

Things to Remember When Using the Template

TITLE: The title MUST be in English (as well as your submission language).

ABSTRACT: The abstract MUST also be in English (as well as your submission language). Use Google translate located at <http://translate.google.com/#auto|en|%0A>. Make sure that the abstract is a short summary of the study, with primary emphasis on results and conclusions. Keep to less than 250 words. You must include an abstract (short summary of your paper).

Definitions:

An experimental research paper: Used to describe the experiments performed and the implications.

A review paper: The purpose of a review paper is to succinctly review the most recent progress in the particular topic that you have chosen. The paper summarizes the current state of knowledge of the topic and creates an understanding of the topic for the reader by discussing the findings presented in recent research papers.

INTRODUCTION (for an *experimental research paper*): Establish the context of the work being reported and discusses relevant literature. The introduction usually answers questions such as, "What was I studying, and why was it an important question? What was known about the topic before I did this study, and how will my work advance our knowledge?" Indicate the purpose of the paper and present appropriate background.

INTRODUCTION (for a *review paper*): Make it brief, attract the reader's attention, explain the big picture and relevance, and provide necessary background information. Establish the context of the work being reported and discuss relevant literature. The introduction usually answers questions such as, "What was I reviewing, and why is it an important question?"

METHODS/MATERIALS (for an *experimental research paper*): Document the methods performed in your study using the past tense. Explain how you carried out your study so that others could repeat your work. *Do not report any results of the experiment in the methods section* – this is the most common error made by inexperienced writers.

BODY OF THE REVIEW (for a *review paper*): Make sure that you do not just list the findings of various studies but that you use what has been published to provide a new perspective or understanding. Do the conclusions from the various studies agree, point out controversies in the field? Think about how you can make your review different from others that are being submitted in the same area, or pick a topic that is not well known to explore. Often picking a narrower topic and going in greater depth will let your review differentiate itself from other reviews that are submitted. In terms of experimental evidence, describe important results from recent literary articles and then explain how these results shape our current understanding of the topic. Construct tables/figures that synthesize data from original papers.

RESULTS (for an *experimental research paper*): Analyze your data, and then present the data in the form of figures (graphs), tables, and/or descriptions of observations to help you make your point succinctly and clearly. **Do not** present the same data in both a figure and a table – pick one.

Make sure the figure or the table has a title and that each figure and table is discussed in the text with a reference to the number of the figure or table. To illustrate:

Figure 1 illustrates the flow of the ...and the data in **Table I** confirms that....

Do not draw conclusions in the Results section. Reserve data interpretation for the Discussion section (depending on the topic, however, the results and discussion can be combined as one section)

RESULTS (for a review paper): In terms of experimental evidence, describe important results from recent literature articles and then explain how these results shape our current understanding of the topic. Construct tables/figures that synthesize data from original papers.

CONCLUSIONS (for a review paper): What are the major conclusions from your review? What is the significance? What questions remain? What would be productive areas of research in the future?

DISCUSSION (for an experimental research paper): Here you interpret your results in light of what is already known about the subject. The discussion connects to the introduction but does not repeat what was there. It tells the reader how what you have done has moved the field forward from the place you left the reader at the end of the Introduction section. Sometimes it is appropriate to discuss what future experiments might be needed.

LITERATURE CITED (for an experimental research paper): Make sure you use the same format style – pick one and stick to it; do not mix styles. A good link that shows you how to reference using the ACS system can be found at <http://library.williams.edu/citing/styles/acs.php>.

The Literature cited section will not be included in the word count limit.

LITERATURE CITED (for a review paper): It is important that you capture the key papers in this area and be very careful using web references. Avoid using Wikipedia as a reference. Ideally you want mostly papers that originate from reviewed academic and scholarly journals or very trustworthy sources.

ACKNOWLEDGEMENTS: You are asked to submit the paper with only your name on it as the author since you are the one that has written it and carried out the research or the review that you are reporting. The full paper will not be published by Alltech and will be used only for the competition. However, a poster of the work that you prepare may be on display at the Alltech Symposium in May and be available for the attendees to view. We may also wish to publish your abstract. In the acknowledgments thank others that contributed to the work and mention in what way (i.e. animal trials, help with statistics, useful discussions etc.). For example, *the author thanks John Smith for assistance with the animal trials, Mary Brown for electron microscopy work, Maria Gonzales for GC analysis, Professor Mary Smith for useful discussions, etc.*

The Acknowledgements will not be included in the word count limit.

CHECK LIST: Make sure you complete the check list on the template so your paper is completed and submitted without any errors.

Note: A paper submitted to this competition cannot already be submitted for publication or already published in a Journal. After the competition students are encouraged to publish their work in the appropriate journal.