Agricultural Extension in South Asia

Technical Writing Skills

Platform: Researcher Academy, Elsevier
Duration: 2 hours and 30 minutes
Certification: Yes, free of charge

The Elsevier Researcher Academy is a completely free e-learning platform designed to empower early- and mid-career researchers. It offers a variety of e-learning modules aimed at enhancing the skills of researchers. I took a course on technical writing skills on this platform as I aimed at enhancing my expertise on writing review articles.

The primary objectives of this course are to:
- Provide practical advice and guidance to initiate technical writing and
- Highlight essential rules and common pitfalls in technical writing

The course uses an asynchronous online learning method. Although specific learner levels are not detailed, the content is tailored to beginners. The course comprises seven modules, which are as follows:

1. How to write and review a methods article
2. How to design effective figures for review articles
3. How to write for an interdisciplinary audience
4. An editor's guide to writing a review article
5. How to write case reports
6. Systematic reviews 101
7. Beginners' guide to writing a manuscript in LaTeX

Notably, the Elsevier course does not follow a strict sequential order for its modules. Three of the seven modules—specifically Modules 2, 4, and 6—focus on writing review articles, aligning with my interests.

Each module consists of a pre-recorded video lecture featuring presentations from at least three Elsevier editors from various journals who cover the topic. Following each module, a Question-and-Answer (Q&A) session allows participants to pose their queries. Additionally, learners have the option to download the slides used in the PowerPoint presentations.

The module on *An Editor's Guide to Writing a Review Article* covers the following topics:
- What constitutes a review article?
- Why write a review article?
- Expected outcomes of a review article
- Managing readers' expectations

- Ideal length and structure of review article sections
- Differences between direct submissions and unsolicited proposals

For instance, a direct submission follows the same procedure as a research article submission, while an unsolicited proposal occurs when an editor invites an author to write or when an author presents a proposal before drafting. The module suggests a structure that includes an introduction, main sections (4–6), sub-sections (2–4 paragraphs), and a conclusion. However, it does not explore review types, drafting methods, plagiarism strategies, or AI tools. Including these topics in future modules would be beneficial.

The module, *Systematic Reviews 101,* provides an overview of the Systematic Literature Review (SLR), designed to address predefined research questions using either qualitative or quantitative approaches. It synthesizes results from multiple studies and introduces concepts such as Meta-Analysis, software tools like PRISMA, and databases such as the Cochrane Library. Additionally, it reviews methodologically sound SLRs and suggests ways to enhance quality, emphasizing robust methodologies. Furthermore, it outlines ideal scenarios for applying SLRs, particularly when a research question is novel and adds new insights to the field. However, it does not detail the practical steps involved in conducting an SLR, which would have been a valuable addition.

The module on *How to Design Effective Figures for Review Articles* explores the essential do's and don'ts of creating figures for review articles. It emphasizes the importance of crafting simple and visually appealing figures that incorporate muted and gradient colours. Additionally, it provides guidance on effectively reproducing figures previously utilized in other studies. This module stands out from the others due to its abundance of illustrative examples and practical applications related to best practices in figure design.

The instructor's teaching style is effective across all modules. The Q&A sessions provided useful and practical information. However, the main drawback is the lack of a grading process and interactive elements.

The only requirement for certification is watching the entire video lecture for each module. Often, the content seems specific to particular journals and health-related topics, given the presenters' areas of expertise. This can make it challenging to apply the knowledge more broadly.

While going through the modules, I appreciated learning the basics from scratch. I enrolled to enhance my skills in writing, citing, and structuring a review article, as well as to learn about SLRs. I expected practical guidance on conducting an SLR but found the course lacking in depth due to the absence of follow-up modules.

Overall, this course provided a solid foundational understanding of review articles, offering valuable tips on drafting papers, incorporating figures, and conducting SLRs. It lays a strong groundwork and stimulates the desire for further knowledge among researchers on review articles.

Key Takeaways

- A review article should identify unexplored areas, provide critical commentary when necessary, and synthesize original ideas for future research rather than merely compiling results.
- An SLR should present novel insights. If an SLR on a research question already exists, undertaking another is less preferable.
- Reproducing figures from published research articles is permissible, but they should be modified if necessary to enhance visual appeal and clarity.

Shanmuga Surya K is a second-year PhD student in Agricultural Extension Education at the College of Agriculture, Vellayani, Thiruvananthapuram. He has a Master's degree in Agricultural Extension from Tamil Nadu Agricultural University. He can be contacted at shanmugasurya86@gmail.com.