Improving Teacher Competence in Utilizing Google Workspace for Digital Learning

Endang Ayu Susilawati[1], Eka Yuni Astuti*[2], Didik Sugianto[3], Herry Susanto[4], Gita Pramesti[5], Herianto[6], Andi Susilo[6]

[1,2] Department of Information System, Faculty of Engineering, Darma Persada University, East Jakarta 13450, Jakarta, Indonesia

[3,4] Department of Engineering, Faculty of Engineering, Darma Persada University, East Jakarta 13450, Jakarta, Indonesia

[5] Department of Industry, Faculty of Engineering, Darma Persada University, East Jakarta 13450, Jakarta, Indonesia

[6,7] Department of Information System, Faculty of Engineering, Darma Persada University, East Jakarta 13450, Jakarta, Indonesia

*e-mail: ekayastuty@gmail.com[2]

Abstract

This community service initiative was designed to enhance teachers competencies in utilizing Google Workspace tools specifically Google Drive, Google Slides, and Google Forms to support the integration of digital learning. Conducted through an in-person workshop on February 11, 2025, the training targeted high school and vocational school teachers in the Bekasi region. The session emphasized mastery of essential features, including cloud-based file management, creation of engaging presentations, and the development of online surveys and assessments. The outcomes revealed that participants showed a significant improvement in their ability to operate these digital tools and expressed a strong intention to integrate them into their teaching practices. Overall, this activity contributed meaningfully to the advancement of digital transformation in secondary education settings.

Keywords*: Google Workspace, Digital Learning, Teacher Training, Educational Technology*

1. INTRODUCTION

The advancement of digital technology has significantly transformed the paradigm of education across all levels. It has not only expanded access to information but also introduced new approaches in teaching delivery, assessment, and teacher-student interaction. In the post-pandemic era, online platforms have become an unavoidable necessity in ensuring effective and flexible learning processes [1]. One of the most widely adopted platforms globally is Google Workspace for Education, which offers a range of digital tools such as Google Drive, Google Slides, and Google Forms. Despite the availability of these tools, many teachers are still unable to utilize them optimally. This gap can be attributed to limited access to information, inadequate technical skills, and infrastructural challenges, particularly in underserved areas. These limitations hinder the digital transformation of education and call for targeted intervention through training and capacity-building efforts [2].

As a higher education institution, Universitas Darma Persada plays a strategic role in contributing to the improvement of technological competencies among educators, particularly at the secondary school level. Through its community service program, the university has initiated an intensive training program focused on mastering Google Workspace for Education. This initiative responds directly to the practical needs of teachers seeking to integrate digital tools into their daily teaching activities [3]. The training was designed not only to introduce key features of the platform but also to demonstrate their application in real classroom settings. By doing so, it supports the broader agenda of embedding digital literacy into pedagogical practices. The program embodies the university's commitment to bridging the digital divide in education and reinforcing the professional development of teachers in an increasingly digital learning environment [4].

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One of the main challenges in integrating technology into education lies in the lack of practical, context-based training programs. Many existing training sessions tend to focus on theoretical content without offering hands-on experiences aligned with real classroom scenarios. Teachers, however, require more than conceptual knowledge—they need actionable guidance, contextual examples, and opportunities to practice. In response to this need, the training program adopted a hands-on learning approach, enabling each participant to engage directly with the tools using their own laptops. Participants were guided step-by-step through essential functions of Google Drive, Google Slides, and Google Forms. Activities included creating digital folders for lesson materials, designing interactive presentations, and developing online assessments and feedback forms. This direct practice approach not only improved technical proficiency but also built confidence in independently utilizing digital tools in instructional settings [5].

