

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 Advani, 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. 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-plants-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 re-submits 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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AJBE Publication Rules and Ethics 2022

(Issued September 15, 2022)

The Asian Journal of Biology Education (AJBE) is edited and published by the Asian Journal of Biology Education Editing and Publishing Office (c/o Department of Science Education, Aichi University of Education, Hirosawa 1, Igayacho, Kariya, 448-8542, Japan) for the Asian Association for Biology Education (AABE).

The AJBE Editorial Board has full responsibility for the publication of AJBE. The AJBE Editorial Board is committed to promoting integrity in research and the prevention of misconduct through strict editorial standards in the publication of AJBE. The Editorial Board will deal with any misconduct promptly. The following duties and responsibilities are imposed on the Editorial Board members, reviewers and authors and form the basis of the AJBE editorial policy on integrity in publishing.

AJBE Editorial Board Members' Ethics and Responsibilities

- (1) The Editor-in-Chief is nominated by the AABE Executive Committee and appointed by the AABE Director. Then the Editor-in-Chief selects the members of the Editorial Board from among the AABE members and notifies the composition of the Editorial Board to the AABE Executive Committee.
- (2) By accepting office, members of the Editorial Board are deemed to have agreed to this policy and to have undertaken not to commit any misconduct in the performance of their AJBE duties. If an Editorial Board member is found to have committed misconduct, the Editor-in-Chief shall scrutinise the facts, report to the AABE Executive Committee and, upon approval, dismiss the member concerned. Then, the Editor-in-Chief shall review the editorial operations of the AJBE to reduce further risks of misconduct and possible damage to the journal's reputation.
- (3) The Editor-in-Chief is responsible for all aspects of the publication of the AJBE. The Editor-in-Chief confirms that there are no irregularities or illegitimacy in the submitted manuscripts before their acceptance for publication. In reviewing submitted manuscripts, the Editorial Board members are obliged to ensure research integrity in the submitted manuscripts at the request of the Editor-in-Chief. Based on the collective opinions and recommendations of the Editorial Board members and the reviewers, the Editor-in-Chief will decide whether the submitted manuscripts are acceptable for publication or required revisions and communicate his decision to the authors.
- (4) In reviewing submitted manuscripts, the Editorial Board will ensure that the review process is not biased towards any attribute of the contributors, such as race, gender, nationality, ideology or creed.

- (5) The Editorial Board will not endeavour to keep the submitted manuscripts or any information about them to the outside world.
- (6) Members of the Editorial Board will not misappropriate the content or ideas of submitted manuscripts for personal use.
- (7) If the Editorial Board discovers any misconduct by an author or reviewer, it will recommend to the person concerned for the correction of the misconduct immediately and will take appropriate action if the recommendation is not followed. For example, if there is misconduct in the submitted manuscript, the review process will be suspended, and the author concerned will not be allowed to subsequently submit any manuscript to the AJBE for a certain period of time. In the case of a reviewer's misconduct or undisclosed conflicts of interest, the request for review will be cancelled and further request for review to the person concerned will be permanently suspended.
- (8) In the event that any misconduct is discovered in a published paper or an allegation or suspicion of misconduct in an unpublished paper is brought to her/his attention, the Editor-in-Chief, will promptly initiate a thorough investigation before taking a decision.
- (9) If any damage or loss is caused by the misconduct of an author or reviewer, the Editorial Board and the AABE will not be liable for any compensation for the damage or loss. The Editorial Board and the AABE has the right to demand the person concerned to compensate for the damage or loss. If an evidence of misconduct arises subsequently in papers that have been published, the Editor-in-Chief announces the retraction of the papers in the journal.

Peer Reviewers' Ethics and Responsibilities

- (1) Reviewers are obliged to make an appropriate judgment as to whether the manuscript they are asked to review is worthy of publication in AJBE and report their judgment to the Editorial Board.
- (2) The reviewer will endeavour to check for any irregularities or illegality in the manuscript requested for review.
- (3) If the invited reviewer decides that she/he is not competent to review the manuscript or is unable to meet the review deadline, the reviewer must immediately notify the Editor-in-Chief.
- (4) The reviewer must make every effort to maintain the confidentiality of the manuscript under review and not to divulge any information about it.
- (5) The reviewer will not misappropriate the contents or ideas of the manuscript under review for personal use.
- (6) Reviewers will endeavour to maintain fairness and objectivity in the peer review process and will not engage in unsubstantiated, subjective or emotional criticism of the contributors.

- (7) The reviewers will judge the appropriateness of the references and citations of the contributors and will endeavour to point out any missing relevant references or citations.

Authors' Ethics and Responsibilities

- (1) Authors must prepare manuscripts for submission in accordance with the instructions in the latest edition of the AJBE Instructions to Contributors. Manuscripts that do not follow the instructions may be rejected.
- (2) Authors should ensure that their manuscripts are original and novel and maintains the quality of a scholarly article. Manuscripts must be written in such a way that a follow-up examination is possible.
- (3) Authors must ensure that their manuscripts are free from fraudulent data, data falsification, and plagiarized texts, etc. The primary sources of original data used in preparing the manuscript must be made available to the Editorial Board upon request.
- (4) Authors are to confirm that the content of the manuscript submitted has not been partially or fully previously published in any language. If authors cite data or text from their own or others' previously published work, they must clearly state the sources of these citations. If the exact sentences are reproduced from published articles, these must be in quotation marks and the relevant source and page number(s) presented.
- (5) Authors must not submit their manuscript to more than one journal at the same time. The review process will be terminated if it is discovered that even a part of the manuscript has been submitted to another publication medium.
- (6) Authorship of submitted manuscripts is limited to those who hold the right to be authors. Submitting a manuscript without the permission or knowledge of the co-researchers involved in the research, excluding a person who holds the right to be an author, or including a person who was not involved in the research as an author, is prohibited.
- (7) If the research has received financial or other support, it is advisable to clearly state this in the manuscript. If permission from a research or funding organisation is required for the publication of research results, the author must obtain its permission to publish prior to submitting the manuscript and must clearly indicate in the manuscript that permission has been obtained. Any permissions, licences or approvals from ethics committees or similar bodies must be noted.
- (8) It is the responsibility of the authors to obtain the written permission from the copyright holder for citing figures, tables, texts, etc. in their manuscripts. The AJBE Editorial Board and the AABE are not responsible for any protests or claims for compensation from the copyright owner after the author's paper is published in AJBE, and the author must take full responsibility of any copyright infringements.

(9) Authors must immediately notify the Editor-in-Chief of any errors in data or in the text that are found anytime during the peer review process, after the manuscript has accepted for publication, or after its publication.

(10) The copyright of papers published in AJBE belongs to the authors and AABE. AABE automatically owns the copyright when the manuscript of the article is accepted. Authors may reproduce the article in any medium or register it in the repositories of non-profit organisations such as research and educational institutions without getting an agreement of AABE. Authors may also translate the published article into languages other than English or use part of the contents of the article in other articles, with due acknowledgement in the reference or citation of the prior publication of the article in the AJBE. AABE can register published articles or their information in any open access online databases. However, authors must obtain permission from AABE, and AABE must obtain permission from the authors, if they wish to use part or all of an article for commercial purposes.