

From Illusive to all-Inclusive: How Pathfinder International amplified learning by doing scientific writing training

Bekele Belayihun^{1*}, Mengistu Asnake¹, Gizachew Tessema³, Yordanos Molla²

Knowledge and practices of scientific writing are no longer limited to academic environments (1). Developments in the use of evidence-based program implementation involve rigorous evidence generation, with clear and effective communication of whether an intervention or practice is proven to have achieved high impact (2). Operational and implementation research has increasingly promoted research findings to better healthcare delivery and management while considering contextual factors (3,4). Most program implementors have limited scientific writing exposure. As a result, they miss opportunities to share experiences obtained from their program implementation due to limited scientific writing skills. While program implementors are not expected to "publish or perish," publication in scientific journals remains one of the best markers of scientific achievement. Many people in scientific professions are not trained with soft writing skills, and the peer-review process focuses more on veracity of data than its legibility or accessibility. Nevertheless, scientific information not communicated or published often fails to garner the attention it deserves.

Considering this, Pathfinder International in Ethiopia in this paper shares its learnings from a scientific writing workshop session conducted to build writing capacity of its program staffs. The training took place from October 17 to November 29/2020. The workshops had participation of Pathfinder International staffs working on different ongoing projects in Ethiopia as technical experts. The participants were targeted to increase the use of collected projects' data, thereby stimulate a culture of data use to improved implementation of evidence-based programing and provide professional development opportunity (5,6). Prior to the workshop, participants were engaged in providing feedback on their expectations from the workshop. Small working groups were created, and participants with similar technical expertise and interest were put together. Workshops were delivered in five different rounds of sessions, scheduled with a week interval. Facilitators were given assignments to work on during their free weeks to help them internalize what they learned during the workshops and help them prepare for the next workshop session. The topic of each session was selected and addressed the following: understanding the importance of scientific writing, differences between peer-reviewed journal articles and other program documents; types of peer-reviewed publications; manuscript structures and developing different sections of a manuscript; packaging the manuscript for submission, peer review and resubmission processes.

We used four vital instructional approaches practical for knowledge transfer and helpful in maintaining participants' motivation throughout the workshop (7,8). Provision of virtual learning for all workshop, external volunteer speakers to start each session and participate in discussions, a mix of synchronous live discussions and asynchronous small group assignment activities between sessions, and emphasis on continuous practices and feedbacks. The virtual learning was very useful to get staffs who are located at different regions of Pathfinder Ethiopia offices to participate. Similarly, the workshops were facilitated by external speakers from different parts of the world covering four countries Australia, USA, Canada, and Ethiopia. This virtual arrangement was cost-effective because it eliminated logistics expenses or professional fees spent on planning. Most importantly, participants were able to attend without disruption in their routine activities and sharing insights from different levels of program implementation from national to community levels. In addition, virtual learning provided the opportunity to invite experienced experts to leverage their direct experience on the theme/topics and how that translates to practical examples in the context participants are implementing their programs.

All sessions lasted for an hour; the first fifteen minutes had presentations from invited external guests with rich experience in program implementation, peer review of scientific publications, and editorial services for peer-reviewed journals. Moreover, the workshop facilitator joined smaller group discussions to help participants progress with their manuscript writing assignment, answer questions, and support participants as needed. Practical application exercises and discussions made the workshop feel relevant and engaging. Frequent sessions allowed gradual development of manuscript writing activity with regular interactions between groups and training facilitator. It also helped reduce participants' time away from work, keeping them engaged. The creation of small groups encouraged peer-to-peer learning, thereby improving communication and collaboration among project colleagues. Following the workshop sessions, participants contributed to developing nine manuscripts through collaborations—seven of them led by workshop attendees previously involved in the design and implementation of projects. The manuscripts covered various topics, including family planning updates, adolescent and youth services lessons, and continuous quality improvement approaches.

^{1*}Pathfinder International-Ethiopia. * Corresponding Author: bbelayihun@pathfinder.org.

²Pathfinder International-Boston, USA

³Curtin University, Australia

After completing the first draft of the manuscripts, two technical writers joined the workshop facilitators as proofreaders and provided feedback on how to write quality manuscripts. Some manuscripts ready for submission were selected for special issue publication to share some implementation experiences of Pathfinder International in Ethiopia. Most importantly, through this workshop process, Pathfinder showcased scientific writing as a responsibility of all program implementors. In conclusion, building scientific writing capabilities with limited resources is achievable, and sharing implementation stories to a broader audience should not be intimidating if scientific procedures are adequately followed.

References:

1. Robert A. Day. and Barbara Gastel. How to write & publish a scientific paper. 6th edition. Greenwood Press; 2006.
2. Kate Sibley CK. So, You Think You Can Write an Implementation Research Proposal [Internet]. Medium- Knowledge Nudge. 2019 [cited 2021 May 17]. Available from: <https://medium.com/knowledgenudge/so-you-think-you-can-write-an-implementation-research-proposal-43031482be19>
3. BioMed Central. Implementation Science Journal. Implementation Science [Internet]. Implementation Science Journal. [cited 2021 May 17]. Available from: <https://implementationscience.biomedcentral.com/about>
4. Bauer MS, Kirchner J. Implementation science: What is it and why should I care? *Psychiatry Res.* 2020 Jan 1;283:112376.
5. Remme JHF, Adam T, Becerra-Posada F, D’Arcangues C, Devlin M, Gardner C, et al. Defining Research to Improve Health Systems. *PLOS Med.* 2010 Nov 16;7(11):e1001000.
6. Zachariah R, Reid T, Srinath S, Chakaya J, Legins K, Karunakara U, et al. Building leadership capacity and future leaders in operational research in low-income countries: why and how? *Int J Tuberc Lung Dis Off J Int Union Tuberc Lung Dis.* 2011 Nov;15(11):1426–35, i.
7. He L, Yang N, Xu L, Ping F, Li W, Sun Q, et al. Synchronous distance education vs traditional education for health science students: A systematic review and meta-analysis. *Med Educ.* 2021;55(3):293–308.
8. Nguyen T, Netto CLM, Wilkins JF, Bröker P, Vargas EE, Sealfon CD, et al. Insights Into Students’ Experiences and Perceptions of Remote Learning Methods: From the COVID-19 Pandemic to Best Practice for the Future. *Front Educ [Internet].* 2021 [cited 2021 May 25];6. Available from: https://www.frontiersin.org/articles/10.3389/feduc.2021.647986/full?utm_campaign=Email_publication&field=&journalName=Frontiers_in_Education&id=647986&utm_content=162487312&utm_medium=social&utm_source=twitter&hss_channel=tw-541412759