

Report of a Committee appointed by Hon Vice Chancellor

Savitribai Phule Pune University

For

Guidelines for Research Publications

The committee composition:

Prof Bhushan Patwardhan, School of Health Sciences (Chairman)

Prof D D Dhavale, Department of Chemistry

Prof Sujata Bhargava, Department of Botany

Prof Rajeshwari Deshpande, Department of Politics

Prof Aniket Jaaware, Department of English

Prof Saroj Ghaskadbi, Department of Zoology

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Additional faculty members involved in consultative process:

Prof N J Pawar, Department of Geology

Prof Nitin Karmalkar, Department of Environment and IQAC Cell

Prof Santosh Haram, Department of Chemistry

Prof Suresh Gosavi, Department of Physics

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Informal consultations from eminent national academicians:

Prof SC Lakhota, Editor, Proceedings of Indian National Science Academy, New Delhi

Prof LS Shashidhara, Indian Institute of Science Education and Research (IISER), Pune,

Prof N V Joshi, Indian Institute of Science and Associate Editor, Current Science, Bangalore

Prof Ram Takwale, educationist and former Vice Chancellor

Background:

Research, education and extension are integral parts of any University system. The reputation of any University depends on quality of research and education. Various assessment, accreditation and ranking agencies worldwide give substantial weightage to quality and quantity of research undertaken by faculty and students of the University. Research quality, quantity and impact can be measured by various ways. The number of quality publications in peer reviewed reputed journals, their citations and utility of patents are commonly used for such metrics. Higher the number of quality research publications, citations and patents, higher is the academic reputation of the University.

Research publications carry substantial weight in the faculty selection, promotions, increment and academic performance index (API) as advised by the University Grants Commission (UGC). Good API scores are required for career advancement and promotions. Many Universities have mandatory provision for certain number of publications before submitting PhD thesis and to get recognition as PhD guide. Therefore, clarity on what should be considered as a 'research publication' becomes very essential.

Present status

Increasing number of University faculty and students are falling prey to dubious/ spurious/ bogus / predatory publishers, journals and other periodicals. There is need for better clarity on what should be considered as good publication and what the broad criteria of good journal are. The unprecedented desperation of publication for reasons mentioned in the background, has resulted in mushrooming of hundreds of new publishers and open access, online or e-

Journals have emerged in last three years as a lucrative business and an easy way for desperate authors.

Many predatory commercial journals aggressively advertise and assure publication of any manuscript rapidly at cost. Most such Journals are from natural, applied and biomedical sciences, pharmacy, technology, and engineering and management disciplines, where there is huge demand. Especially in India, explosion of spurious journals and fraud/ unreliable indexing agencies has become a worrisome scam. Many private colleges and Universities have started in-house journals. It is noteworthy that Indian academic Societies and Academies are coming forward to take responsibility in dissemination of new research findings through their quality journals in the present outburst of unethical commercial publishers¹.

Publication Ethics

The desperation to publish might have adverse effects on quality of publications, temptation to find short cuts and easy ways to publish, which in turn can compromise publication ethics. The Committee on Publication Ethics (COPE) as a forum of editors and publishers of peer review journals promotes integrity in research publications. COPE guidance and tutorials are valuable to promote publication ethics among faculty and students. COPE guidelines for authors, editors and publishers are available at www.publicationethics.org

COPE guidelines for authors are more relevant for this report, which stress ethical and responsible research, compliance to all relevant legislation, presenting results clearly, honestly, and without plagiarism, fabrication, falsification or inappropriate data manipulation. Avoiding temptation of splitting data or using contents in parts to increase number of papers

from same data (salami slicing). Researchers should describe their methods clearly so that their findings can be confirmed by others. Authors should submit only original work, not plagiarized, nor published elsewhere.

Bogus authorship is another serious issue. There is increasing practice to include every member of the laboratory as an author in all papers. This also can result in the spurious increase of API score of everyone in the group. This can be curbed by asking individuals to specify their contribution at least in their major papers. A scoring system may be devised to put relative weightage in proportion to the nature and quantum of the individual's contribution. Authors should take collective responsibility and accurately state individuals' contributions with funding sources and relevant conflicts of interest declarations ². Recent incidences have reiterated that any compromise in ethics, integrity and academic misconduct even by a single individual can have serious reparations and can lead to collateral damage causing risk to reputation of the entire institution³. If proper care is taken such incidences can be avoided.

