# **GPG JOURNAL OF SCIENCE EDUCATION**

E-ISSN No. 2582-7073 (Online)

## AUTHOR GUIDELINES

#### Types of articles.

- 1. Full length research paper
- 2. Short communications
- 3. Review articles
- 4. Articles describing innovations in teaching materials, Assessment, Evaluation and Experiments. Short Experimental notes are also welcome.
- 5. Commentaries (on topics like discussion of recent research articles, books and book reviews, discoveries, etc.)
- 6. Material development for high stakes competitions like Olympiads (and others).

All papers will be refereed, usually by 2 referees. Authors should ensure that the work submitted is original in nature or at least it has non-trivial modifications vis-à-vis existing work, with the latter being appropriately cited in the publication. Articles should be written in simple but correct English in a style that will be widely accessible. Where possible, articles should be divided into the following sections: Introduction, Background/theory, Methodology/experiment, Data/analysis, and Results/ conclusions, Summary and Reference list. Teachers who develop innovative experiments are especially encouraged to submit articles under the 4<sup>th</sup> category to help evolve the field of science education and its methodologies.

Articles in the  $1^{st}$ ,  $3^{rd}$  and  $4^{th}$  categories should carry an informative but concise abstract (less than ~200 words).

Full length research papers would normally not be expected to exceed 6000 words (not including title page, captions and bibliography). The focus of the journal will be on research papers in science education concerning students of age group 12 to 18. Papers dealing with science education of higher age group may also be considered.

Short communications dealing with any teaching topics should, normally, not exceed 2000 words.

Review articles would normally not be expected to exceed 6000 words and should have the following sections: Introduction or Overview, Review, and Conclusions.

Articles are particularly welcome that describe Innovations in Teaching Materials, Assessment, Evaluation, Test assignments, and Experiments. Such articles would normally not be expected to exceed 5000 words; they should carry an informative but concise abstract (less than ~200 words). The article itself should contain sections marked: Introduction, Background/Theory, Methodology/

Experiment, Data/Analysis, and Results/Conclusions. The article should clearly highlight the innovation in the teaching component which may substantiated by highlighting the efficacy of the methodology that is being proposed. The learning component for the teaching community should also be highlighted.

Commentaries on books, recent discoveries, research articles, which may be of great learning importance to students, will also be acceptable. They can be up to a maximum of 1000 words. These can also include anecdotes of people who have contributed immensely to science, but with a clear learning component for the reader and they should be innovative in nature, describing a new perspective.

The decisions of the Editorial Board will be final.

#### Paper structure and format.

Paper can also be submitted in .docx file in Times New format of size 11 font.

Figures (free of copyrights) and tables with appropriate captions should be in the appropriate place. However, editor may relocate them as per requirement of publication.

Figure and Table captions should be in italics (font).

Since this is an online journal, colour pictures will go as colour pictures by default. However, if the size of the final file exceeds, 10MB authors may be requested to modify/compress the size of figures and tables.

Papers can be submitted in either American or British English, but not both mixed up. **Covering letter:** Please submit a covering letter which contains Full names (not initials) of all the (co) authors, their affiliation, Institution name and address, ORCID numbers, and any other information regarding the paper which is not mentioned in the manuscript. Author should also mention the category under which the manuscript is being submitted.

**Title:** Title should reflect the concept of the work being presented. The title should be less than 80 characters and should provide overall significance of the detailed contents of the paper. Title should not carry uncommon abbreviations or punctuations.

Abstract: Abstract should not contain citations to references, any images, or math equations.

#### **Keywords:**

Please submit up to 10 keywords (min 3, max 10) after the abstract, separated by commas. These keywords should be associated with your paper. The keywords should be standard keywords accepted by the academic community.

