



## Article Writing Guidelines for 'Asian Journal of Science Education' Journals

*(Title length of no more than 15 words, clear, interesting and informative. Does not use abbreviations, formulas, years and places)*

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### **ARTICLE HISTORY**

Submitted :  
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### **KEYS WORDS**

Keyword1, keyword2, keyword3

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### **ABSTRACT**

An abstract is a summary of the contents in a scientific article, starting with a brief background, then proceed with the research objectives, research models/approaches, methods of taking and number of samples, instruments and methods of data collection, and methods of data analysis. The abstract closes with research results, conclusions and inferentials/impacts. In summary, it is also recommended to write down recommendations for future research. The length of the abstract is a maximum of 250 words, there is no formula, there are no references/references and there are no pictures/tables, using the font Times New Roman with a font size of 10 without bold and italic. Abstract writing is recommended to combine several activities in one sentence. For example, the research used a quantitative approach, quasi-experimental methods and a two-group pretest-posttest design or other examples. Quantitative data collected through multiple choice tests were analyzed using the t-test formula. On the left side of this abstract are written keywords of about 4-7 words, which are the focus and important words in the research. The order or arrangement of the sub-activities in the abstract is the same as the sub-activities in the body or contents of the article.

## INTRODUCTION

The introduction of a scientific work contains the background so that a problem arises and it is necessary or important to do this research as a solution to the problem. The point in this introductory section should be able to find results and conclusions from previous research in the same field, so that the position and importance of current research can be explained. In general, the contents of the introduction of a scientific work include (1) a general description of the issue or research topic, (2) definitions and results of previous research specifically related to the independent variables and dependent variables in the research, (3) field conditions or reality that has been achieved so far (usually based on the results of field observations), and (4) problems are raised and solutions are offered in accordance with the results of previous research and the results of field observations on this research topic. All of these sections do not need to be written under the new subtopic title, but are differentiated based on their respective paragraphs, and each paragraph must have at least 2 sentences.

The length of the introductory section is no more than 1 page of HVS A4 paper size, if possible there are at least 12 cited references (APA system) and MAKE SURE every cited reference is in the bibliography, use the font style and font size according to this template, do not use pictures/ data tables or graphs, and everything is written concisely and clearly. Writing source citations in all parts of

the article including the introduction using the APA system style. The first paragraph starts aligned to the left, while the next paragraph's first line starts at the fifth beat (character). NOTE in the Introduction as well as in the following sections, you CANNOT use the words WILL, because the research has already been done.

## **RESEARCH METHODS**

### **Research Approach**

This section describes the research approach (quantitative or qualitative or mixed), research methods (experiments, surveys, etc.), and research design (one group pretest-posttest, two group posttest, etc). Explain why the approach, method and design were chosen as described above and the explanation is related to the purpose and type of data in this study.

### **Research Participants**

Explain who, how many are needed and how the sample was selected (random, non-random, etc). Explain why the sample was used and whether the number of samples that have been selected meets the provisions or criteria from a statistical aspect.

### **Research Instruments**

This section contains information about all the instruments used in the study. This information includes the origin of the instrument (developed by researchers or adopted), the type of instrument (test or non-test), the form of the instrument (multiple choice test or description, questionnaire, etc.) and the number of question items or questions. If the instrument was developed by the researcher, explain how to do the validity and also how to test the instrument on a limited sample. For completeness of data and information about research instruments in this section, it is necessary to include matrix tables or instrument outline.

### **Data Collection**

This section contains information about ways of collecting data, both primary data and secondary data. The description of how to collect data is adjusted to the types of instruments used (as previously explained). The description includes when it was carried out, on whom it was carried out (sample), what instrument was used, for what purpose, and who collected the data.

### **Data Analysis**

This sub-section describes the methods used for data analysis. The description includes the type of data analyzed, the purpose of the analysis, the formula used, and the method of analysis. The description still refers to the research objectives as formulated in the introduction section. If data analysis uses an application program (eg SPSS), the steps for carrying out data analysis with SPSS must be briefly and precisely described. Each output of the analysis results from SPSS must be understood and explained in detail.

## **RESULTS AND DISCUSSION**

In this section, the results and discussion are described, in accordance with the research objectives that have been formulated in the introductory section. The number of subtopics in this section corresponds to the number of research objectives that have been formulated. For example, there are only two research objectives (first objective and second objective), then there are only two subtopics, namely for results and discussion. In general, the Results section only reports the results obtained and there is NO discussion, while the Discussion section only discusses them.

### **Results of the First Research Objectives**

The first part of this subtopic displays all the data that has been collected, either in tabular or graphical form, with reference to the first research objective. Data that has been shown in tabular form DO NOT show again in graphical form or vice versa, you must choose one. If the data is shown in tabular form, then follow template table 1.

