

Perspective: Teaching through Publishing

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In my role as Open Access Publishing Specialist with the Ball State University Libraries, I support the journals published through our open access publishing program. Working with faculty, editors, and authors from all over the world is incredibly rewarding, but I'll admit that my favorite part of the job is getting to work directly with students. Over the past few years, I've especially enjoyed working with Dr. John McKillip and the undergraduate students who produce *Fine Focus* as part of an immersive learning class.

Students gain a unique perspective by producing and publishing an open access scholarly journal. By working directly with faculty in their fields, students learn the proper conventions and practices related to scholarly communications in their field. In addition to supporting our installation of Open Journal Systems, the platform used to produce the journal, I teach students about both open access publishing and considerations for authors from a publishing perspective.

Like all the journals published by the Libraries, *Fine Focus* is an open access journal. This means that all content is freely available immediately upon publication, with no login or payment required by readers. However, articles published through our journals are much more than simple files available on a website.

In my work with students, I walk through some of the signs of credible journals, the basics of open access and scholarly publishing, and the features that they'll use to produce and publish accessible scholarly content.

OPEN ACCESS PUBLISHING

Open access content is freely available immediately upon publication. Authors publishing online can generally retain copyright to their work, which isn't always the case when publishing with non-open access journals. Students learn about the Creative Commons license that all *Fine Focus* content is published with, which allows authors to retain the copyright to their work while sharing it with others. Students also learn about identifiers such as ORCID, and how these are increasingly important to researchers and scholars.



DISCOVERY AND CITATION CHAINS

When articles are published, they are indexed in several key scholarly discovery platforms. This ensures that *Fine Focus* articles will be included in the search results of other scholars. Titles, abstracts, and keywords are indexed, meaning that it's important to make sure those fields are well written to ensure the discoverability of each article. Good titles can be hard to write, and a well written one will give a good overview of the article contents. Abstracts both give the reader an idea about what's included in the article, but they are also an important part of discovery process. Many library search tools offer brief descriptions of articles; these are almost always pulled directly from the abstract.

One strategy to select powerful keywords (sometimes called subjects) is to start with a research database related to the article subject. *Fine Focus* authors might start with Biological & Agricultural Index Plus, for example. Students unsure of the best databases in their field are encouraged to reach out to librarians, who can guide students to excellent resources.

Many databases feature lists of the keywords they use; this is a great place to find effective keywords for an article. Sometimes these lists are called database thesauri or subjects authority. Instead of guessing what good keywords would be, researchers can see what publishers in the fields use as keywords. For example, a researcher writing about bacteriophage could check the Biological & Agricultural Index Plus Subjects Authority and find that there are many terms for that concept; choosing a specific term from the list will both better describe the article and help other researchers find it.

The concept of the citation chain is new to many students, and it reinforces the importance of properly crediting the work and ideas of others. A good practice is to display the bibliography/references used in an article on the article landing page. This allows readers to quickly see the articles the author consulted.

Additionally, those references will be registered with the article metadata. By doing so, the article will be part of a "citation chain" - commonly seen in discovery tools as "Cites/Cited by". These tools allow researchers to easily discover the works cited in an article, as well as where that article is itself cited. Properly citing the work of others is vital to the scholarly publishing process, and by registering references, authors follow the best example.

JOURNAL PUBLICATION

Fine Focus is produced using the Open Journal Systems platform, an open source system used by publishers world-

wide. This platform supports the entire publication process, from article submission, through the peer review process, and finally through production and publication.

Students learn about the submission process, and how articles need to be submitted without identifying information. When an article is accepted for review, it begins the peer review process. *Fine Focus* uses a double blind peer review process, which means reviewers don't know the identity of the author, and the author doesn't know the identity of the reviewers. Students learn about the role and the importance of the reviewer, and they see how the system reinforces the anonymity of the process.

Discussions between reviewers and editors take place in the system, and authors can sometimes submit multiple revisions, each of which can be subjected to another round of peer review. When the article is ready for publication, it is sent to the designer for page layout.

At this stage, students learn about the importance of proofreading, and what they should pay special attention to. Many people are surprised to learn that formatting can easily be changed along the manuscript process, especially when auto-save features might save accidental mistakes. Italics, superscripts, subscripts, and special characters are especially important to double check in scientific writing.