Digital transformation in education is not solely about using applications—it also involves shifting mindsets and reshaping work culture among educators. This training aimed to promote such transformation by encouraging teachers to integrate Google Workspace tools into their teaching workflows. By utilizing Google Drive for content management, Google Slides for delivering visually engaging lessons, and Google Forms for conducting student assessments, teachers can foster a more collaborative, efficient, and well-documented learning environment [6]. These tools serve as enablers for more structured, data-driven teaching practices that support long-term academic growth. The training was not limited to one-way instruction; it also created a space for peer-sharing and collective reflection among teachers. Ultimately, this program contributes to cultivating a sustainable digital culture within schools, where continuous improvement and innovation in teaching practices are both expected and supported [7].

2. METHOD

The community service activity was held on February 11, 2025, at one of the partner schools located in the Bekasi area. A total of 20 teachers from diverse subject backgrounds participated in the event. The training was conducted face-to-face using a hands-on learning approach, in which each participant used their personal laptop and internet connection to directly apply the material delivered by the facilitator. This method allowed teachers to engage actively with the content and immediately practice using the tools in a realistic and supportive learning environment.

The training program was structured into three main sessions. The first session introduced participants to Google Drive, beginning with account login procedures, folder management, file uploading and sharing, and collaborative document editing. The facilitator demonstrated how to share documents effectively with students and fellow teachers, including how to configure access rights, such as view-only, comment, and edit permissions. Participants also learned strategies for organizing their files in a logical structure to ensure easy and efficient access at any time, both individually and collaboratively.

The second session focused on Google Slides, a powerful tool for creating and delivering online presentations. Teachers were guided through the process of building a presentation from scratch, including inserting images and videos, customizing themes and layouts, and activating features such as Presenter View and interactive Q&A. One of the features that captured participants' attention was the Version History function, which enables users to view and restore previous versions of a document—an invaluable tool for tracking revisions and managing collaborative work.

In the third and final session, participants explored Google Forms, a versatile application used for creating quizzes, student surveys, and evaluation forms. Teachers were shown how to create a new form, adjust respondent settings, and format various question types. They practiced constructing multiple-choice and short-answer questions while observing real-time responses visualized through connected spreadsheets. The session also emphasized the importance of reviewing and analyzing response data as a means of reflection and formative assessment.

Teachers were encouraged to use these insights to refine instructional strategies and better align learning outcomes with student needs.

This comprehensive and interactive training not only strengthened participants' technical skills but also demonstrated the practical relevance of Google Workspace in enhancing day-to-day teaching. By combining theoretical explanation with immediate application, the training successfully bridged the gap between knowledge and classroom practice, reinforcing the role of digital tools as enablers of effective, data-driven education.

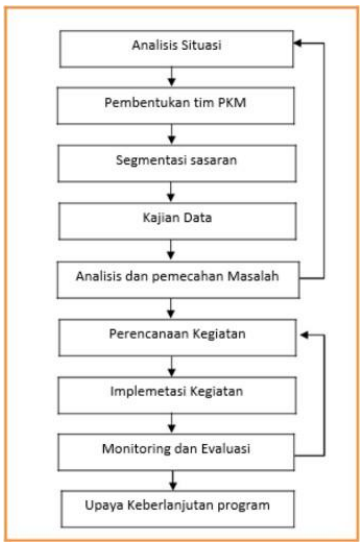

Figure 1. PKM Implementation Methodology

3. RESULT AND DISCUSSION

The training had a significant impact on participants' understanding and technical skills. Based on evaluation sheets and facilitator observations, all participants demonstrated notable improvements in managing digital files, creating interactive presentations, and designing assessment forms. Prior to the training, only 30% of the participants had ever used Google Slides, and just 10% had a comprehensive understanding of how Google Forms functioned. By the end of the session, over 80% of participants reported feeling confident and prepared to implement the tools in their actual classroom settings.

