of the evidence
- Don't claim causality lightly – often things are associated without one being the cause of the other. This is a common error - establishing causality is a profoundly difficult thing to do – so this is why we rely on probability theory

***Wrap the whole thing up tightly***

The concluding sentences of the discussion (sometimes under the heading 'conclusions') should relate directly to the opening sentences in the introduction, so that the issues raised in the introduction are answered directly, either in the affirmative or negative or, if the study findings are unclear, suggesting that further study should be done to confirm the findings in other circumstances. Once you have stated all that needs to be stated – stop.

## Check and Edit

The best way to check whether your discussion is coherent and cohesive is to read it out loud. Editing is necessary for clear writing, so to make sure that your paper reads well – read it out loud. Then get others to read it. Remember – there is a big difference between almost finished and finished and this is the part of the paper that will be of most interest to readers.

## Reference

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