Predatory Journals

Detailed description of predatory publishers, journals and related issues is available at <http://scholarlyoa.com/publishers/> The Beall's List of predatory publishers and Journals has grown in size from merely 18 in 2011 to nearly 700 in 2015. Beall's list also contain over twenty six misleading metrics companies fabricating spurious variants of Impact Factors. Many spurious Indian journals have not yet been included in Beall's list and there no authentic data about them as of now.

Several reputed Journals like Science⁴, Nature⁵, British Medical Journal⁶, The Royal Society Journal of Medicine⁷, Current Science⁸ and many more have published articles and editorials

appealing academic fraternity to take stringent and immediate measures to curb academic pollution being created by spurious / bogus predatory journals. Experts have suggested ways to avoid predatory journals⁹. Easy way to avoid predatory journal is to do careful due diligence of the journal / publisher and ensure that it is indexed at least in two of following: Web of Science, Scopus, Scholar, Pubmed, Social Science Research Network (SSRN) and most importantly the reputed publishers do not necessarily compel you to pay fees ((page charges, processing fee, reviewing fee and open-access charge) as a prerequisite of publication.

It must be noted that many reputed open access journals do charge fees but it is done in an ethical and transparent manner and they do not compromise publication ethics *in lieu* of such payments. Further, it is important to note that like predatory journals, many book publishers and bogus conference organizers have mushroomed which are being used to increase API scores. In general, if the Book is positioned/ claimed as a research book or reference book, most of the criteria for Journals will be applicable. Admittedly, it is very difficult to set guidelines to avoid predatory conferences, which can be best controlled through careful scrutiny by the departmental research committee at the time of granting leave.

Present problem

A recent analysis of who is publishing in such spurious Journals has indicated that most authors in predatory journals are from developing countries, especially India, Nigeria, and some African and Middle East countries¹⁰.

It is unfortunate that the name and reputation of Indian academia is getting maligned due to few desperate individuals who tend to compromise publication ethics, knowingly or

unknowingly, fall prey to dubious publishers and bogus journals. This is certainly not good for India and Indian Universities. It is a collective responsibility of academic community first to improve quality of research and promote culture of ethical publishing.

The present UGC guidelines have not clearly explained what is ‘peer reviewed’ and have indicated ISSN number as a criterion for a research Journal. However, the UGC has put this responsibility of the respective Universities. The UGC Regulations 2010 requires every University to develop comprehensive list of quality Journals in each subject. The UGC regulations also made it mandatory for each University to publish such a list on its website.

It is important to note here that the UGC notification in the Gazette of India dated September 18, 2010, Part III Sec.4, page 7950 clearly states in the note that “It is incumbent on the Coordination Committee proposed in these regulations and the University to prepare and publicize within six months subject-wise lists of Journals, periodicals and publishers under categories III A and B”. Our University has not yet prepared such lists of Journals.

Our University’s present rules for PG Teachers/ MPhil/ PhD Guides notified via circular 94/2014 from the BCUD states as follows: "Must have published three independent research papers in National/ International recognized /reputed/refereed journals with ISSN number after obtaining PhD". In absence of clarity, faculty and students are perceiving that any Journal with ISSN number will be acceptable for API and other academic purpose. In reality, “International Standard Serial Number’ (ISSN) is an 8-digit code used to identify newspapers, journals, magazines and periodicals of all kinds and on all– print and electronic media. Similarly, ‘International Standard Book Number’ (ISBN) is the thirteen-digit number assigned to books and monographs, which helps in handling of long bibliographic descriptive

records. These numbers are mainly for identification through bar code and library classification, ordering and distribution purpose. Obviously, ISSN and ISBN numbers are necessary for administration and logistics, however they do not reflect quality of any Journal, periodical, monograph or Book.

Categorization of journals like national and international is not relevant today¹¹. Reputed publishers and Journals who are members of bodies like COPE and who strictly follow ethics in publication are all in a way international. For example many Indian journals like Current Science, Indian Journal of Medical Research, Economic and Political Weekly are actually international. At the same time several journals starting with names like international, global, Asian etc are bogus, spurious and predatory.

The subjective terms like 'recognized' and 'reputed' may raise problems of interpretation. There can be questions like 'recognized' by whom and 'reputed' by which yard stick. This problem can be addressed by giving qualifying statements like 'journal recognized by reputed indexing agencies like Scopus, SCI, Chemical Abstracts, Biological Abstracts, PubMed etc'. Of course this is more relevant to faculties of science, engineering, technology and pharmacy basic medical sciences. Faculties like Arts & Fine Arts, Law, Education, management may need their preferred indexing agencies. There are globally accepted indexing and database agencies for disciplines like Science, Medical, Engineering, Pharmacy, Management, Social Sciences etc, which can be accepted by the University.

