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Empowering English Teachers' Digital Literacy through E-learning Applications

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Abstract

This community service initiative sought to clarify the training on empowering teachers' digital literacy, focusing on the use of e-learning applications in their classrooms. The program was implemented in several schools in Manado, including SMP Yapim, MTs Assalaam, and MTs Al Muhajirin, with teachers teaching from the pandemic to the present, as participants. The team applied the methodology in this activity based on six key stages: orientation, discussion, material exploration, action, testing, and reflection. The training lasted for one month. Findings revealed that teachers experienced motivation and better understood how to use e-learning platforms like Edmodo and Google Classroom, which made expanding their teaching and learning easier. The following applications were beneficial for clarifying math equations, articulating concepts in English, completing history projects, and aiding in learning. Students additionally conveyed their contentment and pleasure while utilizing Google Classroom, Edmodo, and WhatsApp media. Nevertheless, issues such as restricted access to smartphones, inadequate internet connectivity, and delays in app access were recognized as barriers during the service.

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INTRODUCTION

With the shift from the pandemic to the post-pandemic era, there has been an urgent need to expand teachers' digital literacy, as education has rapidly transitioned to online and hybrid models. Digital literacy, which is commonly applied nowadays, involves basic technical skills and the ability to integrate technology into pedagogy, online management classrooms, and engagement with virtual methodologies. From Sheffield et al. (2018), teachers are obligated to support and scaffold students' learning in digital technologies and to do that in authentic contexts. To succeed, teachers' competency in digital technologies needs to be high, and their communication skills, collaboration, creativity, and problem-solving need to be honed. This transition forced educators to develop proficiency with various digital tools and platforms, from video conferencing software to learning management systems, to adapt and ensure the continuity of education. As schools struggled to provide the necessary resources, teachers were left to navigate these new challenges independently, underscoring the importance of professional development

in digital education. It became evident that digital literacy was no longer optional. It was crucial for guaranteeing fair and efficient teaching and learning during periods of crisis.

Post-pandemic educational technology's ongoing evolution highlights the need for teachers to expand their digital literacy. Eskici and Çayak (2023) note that teachers' technological proficiency is a significant predictor of successfully incorporating technology into their lessons. Furthermore, while the initial shift to remote learning was a response to an emergency, the persistence of digital tools in educational settings demands that teachers be proficient in their use and can leverage them to improve students' outcomes. From this moment on, for example, the long-term integration of digital tools into the curriculum, such as the application of blended learning models and continuous professional development in digital literacy. This issue highlights the need to master technology and effective teaching methods for meaningful learning. Moving forward, schools must pay attention to investing in teacher training to navigate the complex, evolving digital landscape and promote educational settings that are both captivating and efficient for students.

Previous studies have conducted the role of digital literacy in empowering teachers. Started by Suppiah et al (2018), stating that educators must possess digital literacy. Despite being an essential requirement for career advancement, teachers should also have a digital mindset to apply interactive platforms in sharing teaching practices. Support from Dhillon & Murray (2021) suggests that today's moments necessitate students and teachers being provided with digital literacy skills. Zhang (2023) elaborated that digital technology can substantially affect language education. As a result, the effect positively influences English language teachers in instructing students on subjects and enhances the quality of teachers' education. From the findings, it can be linked to this research that the teachers' outlook towards technology, their capability to use technology, and their access to technology can significantly contribute to teachers' digital literacy.

Another related study by Paramita (2023) emphasized that involving technology in English language learning can benefit students to access learning resources anytime and anywhere. It increases their participation and engagement in the learning process. Dian, however, emphasizes that the effectiveness of implementing technology depends significantly on strong design, user education, and technical assistance to facilitate English learning. Moreover, deploying E-learning applications in English education holds great potential for improving the effectiveness and accessibility of education. In this context, technology-driven tools can present English content interactively and flexibly.

In addition, addressing the difficulties of technology integration is complex and may warrant further scholarly attention. Both teachers and students must take action to overcome these barriers. It happened in the places where the team applied. The team found that the educators encountered three primary obstacles that learners deal with concerning supportive access, digital resources, and insufficient literacy proficiency from both educators and learners (Purmayanti, 2022). Fast-paced advancement in information and technology meets various challenges, namely the transformation of the teachers' role, lack of live interaction, greater workload, time-consuming work in front of a monitor, and lack of quality digital learning material (Babushko et al., 2022). In facing the challenges, teachers increasingly turn to E-learning applications as essential tools for classroom interactions. One effective way for teachers to do this is by using e-learning platforms like Google Classroom, Zoom, Edmodo, and others. The problems of the teachers in SMP Yapim, MTs Assalaam, and MTs Al Muhajirin were that 30% were not proficient and had mastery in operating those platforms. These applications allow teachers to operate online classrooms and facilitate ELT management, such as assessments and virtual settings. Besides, teachers in the subsequent schools frequently participate in peer

support networks, where they can exchange information regarding new technologies, discuss common challenges, and exchange tips for using e-learning applications effectively. Hence, by continuously improving their digital literacy through these methods, teachers are better prepared to navigate the evolving landscape of education, ensuring they can utilize technology to enhance both their instructional methods and student results.

