# Academic Librarian Competence to Support Scientific Writing and Publication

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**Abstract.** This study aims to determine what competencies are needed by librarians at the Sebelas Maret University library to support scientific writing and publication services. This study uses a qualitative method with a case study approach. The researcher chose a case study in this study because Sebelas Maret University has its characteristics compared to library services at other tertiary institutions. Respondents in this study consisted of librarians, lecturers/researchers, and students—data analysis using Miles and Huberman. The data collection techniques were participant observation, in-depth interviews, and documentation. The research results show that librarians' competence in scientific writing and publication is inadequate. Some competencies that need improvement include: 1. Competence related to scientific writing, 2. Competence related to scientific journals, 3. Competence regarding various tools for scientific work, 4. Competence regarding relevant and reliable sources of information.

*Keywords: academic librarian competence, research support services, scientific writing, scientific publication*

## 1. Introduction

Librarians are professionals in the library field who have knowledge and skills in managing and providing access to information sources. Law of the Republic Indonesia No. 43 of 2007 on Library states that a librarian has competence obtained through librarianship education and/or training and has the duties and responsibilities to carry out library management and services [1]. In the university environment, the librarian's role becomes complex because it adapts to users' needs. One of the users' needs in the higher education environment is related to scientific publications. Because the progress of a tertiary institution can be measured by how many publications are produced, it becomes an obligation for lecturers and students to carry out scientific publications.

Sebelas Maret University is one of the tertiary institutions that aims to become a world-class university that strives to improve its performance through scientific publications continuously. In this regard, the library, as one of the supporting units of Sebelas Maret University, apart from providing complete and quality collections, also strives to support scientific writing and publication services. This service includes searching for sources of information and the process of scientific writing for publication in national and international

journals. Librarians are needed who can understand matters related to this matter to support these services.

Based on UNS library data, the number of human resources in the UNS library is currently 44 people consisting of librarians and their support staff with various backgrounds. From the employment status of civil servants and non-PNS personnel, multiple classes, ranks, and educational experiences range from elementary school level (SD) to master (S2). With the support of many human resources, libraries must provide assistance related to scientific writing and publication. However, in reality, this assistance still needs to be improved.

Based on the explanation above, it is crucial to conduct this research to find out what competencies are needed by librarians to support scientific publications in tertiary institutions.

## 2. Literature Review

Various studies have been conducted on librarians and their relationship with writing and publication in higher education. Research conducted by Fortin & Mueller mentions that the new roles of librarians in tertiary institutions include teaching, in-depth research consultations, and even partnerships in research outside the library [2]. Furthermore, to support research, the capabilities, and expertise are the essential tool kit for ensuring that libraries and librarians continue to effectively and efficiently meet the evolving needs of the clients and communities they serve [3]. In the research lifecycle, activities such as helping with data management plans, building data catalogs, and running data repositories are particularly significant changes to the role of librarians in the digital era. Furthermore, much research has been conducted on collaboration between librarians and researchers in various fields [4][5][6][7]. Futher research surveyed the factors influencing research collaboration among the teaching staff in LIS schools in Africa, the study identified both the enhancers and inhibitors of research collaboration whereby factors such as networking, sharing of resources, enhancing productivity, educating students, overcoming intellectual isolation, and accomplishments of projects in a short time as well as learning from peers, were found to influence research collaboration in LIS in South Africa greatly. The inhibitors of research collaboration among the teaching staff in LIS schools in South Africa were identified as bureaucracy and red tape, lack of funding, unethical behavior of collaborators, the distance between researchers, level of education of collaborators, and inadequate competencies on the part of potential collaborators [8].

## 3. Methods

This research was conducted at Sebelas Maret University. This study uses a qualitative method with a case study approach. The researcher chose a case study in this study because Sebelas Maret University has its characteristics when compared to library services at other tertiary institutions. Respondents in this study amounted to 30 people: librarians, lecturers, and students at Sebelas Maret University—data analysis using Miles and Huberman. The data collection techniques were participant observation, in-depth interviews, and documentation
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## 4. Discussion

Scientific work is writing that has gone through a process of research and study to be published in national and international journals finally. Besides increasing the competitiveness of a tertiary institution, the publication of scientific papers is used as a means of scientific communication to develop knowledge.