(Co-)Author's names: Please provide the names in the format of First name/given name, middle initial and last name/family name. First name can be in the form of initial if you so want it. (Example Paresh K. Joshi or P.K. Joshi. If written as Joshi P.K., K will be assumed as your last name)

Institutional affiliations should be signified with footnotes. Affiliations should contain the following information: Department(s)/subunit(s); institution; city, country. Corresponding authors should be noted with an asterisk (\*) in the author list.

The e-mail address(es) of the corresponding author(s) should be listed after the author list footnotes, e.g., "\*Correspondence: abcd@xyz.com.

Section headings: Each section should be numbered and subsection should be followed by a 'dot'. Example section 1 has subsections 1.1 and 1.1.1. There should be a separate heading for each of the subsections.

#### Figures and tables:

Tables and Figures should be numbered sequentially and the citation to them should be in the format Table 1. Table 2 etc and not Tab 1. Similarly, Figures should be cited by Figure 1, Figure 2 and not fig1 or figure 1. Sub parts to figures should be labelled as Figure 2a or Figure 2d.

In word format tables should be created using Microsoft Word table format. Tables created in other formats are not acceptable.

Figures in .jpg format should be submitted separately in separate files, along with the main body.

Figures: Resolutions for line arts must be at least 1200 dpi, for colour photos 600 dpi or higher, and for black/white photos at least 600dpi or higher. Graphics downloaded from Internet are not acceptable because the 72-dpi resolution is too low for satisfactory reproduction.

- 1. Text inside the figure : Arial 8 pt (minimum)
- 2. Numbers/text on axis of graph/figure : Arial 8 pt (minimum)
- 3. Label axis : Arial 9 pt (minimum)
- 4. Lines in graphs should be minimum 0.5

Figure table captions should be sent separately also. The figures and tables in the text should remain where they are, as the author would like it to be.

#### Supplementary materials:

Supplementary materials may include figures, tables, methods, videos, etc. They will be made available online linked to the published article. Supplementary material should be labelled with a prefix S.

Please keep the files as small possible to avoid the frustrations experienced by readers with downloading large files. Large files can be compressed into a ZIP file, but not RAR.

Supplementary materials are published as provided by the authors, and are not copyedited. Note the limit on the total file size of the article is restricted to 10MB.

#### Nomenclature:

Use correct and established nomenclature wherever possible.

- 1. Units of Measurement: Use SI units. In case of using non SI units, the SI units should be mentioned in the brackets.
- 2. Drugs Provide the Recommended International Non-Proprietary Name (rINN).
- 3. *Species Names:* Write in italics (e.g., *Homo sapiens*). Write out in full the genus and species, both in the title of the article. After first mention, the first letter of the genus name followed by the full species name may be used (e.g., *H. sapiens*).
- 4. *Genes, mutations, genotypes, and alleles* Write in italics. Use the recommended name by consulting the appropriate genetic nomenclature database (e.g., HGNC for human genes; we strongly recommend using this tool to check against previously approved names).
- 5. *Allergens* The systematic allergen nomenclature of the World Health Organization/International Union of Immunological Societies (WHO/IUIS)
- 6. For chemistry names use the names approved by IUPAC; for physics, use terminology approved by IUPAP and for biology, use terminology approved by IUPAB.

#### **Data Archiving:**

If the Editorial Board asks for unprocessed data, the same should be made available. Authors should archive the data in as few files as possible and submit in .zip format.

Acknowledgement: Authors should provide funding details, material and facility support, where ever relevant and acknowledge people who helped them but are not co-authors.

#### **References:**

References should be numbered consecutively starting from 1, and should be cited in the manuscript by numbers, e.g. [1,2,3], (not cited by author and date). One article per reference only (not 1a, 1b, 1c).

Please avoid putting personal communications, unpublished observations, or conference abstracts. Do not format references as footnotes. Please use plain text in references, no image or math equation. There is no limitation for the number of references. Published or accepted manuscripts can be cited.

