

Reference Management in Supporting the Learning Process for Teachers in Maluku Province

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ABSTRACT: The seminar "Reference Management in Learning" was held by the Department of Islamic Education Management of Institut Agama Islam Negeri (IAIN) Ambon to improve teacher competence in managing academic references. This seminar involved teachers from several schools in Maluku Province who previously faced difficulties accessing and organizing learning resources. This research uses a qualitative approach with participatory methods to understand the seminars' conditions, obstacles, and effectiveness. The research results found that by using online academic platforms and reference management applications such as Mendeley, this seminar increased teachers' understanding and skills in compiling valid and credible reference-based teaching materials. However, infrastructure constraints such as internet access and limited computer facilities hinder the optimal application of these skills. Therefore, ongoing training programs and facility support are needed to ensure the sustainability and effectiveness of training.

KEYWORDS: Reference management, learning, teachers, mendeley, technology infrastructure, continuous training.

I. INTRODUCTION

Education is a fundamental element in a nation's development, and the education system's success depends on the teaching staff's role and quality (teachers). As the main actors in the learning process, teachers must have skills in accessing and managing relevant learning resources to increase teaching effectiveness. Unfortunately, teachers face various obstacles in obtaining adequate references in underdeveloped areas such as the Werinama district, Seram Bagian Timur Regency, and Maluku Province. Limited educational infrastructure, lack of internet access, and lack of training in digital literacy hinder the optimization of learning resources in the learning process (Musthofa et al., 2023; Nasution et al., 2022).

In response to this challenge, the Department of Islamic Education Management IAIN Ambon held a seminar entitled "Management of Reference in Supporting the Learning Process for Teachers in Disadvantaged Areas." This seminar is part of community service activities which aim to equip teachers at SDN 4 Werinama, SDN 6 Werinama, SDN 1 Werinama, SMPN 5 Werinama, MTs LKMD Werinama, and SMAN 3 Seram Bagian Timur with skills in managing references more effectively. In this forum, teachers were given insight into the importance of reference management in learning and were introduced to various software that can help them organize academic resources more systematically.

Reference management not only functions as a tool for storing and organizing reading sources but is also essential in ensuring that the teaching materials prepared are sourced from valid and up-to-date references. Well-managed references enable educators to develop more evidence-based teaching materials, integrate the latest scientific findings, and implement innovative teaching strategies (Hapidin et al., 2020; MacMahon et al., 2022). However, these skills have not been widely utilized in underdeveloped areas due to minimal training and technological support. One of the main problems teachers face in disadvantaged areas is limited access to quality teaching materials. Many still rely on printed textbooks, which are limited in number and are not always updated according to scientific developments. This results in limited variations in learning methods and low integration of new insights into the teaching materials given to students (Hung et al., 2019).

Apart from problems with access to teaching materials, skills in using reference management software such as Mendeley, Zotero, and EndNote are still low among educators in remote areas. Darmastuti, (2014) shows that using reference management applications can increase teacher efficiency in organizing teaching materials by up to 60%. Although the results of this research highlight the benefits of using this technology, its implementation is still limited to urban environments with more supportive facilities (M. buyanov, 2021; Patak & Tahir, 2019)

Another challenge teachers face in disadvantaged areas is the lack of understanding of academic and digital literacy. Most still use manual methods for recording references, such as writing down sources of information in notebooks or marking pages in printed

Reference Management in Supporting the Learning Process for Teachers in Maluku Province

books. Although this method can help in the short term, its limitations in efficiency and managing large numbers of references are major obstacles (Jaeger et al., 2012; Sya Laisa Amara et al., 2022). Therefore, the seminar initiated by MPI IAIN Ambon students aims to equip teachers with basic skills in reference management so that they can more easily prepare teaching materials based on credible academic sources.