As a tertiary institution that aims to become a world-class university, Universitas Sebelas Maret strives to continuously improve its performance, one of which is through mandatory publications for the civitas academica. The 2021 annual report of the Institute for

Research and Community Service (LPPM) states that UNS scientific publications continue to increase at the national and international levels. [9]

In the process of scientific writing and publication, the academic community often faces difficulties. Based on interviews with librarians, lecturers, and students, the authors classify the problems as follows:

1. Based on the interviews with librarians, the difficulties faced by librarians are difficulties in developing abilities related to scientific writing, problems in terms of technology, difficulties in self-confidence.
2. Based on interviews with students, they facing difficulties with finding ideas, in the structure of scientific writing, using reference managers, language, plagiarism checkers and difficulties in finding the right journal.
3. The difficulties faced by lecturers are difficulties in finding electronic journals, difficulties in using reference managers, difficulties communicate with editors, and difficulties in finding the right journal for their research

Based on the findings above, the competencies needed include:

1. Competence related to writing scientific papers

As a librarian, competency in scientific writing involves understanding various writing aspects that are relevant to academic and research activities. Some essential competencies in terms of scientific writing are as follows:

a. Understanding of Scientific Writing Structure: Librarians need to have a good understanding of the structure of scientific writing, including how to compose an abstract, introduction, methodology, results, discussion, and conclusions. They should be able to provide advice on how to put together a coherent and orderly scientific article or paper.

b. Reference and Citation Systems: Librarians should have good knowledge of the use of different reference and citation systems, such as the APA (American Psychological Association), MLA (Modern Language Association), or other systems. They can assist researchers or students in determining a writing style and ensuring correct and consistent use in compiling references and citations.

c. Editing and Proofreading: Librarians can assist in editing and checking for grammatical, spelling, and other errors in academic writing. They must understand the rules of correct writing and grammar to help improve the quality of writing.

d. Information Literacy: As experts in information literacy, librarians know how to access relevant information resources, be it scientific journals, databases, or other sources. They can assist researchers or students in finding suitable sources for their research.

e. Searching Skills: Librarians must have strong skills in conducting information searches using various systems and databases. They can assist in locating relevant sources and provide advice on effective search strategies.

f. Scientific Writing Ethics: Librarians must understand the ethical principles of scientific writing, including plagiarism, honest writing, and acknowledging the correct sources of information. They can guide researchers or students on writing ethics and help them avoid unethical practices.

2. Competence regarding scientific publications

Competence of librarians in scientific publications includes:

a. Scientific Publication Process: Librarians must understand the stages in the scientific publication process, including submission of articles to journals, review processes by peer reviewers, article revisions, and final publication. They should be able to explain

and help users understand this process and provide practical guidelines for submitting articles to relevant journals.

    b. Knowledge of Scientific Journals: Librarians should have extensive knowledge of various scientific journals in their field. They need to know the journal's reputation, and the research focus that the journal accommodates, publishing policies, and article writing requirements. This knowledge will assist librarians in providing appropriate journal recommendations to researchers and students.

    c. Understanding of Publication Standards: Librarians should be familiar with standards related to scientific publications, such as style writing standards (such as APA, MLA, or IEEE), metadata standards (such as MARC or Dublin Core), and standards for publication file formats (such as PDF or EPUB).

    d. Publication Ethics: Librarians must understand the principles of publication ethics which include honesty, fairness, peer review, plagiarism, and data transparency

3. Competence regarding various tools for scientific work

Librarians need competence in using multiple devices or tools to support scientific work. Here are some tools that are important and relevant for librarians in the context of scientific work:

    a. Reference Management Systems: Tools such as Zotero, Mendeley, or EndNote assist librarians and researchers in organizing and managing their references. Librarians must understand how to use this reference management system to store, organize, and cite references in scientific writing.

    b. Word Processing Software: Librarians must be proficient in word processing software such as Microsoft Word or LaTeX to assist users in compiling scientific papers, making reference lists, and formatting documents according to the desired writing style.

    c. Software for Data Analysis: Librarians can use data analysis software such as SPSS, NVivo, or R to analyze research or survey data. Knowing how to use these tools allows librarians to assist researchers in analyzing and interpreting their data.

    d. Anti-Plagiarism Tools: Librarians need to be familiar with anti-plagiarism software such as Turnitin or Grammarly, which can assist in detecting text similarities and ensuring academic integrity in scholarly writing.

