

Letter to the editors



Publishing research - demystifying the course

Dickson Aruhomukama

Corresponding author: Dickson Aruhomukama, Department of Immunology and Molecular Biology, College of Health Sciences, School of Biomedical Sciences, Makerere University, Kampala, 7072, Uganda. dickson.aruhomukama@chs.mak.ac.ug

Received: 09 Sep 2020 - Accepted: 13 Dec 2020 - Published: 06 Jan 2021

Keywords: Publishing, research projects, rejections

Copyright: Dickson Aruhomukama et al. PAMJ - One Health (ISSN: 2707-2800). This is an Open Access article distributed under the terms of the Creative Commons Attribution International 4.0 License (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article: Dickson Aruhomukama et al. Publishing research - demystifying the course. PAMJ - One Health. 2021;4(2). 10.11604/pamj-oh.2021.4.2.25987

Available online at: https://www.one-health.panafrican-med-journal.com/content/article/4/2/full

Publishing research - demystifying the course

Dickson Aruhomukama^{1,2,&}

¹Department of Immunology and Molecular Biology, College of Health Sciences, School of Biomedical Sciences, Makerere University, Kampala, 7072, Uganda, ²Department of Medical Microbiology, College of Health Sciences, School of Biomedical Sciences, Makerere University, Kampala, 7072, Uganda

[&]Corresponding author

Dickson Aruhomukama, Department of Immunology and Molecular Biology, College of Health Sciences, School of Biomedical Sciences, Department of Medical Microbiology, College of Health Sciences, School of Biomedical Sciences, Makerere University, Kampala, 7072, Uganda

To the editors of the Pan African Medical Journal

In spite of the fact that the failure to publish research has been literally associated with perishing [1,2], research output in Low and Low Middle Income Countries (LMICs) in Africa remains low [3]. In the quest for answers as to why this remains so, through exploiting both formal and informal interactions with students, academics, and research fellows at higher institutions of learning particularly through journal club sessions: the general lack of knowledge about scientific publication and rejections seem like the



commonest answers to the problem. A research project can be defined as a distinct scientific endeavor to answer a research question or a set of research questions. Activities in a research project could include; a methodical collection of data, analysis of the data, and preparation of a report of the findings. Publishing a research project in an accredited, open-access-peer-reviewed-scientific journal benefits not only the researcher (who could be a student, an academic, or a research fellow) and the institution holding the publication, but also the society. Through scientific publications, researchers disseminate their research findings. This ensures that researchers and practitioners with shared interests are made cognizant of new knowledge in their respective fields. Scientific publications also help these researchers and practitioners to advance knowledge and its application. In recent times, students particularly those pursuing undergraduate and postgraduate studies are counseled to publish their research projects.

In most institutions of higher learning, publishing of research projects has become a requirement that must be fulfilled before one obtains their respective university awards, as scientific publications reflect the academic stature of institutions that host them. Likewise, most funding organizations continue to counsel their grantees to publish findings generated from their funded research projects as part of their respective open and global access policies, and the majority have made this a funding requirement. Indeed, research scientists with publications have had a competitive advantage for funding from such organizations as these scientists are considered to be experts in their respective fields, and as those with the ability to conduct scientifically grounded research. In addition, the role of scientific publications in both the appointment and promotion of academics in institutions of higher learning can no longer be unheeded. Indeed, scientific publications have also been leveraged by students and faculty in their quest to obtain studentships, fellowships, and grants for research, training, travel, among others.

Scientific publication has also proven to be an avenue through which the writing skills of individuals are refined. Also, through scientific publication, the finest ways of performing literature review have been developed by many research scientists.

Despite the fact that the conversion of a research project into a publishable manuscript is no "piece of cake", it is also not an impossible task. Most research projects produce enormous volumes of findings and because of this, researchers should establish which among the findings are most important and enhance the understanding of precise scientific occurrences. Upon establishment of the most important findings, researchers should discuss the findings while comparing them to those of published research projects. Through the discussion, researchers can draw conclusions and consequently recommendations of their research projects. Researchers ought to understand that sometimes, some findings may be incomparable to those of published research projects. In such cases, they still should discuss the same while making efforts to elucidate why there could have been differences. Researchers also ought to understand that discussing their findings may require more time than planned sometimes and that they should remain open-minded when endeavoring to accomplish the task. In the pursuit to publish, authors ought to identify suitable journals and adapt their respective manuscript guidelines to guide the structure of their manuscripts. While attempting to identify suitable journals, above and beyond other attributes such as journal impact factors, authors should consider selecting journals: with well-defined scopes that confine the parts of the disciplines they deal with, that treat the authors as colleagues and not as people who desperately need publications, where rejections are well and clearly explained and justified, where authors are allowed the opportunity to argue against the votes of the reviewers, and where the letters to the authors are formulated to help them to be successful with their next submissions.