Consideration of the "Impact Factor" remains inevitable but it is not a foolproof metric. Moreover, many spurious agencies giving fraud impact factors have emerged in last few years. Therefore, the evaluation of publication quality should not be mechanically

dependent on impact factors. In this context, San Francisco Declaration on Research Assessment (DORA) provides a set of recommendations regarding assessment of individuals and institutions, without emphasizing the impact factor <http://am.ascb.org/dora/>. DORA general recommendation suggest that while evaluating research performance focus should be given on scientific content rather than publication metrics.

Few Universities like Shivaji University have already framed guidelines giving specific information on how to judge quality of publications. Institutions like IISER rather than relying on mere impact factor metrics, prefer to go in depth to see how much effort has gone in research and rely more on rigorous blind review from external experts. BITS Pilani has notified on University website information about 'Fake or predatory publishers and Journals'. This is a good beginning and many more Universities need to join the movement to strengthen ethical publishing.

In such a situation, appointment of this committee by Hon Vice Chancellor, Savitribai Phule Pune University (SPPU) is commendable. As a leading institution with international standing in research and teaching, our University must take appropriate affirmative actions to prevent potential damage to its reputation.

Guidelines and Recommendations

The problem of publication ethics and predatory journals is very serious and is a global phenomenon. However, there cannot be centralized policy or solution. Each country / region, every University / institute may have to come out with its own guidelines. The committee feels that good research publication need good quality research, which can happen with enquiry, investigation, innovation and hard work. The desperation to publish poor quality

work, plagiarized or fudged data in dubious journals will bring in the long run only disgrace to individuals, institutions and countries, which must be avoided.

The committee is convinced that there is an immediate need to control publications in spurious / bogus predatory journals, periodicals etc. The committee feels that the present policy of the University to strengthen research culture by providing support from its own resources is good, however more stringent methods are needed to evaluate impact and outcome of research. The committee therefore recommends the following as a policy to encourage responsible research and ethical publishing:

1. Generally, those journals which are regularly published at least for consecutive five years, do not guarantee publication in short time at cost consideration, publish true and correct information on websites, have reputed academicians on editorial boards and are members of reputed bodies like COPE can be considered as good journals and research publications in such journals can be considered for academic purposes. Papers published in private in-house journals, proceedings of workshops, seminars, refresher/orientation courses should not be considered as research publications.
2. In accordance with the UGC Regulations 2010 our University should develop comprehensive faculty-wise list of quality Journals and reputed publisher in each subject. This should be used as reference when dealing with research guides recognition, PhD / M.Phil submissions, selection, confirmation, increments, career advancement, as well as for considering scores under categories III A and B of the API.
3. To qualify individual publications in peer reviewed / reputed / refereed journals mere ISSN number is not sufficient. The publisher / journal should be indexed in globally

accepted databases, should preferably be members of reputed bodies like COPE and must follow publication ethics in a transparent manner where all true, correct and vital information is available on the journal website.

4. A good journal that complies with ethics in publishing, which is indexed in reputed agencies like Scopus, Web of Science, Science Direct, Pubmed, SSRN etc should be considered as a reputed journals. Various types of tools and metrics developed by reputed agencies like Thomson Reuters (Science Citation Index, Impact Factor), Scopus, Scimago (*h* index, SJR) are few of the reliable indicators. Record of citations to a particular publication in other reputed journals is also a very useful parameter to judge quality of a research paper. In open access, Google Scholar offers citation records and *h5*-index, which can also be considered in primary evaluation. However, it should be kept in mind that many predatory / bogus journals have managed to enter Google Scholar. Therefore, it is always better not to rely on any single metrics agency but it is best to ensure that the Journals are indexed in at least three of the reputed indexing / metrics agencies and databases.
5. Research publications in Marathi, Hindi and other languages constitute an important aspect especially for the Faculties of Arts, Fine Arts, Humanities and Social Sciences. Due recognition to Marathi and other language journals should be given. The modalities to identify reputed research journals in Marathi and other languages should be decided by a committee of senior social science professors together with external national experts duly approved by the Vice Chancellor.
6. The faculty-wise lists should be developed by independent committees to be appointed by Vice Chancellor consisting of senior professors from University and external experts including national research professors, Directors of National Institutes, Fellows of National Academies and such other distinguished academicians.

Journals published by National Academies, National Institutions and National Societies should be recognized. These lists should be updated every year and should be published in annual reports and displayed prominently on the University website.

