Enhancing Teachers Proficiency with Digital Interactive Learning Resources for Differentiated Instruction

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Abstract

The course seeks to enhance educators' competencies in creating customized learning experiences with digital interactive technologies, namely platforms like Wordwall and Quizizz. The event occurred on February 11, 2025, in the Bekasi region, involving high school and vocational school educators. The training materials encompassed the concept of diversified learning, an introduction to the Wordwall and Quizizz platforms, and exercises for developing interactive media that align with suitable teaching methodologies. The activity's outcomes demonstrated a notable enhancement in instructors' competencies in the creative and contextual utilization of digital media, alongside heightened understanding of the need of adaptive learning services tailored to student needs. This initiative enhances the transformation of digital education at the secondary school level.

Keywords: *Interactive Media, Wordwall, Differentiated Learning, Educational Technology, High School, Vocational School Teachers*

1. PENDAHULUAN

Rapidly evolving circumstances need that educators adjust to technology advancements, especially in educational settings that accommodate the varied attributes of pupils. A key aspect of the Merdeka curriculum is differentiated learning, which mandates that educators deliver instructional services customized to students' learning readiness, interests, and styles [1][2]. The implementation of digital learning media is essential, particularly for enhancing flexibility, interactivity, and personalization in education.

This community service initiative was developed to address educators' necessity for enhanced technological proficiency in producing interactive media that facilitates diversified learning approaches. Initial observations indicate that numerous educators continue to employ traditional teaching methods and have not fully integrated technologies such as Wordwall [3] and Quizizz into the educational process. This is a difficulty, given that the prevailing expectation for educators is to develop engaging and adaptive learning experiences [4].

This activity not only fosters a conceptual knowledge of differentiated learning but also offers participants practical experience, allowing them to integrate technology into assessment creation and digital learning activities. The experiential learning method prioritizes practical engagement and case study-oriented issue resolution. Participants are introduced to new technology and encouraged to evaluate their relevance to the requirements of students in their classrooms.

Teachers are anticipated to enhance their talents in using digital platforms to elevate the quality of learning through this Community Service Program (PKM). This program seeks to transform the perception that technology is an encumbrance, positioning it instead as a strategic ally in significant learning. Therefore, this community service activity is vital for enhancing teachers' competencies to address the difficulties of 21st-century education.

2. METHOD

This community service initiative involved in-person training on February 11, 2025, with high school and vocational school educators from the Bekasi region as participants. The training was segmented into two primary sessions. The initial session addressed the concept of differentiated learning, the significance of employing digital technology, and an introduction to interactive media platforms like Wordwall and Quizizz. The second session emphasized practical application of these platforms, both independently and collaboratively.

During the material session, participants were acquainted with the concept of teaching at the appropriate level and the significance of assessing students' learning requirements, analogous to a physician diagnosing a patient's condition. This concept was underscored to facilitate the awareness that not all students can receive identical educational approaches. Consequently, digital platforms offering adaptable and customized features can effectively facilitate diverse learning [5][6].

Figure 1. Instruction of PKM Content

The Wordwall practical workshop centered on developing interactive, game-like questions, including random wheels, matching pairs, and quizzes, intended for use as formative evaluations. Participants were urged to establish an account, choose a template, formulate questions, and disseminate links to pupils. Participants were instructed on interpreting quiz results and evaluating student achievement via the "My Results" feature.
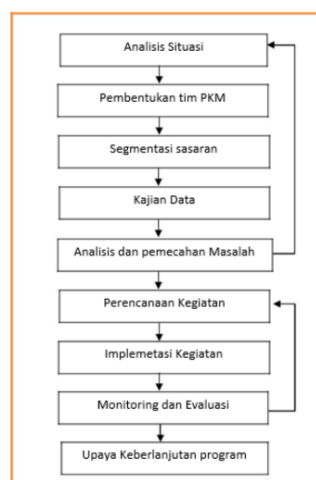

Figure 2. PkM Methodology

Simultaneously, the Quizizz workshop concentrated on developing more adaptable, competency-oriented online assessments. Participants acquired skills in quiz creation,

customization of question kinds, and integration of course materials. Quizizz is seen exceptionally appropriate for online assessment requirements as it enables students to engage in independent study, both in the classroom and at home.