This transformation highlights not only the effectiveness of the hands-on approach but also the importance of targeted training in closing digital skill gaps among educators. Participants expressed increased motivation to incorporate digital tools into their lesson planning and delivery, citing time-saving benefits, improved organization, and enhanced student engagement. Additionally, informal discussions during the reflection session revealed that many teachers had already begun rethinking their instructional strategies, considering ways to digitize learning materials, assess student understanding more efficiently, and promote collaborative learning environments. The positive feedback and post-training enthusiasm underscore the broader relevance of such programs in supporting the long-term goal of digital transformation in education, particularly at the secondary school level.

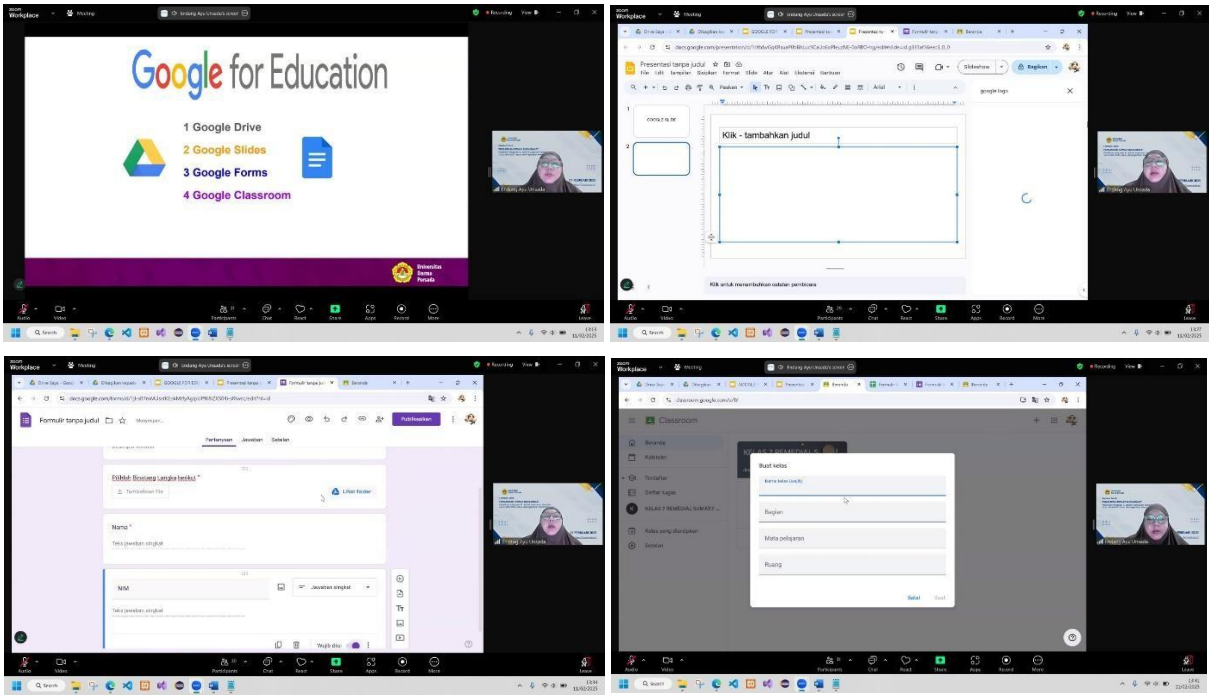

Figure 2. Presentation of PKM Material

During the final reflection session, several teachers expressed that Google Drive would be particularly useful for storing lesson plans (RPP) and classroom documents online, eliminating the need to carry large volumes of physical paperwork. Others found Google Forms highly beneficial for administering pre-tests, exit tickets, and student interest surveys in a quick and efficient manner. One participant even mentioned plans to develop an online question bank using Google Forms, integrated with automated spreadsheets to simplify data tracking and analysis. These testimonials reflect a growing appreciation for the practical applications of digital tools in everyday teaching tasks.