By possessing a solid base in digital literacy, they can use E-learning applications to improve teaching approaches (Mohammadyari & Singh, 2015). These tools enable teachers to create effective learning experiences. For example, teachers can promote asynchronous learning according to E-applications' needs. Teachers can also employ video to transfer lessons and foster real-time interaction, collaboration, and student discussion. Meanwhile, E-learning applications allow for a greater degree of differentiation, as teachers can tailor lessons to meet the diverse needs of students, providing additional resources or challenges where needed (Scalise, 2007).

Within the problems, by incorporating E-learning applications into their teaching methods, teachers can enhance their students' learning experiences and promote the development of essential digital skills, preparing students for the demands of digital requirements. Hence, as the lectures, members of the English Education Study Program in IAIN Manado contributed to expanding and empowering teachers in handling technology, especially using E-applications for English teachers in Manado city. Thus, this community service program trains Islamic schools in Manado City to use e-learning applications and enhance their digital literacy.

METHODS

In 2021, the team conducted the community service program at three schools, SMP YAPIM Manado, MTs Al-Muhajirin Manado, and MTs Assalam Manado, targeting their teachers as participants. The team succeeded in the activity in one month, from September 1st to September 30th, 2021. The instruments utilized during the program were Edmodo and the Google Classroom application. It was recommended by the current participants, who considered it the proper application to study and teach. Besides, the team applied an interview as a supporting instrument. The method highlighted by the team consisted of six key stages: orientation, discussion, material exploration, action, testing, and reflection (Hardiyanto et al., 2022). The following stages derived from them are appropriate for a community service team that emphasizes tangible results. Besides, the framework offers explicit steps that facilitate successful execution, contemplation, and professional development. In this activity, the team carried out the training at each stage, which was designed to ensure a comprehensive approach, in which the participants were first introduced to the orientation. It was then followed by a discussion phase to encourage open dialogue among the team and the intended community. The next phase was to do material exploration to gather relevant information. The later stage involved taking action based on the issue discussed, followed by testing to evaluate the entire activity. Finally, the last process following Hardiyanto's model is reflection. In order to analyze the situation, the team followed Hardiyanto's illustration. Hereby is the illustration of the stages are listed in Table 1.

The assessment of this community service initiative was carried out through a structured reflection process. The team distributed a survey to participating teachers to evaluate the impact of the application's usage, gathering quantitative and qualitative feedback. The survey results highlighted key areas of success and aspects needing improvement. Based on this data, the team identified specific needs and challenges the teachers face, which will guide future enhancements of the applications. Additionally, the

team proposed ongoing monitoring strategies to assess the platform's performance and ensure its sustained relevance and effectiveness in classroom settings.

Table 1 Description of the stages

Stages	Description	Purpose
Orientation	This activity was the first step in introducing teachers to the topics covered in community service. It was delivered through a lecture and seminar focused on the main theme.	The team implemented the plan in several stages, aiming to involve 30 teachers from SMP YAPIM Manado, MTs Al-Muhajirin Manado, and MTs Assalam Manado. All participants played an active role in achieving the program's goals.
Discussion	This description pertains to the materials provided to the participants. Therefore, the topics covered include the use of the Edmodo and Google Classroom applications.	
Material Exploration	At this stage, participants are expected to explore information on how to use Edmodo and Google Classroom. Each participant can use a smartphone or laptop individually, following the team's examples. During this time, the team closely assists the participants.	
Action	Working in pairs, participants had the opportunity to enhance their skills through individual or collaborative learning. The team, the instructor, and the school principal carefully supervised this activity.	
Test	Participants are assessed through a self-test covering all the learning materials in this step. Meanwhile, the community service team must monitor each participant individually to ensure more thorough and effective results.	
Reflection	During this exercise, the group and attendees assessed a concluding meeting. The aim was to determine the constraints of the training. Furthermore, the group completed a questionnaire to evaluate the upcoming project's requirements further. The gathered data will act as feedback for the team to enhance the community service, modifying the approach and training resources as needed.	