7. Classification of Journals like national or international and ranking merely based on impact factors is not relevant today especially because large number of predatory journals with names starting with 'international' 'global', 'world' etc are in plenty as also several counterfeit impact factor agencies are in existence. Because many counterfeits and spurious agencies have cropped up giving fake *h* index and impact factors, utmost care needs to be taken before including any journal in the official list of the University.
8. Many fake indexing agencies, societies, academies have created false identity to sound / appear similar to reputed agencies. Beall's list provide primary guidance and information on predatory publishers, predatory standalone journals, misleading metrics companies and hijacked journals <http://scholarlyoa.com/2015/01/02/bealls-list-of-predatory-publishers-2015/> .
9. Very careful due diligence should be done while developing a comprehensive faculty-wise list of approved journals. For this purpose following guidelines should be followed:
 - a. For Faculty of Science, Engineering, Pharmacy, Medicine: Web of Science, Scopus, Scholar, Pubmed, Scifinder, Chemical Abstract Services, Biological Abstracts and such other reputed indexing agencies as recommended by a committee of Deans, senior professors and external experts as approved by the Vice Chancellor.
 - b. For Faculty of Social Sciences and Humanities: Social Science Research Network (SSRN) and such other reputed indexing agencies as recommended

by a committee of Deans, senior professors and external experts as approved by the Vice Chancellor.

- c. For Faculties of Management, Commerce, Law, Education, Physical Education, recommended by a committee of Deans, senior professors and external experts as approved by the Vice Chancellor.
- d. For Faculty of Arts and Fine Arts, Deans and senior professors should recommend to Vice Chancellor for approval suitable system for judging publications, performances or such other means.
- e. As a regional University in Maharashtra, creation and dissemination of knowledge in Marathi is an important mandate of our University. Therefore, the University should appreciate publication of quality research in Marathi. This should also be applicable to Hindi and other languages as well as disciplines from humanities and social sciences wherever applicable.

10. Jayakar Library should critically review its present list of subscribed Journals. It should maintain list of spurious publishers and predatory Journals. For this purpose Beall's List and other available reliable sources should be considered. Further, Jayakar Library may seek information on such fraud journals from the teaching community as and when they come across such journals. In this manner, the teaching community can assist the library to make and maintain a database of such journals on the library web portal. Jayakar Library should not deal with such publishers and should not subscribe any such spurious/ predatory Journals, databases and indexing agencies.

11. A committee of senior professors should develop a module of about four lectures on Publication Ethics, which should be part of library orientation course, pre-PhD course, research methodology or similar courses under every faculty. This work may be

coordinated by IQAC Cell in association with Jayakar Library and Department of Library and Information Sciences.

12. Research publication ethics and guidelines should be widely circulated and undertaking should be obtained from PhD guides and the research students, stating that he/she has understood the guidelines and violating them can lead to appropriate actions by the University.
13. As a good publication practice, manuscripts proposed to be published as research articles, thesis, dissertation may preferably go through screening by individual Departmental Research Committee consisting internal and external experts duly approved by the Vice-Chancellor. All such research manuscripts should be scanned through reputed anti-plagiarism software like Turnitin, which our University has subscribed.
14. Our University should create more awareness about predatory publishers and importance of publication ethics so that faculty and students are encouraged to do high quality rigorous research and not succumb to desperation to publish poor quality work by taking short cuts and easy ways.
15. Quality of any publication can be best judged after considering amount of work, rigor, methodology, novelty etc, which can be evaluated by external experts in the field in an anonymous manner. As a long term policy, the University should strengthen its research culture and bring stringent external peer review system to critically evaluate its research output.
16. These guidelines and comprehensive faculty-wise lists of Journals in each subject should be published in the University Annual Report and prominently displayed on the University website for creating awareness and dissemination of information.

In conclusion, at present we are witnessing serious issues related to professionalism verses amateurism. The 21st century knowledge society demands open, transparent, objective and unbiased evaluation. It is necessary to develop right strategy, conducive environments and suitable methodologies. In the digital world, the decisions regarding quality of academic and research contributions could also be enabled by networked communities of scholars across the Universities and countries. The national Academies, Societies and international bodies like COPE can play important role in this process.

At present, increasing number of publications in most Indian Universities are coming out of compulsion. This could be for selection, increments, career advancement, assessments or for seeking higher qualifications like MPhil/ PhD. This can lead to desperation to publish and temptation to explore short cuts and easy ways. It is necessary for Universities change present system of number driven assessment and give more emphasis on quality of papers than mere quantity of papers. Institutes of national importance like IISER do not require any specified number of publications before submitting a PhD thesis. However, the rigorous training, continuous assessment, able mentorship and institutional culture empowers research students to perform with best capabilities where quality publications naturally emerge. For University like ours with large number of students, diverse disciplines and relatively limited resources, this might be a difficult task but has to be addressed on priority.

