

Abstract Assignment

An **abstract** is a brief summary of a research article and is often used to help the reader quickly ascertain the paper's purpose. When used, an abstract always appears at the beginning of a manuscript or typescript, acting as the point-of-entry for any given academic paper

Academic literature uses the abstract to succinctly communicate complex research. The abstract can convey the main results and conclusions of a scientific article but the full text article must be consulted for details of the methodology, the full experimental results, and a critical discussion of the interpretations and conclusions.

As a scientist who will be sharing or publishing your data, you need to learn to write an abstract. Fortunately, abstracts have a fairly common structure, independent of your field of study. A business abstract is very similar to a biology abstract – a physics abstract can have the same structure as an engineering abstract.

Because of this, knowing the structure will help you in most fields.

First, we need to thank Dr Livi and Hendricson for letting us use their slides. They have been updated for this course, but the majority is from their efforts.

Your assignment is to write an abstract based on the consolidated sleep diary data.

To do this, you will address each of these topics.

(wait)

Specifically, you will pick one of 4 topics to write about – the consolidated sleep diaries were analyzed based on gender, caffeine consumption, class timing and wake time. Summary sheets for each one in BB, under Additional information, then Lecture and Handouts. You can look at each one and determine which one works best for you. You will use this same data for your presentation later on in the class. You are NOT allowed to mix and match data between the groupings.

Now, let's talk about the structure of an abstract.

Abstracts always answer 6 questions, listed here. What is shown in orange is the name we will give those sentences. The Gap sentence will tell us what is the unknown that is to be addressed. These sentences 'tell the story' of the research. What are we, as readers of the research project, going to learn about, why is it important, what are we going to get from reading this, how was it done, what were the results, and what conclusions can be drawn from this.

Now let's look at each of these in detail.

This template, or recipe, is, on average 10 sentences, each about 25 words long.

The first sentence is called a Gap sentence – in it, you do multiple things – you identify the general area you’re going to be working with, and then identify the ‘gap in knowledge’. Here is an example.

In this example, you’re looking at diabetics with depression, and identifying if you treat the depression, they have better health.

The Grab sentence is where you grab your reader by the throat and make them see why this research effort is important.

In this example, we learn that MANY diabetics have depression enough to affect their quality of life, adherence to medical treatment and control of their diabetes. Now why do I care? On one scale, I know diabetics, and I want them healthy, so now I’m more cognizant of their mental health. On another scale, our community is full of diabetics, so I want them healthy to keep them out of the hospitals, both for their own health and to keep costs down.

The next sentence is the ‘Get’ sentence – what will the reader get if they read this entire research article?

The reader will get knowledge about whether controlling depression affected glycemic control in the diabetics studied.

Up until now, we’ve stayed general – now we get technical. From a very high level, how did we perform this study?

In reading this methodology, notice that we’ve switched studies, but what else do you notice about this? This is very technical – there are lots of numbers and specifics – the number of patients, where it was, names of medications and dosages, time frames, and analysis techniques.

The results are next.

In reading the results sentences, what do you notice? What you should notice is that it is full of statistics.

The final sentences are the conclusions – here you go general again. What can you generalize about this research? (Again, another topic), but the comments are more global and not specific to this research.

If you go to Blackboard and download the rest of this presentation, there are 2 more abstracts for you to use as guidance, to include one on SSI data from a CS1173 class sleep study.

You must use the Abstract template found where you find the presentation – do NOT submit as a paragraph – just fill in the sentences next to where they are supposed to be on the template, and submit that.