The seminar, which was held in the Werinama district, aims to be a platform to introduce the concept of reference management to teachers in disadvantaged areas. This activity was attended by teachers from various schools in the Werinama district who have diverse teaching experiences. Participants were given an understanding of the importance of reference management, how to search for valid academic literature, and techniques for storing and managing learning resources in a more structured manner. The teachers shared their experiences and obstacles in finding and managing references in the discussion session. Some of the main problems revealed include limited digital infrastructure, where many schools do not have computer facilities or adequate internet access, thus hampering online references. Apart from that, the lack of training in using technology is also a challenge because most teachers are not yet accustomed to using digital reference management applications. Not only that, limited quality learning resources are also a problem, considering that the references available in schools are still dominated by old printed books that are rarely updated (Manca & Ranieri, 2014; Pawan et al., 2021; Soekamto et al., 2022).

To answer this challenge, the seminar provides theory regarding the importance of reference management and practical training. Teachers are taught to search for literature from open academic sources such as Google Scholar and ResearchGate. They are also trained in using Mendeley to store and manage references.

One important part of this seminar is increasing awareness of the importance of reference validity in preparing teaching materials. Teachers are invited to be more selective in choosing learning sources and avoid references from blogs or sites that do not have scientific credibility. In the practice session, they were given examples of comparisons between articles from academic journals that had gone through a peer-review process with articles from unverified sources.

Based on the problems that have been raised, this research aims to examine the initial conditions regarding the ability of teachers at SDN 4 Werinama, SDN 6 Werinama, SDN 1 Werinama, SM N 5 Werinama, MTs LKMD Werinama, and SMAN 3 Seram Bagian Timur in accessing and managing learning references, identify the main obstacles in implementing reference management from a technical and non-technical perspective, assess the effectiveness of seminars held by Department of Islamic Education Management of Institut Agama Islam Negeri (IAIN) Ambon students together with lecturers in improving teachers' skills in reference management, and formulate recommended strategies to strengthen teacher capacity in reference management, especially in areas that have limited access to learning resources.

Hopefully, this research can be a reference for educational institutions, local governments, and academic organizations designing sustainable training programs to improve teacher skills in underdeveloped areas. The results can also be evaluated for future community service programs, significantly strengthening academic literacy and educational technology in remote areas (Mahelingga, 2020; Ridzal et al., 2022).

With an approach based on experience in seminars, this research not only provides theoretical insights but also offers applicable solutions that can be implemented to improve the quality of learning in disadvantaged areas. The hope is that better mastery of reference management will help teachers create teaching materials that are more credible, research-based, and in line with learning needs in the current digital era.

I. RESEARCH METHODS

This research applies a qualitative approach with participatory methods to understand the conditions, obstacles, and effectiveness of seminars in improving teachers' skills in managing learning references. This case study focuses on teachers at SDN 4 Werinama, SDN 6 Werinama, SDN 1 Werinama, SMPN 5 Werinama, MTs LKMD Werinama, and SMAN 3 SBT. The main focus of the research is to analyze the impact of seminars on increasing teacher capacity in accessing and managing learning references more systematically and effectively.

This research involved teachers from three villages who participated in a seminar organized by the Department of Islamic Education Management of IAIN Ambon. Bemo Village was chosen as a research location because it reflects the challenges of limited access to education in remote areas. Holding the seminar in this village will provide an accurate picture of educators' conditions and problems in managing learning references.

Data was collected through observation, documentation, and analysis of participant evaluation results after completing the seminar. Observations were carried out before, during, and after the seminar to understand the extent of changes in teachers' reference management skills. Documentation is carried out by capturing the course of the seminar in the form of pictures and recording activities during the training. Participants are evaluated by reviewing how much their understanding and skills have increased after receiving reference management training (Fadlilah et al., 2023; Hasiara et al., 2021; Mas'adah et al., 2023). The data obtained was analyzed using the thematic analysis method, which includes a data reduction process, presenting descriptive narratives, and drawing conclusions based on research findings. This analysis aims to obtain a clearer picture of the changes after the seminar and identify aspects that still need improvement to increase the effectiveness of teacher reference management training.