Examples:

#### 1. Research article/ paper model:

Single author: Binnall, J. M. (2019). Jury diversity in the age of mass incarceration: An exploratory mock jury experiment examining felon-jurors' potential impacts on deliberations. *Psychology, Crime & Law, 25*(4), 345–363. https://doi.org/10.1080/1068316X.2018.1528359

**Two Author:** Machado, M. M., & Swank, J. M. (2019). Therapeutic gardening: A counseling approach for bereavement from suicide. *Death Studies*, 43(10), 629–633. https://doi.org/10.1080/07481187.2018.1509908

**Three Author:** Prinzie, P., Stams, G. J. J. M., Dekoviæ, M., Reijntjes, A. H. A., & Belsky, J. (2009). The relations between parents' Big Five personality factors and parenting: A meta-analytic review. *Journal of Personality and Social Psychology*, 97(2), 351–362. https://doi.org/10.1037/a0015823

**More than three authors:** Nichols, H. B., Schoemaker, M. J., Cai, J., . . . Sandler, D. P. (2019). Breast cancer risk after recent childbirth: A pooled analysis of 15 prospective studies. *Annals of Internal Medicine*, *170*(1), 22–30. https://doi.org/10.7326/M18-1323

**2. Advance online Publication:** Young, C., Durham, P., Miller, M., Rasinski, T. V., & Lane, F. (2019). Improving reading comprehension with readers theater. *The Journal of Educational Research*. Advance online publication. https://doi.org/10.1080/00220671.2019.1649240

**3.** In press article: Watermeyer, B., Hunt, X., Swartz, L., & Rohleder, P. (in press). Navigating the relational psychic economy of disability: The case of M. *Psychoanalytic Dialogues*.

**4.** Article with an e-location: Björk, A., Rönngren, Y., Selander, J., Vinberg, S., Hellzen, O., & Olofsson, N. (2018). Health, lifestyle habits, and physical fitness among adults with ADHD compared with a random sample of a Swedish general population. *Society, Health & Vulnerability*, *9*(1), Article 1553916. https://doi.org/10.1080/20021518.2018.1553916

5. Book format: Author, A. A. (yyyy). *Title of the book: Subtitle*. Publisher Name.

**6.** Book Chapter format: Saks Berman, J. (1995). From Chicago to Rainbow Bridge: In search of changing woman. In E. F. Williams (Ed.), *Voices of feminist therapy* (pp. 11–25). Harwood Academic Publishers.

- Conference Proceeding format: Albright, M. (1991). The role of the United States in Central Europe. *Proceedings of the Academy of Political Science*, 38(1), 71–84. https://doi.org/10.2307/ 1173814
- 8. Thesis or dissertation format: Zaragoza, K. (2005). *A moral psychology of blame* [Unpublished doctoral dissertation]. Princeton University.
- 9. Report format: Lempert, R. J., Norling, P., Pernin, C. G., Resetar, S. A., & Mahnovski, S. (2003). *Next generation environmental technologies: Benefits and barriers* (Report No. MR-1682-OSTP). RAND.

For more formats of reference please refer the following source: https://www.tandf.co.uk/journals/authors/style/reference/tf\_APA.pdf (Examples of the references and citations are available on this site)

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Article should include the names of all the co-authors with initials and surname/family name. The names should be followed by the appropriate affiliation. One of the co-authors should be designated as the corresponding author.

Please ensure that you have an abstract, keywords, and the body of article as mentioned above. Please ensure that the font of text in figures is large enough to be read clearly. All the references to citations, tables and figures is matching correctly.

Please conduct a spell check and a grammar check before submitting. In case of poor language of the paper, editor may request the author to correct the language before sending the paper for review. The paper will not be considered "submitted" in such cases.

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Experimental research involving human or animals should have been approved by author's institutional review board or ethics committee. This information can be mentioned in the manuscript including the name of the Board/committee that gave the approval. If the manuscript contains photos or parts of photos of patients, informed consent from each patient should be obtained. Patient's identities and privacy should be carefully protected in the manuscript.

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