3. RESULTS AND DISCUSSION

This training session effectively enhanced participants' technical proficiency in utilizing digital learning material. The majority of participants had no prior experience with Wordwall or Quizizz. Subsequent to the training, educators were equipped to create interactive media customized to the requirements of their specific disciplines. Several participants included these resources directly into their lesson preparations.

Figure 3. Offline Implementation of PKM Team

The findings revealed that Wordwall significantly enhanced student engagement owing to its gamified structure. Moreover, educators may readily obtain assessment outcomes and ascertain students' comprehension of the subject matter. Conversely, Quizizz was regarded as an appropriate platform for tiered examinations, enabling educators to provide personalized tasks and track student advancement. Participants indicated that these platforms were highly effective in supporting differentiated learning. Due to its high flexibility and customization capabilities, educators can modify questions based on students' learning readiness. Moreover, the use of digital content, including videos, photos, and audio, enhanced the engagement and significance of the learning experience.

Despite the overall success of the activity, there were several technical difficulties, including insufficient devices and unreliable internet connectivity. Nevertheless, these impediments did not hinder participants from fulfilling the practical assignments. The implementation team included instruction modules and links to internet communities, enabling participants to pursue autonomous exploration post-training.
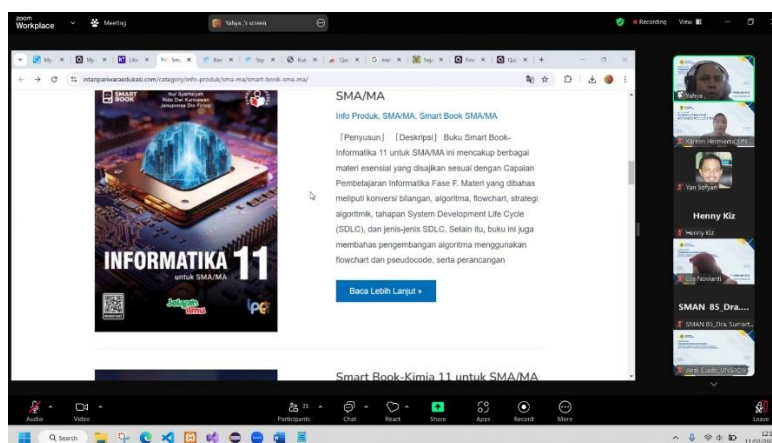

Figure 4. Technical Presentation Delivered by Speaker

4. CONCLUSION

This course illustrated that educators can markedly enhance the quality of learning by utilizing interactive digital media. Wordwall and Quizizz functioned as assessment instruments while simultaneously fostering an engaging and adaptable learning atmosphere. This activity enhanced instructors' comprehension of differentiated learning and the role of technology in facilitating its application.
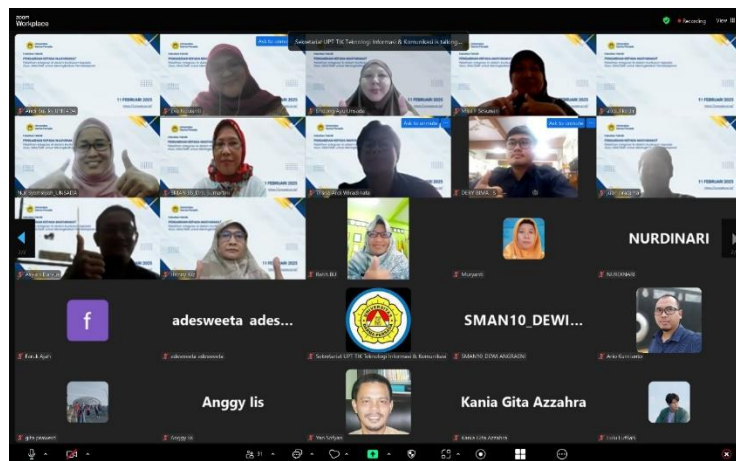
Gambar 5. PKM Closing Ceremony

This community service initiative has positively influenced instructors' perspectives, highlighting that technology is an inventive solution rather than a burden. The proficiency of teachers in utilizing digital media has markedly enhanced, evidenced by their capacity to produce original material and their eagerness to incorporate it into class plans.

This exercise requires continuation through additional training that encompasses different platforms, such Kahoot, Edpuzzle, or interaction with a Learning Management System (LMS). Through continuous mentoring, educators will be more equipped to confront the challenges of digital learning and to cultivate inclusive, innovative, and adaptable classrooms.

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