

Instructions to Contributors for the *Asian Journal of Biology Education*

The Asian Journal of Biology Education

(AJBE) is published electronically by the AJBE Editing and Publishing Office for the Asian Association for Biology Education (AABE).

The Journal is on the AABE web site:

<https://www.aabe.sakura.ne.jp/Journal.htm>

Objectives of the AJBE

The main objectives of the Journal are as follows:

- To publish proceedings of AABE conferences;
- To promulgate results of research into the teaching, learning and assessment of biology;
- To present investigatory, experimental, and novel teaching/learning techniques suitable for use in teaching biology;
- To update educators on the advances in biology;
- To review resources for teaching biology;
- To comment on the current policy developments affecting the biology education, especially in the Asian-Pacific region.

The Journal attaches considerable importance to research that is applicable to educational practice. Articles relevant to primary, secondary, tertiary, vocational, adult, and continuing education will be considered. Authors should remember that the Journal has a wide-ranging and international readership hence all papers should contain a clear description of the settings to which they relate.

The Journal seeks to publish papers presented at the biennial conference of AABE and papers submitted by biology educators and researchers in biology.

Papers in the AJBE

Papers can be in the following six categories. Papers categorized as Review, Research Paper/Research Note, Practical Report/Practical Note, and

Biological Resource, are invariably refereed. Those categorized as Country Report are also peer-reviewed if needed.

1. **Review:** this category aims to provide a link between scientific research findings and the classroom. The aim is to provide teachers with up-to-date information on key areas. The reviews should give a clear and concise summary of a biological or educational topic. Articles for this section are intended to review educational topics relevant to a biology curriculum. Articles based on biological topics or those of relevance to the management and design of curricula are also of interest. Theoretical or discussion papers which are intended to deal with key points relevant to biology education may be suitable for this section.
2. **Research Paper/Research Note:** these will form the main body of the Journal. The research in any aspect of biology education should be carried out in conformity with the methodology of scientific research. **Research Paper** (full paper) is basically composed of an abstract, introduction, methodology (materials and methods), results, discussion and conclusion(s), and references. The manuscript should be written clearly and concise. The methods and results should be described along with both conclusions and implications for future research and teaching practices. Conclusions should be drawn logically based on the results. Their importance will be introduced against the background of a critical review of the relevant literature. **Research Note** is intended to be a short article which reports novel findings worthy of urgent publication. Research Note is composed of an abstract, introduction, materials and methods, results and discussion, and references. Although an abstract is not necessarily required, for the reader's convenience, it is desirable to

include a brief description of the paper. A clear demarcation between sections may not be necessarily required.

3. **Practical Report/Practical Note:** this section aims to give practical advice. Case studies into any aspect of education practice may be included. **Practical Report** (full paper) is desirable to contain an abstract, introduction, methodology (materials and methods), results, discussion, and references. The article should clearly describe a laboratory or classroom-based exercise or fieldwork which can be related to biological curriculum. The exercise described should have been subjected to trial in an educational setting. This section may also include descriptions of other innovations and developments, such as the use of teaching aids and the implementation of software packages. The emphasis will be on the nature of the practice, a clear description of the implementation procedure, and an evaluation of its success. Authors are recommended to present details of the suppliers listed in the materials section. **Practical Note** (short article), which describes a novel teaching/learning aid or teaching strategy, is of interest. As well as Research Note, such manuscripts do not necessarily need an abstract or to be divided into sections.
4. **Country Report:** this section aims to give readers the latest information about biology education and environmental education in the Asian and neighboring countries.
5. **Biological Resource:** this section aims to give information about biological science research whose results are considered to be useful for resources of biology education at a certain level of education. The author(s) should refer to how the results or the research itself are useful for biology education at that level.
6. **Miscellaneous Article:** opinions or outlooks on biology education or environmental education, and other articles which give some information about biology education, teaching

aids, printed and electronic references, etc. will also be included in this category.

Abstracts of the papers presented orally or in poster form at an AABE biennial conference are not included in the categories listed above and will automatically be published as parts of the Conference Report^(Note 1).

Notice

The Editorial Board of *AJBE* is aware that the autonomy of science is based on the trust and commitment of society. Thus, the Editorial Board forbids the fabrication, falsification plagiarism, double contributions, gift-authorship, and human rights violations to the authors. If any misconduct is found in a contributed article, etc., the Editorial Board will either not publish the article or cancel its publication. In addition, the Editorial Board will take some appropriate measures, by considering the degree of misconduct and the responsibility of the author(s), such as banning submission of a paper for a certain period of time or claiming to pay compensation for damages.

Further information on the AJBE Publication Ethics is provided on the corresponding web page on the AABE web site.

Submission of manuscripts

Sending files

Only electronic submission is acceptable. Manuscripts should be sent by e-mail to the Editor-in-Chief, *Asian Journal of Biology Education* (site_admin@aabe.sakura.ne.jp).

