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First Author [1,*], Second Author [2], Third Author [3]

[1] First affiliation (Study program, Faculty, University, City-Country)
[2] Second affiliation (Study program, Faculty, University, City-Country)
[3] Third affiliation (Study program, Faculty, University, City-Country)
* Corresponding author: Email Corresponding author

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ABSTRACT

Abstract explains the core of manuscript informatively and obviously including the subject matter, aims and proposed approach and solution, methodology, key findings and conclusions. The number of words in the abstract is about 150-250 words, written in one paragraph. The abstract was written in single-spaced, and the margin was narrower than the main text. Keywords need to be listed and reviewed and the main terms underlying the conduct of the research. Keywords could be a single word or phrase. Keywords including 3-5 words or phrases. These keywords are required for ease of searching the title and the topic of research. Font type and size for abstract and keywords are Book Antiqua 10pt.

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Keywords: Keyword 1; Keyword 2; Keyword 3; Keyword 4

Introduction

The introduction should include **the background of the issue** or **problem** as well as the **urgency of the research**, **rationalization**, and **analysis gap** with existing research, so that it can demonstrate the renewal given in the science of biology education. The purpose of the research must be clearly seen in the introduction. In the introduction, it is better not to contain tables and pictures. The introduction is straightforward and no more than two pages

long. A review of relevant literature and the development of hypotheses (if any) can be included in this section. Terms of doing citations (name, year), in doing citations, are emphasized to **use reference manager applications** such as *Mendeley, Zotero, or EndNote*. This aims to avoid errors in citation and writing references at the end of the article.
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Methods

This section is used both for articles derived from **research and study results**. The method section for **the research paper** may contain the design of steps or procedures carried out in data collection (data collection techniques) and analysis used to obtain results. Otherwise, it may contain the number of respondents used in the study. Writing a formula can use the equation by including the main source used as a reference. **Articles that are of a study nature (not the results of the study)** may contain a flow of thought in conducting the study, steps in data collection (information gathering), analytical techniques (if any), and criteria or reference standards used to conduct a critical and in-depth study.
Subheadings should be italicized, with each word capitalized.

Results and Discussion

Results and discussion can at least include ***"what?"*** which conveys results or findings from research, the data presented are not raw data, ***"why?"*** scientific study and there is a link between the results obtained with the basic concepts; ***"what else?"*** compare the results of your research with other research, it is suggested to provide implications for research results both from theoretical and application.

This section presents the results of research and discussion as a whole so that the author is not justified in separating the results and discussion in the form of new chapters/ subchapters. How to write the results and discussion is done directly by reviewing sharply one by one the results of the research obtained with the support of relevant references and prioritizing from primary sources (journals). The results presented in this section are net results. Data analysis processes such as statistical calculations and hypothesis testing processes need not be presented. Only the results of the analysis and the results of hypothesis testing need to be reported. The results of the study can be supplemented with tables, pictures, and graphs (the provisions of writing in information for the author) to clarify the presentation of the results of the research verbally. Before presenting, tables and graphs must be given a narrative and then commented on or discussed.

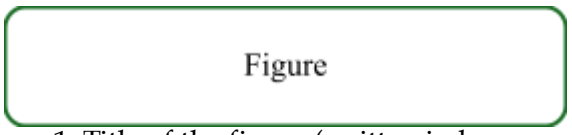

Figure 1. Title of the figure (written in lowercase).

The discussion in the article aims to: (1) answer the problem formulation and research questions; (2) shows how the findings were obtained; (3) interpret/interpret the findings obtained; (4) linking research findings with other studies; and (5) bringing up new theories or modification of existing theories.

Tables and figures should be relevant to the manuscript and introduced in the text before they appear. Place table captions above tables and figure/graph captions below them. Position tables and figures at the beginning or end of a page, and do not split a table across pages. Figures must be clear and high-resolution, use no border, and must not be screenshots or captured images. Use colour in graphs where appropriate and explain symbols or colours in the caption. Tables should contain at least two data rows, avoid repeating measurement units, and use horizontal rules only above and below the column headings and at the bottom of the table. Related tables may be positioned close together; tables or figures may span both text columns when necessary.

Table 1. Caption table is written in the lowercase

Table head	**Table column head**	
	Table column subhead	**Table column subhead**
content	content	content
content	content	content

Footnote:

Conclusion

Conclusions are written briefly, concisely, and clearly in one paragraph, which is a summary of the results and discussion and answers from the objectives of the research/publication. Emphasis on the novelty of discovery or development. If there are suggestions from research relating to the results of research for practical activities or further research based on the renewal results found, it can be delivered briefly and clearly at the end of a paragraph or can make a new paragraph.

Acknowledgment (*OPTIONAL*)

Use this optional section to acknowledge those who contributed to the research through financial support, research permissions, or assistance with data collection.
This article is part of [study/research program, e.g., an ongoing doctoral/master's study] at [Department/Faculty/Graduate School], which [author(s), e.g., the first author (Initials)] is/are currently pursuing at [University/Institution, Country]. We would like to express our deepest gratitude to [Institution/Ministry/Funding Agency/Supporting Parties] for providing [scholarship/grant/support], enabling [author(s)] to [pursue this academic degree/complete this study].

Author contributions

Conceptualization: [Author Name(s)]; Methodology: [Author Name(s)]; Formal analysis and investigation: [Author Name(s)]; Writing - original draft preparation: [Author Name(s)]; Writing - review and editing: [Author Name(s)]; Funding acquisition: [Author Name(s)]; Supervision: [Author Name(s)].

Funding (*OPTIONAL*)

[Partial/Full] financial support was received from [Funding Agency/Institution] for providing [Scholarship/Grant Name and Number, if applicable].

Data availability

The corresponding author can provide the datasets used and analyzed in the current study upon reasonable request.

Declarations

Ethical approval

All [students/participants] who participated in this study have agreed to the publication of the resulting data. The agreement form was signed at the beginning of the [questionnaire/ data collection] process.

Competing interests

All authors declare that there are no conflicts of interest.

Declaration of Generative AI and AI-assisted technologies

During the preparation of this work, the author(s) used [Name of AI Tool/Service, e.g., ChatGPT/Grammarly] in order to [reason, e.g., improve language and readability / assist with translation]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

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References

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Arrange references alphabetically and follow APA 7th edition. Use a reference manager such as Mendeley, Zotero, or EndNote for in-text citations and the reference list. Examples of common reference types are provided below. Further guidance is available at https://apastyle.apa.org/style-grammar-guidelines/references/examples.

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