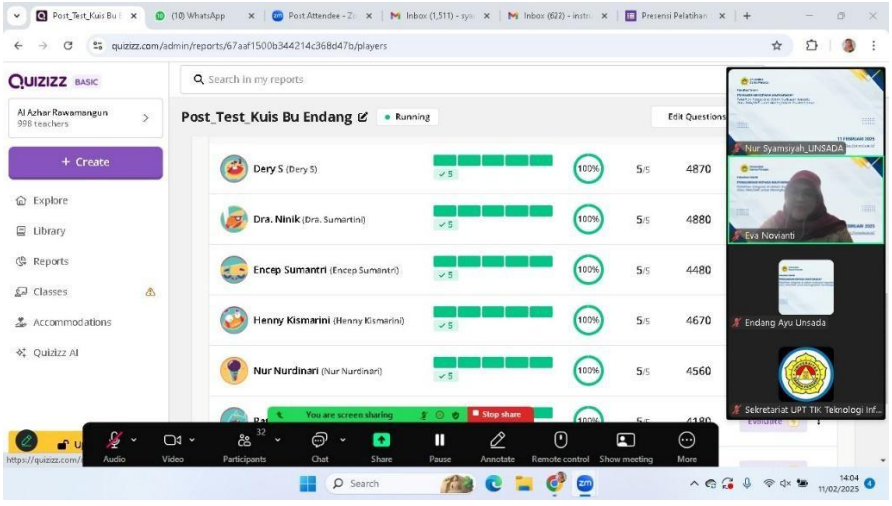

Figure 3. PKM Training Evaluation

Nevertheless, some challenges emerged during the training. The most common obstacles included outdated hardware, such as older laptops, and unstable internet connections, which occasionally hindered the smooth execution of activities. Additionally, some teachers initially struggled with transitioning from their habitual use of offline applications to embracing web-

based tools. However, the hands-on approach allowed them to experience the direct benefits of Google Workspace, leading to increased awareness of the importance of digital technology adoption in education. Several participants suggested that future sessions should explore Google Classroom as a centralized platform to integrate various Google tools into a cohesive learning management system.

This activity also emphasized the importance of post-training support to ensure continued learning and long-term impact. The organizing team established an online discussion group where participants could ask follow-up questions, share resources, and seek peer or facilitator assistance. In addition, an e-module was provided to support self-paced learning and review. These initiatives are part of a sustainability strategy designed to ensure that the training does not end on the day of implementation but continues to support teachers in their journey toward full digital integration. Such follow-up mechanisms are essential for maintaining engagement and translating training outcomes into measurable improvements in teaching practice over time.

4. CONCLUSION

The training program on the use of Google Workspace for senior and vocational high school teachers has successfully enhanced participants' digital literacy in managing technology-integrated learning. Mastery of tools such as Google Drive, Google Slides, and Google Forms equipped them with new skills that align with the evolving demands of modern education and enriched their teaching methods, which were previously limited to manual or traditional approaches. The exposure to cloud-based platforms not only improved their operational efficiency but also broadened their pedagogical strategies, enabling more interactive, flexible, and student-centered learning environments.

Furthermore, the training fostered a shift in mindset among educators, encouraging them to view digital tools not merely as supplementary aids but as essential components of effective 21st-century teaching. Many participants expressed a sense of renewed confidence in exploring educational technologies and a commitment to continue learning beyond the workshop. The positive reception and measurable outcomes of this activity indicate that targeted digital training can significantly accelerate the integration of ICT in schools. Moving forward, it is essential to scale such programs, deepen their scope with advanced modules, and foster ongoing support systems to ensure sustained impact on teaching quality and student learning outcomes.