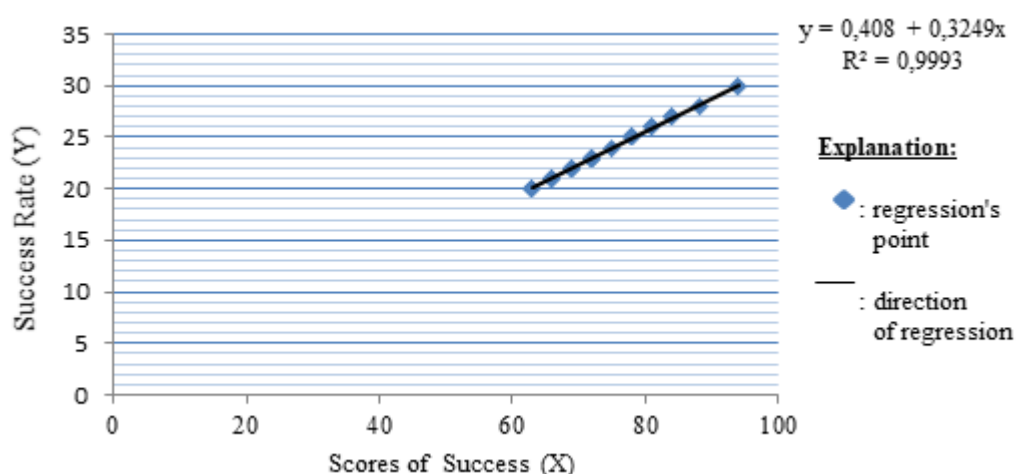
**Table 1.** Table must contains complete data of research

Statements	A	T	P	Result	Hypothesis	Remark
Primer Data	x	x	x	x	x	x
Sub-primary Data	y	y	y	y	y	y

The size of the letters in the table must be one level smaller than the size of the letters in the body text (for example, in the body text the font size is 11, then the size in the table font is 10). The position of the table and the title of the table is in the middle of the page, if the contents of the table are the results of this research data analysis, then it is NOT necessary to state the source under the table.

### Results of the Second Research Objectives

In this section, all research data are displayed in accordance with the objectives of the two studies. If the data is displayed in the form of a graphic image, then the correct image template is as shown in Figure 1. Graphic description, including; the title on the x-axis, the y-axis, the chart title on the top center of the chart, and the description of each existing symbol.



**Figure 1.** The Graph Must be Complete with Clear Legends and Line

### Discussion of the First Research Objectives

This section discusses the results of data analysis according to the target of the first objective, as formulated in the introduction section. The discussion includes; whether the results of the research data analysis are in accordance or not in accordance with the objectives of the first research, it is explained why the results of data analysis for the first research purposes are obtained like that, how the results of the data analysis for the first research purposes are related to the results of previous research, and how is the relationship between the independent and dependent variables for first research objective.

### Discussion of the Second Research Objectives

This section discusses the results of data analysis according to the target of the second objective, as formulated in the introduction section. The discussion includes; whether the results of data analysis are appropriate or not in accordance with the objectives of the second study, it is explained why the results of data analysis for the second research objective are obtained like that, how the results of data analysis for the second research objective are related to the results of previous research, and how the relationship between independent and dependent variables for the second research objective.

### CONCLUSION

In this section, the conclusions of the research are written briefly, narratively, and conceptually which describe the results of the research and how it impacts. The conclusion description includes: answers

to the research objectives as formulated in the introductory section, why such results were obtained, and what are the shortcomings or limitations of this research and what are the suggestions for future research. AVOID using numbers or bullets, but written in one or two paragraphs or more according to the number of research objectives.

### Acknowledgment

Write thanks to people, institutions that donate funds, etc., placed at the end of the paper and on a separate page.

### References

The writing style of the bibliography refers to the latest edition of the APA model, as shown by several examples in the following sections.

- Cachia, R., Ferrari, A., Ala-Mutka, K., & Punie, Y. (2010). Creative Learning and Innovative Teaching: Final Report on the Study on Creativity and Innovation in Education in the EU Member State. *Journal Joint Research Center Insitute for Prospective Technological Studies. JRC European Commission*. Retrieved 28/04/2018, from <http://ftp.jrc.es/EURdoc/JRC62370.pdf>
- Johnson, G. M. (2010). Internet use and child development: The techno-microsystem. *Australian Journal of Educational and Developmental Psychology*, 10, 32-43.
- Herráe, A. (2006). Biomolecules in the Computer. *Biochemistry & Molecular Biology Education*, 34 (4), 255-261.
- Novák, M., & Langerová, P. (2006) Raising efficiency in teaching mathematics in non-English speaking countries: an electronic bilingual dictionary of mathematical terminology. In: *Proceedings of 3rd International Conference on the Teaching of Mathematics at the Undergraduate Level*. Istanbul: TMD (Turkish Mathematical Society), 2006. [CD-ROM].
- Posner, M. (2004). Neural systems and individual differences. *TC Record*. Retrieved 3/08/2005, from <http://www.tcrecord.org/PrintContent.asp?ContentID=11663>
- Thurstone, L. L. (1959). *The measurement of attitude: a psycho-social method and some experiments*. Chicago: Univerity of Chicago.
- Vaitkevičius, J. (1995). *Socialinės pedagogikos pagrindai*. Vilnius: Egalda

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