CONSIDERATIONS FOR AUTHORS

As part of my role, I assist several journals with page design services. Over the years, I've noticed many common problems that cause problems when manuscripts are prepared for publication. Students learn about several of these, and how they can lead to errors or inaccessible content.

GRAPHICS

When submitting a manuscript, it's perfectly fine to paste an image into the manuscript for the review process. When the article is prepared for publication, though, authors should always send the highest quality version of their images in standard image formats (jpg, png, svg, etc). Images almost always need to be resized, and may have lost quality if they've been copied and pasted several times, and sending quality image files allows the designer to resize as needed without losing quality.

Charts, graphs, and any image containing text should be prepared as vector files if possible. A graph saved as a vector file will resize without getting blurry, and more importantly, so will any text included in the label. Students learn about considerations related to accessibility; colors used in charts

should account for colorblindness and people printing in grayscale, for example.

TABLES

Tables need to be formatted as tables, with table headings, using the tools included in standard word processing applications. Authors using manual tabs and hard returns to mimic the look of the table might not realize those breaks will skew in the design process, and will not be read correctly in text readers. If designers don't notice the problem and have to manually fix it, errors can easily be made at this point. Additionally, improperly formatted tables won't pass accessibility standards.

STYLES

Using styles in word processing or desktop publishing programs ensures consistency, increases accessibility, reduces the chances for error, and saves time. The text in this paragraph uses a style called "body text", while the "Styles" subheading uses the style "heading3". Styles ensure all articles use the same consistent formatting, and they can also be used to generate the tags needed in accessible PDFs.

Styles remove the need to use hard returns and characters for formatting. The most common error I have seen authors make relates to references, which generally use hanging indents. Just as authors shouldn't use manual line breaks and tabs to mimic the look of a table, they shouldn't use them to produce a properly formatted reference list. Instead, authors can create a "references" style, using hanging indents. This ensures that references will appear correctly during the design process, and even more importantly, they will be registered correctly at publication. Figure 1 illustrates a reference using manual line breaks, and Figure 2 shows how those manual line breaks translate into easily-missed incorrect references.

CONCLUSION

Classes like Fine Focus are truly immersive experiences, and I find it incredibly rewarding to support students as they produce the journal. They've learned in classes about the importance of bibliographies, crediting others, and following style guides, and they gain a completely new perspective when they serve as journal producers and publishers. Working with students in this role also helps me support the other journals and platforms I work with, and I'm looking forward to seeing what lies ahead for the journal.

Figure 1.

References created in a word processing program

Miller, G., Necessary, K., Burchell, R., Iwase, Y., Lautensack, N., Russell, B., ... Sattley, M. (2024). Positive effects of Moringa oleifera and Moringa stenopetala seed and leaf extracts against selected bacteria. *Fine Focus*, 10(1), 58–73.
<https://doi.org/10.33043/FF.10.1.58-73>
 Swain, A., Colburn, E., De Andrade, K., Rosales, P., Addorisio, S., Stuart, T., ... Pina, C. (2025). Analyzing selected FDA approved drugs for effects on template switch mutagenesis in E. coli. *Fine Focus*, 11(1), 12–23.
<https://doi.org/10.33043/rq7a84ax>

Note. Created in Microsoft Word, these references look identically formatted, with a left justified first line and indented second and third lines.

Figure 2.

References imported into a desktop publishing program, with hidden formatting characters displaying

Miller, G., Necessary, K., Burchell, R., Iwase, Y., Lautensack, N., Russell, B., ... Sattley, M. (2024). Positive effects of Moringa oleifera and Moringa stenopetala seed and leaf extracts against selected bacteria. *Fine Focus*, 10(1), 58–73.
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 Swain, A., Colburn, E., De Andrade, K., Rosales, P., Addorisio, S., Stuart, T., ... Pina, C. (2025). Analyzing selected FDA approved drugs for effects on template switch mutagenesis in E. coli. *Fine Focus*, 11(1),

Note. The references shown in Figure 1 have been imported into a desktop publishing program. Because the author used hard returns and manual tabs for the first reference, that reference is now four incomplete lines instead of one correctly formatted reference. The second reference used a reference_list style featuring hanging indents and is correct.