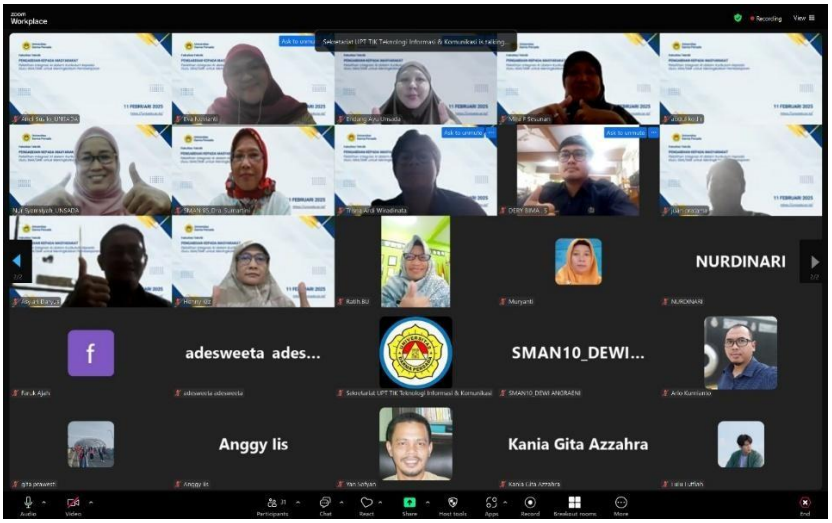

Figure 4. Closing Ceremony of Training Activities

This training has demonstrated that improving teacher competencies can be effectively achieved through practical, contextual, and collaborative approaches. The success of the program

was not solely measured by participants' technical proficiency, but also by their attitudinal shift toward technology. Teachers began to see digital tools not as burdensome additions to their workload, but as strategic partners that enable them to teach smarter and more efficiently. The transformation in mindset is a critical outcome, as it lays the foundation for sustainable technology adoption in education.

Based on the outcomes and participant feedback, this program recommends the implementation of follow-up training sessions with a focus on digital classroom management using Google Classroom. Additional integration with complementary tools such as Google Jamboard and selected Google Workspace add-ons should also be explored to enrich the learning experience. Moreover, developing online or hybrid training modules will allow this initiative to reach a wider audience of educators beyond the Bekasi region. As digitalization becomes increasingly embedded in education systems, community engagement initiatives like this can serve as a replicable model to empower teachers and accelerate digital transformation in schools across broader geographical areas.

REFERENCES

[1] B. Hokanson, "New Approaches on Education Technologies: A Global Perspective for Digital Transformation," *Journal of educational technology and online learning*, Sep. 2022, doi: 10.31681/jetol.1160872.

[2] S. Parveen and S. I. Ramzan, "The Role of Digital Technologies in Education: Benefits and Challenges," *Deleted Journal*, vol. 2, no. 06, pp. 2029–2037, Jun. 2024, doi: 10.47392/irjaem.2024.0299.

[3] A. S. Fauziah and F. H. Nugroho, "Improving Digital Competency for Educators and Education Personnel Through Google Workspace for Education," *Amalee*, vol. 5, no. 1, pp. 337–349, May 2024, doi: 10.37680/amalee.v5i1.4019.

[4] S. Sumardi, "Peningkatan Kompetensi Profesional Guru dalam Penggunaan Google Workspace for Education Melalui Workshop," *Ideguru : jurnal karya ilmiah guru*, vol. 8, no. 3, pp. 406–413, May 2023, doi: 10.51169/ideguru.v8i3.571.

[5] L. Nahar and S. Mollah, "An Attempt to Introduce and Integrate Instructional Technology Into Secondary Classrooms," IGI Global, 2023, pp. 202–227. doi: 10.4018/978-1-6684-9103-4.ch011.

[6] T. Andriichuk, I. Shostak, R. Indrika, Y. Botuzova, and N. Donii, "Training teachers to work in the conditions of digital transformation of education," Jan. 2024, doi: 10.33543/140139194198.

[7] Joseph, O. B., Onwuzulike, O. C., & Shitu, K. (2024). Digital transformation in education: Strategies for effective implementation. *World Journal Of Advanced Research and Reviews*, *23*(2), 2785–2799. https://doi.org/10.30574/wjarr.2024.23.2.2668