    Librarians must keep abreast of technological developments and new tools relevant to scientific work. By understanding and mastering these various tools, librarians can provide more effective and comprehensive assistance to researchers, students, and the academic community in their scientific work.

4. Competence regarding sources of information that are relevant and reliable.

Librarians have competence in various information sources to meet user needs and support library activities. The following are some important sources of information on librarian competence:

    a. Books: Librarians must have extensive knowledge of the collection of books available in the library, both in print and digital form. They must be able to assist users in finding books relevant to the topic or subject they are interested in.

    b. Scientific Journals: Librarians need to be familiar with scientific journals and have access to relevant journal databases. They should be able to assist users in finding journals that match their research areas or interests, as well as help access scientific articles.

    c. Academic Databases: Librarians must be skilled in using multiple databases spanning multiple disciplines, such as Scopus, PubMed, ProQuest, IEEE Xplore, and others. They must be able to assist users in conducting searches and accessing relevant electronic resources.

d. E-Books: Librarians must be familiar with and have access to a comprehensive collection of e-books. They must be able to assist users in finding, accessing, and using e-books for research and learning purposes.

e. Institutional Repositories: Librarians need to understand and manage institutional repositories that store and publish research results and scientific papers from members of the institution. They must be able to assist in uploading, searching, and accessing these works.

f. Magazines and Newspapers: Librarians should be familiar with scientific magazines and newspapers relevant to various topics. They can assist users in finding, accessing, and reading articles or reports published in magazines and newspapers.

g. Digital Information Sources: Librarians must stay updated with digital information sources, such as blogs, websites, archival repositories, and social media. They should assist users in evaluating the reliability and quality of these digital information sources.

h. Reference Resources and Encyclopedias: The librarian should know reference sources and encyclopedias that users can use to look up general or specific information on a particular topic.

## 5. Conclusion

The results of the study found that the competency of the librarians of Sebelas Maret University Surakarta needed to have adequate competence with scientific writing and publication. Whereas the support of competent librarians is expected to speed up the process of scientific writing and publication, improve the quality of results, and ensure that researchers have better access to relevant scientific sources. Therefore, if you want to enhance the competence of librarians related to scientific writing and publication, efforts from all parties, especially from the librarians themselves, are needed to remain highly motivated and tireless, trying to improve and develop their competencies through various means continuously. The study's results also explain that competencies related to scientific writing and publication that need to be improved include: 1. Competence related to a scientific paper, 2. Competence related to scientific journals, 3. Competence regarding various tools for scientific work, 4. Competence regarding sources - relevant and reliable sources of information.

**References**
[1] Law of the Republic Indonesia No. 43 of 2007 on Library
[2] Fortin, M.,&Mueller, J. The library as research partner and data creator: The donvalley historical mapping project. Journal of Map and Geography Libraries, 9(1–2), 157– 174. 2013
[3] Partridge, H., Haidn, I., Weech, T., & Connaway, L. S. The researcher librarian partnership : Building a culture of research. Library & Information Research, 38 (118 ) , 35 – 51. 2014
[4] Pham, Hue & Tanner, Kerry. Collaboration between academics and librarians: A literature review and framework for analysis. Library Review. Vol. 63. 15-45. 2014
[5] Bhue,S.and N.Bhoi. Growth and international collaboration of research in the field oflibrary and information science between India and China (1996–2014): A quantitative study.International Journal of Library and Information Science 5(4): 107–111. 2015

[6]  Borrego, Ángel & Ardanuy, Jordi & Urbano, Cristobal. Librarians as Research Partners: Their Contribution to the Scholarly Endeavour Beyond Library and Information Science. The Journal of Academic Librarianship. 2018

[7]  Nguyen Thi, Lan & Tuamsuk, Kulthida. Factors influencing the faculty-librarian collaboration at the Vietnamese universities. The Journal of Academic Librarianship. 2020

[8]  Maluleka, J. R., O. B. Onyancha and I. Ajiferuke. Factors influencing research collaboration in LIS schools in South Africa. Scientometrics 107(2): 337–355. 2016

[9]  Institute for Research and Community Service (LPPM). LPPM Annual Report. Sebelas Maret University. 2021