MS-Word document files are preferable, but we can accept MS-Excel spreadsheet document files and Acrobat PDF files.

Authors should ensure that the paper meets the guidelines listed below for the preparation of manuscripts. Authors are requested to indicate which category among the six mentioned above the paper falls into. It is desirable that the articles should not exceed the number of pages given below at their publication: Review: 12 pages,

Research Paper: 12 pages, Research Note: 6 pages, Practical Report: 12 pages, Practical Note: 6 pages, Country Report: 12 pages, Biological Resources: 8 pages, other articles: 4 pages.

Presentation of manuscripts

All contributions must be in English and be as succinct as possible. They should not be under consideration by any other journal. Plagiarism of another person's thesis even only in part is strictly prohibited. Reprinting of data from the authors' past publications and quotations from any publication should be at a minimum.

Authors should emphasize the educational setting and the relevance to biology education. Papers should contain a clear description of the context to which they relate and should show the relevance of the results and insights in both their specific setting and in any general setting to which they may also relate.

Page format

The manuscript should be printed on A4-sized page. The page setting should be as follows: The top and bottom margins should be 3.0 cm and each side 2.5 cm; the recommended font is 11 point, Times New Roman, 40 characters per line and 42 lines per page. Pages should be numbered consecutively.

Cover page layout

The first page will be a cover sheet. The "Cover Page Form for Submission" file which is available on the AABE Website can be used. Alternatively, the first page should only include:

- (1) The category of the article (among the six categories mentioned above);
- (2) A title of the paper which clearly describes the content of the manuscript;
- (3) The name(s) and affiliation(s) of the author(s) – the author for correspondence with his/her e-mail address or post address should be clearly indicated;
- (4) A running title, or running head, of 50 characters or less, including spaces;
- (5) Up to seven keywords in alphabetical order.

The second page

The second page should contain only the title of

the paper and an abstract (preferably no more than 250 words) with keywords. This is not applicable to the manuscripts which do not include an abstract. In order to ensure anonymous and fair refereeing, the name(s) or affiliation(s) of the author(s) should not be indicated on the second and following pages.

Footnotes and appendices

Footnotes are discouraged and all material should be placed in the main body of the text. If notes are required, they should be numbered sequentially and placed at the end of the paper. Appendices may be used if they are essential to understand the article.

Units, symbols, abbreviations, and nomenclature

The International System of Units (SI) should be used throughout. Full stops are not used after units. All symbols or abbreviations, except those mentioned **on page 31 in AJBE Vol. 13**, should be defined when first used. For biological nomenclature, the use of scientific names is recommended. If desired, the common name of the organism should be shown in parentheses after the recommended name. For chemical nomenclature, the rules of the International Union of Pure and Applied Chemistry (IUPAC) should be followed.

Tables

Tables should be numbered consecutively. Each table with its number, heading and any footnotes should be embedded in the text where it should most naturally occur. The table caption or heading should be self-explanatory. The width of a table should be less than 16 cm.

Figures

Graphs, line drawings and photographs should be numbered consecutively. Each figure with its number and caption should be embedded in the text where it should most naturally occur. The journal will accept color pictures. The width of a figure should be less than 16 cm.

Graphs and drawings must be presented to a high professional standard. It is desirable to prepare each figure in one cluster.

Photographs must be clear, good quality black

and white or color pictures, and JPEG-formatted. The vertical/transverse proportion should not be changed from the original. Any lettering required should be printed directly on the photograph by the author. The insertion of a scale on the photograph is preferable to a statement of magnification in the caption.

Because of the requirements of editorial treatment, every table and figure should be prepared to be edited easily by the Microsoft Office software (e.g., Word, Excel, or Picture Manager). If the author has any queries, please consult with the Editor-in-Chief.

References and Websites

References must be selected thoughtfully by considering whether it is indispensable for the paper. It is expected that the references will be easily accessible to a wide range of educators. Therefore, inaccessible materials, such as unpublished manuscripts, unpublished documents, and newspaper articles, are not appropriate for the references. All references cited in the text should be listed in the Reference section at the end of the paper. All references in the list should be cited in the text, too.

References in the text should be given as follows:

Wallis and Katayama (2022) or (**Wallis and Katayama, 2021**). Papers with three or more authors should be cited as **Kharatmal et al. (2022)**. When an author has published two or more papers in one year, the references should be distinguished by referring to **Hedde et al. (2007a)** and **Hedde et al. (2007b)**, etc. Where more than one reference is given at the same point in the text, they should be listed chronologically.

The reference list should be arranged in alphabetical order by the family names of the first authors and should include the author's initials and the full title of the paper. Titles of journals must be given in full, followed by the volume number, and the first and last page numbers in full:

Kharatmal, M., Gikwad, M., Mule, A. and Ad-

vani, J. (2022) Exploring college biology students' understanding of experimental design. *Asian Journal of Biology Education* 14: 2-7.