The committee wish to recognize integrity and hard work of many faculty members and students of our University who are bringing excellence despite many constraints. This is visible from high h index of our University. However, our University has potential to do much more. We need to gradually evolve conducive environments to nurture a culture of reading, thinking, questioning, inquisitiveness, enquiry, investigation and innovation where

high quality research becomes a pleasure. As rightly stated in an editorial of Proceedings of Indian National Science Academy, “why we publish, what we publish and where we publish should be our pleasure and not compulsion”¹².

We hope these guidelines help to maintain and enhance academic excellence and reputation of our University.

Prof Dilip Dhavale

Prof Sujata Bhargava

Prof Saroj Ghaskadbi

Prof Rajeshwari Deshpande

Prof Aniket Jaaware

Prof Mahendra More

Prof Bhushan Patwardhan

Note:

The first committee was appointed by Hon Vice Chancellor on 27 March 2015, which was reconstituted / expanded on 16 April 2015. The first meeting was convened on 28 April 2015. Prior to this meeting members were briefed about the scope of the committee and relevant documents were shared through emails. To save time, this committee functioned in virtual fashion through telephonic interactions and email exchanges. After brief discussions with individual members, important editorials and articles from reputed Journals were shared with the group. This was followed by interactions with committee members as well as consultations with internal and external scholars. For convenience of the Committee, Chairman volunteered to prepare a draft report based on various interactions and own insights. This draft report was shared with all the members and also with experts who agreed to become part of the consultative process. Each and every committee member and consulting experts offered many valuable comments and suggestions. Based on their suggestions, valuable inputs, critical study and analysis of available literature, Chairman extensively revised and finalized this report. Sincere thanks to Dr NJ Pawar, Dr Nitin Karmalkar, Dr Santosh Haram, Dr Suresh Gosavi, Dr Dileep Kanhere and Dr Jayanta Pal who volunteered in the consultative process and offered valuable inputs. Special gratitude to the external experts Dr SC Lakhotia, Dr LS Shashidhara and Dr N V Joshi for sharing their experience and wisdom. Special thanks to Dr Ram Takwale for sharing philosophical underpinnings. Thanks are also due to Dr VB Gaikwad Director, Board of College and University Development. Finally, thanks to Dr WN Gade Hon Vice Chancellor for giving serious attention to the issues related to quality of research publications and for giving us an opportunity to develop these guidelines.

References

1. Lakhotia SC. Societal Responsibilities and Research Publications. *Proc Indian Natn Sci Acad.* 2014;80(5):913–914.
2. Wager E & Kleinert S. Chapter 50: Responsible research publication: international standards for authors. A position statement. In: *2nd World Conference on Research Integrity, Singapore, July 22-24, 2010.*; 2011:309–316.
3. Cyranoski D. Collateral damage: How one misconduct case brought a biology institute to its knees. *Nature.* 2015;520(7549):600–603. doi:10.1038/520600a.
4. Bohannon J. Who's Afraid of Peer Review ? *Science.* 2013;342(October):60–65. doi:10.1126/science.342.6154.60.
5. Butler D. Investigating journals: The dark side of publishing. *Nature.* 2013;495(7442):433–5. doi:10.1038/495433a.
6. Clark J, Smith R. Firm action needed on predatory journals. *BMJ.* 2015;350(jan16_1):h210. doi:10.1136/bmj.h210.
7. Bartholomew RE. Science for sale: the rise of predatory journals. *J R Soc Med.* 2014;107(10):384–385. doi:10.1177/0141076814548526.
8. Lakhotia SC. Predatory journals and academic pollution. *Curr Sci.* 2015;108(8):107–1408. Available at: <http://www.currentscience.ac.in/Volumes/108/08/1407.pdf>. Accessed April 24, 2015.
9. Clark J. How to avoid predatory journals — a five point plan. *BMJ.* 2015;Blog(19 Jan 15):1–9. Available at: <http://blogs.bmj.com/bmj/2015/01/19/jocelyn-clark-how-to-avoid-predatory-journals-a-five-point-plan/>.
10. Xia J, Harmon JL, Connolly KG, Donnelly RM, Anderson MR, Howard HA. Who publishes in “predatory” journals? *J Assoc Inf Sci Technol.* 2014:n/a–n/a. doi:10.1002/asi.23265.
11. Lakhotia SC. “National” versus “International” Journals. *Curr Sci.* 2014;105(3):287–288.
12. Lakhotia SC. Why we publish, what we publish and where we publish. *Proc Indian Natl Sci Acad.* 2014;80(3):511–512.