RESULTS AND DISCUSSION

According to the data, the activity was located at three different schools in Manado City. The results are presented in detail, following the stages outlined in the methodology by Hardiyanto et al. (2022).

Orientation Stage

In this orientation stage, activities showed that the training participants gained an understanding of E-learning through online platforms like Edmodo and Google Classroom to promote digital literacy. The team introduced those applications based on the teachers' needs, which were identified through the initial observation. Based on these experiences, the use of e-learning has gained significant attention. Of the problems that could impact the effectiveness, their use is important to identify (Nouraey & Al-Badi, 2023). Furtheremore, the program's orientation assisted the participants in getting acquainted with these applications, offering them a comprehensive comprehension of

how to utilize them. They appeared eager to explore and integrate more advanced features into their teaching and learning processes.

During this session, the team encouraged participants to discuss the materials provided. They were responsible for investigating the features of the applications, the procedures for utilizing them, the obstacles they encountered while using these tools, and the approaches that would support mastering them more efficiently. The attendees exhibited significant eagerness for the conversation, with the team guiding them throughout. The atmosphere was curious as the teachers eagerly clicked through the apps, asking for tips and instructions. This corresponds to the role of curiosity and interest that, once it comes, drives engagement in digital literacy programs. It can also contribute to overcoming digital inequalities (Maceviciute et al, 2023). As they explained, factors driven by curiosity and essential traits significantly influenced the development of digital literacy training for at-risk groups, like elderly individuals, children from disadvantaged backgrounds, and people facing difficult situations. Consequently, the teachers tried downloading the applications from the Google Play Store.

Material Exploration Stage

Material exploration is critical in ensuring learners are well-prepared and confident in using digital tools and resources. During this phase, the team encouraged the participants to investigate the materials independently while keeping oversight of the process. As they engaged in the learning, the participants attempted to open Edmodo, upload materials, and submit assignments. Afterward, they tried using Google Classroom. They conveyed appreciation for having the opportunity to utilize what they had learned. Noting that the features of both applications helped them easily track assignments and even manage attendance. Activities of material exploration can be seen in Figure 1.

Figure 1 The participants attempted to access edmodo and google classroom

Action Stage

This step was taken into account from all the stages. Participants were instructed to use Edmodo and Google Classroom effectively. Although time was limited, the participants continued experimenting with the tools alongside their peers in the classroom. They were encouraged to showcase their knowledge to their classmates during the activity. Hence, the participants acted by showing, discussing, and sharing knowledge of how to use it on their phones. The team guided the teachers on using their phones and navigating the platforms in detail. Furthermore, this process helps the teachers or community members become skilled in utilizing digital tools for learning and everyday tasks. In this stage, the activities are pictured in Figure 2.

Figure 2 Participants were instructed to use edmodo and google classroom effectively

Testing and Reflection Stage

The team conducted a reflection to evaluate the activity by analyzing the participants' needs and wants. Firstly, the team tested the participants to ensure the materials were effectively recognized and mastered. The form of the test was self-testing; in this case, the participants tried to access the platforms and used them on their gadgets. The instruments were about the Edmodo and Google Classroom applications. At this moment, the team analyzed the participants after trying the following applications and asking for evaluations.

They asked the participants for their perceptions and evaluations regarding their proficiency with Edmodo and Google Classroom to assess their understanding and ability to use the apps. The results showed that the participants were able to use both platforms effectively. According to the interviews, 93% of the participants could manage their classrooms using Edmodo and Google Classroom. Then, the team analysed the data qualitatively.

From this analysis, the training/community was both practical and beneficial for teachers in various locations within Manado City. This is consistent with the research from Amri et al. (2021), which says that E-learning has proven to enhance students' digital literacy, as evidenced by their active and enthusiastic use of available technology to learn and access the information they need. The implementation of E-learning has provided benefits that enable students to use technology appropriately according to its functions and purposes. Another relevant research to this current paper is from Anggrasari (2020). Implementing online learning (E-learning) also improved students' learning outcomes in university courses. Gradually, students' performance in this course showed significant improvement. However, the team identified several limitations in this activity. They noted that there was limited time available to train the teachers. Additionally, the schools were located far from IAIN Manado, making them difficult for the team to access. Furthermore, the schools were still using a traditional, manual curriculum.