Classical manuscript sections include: (i) a title page that outlines the title and author details, (ii) abstract, (iii) background, (iv) methodology, (v) results, (vi) discussion, (vi) conclusions and recommendations, (vii) acknowledgements, and (viii) references. Manuscript titles should be concise and precise, clearly reflecting the content of the manuscripts. The abstract should provide a succinct summary of the manuscript. The background should mainly present the current scenario while the methodology, results, and discussion should constitute the main body of the manuscript. The methodology should outline methods that were selected to reach the results. In the results section, actual results of the research project should be presented, and discussed to enable the reader's understanding of conclusions drawn by the researchers. References constitute an important part of the manuscript because not only does every single supporting articulation in the article ought to be sponsored up by significant sources which corroborate the perspective set forward by the proposition explanation but references also provide credit to other researchers for their indirect contribution to the research. The acknowledgement section should appreciation messages to the people who directly and indirectly contributed to the research.

Upon completion of manuscript drafts, authors should submit their works via online-portals provided by the respective journals, in so doing allowing their manuscripts to enter into a typical publication cycle (Figure 1). Manuscript submissions sometimes result in rejections. Despite the fact that rejections are common in scientific publishing, they are disheartening. This is because after possibly years and months of writing and formatting manuscripts, nobody would want to see research go unpublished. However. researchers ought to know that rejections are not final verdicts for their manuscripts or even proof that their research projects are unworthy of publication.

Conclusion

In spite of rejections, through ensuring that: manuscripts fall within the scopes and conform to the writing styles of the selected journals, manuscripts add value to the selected journals, state clear hypotheses, contain necessary supporting evidence, have properly analyzed results, the right methodology, have conclusive results, and research ethics are adhered to, authors can significantly minimize the chances of having their manuscripts rejected. Enrolling into writing courses, joining writing support groups and hiring writing coaches could also help improve manuscript quality and acceptance rates.

Conclusion

The authors declare no competing interests.

Authors' contributions

All the authors have read and agreed to the final manuscript.

Acknowledgments

I thank undergraduate and post-graduate students at the School of Biomedical Sciences, College of Health Sciences, Makerere University, (MakCHS) particularly those pursuing the Master of Science in Immunology and Clinical Microbiology, Master of Science in Bioinformatics as well as Master of Medicine (Pathology and Microbiology), research fellows and faculty and for their views with regards to publishing research projects. I also thank Dr. David Kateete the Head of Department Immunology and Molecular Biology at the School of Biomedical Sciences, MakCHS and Dr. Henry Kajumbula the Head of Department Medical Microbiology for the opportunity they have allowed me to continuously interact with these groups especially through coordinating journal club sessions in the respective departments.



Figure

Figure 1: schematic showing a typical publication cycle (source: plos computational biology)

References

- McGrail MR, Rickard CM, Jones R. Publish or perish: a systematic review of interventions to increase academic publication rates. High Educ Res Dev. 2006;25(1): 19-35. Google Scholar
- Miller AN, Taylor SG, Bedeian AG. Publish or perish: academic life as management faculty live it. Career Dev Int. 2011: 16(5). Google Scholar
- 3. Elsevier. Africa generates less than 1% of the world's research; data analytics can change that. Accessed 20 August 2020.

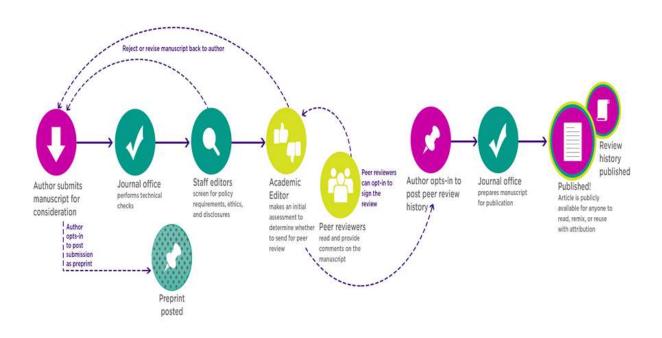


Figure 1: schematic showing a typical publication cycle (source: plos computational biology)