



## The Role of Muhammadiyah in Enhancing Digital Literacy in Educational Settings: A Study at Universitas Muhammadiyah Sidenreng Rappang

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#### ABSTRACT

*This research explores the role of Universitas Muhammadiyah Sidenreng Rappang in developing digital literacy among lecturers and students, an increasingly critical competence in modern education. The study aims to identify the extent to which university-provided facilities, training, and policies enhance lecturers' digital competencies and to evaluate the impact of these policies on students' learning experiences, including existing challenges and disparities. Employing a qualitative approach based on Creswell's (2014) framework, data were gathered through interviews, questionnaires, observations, and documentation using purposive sampling involving university leaders, lecturers, and digital learning coordinators. Thematic analysis was conducted to identify patterns related to digital literacy development. Findings reveal that the university has made significant progress, with most lecturers rating the facilities and training as excellent or good, and reporting improvements in teaching quality. However, gaps remain in policy communication and equitable access to digital tools. Student responses also showed positive perceptions, though uneven access, limited participation, and suboptimal program outcomes indicate the need for improvement. The study implies that to fully realize the benefits of digital literacy, the university must enhance infrastructure, refine training programs, and strengthen policy outreach to ensure inclusive and effective*

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### INTRODUCTION

Since 2019, Universitas Muhammadiyah Sidenreng Rappang (UMS Rappang) has taken progressive steps in adopting digital-based learning. This policy aligns with the rapid development of information and communication technology, as well as the growing demand for digital literacy in the field of education (Handayani, 2021). The implementation of digital learning is a response to the need for improved digital skills among students and educators in facing the challenges of the Industrial 4.0 era (Setiawan, 2020).

This phenomenon is also supported by various studies showing that digital literacy is a key element in improving the quality of education. According to Nurhadi (2019), students with good digital literacy tend to be more adaptive to technological changes and are able to access learning resources more independently (Nurhadi, 2019). This is relevant to the situation at UMS Rappang, where the implementation of a digital-based learning system has significantly improved students' ability to use technology for educational purposes.

However, despite the significant efforts made to enhance digital literacy, several challenges remain in the implementation process. A study conducted by Pratama (2020) revealed that although technology is available, the lack of readiness among lecturers and students to optimally use digital tools remains one of the main obstacles (Pratama, 2020). At UMS Rappang, some lecturers admitted that they still require further training and development of digital skills (Putri, 2022).

Furthermore, research by Iskandar (2022) points out that the application of digital literacy in educational environments depends not only on technological facilities but also on organizational support (Putri, 2022). In the Muhammadiyah context, the organization's role in supporting digital literacy development is crucial. Muhammadiyah, as one of the largest Islamic organizations in Indonesia, is committed to continuously promoting digital transformation in its educational institutions, including at UMS Rappang (Hidayat, 2023).

The research problem in this study is how Universitas Muhammadiyah Sidenreng Rappang plays a role in developing digital literacy among lecturers and how student participation and perception toward the digital literacy policies implemented within the campus are. This study aims to identify the extent to which the facilities, training, and policies provided by the university can enhance lecturers' digital competencies, as well as to evaluate the impact of these policies on students' learning experiences, including the challenges and gaps that may exist in their implementation.

## **METHODS**

This study employs a qualitative approach based on Creswell's (2014) theory, which states that qualitative research aims to understand the meaning individuals or groups ascribe to a social issue (Creswell, 2014). This approach was chosen because it is well-suited for exploring the roles, strategies, and policies of Muhammadiyah in enhancing digital literacy within educational settings, particularly at Universitas Muhammadiyah Sidenreng Rappang. Data were collected through interviews, questionnaires, observations, and documentation, using purposive sampling to select key informants such as university leaders, lecturers, and digital learning coordinators. The collected data were analyzed inductively using thematic analysis to identify patterns related to the development of digital literacy within the institution.

## **RESULTS AND DISCUSSION**

### **A. The Role of Universitas Muhammadiyah Sidenreng Rappang In Developing Digital Literacy Among Lecturers**

The following research findings illustrate the perspectives of lecturers at Universitas Muhammadiyah Sidenreng Rappang regarding various aspects of digital literacy within the campus environment. Among the 24 lecturers who participated as respondents, it was found that the majority had widely varying teaching experiences. Most lecturers were at two extremes of experience: those who had been teaching for

only 1–5 years (10 individuals) and those with over 10 years of experience (11 individuals). Meanwhile, only 3 respondents had teaching experience ranging from 6–10 years, indicating a gap in experience among the faculty members.