References to books and monographs should include in the order as follows: author or editor, year of publication, title of book, edition, chapter, and/or page reference (if desired), publisher and the place of publication. For example:

Alberts, B., Heald, R., Johnson, A., Morgan, D., Raff, M., Roberts, K. and Walter, P. (2022) *Molecular Biology of the Cell*, 7th ed. W. W. Norton & Co. Inc., NY. U.S.A.

Waterman, M. (2012) Actions and opportunities: a North American perspective on undergraduate biological education for social and sustainable development. In: Kim, M. and Diong, C. H. (eds.) *Biology Education for Social and Sustainable Development*, pp. 29-39. Sense Publishers, Rotterdam, Netherlands.

Web-based resources are included in the reference list or separately shown in the Website list. Articles or documents, which are available on a website as document files, should be treated as references. For example:

Department of Environment, Land, Water and Planning, Melbourne, Victoria (2020) Victoria's Bushfire Emergency: Biodiversity Response and Recovery, Version 2. https://www.wildlife.vic.gov.au/__data/assets/pdf_file/0030/484743/Victorias-bush-fire-emergency-Biodiversity-response-and-recovery-Version-2-1.pdf <accessed May 20, 2023>

Glover, B. (2023) Investigating how plants use colour to attract pollinators: Introducing STEM Careers - Teaching, Learning and Technician Notes | Resource 846, version 1.1, revised 2023. Science & Plants for Schools (SAPS) <downloaded on May 20, 2023, from <https://www.saps.org.uk/teaching-resources/resources/846/investigating-how-pla>

nts-use-colour-to-attract-pollinators-introducing-stem-careers/>.

When citing an article from a webpage itself, not as document files, the website information should encompass the site's name, the relevant webpage, its address (URL), and the access or retrieval date:

Science and Plants for Schools (SAPS). Investigating how plants use colour to attract pollinators: Introducing STEM Careers.

<https://www.saps.org.uk/teaching-resources/resources/846/investigating-how-plants-use-colour-to-attract-pollinators-introducing-stem-careers/> <accessed: May 20, 2023>.

U. S. Environmental Protection Agency. About the Endangered Species Protection Program.

<https://www.epa.gov/endangered-species/about-endangered-species-protection-program> <retrieved: 20/05/2023>

Prior to the submission, authors should confirm whether each Website can be accessed through the Internet using the provided URL, as readers may sometimes encounter difficulties accessing the corresponding Webpage with the indicated URL.

Editorial organization and reviewing process

The Editor-in-Chief is appointed by the Executive Committee of the AABE and has final responsibility for all editorial decisions. The Editorial Board, whose members are appointed by the Editor-in-Chief and are attested by the Executive Committee, processes all manuscripts that are received. The organization of the Editorial Board at the present time is shown at the end of this document.

When a manuscript is received, the Editor-in-Chief will first judge as to whether its content falls within the scope of the AJBE. Manuscripts that are not in conformity with the instructions, are

simply to confirm previous work, are too highly specialized only in a particular field of biological science or are felt not to be of interest to the general readership of the Journal will be returned without review.

After this preliminary review, all the manuscripts except "Miscellaneous Article" will be sent to two referees to ensure that the paper is applicable to biology education and that the science and/or educational research is sound. This peer reviewing process is completely anonymous. Referees are selected based on their competence in specialized areas of biology and education. If referees disagree, or if in the opinion of the Editor-in-Chief the paper has not been sufficiently considered, the manuscript will be sent to a member of the Editorial Board to aid in arbitration.

If the manuscript is returned for revision, the author should resubmit a revised manuscript to the Editor-in-Chief within the designated period (generally three months). When the author resubmits the revised manuscript, he/she should state how the author had responded to the given specific comments and recommendations in a covering letter. If any comments or recommendations have been disregarded, the reasons should be given. The resubmitted manuscript will be sent to the same referees.

Copyright

An indispensable condition of accepting papers for publication is that authors should agree to assign copyright to the publisher. The publisher is responsible for dealing with requests for printing or copying, and for protecting authors' right.

Authors must obtain written permission to use any material (figure, table, or data), which has been published elsewhere, in their articles. They must also include in their manuscripts any credits requested to the source. PDF files of letters granting permission should be presented with submitted manuscripts.

Note 1: AABE will publish abstracts of oral/poster presentations at the AABE Biennial Conferences as part of the Conference Report in a subsequent volume of the AJBE. These abstracts are simply reprinted from the Programme and Abstract booklet distributed at the Biennial Conference and are not

peer-reviewed independent articles of the AJBE. They are not treated as published articles and cannot be referenced as previously published articles. Therefore, oral and poster presenters may submit the contents of their presentations as new research papers to AJBE and other journals.

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