How to Write an Introduction

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Knowing how to write an introduction is yet another part of the process of writing a research paper.

In the introduction, you are attempting to inform the reader about the rationale behind the work, and to justify why your work is essential in the field.

The introduction does not have a strict word limit, unlike the abstract, but it should be as concise as possible. It can be a tricky part of the paper to write, so many scientists and researchers prefer to write it last, to make sure they haven’t missed anything important.

For a longer research paper, where you use an outline, it can be useful to structure your introduction around the outline. Here are a few outline examples.

The introduction gives an overall review of the paper, but does address a few slightly different issues from the abstract.

It works on the principle of introducing the topic of the paper and setting it in a broader context, gradually narrowing the topic down to a research problem, thesis and hypothesis. A good introduction explains how you mean to solve the research problem, and creates ‘leads’ to make the reader want to delve further into your work.

You should assume that your paper is aimed at someone with a good working knowledge of your particular field.

For example, a paper about evolutionary adaptations need not go into too much detail about Darwin – it’s assumed your reader already has this knowledge.

A behavioral science paper only needs to mention Pavlov and Skinner in passing, as their theories are standard for any first year undergraduate.
Background

Like in any good Hollywood movie, the first task of the introduction is to set the scene. This gives your paper a context and allows readers to see how it fits in with previous research in the field.

This section, comprising the first paragraphs of your introduction, can be based around a historical narrative, chronologically outlining the very first research in the field to the current day.

In many fields, this could make up an entire essay in itself, so be careful to stick to only relevant information.

Importance

The background then leads into the rationale behind the research, revealing whether it is building upon previous research, looking at something that everybody else has overlooked, or improving upon a previous research project that delivered unclear results.

This section can then flow into how you are going to fill the gap, laying out your objectives and methodology [1]. You are trying to predict what impact your research will have and the consequences of rejecting or accepting the null hypothesis [2].

Limitations

The introduction is the place to highlight any weaknesses in the experiment from the start.

For example, an ideal experiment [3] should have perfectly randomized samples [4], but there are many good reasons why this is not always possible. As long as you warn the reader about this, so that they are aware of the shortcomings, then they can easily judge the validity [5] of the research for themselves.

This is much better than making them wait until you point the weaknesses out in the discussion.
Assumptions

You should also highlight any assumptions that you make about conditions during the research. You should set out your basic principles before embarking upon the experiment: any research will be built around some assumptions.

For example, if you were performing educational research, you may assume that all students at the same school are from a very similar socio-economic background, with randomization smoothing out any variables [7]. By alerting the reader to the fact that these assumptions have been made, you are giving them the opportunity to interpret and assess the results themselves. After all, a weakness in your paper might later inspire another research question, so be very clear about your assumptions early on.

Tips

There are a few tips that can help you write a strong introduction, arouse interest and encourage the reader to read the rest of your work.

- **Keep it Short**
  
  A long and rambling introduction will soon put people off and lose you marks. Stick closely to your outline for the paper [8], and structure your introduction in a similar way.

- **Define the Problem**
  
  The entire introduction should logically end at the research question and thesis statement or hypothesis. The reader, by the end of the introduction, should know exactly what you are trying to achieve with the paper. In addition, your conclusion [9] and discussion [6] will refer back to the introduction, and this is easier if you have a clearly defined problem.

- **Organization**
  
  As you write the paper, you may find that it goes in a slightly different direction than planned. In this case, go with the flow, but make sure that you adjust the introduction accordingly. Some people work entirely from an outline and then write the introduction as the last part of the process. This is fine if it works for you.

Once your introduction is complete, you can now think about tackling the rest of the paper.

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[1] https://explorable.com/writing-methodology