In terms of digital literacy facilitation, the majority of lecturers gave positive assessments of the university's efforts. About 50% of respondents rated the provided facilities as "very good," while 45.83% rated them as "good." Only 4.17% considered the facilities to be sufficient. This suggests that most lecturers felt they had received optimal support from the university. These results were consistent with their assessments of digital literacy training, with the same proportions—50% rating the training as "very good" and 45.83% as "good," while only one person rated it as sufficient.

Regarding awareness of university policies, 79.17% of lecturers stated that they were aware of the campus policies supporting digital literacy. However, around 20% were unaware of such policies, indicating the need for broader and more effective dissemination. With respect to training frequency, most lecturers (66.67%) stated that training was held occasionally, while 25% reported that it was held regularly. Only a small portion (8.33%) claimed they had never participated in such training.

Muhammadiyah, as the parent institution, also provides various media and support programs, with the most common being e-learning platforms (87.50%) and digital literacy workshops or training sessions (83.33%). However, access to digital devices (29.17%) and technical support (20.83%) remains relatively low. This indicates that although digital tools are available, their use has not been fully optimized across the faculty.

Concerning the influence of digital literacy support on teaching methods, a significant portion of lecturers (45.83%) stated that it enhanced their teaching approaches, while 33.33% experienced a very significant improvement. The remaining 20.83% felt the improvement was moderate. These findings show that all respondents benefited positively from digital literacy in terms of teaching quality. Nevertheless, the majority (75%) also felt that the existing programs still require further development, with only a few believing that the current initiatives are sufficient.

Furthermore, in terms of access to digital technology, 91.67% of lecturers confirmed they had adequate access, indicating that the digital infrastructure on campus sufficiently supports teaching and learning activities. Lastly, 70.83% of lecturers stated that digital literacy had improved their teaching quality. However, 16.67% were uncertain about its impact, and 12.5% felt there was no improvement. These results highlight the importance of continuous evaluation to ensure that the implementation of digital literacy has an equitable and consistent impact across all academic sectors.

Overall, this study reveals that Universitas Muhammadiyah Sidenreng Rappang has demonstrated a strong commitment to fostering digital transformation within the academic environment. This is reflected in the availability of facilities and institutional support aimed at enhancing digital literacy among both lecturers and students. Most lecturers are aware of the campus policies on digital literacy, indicating that the policy dissemination process has been effectively carried out. Efforts to improve digital literacy are implemented through various training programs, workshops, the use of e-learning platforms, and the provision of access to digital resources. These programs have motivated lecturers to develop more innovative and responsive teaching methods that meet the demands of digital-era education.

This finding is in line with the results of a study conducted by Prasetyo et al. (2021), which showed that the use of digital technology in learning heavily depends on the digital literacy competence of lecturers, and that structured training can improve the quality of technology-based learning (Prasetyo, 2021). Another study by Sari & Kurniawan (2020) also supports this finding, emphasizing that institutional support through digital literacy policies plays a crucial role in the successful integration of technology in higher education learning (Sari, 2020).

In addition, a study by Anshari et al. (2020) emphasizes the importance of accessible and relevant e-learning platforms in supporting digital learning (Anshari, 2020), which is also found in the context of Universitas Muhammadiyah Sidenreng Rappang. Research by Lestari & Widodo (2019) highlights that infrastructure challenges and digital access are major obstacles in the implementation of digital literacy, which also emerged in this study, particularly regarding internet network quality and limitations of digital devices (Lestari, 2019).

Meanwhile, research by Wijaya (2022) shows that digital literacy is not only about technical skills but also about the pedagogical ability of lecturers to utilize technology to create effective and meaningful learning interactions (Wijaya, 2022). This is also reflected in the positive responses from lecturers regarding the impact of the digital literacy program on the quality of their interactions with students.

## **B. Students' Participation and Perception of Digital Literacy at Universitas Muhammadiyah Sidenreng Rappang**

The research findings show that the majority of students at Universitas Muhammadiyah Sidenreng Rappang are aware of the university's policies supporting digital literacy. This reflects that the university has conducted adequate socialization efforts. However, there are still some students with low awareness of these policies, indicating the need for more effective communication strategies so that policy information can be equally received by all members of the academic community. This widespread understanding is essential to ensure the success of the full implementation of digital literacy.

From the learning experience perspective, the majority of students stated that the digital literacy policy has had a positive impact, particularly in enhancing the effectiveness of the learning process. Nevertheless, a small number of students rated the policy's impact poorly, likely due to limitations in utilizing digital technology or suboptimal access. Therefore, further evaluation is necessary to ensure that all students can fairly and proportionally benefit from the policy.

Regarding participation in the digital literacy program, some students admitted to having participated in university-organized activities, and most of them stated that the program helped improve their digital skills. However, some students have never participated in such programs, indicating the need for improved accessibility and better dissemination of information regarding digital literacy programs. The effectiveness of the program also remains a concern, as some students feel the program has not optimally impacted their digital skills.