CONCLUSION

Based on the results and discussion, it is concluded that teachers' ability to understand and use Edmodo and Google Classroom has significantly improved. The assessment results show that 93% of the participants, who are teachers, can now use and navigate e-learning applications like Edmodo and Google Classroom in their schools. According to the reflection, teachers indicated that these platforms have helped organize and manage the online teaching process and certainly develop their digital literacy skills. Although it takes some time to check, they noted that the flexibility to access the platforms whenever needed was a major benefit. Aside from that, students likewise expressed comparable benefits, indicating that the applications enabled them to interact more actively with their

instructors at any moment. The feedback from students was surveyed through interviews. However, a limitation noted by students was the restricted access to internet data, with Wi-Fi being the only available option. To follow up on the current phenomenon, the team expects to enhance digital literacy by combining those platforms with other online platforms and is concerned about additional training. Participants who successfully integrated these platforms should share best practices with peers to maximize online learning. Furthermore, the team recommends that schools and educational institutions create policies to facilitate ongoing digital training and guarantee sustainable access to e-learning by establishing continuous digital literacy programs for teachers, integrating e-learning materials into the curriculum, and providing consistent internet connectivity. Moreover, schools should partner with technology providers or local governments to uphold access to critical platforms, fostering a sustainable digital learning method for teachers and students.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTIONS STATEMENT

Conceptualization, FS and NH; methodology, FS and NH; formal analysis, FS and NH; writing—preparation of the original draft, FS; editing, ACP and MRS.

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REFERENCES

Amri, C. O., Jaelani, A. K., & Hadi Saputra, H. (2021). Peningkatan literasi digital peserta didik: studi pembelajaran menggunakan e-learning. *Jurnal Ilmiah Profesi Pendidikan*, *6*(3), 546–551. https://doi.org/10.29303/jipp.v6i3.291

Anggrasari, L. A. (2020). Penerapan e-learning untuk meningkatkan kemampuan literasi digital di era new normal. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, *10*(2). https://doi.org/10.25273/pe.v10i2.7493

Babushko, S., Solovei, M., & Solovei, L. (2022). Digitalization of education: challenges for teachers. *Grail of Science*, *14–15*. https://doi.org/10.36074/grail-of-science.27.05.2022.082

Dhillon, S., & Murray, N. (2021). An investigation of EAP teachers' views and experiences of E-learning technology. *Education Sciences*, *11*(2). https://doi.org/10.3390/educsci11020054

Dian Yuliani Paramita, P, D. Y. (2023). Penggunaan teknologi dalam pembelajaran bahasa inggris: Studi kasus implementasi aplikasi e-learning. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*, *4*(2). https://doi.org/10.62775/edukasia.v4i2.508

Eskici, M., & Çayak, S. (2023). The relationship between teachers' technology proficiencies and their levels of integrating technology into their lessons. *Journal of*

Educational Technology and Online Learning, *6*(4). https://doi.org/10.31681/jetol.1331971

Hardiyanto, A., Susilowati, R., & Kotabumi, U. M. (2022). Pelatihan pemanfaatan platform e-learning (edmodo) dalam pembelajaran daring bagi guru sma dan smk muhammadiyah kotabumi. *Jurnal Abdimas PHB*, *5*(4), 689–694.

Maceviciute, E., Manžuch, Z., & Gudinavičius, A. (2023). The role of curiosity triggers and features in digital literacy training. *Library and Information Science Research*, *45*(4). https://doi.org/10.1016/j.lisr.2023.101268

Mohammadyari, S., & Singh, H. (2015). Understanding the effect of e-learning on individual performance: The role of digital literacy. *Computers and Education*, *82*. https://doi.org/10.1016/j.compedu.2014.10.025

Nouraey, P., & Al-Badi, A. (2023). Challenges and problems of e-learning: a conceptual framework. *Electronic Journal of E-Learning*, *21*(3). https://doi.org/10.34190/ejel.21.3.2677

Purmayanti, D. (2022). The challenges of implementing digital literacy in teaching and learning activities for efl learners in indonesia. *BATARA DIDI : English Language Journal*, *1*(2). https://doi.org/10.56209/badi.v1i2.38

Scalise, K. (2007). Differentiated e-learning: five approaches through instructional technology. *International Journal of Learning Technology*, *3*(2). https://doi.org/10.1504/ijlt.2007.014843

Sheffield, R., Blackley, S., & Moro, P. (2018). A professional learning model supporting teachers to integrate digital technologies. *Issues in Educational Research*, *28*(2).

Suppiah, G. a/p, Yin, O. C., Othman, M., Ismail, L., & Aralas, D. (2018). Empowering esl teachers' professional development through digital literacy. *International Journal of Academic Research in Business and Social Sciences*, *8*(12). https://doi.org/10.6007/ijarbss/v8-i12/5002

Zhang, J. (2023). EFL teachers' digital literacy: the role of contextual factors in their literacy development. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1153339

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