

**SCIENTIFIC PAPERS SHOULD CONTAIN THE FOLLOWING COMPONENTS:**

**COMPONENTS OF THE PAPER**

**A. Address.** The title should be informative, specific and short (13 words or less - usually).

**B. Abstract.** Although it should be short (1,000 characters or 15 lines), the abstract is NOT an INTRODUCTION to the paper. The field and topics are visible, and the entire content of the paper is summarized: issue, idea, purpose, goal, research methods, achieved results, findings, and conclusions. After reading the abstract, the reader should be so interested in the experiment that they will decide to read the entire article.

**C. Introduction.** The introduction should provide an understanding of the background of your experiment. It should also present the objectives of your study. After reading it, the reader should understand why your question is important. Do not use the introduction as a repository of information to show the reader how much information you have found on the topic. Demonstrate to the reader that you understand the problem's core, the field's essential points, and how your study adds to existing information. Be careful with citations in this section as well as in the discussion. Always be clear about your ideas and what ideas (and words) you are summarising and quoting from other articles. Also, don't quote what someone else has already mentioned ("chain citation"). In this case, find the original article, even if you have to put some effort and time into it.

**D. Material and methods.** This is the most accessible chapter to write because all you have to do is write down what you did so that another qualified researcher can repeat your experiment after reading your note. This section is usually the part of the article where it is easiest to start writing because you can already prepare it in the section while you are conducting the experiment. It is written in the past tense as a description of your experiments. It should include the design of your experiment and a description of the variables you measured. If a simple, well-known technique is used, it is perfectly appropriate to just name it. If the method is new

or modified slightly, you should take the time to describe the protocol used. You should also justify why you chose the parameters and method used. Also, don't forget to mention and include the equipment you used in the text. If relevant, describe the conditions where the experiments occurred (temperature, light, etc.). Finally, you should explain what statistical tests you used to analyse the data and whether you used any transformations.

**E. Results.** The results section is where you present "your results". Logical flow is critical, you need to convince the reader that you have chosen the right path and that your arguments are solid. If readers are confused by your results or unable to follow your presentation, they may be reluctant to accept that your conclusions are correct or will not acknowledge the importance of your findings. If it is a simple result, mentioning it in the text is enough. You will need tables and figures (graphs) for more complex results. In this case, decide what presentation format (table or figure) will better convey the information. In both methods, tables or figures should be titled and labelled so that they are self-explanatory and the reader does not have to jump between your text and tables to understand your claims. In addition, charts and tables should only contain data relevant to the interpretation in the text where you mention the appropriate presentation. After you've decided what data to present and what format works best for it, include a reference to a figure or table in the text where it matters.

**F. Discussion.** In discussion, you explain your results in light of other work in the field. You begin by presenting the essential conclusions of your study. Discuss how your findings are consistent with the facts already known. At the end of the discussion, you can also include an initiative for further research or reject or explain methodological errors from the course of the experiment.

**G. Literature Cited.** This chapter includes the references cited in the chapters of your article. This is not a bibliography and should only contain references that actually appear in your text. Don't write down everything you read while you are writing. The citation format in the text and this chapter varies between journals. Therefore, the only surefire way to get it right is to follow the directions in Citing Literature (see Paper Formatting Template).