II. RESULTS AND DISCUSSION

Community Service (Pengabdian kepada Masyarakat, PkM) is one of the leading programs in the Department of Islamic Education Management of IAIN Ambon routinely holds it. As part of the annual agenda, the "Reference Management in Learning" seminar was held on January 25, 2025, to help improve teacher competence in managing academic references. This activity is expected to solve educators' various challenges in obtaining and organizing references effectively.

Before attending the seminar, most of the teachers at SDN 4 Werinama, SDN 6 Werinama, SDN 1 Werinama, SMPN 5 Werinama, MTs LKMD Werinama, and SMAN 3 Seram Bagian Timur face various obstacles in accessing and managing learning references. Their main challenges include limited digital infrastructure, lack of training in reference management technology, and limited access to quality learning resources. Many teachers still rely on old printed books that are rarely updated, resulting in a lack of variety in learning methods and low integration of the latest information in their teaching materials.

The seminar, organized by the Department of Islamic Education Management of IAIN Ambon, aims to equip teachers with a basic understanding and skills in managing learning references. This activity includes a theory session discussing the importance of reference management in education, searching for academic literature via platforms such as Google Scholar and ResearchGate, and training using digital reference applications such as Mendeley to store and organize learning resources systematically. Apart from that, this seminar also emphasized the importance of reference validity in preparing teaching materials to increase the credibility of learning resources used by teachers (Fadlilah et al., 2023; Hasiara et al., 2021; Ridzal et al., 2022).

The evaluation results show that this seminar significantly impacted teachers' skills in managing learning references. After attending the seminar, many participants reported an increased understanding of searching for and organizing academic reference sources via online platforms. This change is visible in the technical aspects of using digital reference applications such as Mendeley and in how teachers understand the importance of managing references systematically and based on research (Dunford, 2015; Hayashi et al., 2006; Owusu-Ansah et al., 2021).

Furthermore, post-seminar observations showed that many teachers began to adopt new strategies for compiling teaching materials that were more relevant and based on valid academic data. However, applying these skills still faces various obstacles, especially those related to limited technological facilities and infrastructure in the schools where teachers teach. Several participants said the lack of stable computer or internet access was the main obstacle to implementing optimal reference management in the learning process.

In addition, participants' responses to the seminar material showed high satisfaction. Many teachers felt that this training provided new insights they had not previously gained in their professional development activities. Several participants also emphasized the need for follow-up in additional training or more in-depth mentoring sessions to ensure that the skills acquired can be applied more optimally in the long term.

The results of this research also show that the success of seminars depends not only on participants' technical understanding but also on the support of their work environment. In some cases, teachers with better access to technological tools tend to adopt new methods of reference management more quickly. On the other hand, teachers who still face limited infrastructure need more time and more intensive support to apply the skills they have acquired.

Increasing Seminar Impact and Implementation Challenges

Although this seminar has provided tangible benefits in improving teachers' skills in managing references, further steps are still needed to apply these skills optimally. The main challenge faced is the limited infrastructure in schools, such as the lack of adequate internet access and computer facilities that support the use of reference management software. This factor inhibits teachers from applying the skills they have learned during seminars.

In addition, there is a need for further programs that can help teachers continue to develop their skills in reference management. Many participants felt that one training session was not enough to master the use of digital reference applications optimally. Therefore, ongoing training and support from the academic community are needed to ensure the sustainability and effectiveness of this training (Hauer et al., 2020; Shrimel et al., 2015).

Follow-up observations show that although the seminar has increased teachers' awareness of the importance of valid references in learning, there are still obstacles to integrating newly acquired skills into daily teaching practice. Some teachers reported that lack of free time inhibited implementing new techniques, especially in searching, managing, and compiling references more systematically. Therefore, regular mentoring can be a solution to support the sustainable application of reference management skills (Mailizar et al., 2022; Wang & Si, 2024). Furthermore, this seminar also highlights the importance of collaboration between teachers in managing learning references. Teachers who better understand reference management applications can share experiences and help their colleagues who are still facing difficulties. This strategy can be implemented by forming small learning groups or online communities so that teachers can continue to exchange information and improve their understanding collectively.