Some students believe that the current digital literacy programs do not fully meet their needs in facing the challenges of learning in the digital era. Therefore, an evaluation of the curriculum and implementation methods is necessary to ensure these programs remain relevant and applicable. In practice, the use of digital technology has become widespread among students, with the majority stating that digital platforms are very helpful in understanding course material. Lecturers have also started

integrating technology into the learning process, although there is still room for improvement in applying more consistent and innovative digital teaching methods.

However, not all students have equal access to digital technology. Issues such as unstable internet connections and limited devices used by students were found. These findings suggest that the campus's digital infrastructure needs to be improved to fully support the development of digital literacy. Digital literacy is also deemed effective in supporting learning. In addition to improving understanding of material, digital literacy strengthens interactions between students and lecturers, as well as between students themselves, creating a more collaborative learning ecosystem.

The majority of students expressed hopes for strengthening the digital literacy program on campus. They emphasized the importance of improving the quality and reach of the program, as well as encouraging the introduction of new policies and enhancing the supporting facilities for digital learning. This expectation reflects the students' strong desire for an academic environment that adapts to the development of technology and digital learning today.

Overall, the results of this study show that Universitas Muhammadiyah Sidenreng Rappang has taken a good initial step in socializing the digital literacy policy to students, although there are still some students who are not fully aware of the policy. This indicates the need to strengthen communication strategies so that all students can understand and recognize the importance of digital literacy in learning. For example, a study by Susilo (2020) shows that uneven socialization of digital policies can hinder the effectiveness of technology implementation in education (Susilo, 2020).

Additionally, the positive impact of the digital literacy policy on students' learning experiences is clearly visible, with most students experiencing an increase in the effectiveness of their learning. However, a small number of students who have not felt these benefits may be facing difficulties in accessing or using technology, as revealed in the research by Prasetyo and Suryani (2021), which noted a mismatch between existing policies and the accessibility of technology for students (Prasetyo, 2021).

Students' participation in the digital literacy program also shows a positive contribution to their digital skills, although some students have yet to participate, indicating the need for improved accessibility to the program. According to Nurhayati and Haryanto (2022), improving accessibility and the quality of digital literacy program implementation is an important factor in ensuring that all students can effectively utilize technology (Nurhayati, 2022). The findings of this study also note that some students feel that the existing digital literacy programs do not fully meet their needs, leading to the need for further evaluation of the curriculum and teaching methods used in these programs. This evaluation is important to ensure that the programs remain relevant to technological developments and students' needs in the digital world.

Furthermore, the use of technology in learning by both lecturers and students is quite widespread, but there is still room for improvement. Lecturers need to enhance the utilization of technology to create more interactive and relevant learning experiences. Research by Daryanto (2023) shows that consistent and planned use of technology can improve the quality of learning; however, further training for lecturers is needed to optimally integrate technology into the classroom (Daryanto, 2023). Finally, barriers to digital technology access, such as limited devices and unstable networks, remain obstacles that need to be addressed to ensure that digital literacy can

be applied equitably across all students. Improving the digital infrastructure on campus is crucial so that all students can fully benefit from this digital literacy, in line with findings presented by Yuliana and Setiawan (2024), who recommend strengthening digital infrastructure as a key step to support technology-based education transformation (Yuliana, 2024).

## **CONCLUSION**

Based on the results of this study, the following conclusions can be drawn: First, the university has made significant efforts to support digital literacy. The majority of lecturers feel that the facilities and training provided are quite good, with 50% of lecturers rating the facilities as "excellent" and nearly 46% rating them as "good." However, there is still room for improvement in aspects such as the socialization of campus policies and increased access to digital devices and technical support. The majority of lecturers also feel that digital literacy has improved the quality of their teaching methods. However, further development of training programs is considered important to ensure that all lecturers can make the most of technology. Additionally, although most lecturers have adequate access to technology, continuous evaluation of the implementation of digital literacy on campus is necessary to ensure its impact is widespread and positively affects the quality of learning. With further development in areas that still need improvement, Universitas Muhammadiyah Sidenreng Rappang can maximize the potential of digital literacy among lecturers to support better educational quality.

Second, students' participation and perception of digital literacy at Universitas Muhammadiyah Sidenreng Rappang show a positive trend but still require strengthening in various aspects. The majority of students are aware of the campus's digital literacy policy and feel a positive impact on their learning experience, particularly in terms of increased effectiveness and learning interaction. However, there are still challenges such as unequal access to technology, limited participation in programs, and the lack of effectiveness in some digital literacy activities. Therefore, strategic efforts are needed to improve policy socialization, refine digital literacy programs, and strengthen technological infrastructure to ensure that digital literacy can be experienced optimally and equally by all students.

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