Visual documentation in the form of photos and activity notes was collected to provide a more in-depth picture of the implementation of the seminar and its effectiveness. This documentation aims to record the seminar atmosphere, teacher participation, and interactions between participants and presenters. The following are several aspects of the documentation that were collected:

Reference Management in Supporting the Learning Process for Teachers in Maluku Province

1. The seminar organized by the Department of Islamic Education Management of IAIN Ambon was a valuable opportunity for teachers from SDN 4 Werinama, SDN 6 Werinama, SDN 1 Werinama, SMPN 5 Werinama, MTs LKMD Werinama, and SMAN 3 Seram Bagian Timur to explore new insights regarding reference management in learning. The seminar atmosphere was warm and enthusiastic, and it was held in an open space with a beautiful rural background. Lecturers from the Islamic Education Management Department were keynote speakers, conveying theory and sharing experiences and practical solutions so teachers could manage references more efficiently and effectively. The participants looked enthusiastic and seated in green and red chairs with purple tables for taking notes. They listen and actively discuss, share their challenges, and look for ways to improve their class's learning quality. More than just a seminar, this event is a space for collaboration and support for educators in remote areas. The insights gained can help them create more structured learning based on credible sources and impact student development.

Figure 1: Material presentation



2. Practice of Using Reference Management Applications: The speaker introduces Mendeley as a tool for compiling bibliographies efficiently. With a projector displaying the application interface, participants are guided through importing journals, managing citations, and compiling bibliographies according to academic standards. Participants' enthusiasm increased as the practical session progressed. They tried the tutorial directly, shared problems, and had active discussions. More than just technical training, this session supports educators in disadvantaged areas in becoming more confident using technology in learning and research.

Figure 2: Discussion conditions



3. The question-and-answer session was dynamic as the teachers shared their experiences in managing references manually, including difficulties in finding credible sources and compiling bibliography lists. A senior teacher expressed how time-consuming this process was, which was met with laughter and nods from the other participants. The speaker explained that technology such as Mendeley can simplify this task by automating references. He also shares tricks for accessing quality journals in remote areas and avoiding duplicate references. This session was a warm and inspiring opportunity to share knowledge, where participants felt heard and motivated to continue developing academically.

Figure 3: Reference management usage practice



With this documentation, the seminar implementation can be further evaluated to increase the effectiveness of similar programs in the future. Visual documentation can also be an important tool in compiling activity reports and strengthening arguments regarding the need for similar, more sustainable, and in-depth training in the future (Hasanah et al., 2020). Although this seminar has provided tangible benefits in improving teachers' skills in managing references, further steps are still needed to apply these skills optimally. The main challenge faced is the limited infrastructure in schools, such as the lack of adequate internet access and the lack of computer facilities that support the use of reference management software (Pambudi et al., 2021). This factor inhibits teachers from applying the skills they have learned during seminars.

One training is not enough for teachers to master digital reference applications optimally. Continuous support, both through advanced training and the academic community, is needed so that the benefits of this learning continue to develop. This seminar has provided valuable insight for teachers in managing learning references. However, so that the skills acquired can be applied optimally, supporting facilities and ongoing programs are needed to ensure teachers become more confident in developing effective learning methods.

III. CONCLUSION

The "Reference Management in Learning" seminar organized by the Department of Islamic Education Management of IAIN Ambon positively impacted teachers' skills in managing learning references. Through this seminar, teachers at several schools in Werinama gained a new understanding of using online platforms such as Google Scholar and ResearchGate and reference management applications such as Mendeley. Despite significant improvements in teacher skills, the main challenges faced are infrastructure limitations, such as inadequate internet access and limited technological facilities. Therefore, further training programs and facility support are needed so teachers can optimally apply these skills in the learning process. Further assistance and collaboration between teachers are important to ensure the sustainability of training results.

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Reference Management in Supporting the Learning Process for Teachers in Maluku Province

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