

Socialization of Use Application *Quiz* Based E_Lkpd at State Vocational School 1 Waingapu Students

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Article Info :	ABSTRACT
Accepted: Januari 28th, 2026	Background: The utilization of digital-based learning media at SMK Negeri 1 Waingapu remained limited, with conventional print-out-based LKPD continuing to dominate classroom instruction, highlighting the urgent need for the adoption of more interactive and innovative digital instructional tools. Objective: This study aimed to introduce the Quizizz application integrated with Electronic Student Worksheets (E-LKPD) to teachers and students at SMK Negeri 1 Waingapu as an alternative to conventional learning media. Method: A quantitative descriptive approach was employed, involving 3 teachers and 33 Class X Hospitality students as research subjects. Data were collected through structured observation, interviews, and questionnaires administered after socialization and training activities. The program encompassed three stages: preparation, implementation of socialization and hands-on training, and evaluation. Results: 70% of students and 67% of teachers rated the relevance of the material as very good; 90% of students rated the application as easy to use; 80% of students reported increased learning interest; and 100% of teachers recommended the continued implementation of Quizizz and E-LKPD. Implications: The integration of Quizizz and E-LKPD constitutes an effective and innovative instructional strategy capable of replacing conventional LKPD with more interactive and engaging digital learning media, offering a scalable model for ICT adoption in vocational school settings with limited prior digital media exposure.
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INTRODUCTION

According to the Kamus Besar Bahasa Indonesia (KBBI), education is broadly defined as a deliberate process aimed at transforming the attitudes and behaviors of individuals and groups in order to develop human maturity through teaching and training activities. This definition is further reinforced by the Republic of Indonesia Law Number 20 of 2003 on the National Education System, which stipulates that education constitutes a conscious and planned effort to establish a conducive learning environment and process, enabling students to actively develop their spiritual, intellectual, emotional,

and social potentials, as well as the skills necessary for personal development, societal contribution, and national progress.

The global shift toward digital education has positioned Information and Communication Technology (ICT) as an indispensable component of contemporary pedagogy. Research indicates that teachers' digital competency is a critical determinant of effective technology integration in educational settings, particularly in vocational schools where the demands for practical, up-to-date skill development are most pressing (Cattaneo et al., 2022). In the Indonesian vocational education context, the maturity levels of digital technology competency among teachers and students remain uneven. Astuti et al., (2021) found significant variation in digital readiness among vocational school teachers, emphasizing the need for targeted digital literacy development programs to bridge existing gaps between institutional ICT availability and actual pedagogical practice. Gamification, defined as the application of game design elements within non-game educational contexts, has emerged as a promising pedagogical strategy to enhance student motivation and academic performance.

The integration of Information and Communication Technology (ICT) in instructional activities represents a core competency expected of teachers in Indonesia, as mandated by Minister of National Education Regulation Number 16 of 2007 on Academic Qualification Standards and Teacher Competencies. Teachers' proficiency in utilizing ICT tools significantly influences the quality and effectiveness of instructional materials employed in school settings. In this context, technology-based applications such as *Quizizz* have demonstrated considerable potential in sustaining student attention by offering interactive and enjoyable learning experiences.

The gamification features embedded in *Quizizz* effectively enhance students' intrinsic motivation and active participation in each learning session. Despite these advantages, research has revealed that the adoption of digital learning media in vocational schools, particularly in remote regions, remains considerably limited, with many institutions continuing to rely on conventional printed student worksheets (LKPD) that offer minimal interactivity. This research gap underscores the need for systematic socialization efforts to introduce and familiarize both teachers and students with innovative digital tools such as *Quizizz* and E-LKPD.

The *Quizizz* application has been widely studied as an interactive gamification tool in diverse educational contexts. Hernanz et al., (2024) demonstrated that the systematic use of *Quizizz* across multiple university disciplines significantly increased students' self-efficacy, intrinsic motivation, and satisfaction with the learning process, affirming its cross-disciplinary applicability as an innovative and sustainable instructional medium. The

effectiveness of Quizizz as an evaluation medium extends beyond its assessment function, as it has been shown to positively influence students' attentiveness and learning motivation. Suwarni et al., (2023) reported that Quizizz gamification features, including real-time score displays and peer rankings, were particularly effective in sustaining student focus and elevating motivation during learning evaluation sessions.

At the vocational high school level, evidence further supports the effectiveness of Quizizz as a game-based learning platform. A quantitative study by Rulismi et al., (2024) involving students from two vocational high schools in Bengkulu City found that Quizizz significantly enhanced student engagement, attitudes toward learning assessment, and overall learning interest, positioning it as a viable and impactful tool for vocational education settings. *Quizizz* app helps teachers develop their teaching materials. With this app, teachers can determine their students' abilities related to the material presented. *Quizizz* is an educational GIM-based media containing interactive quizzes. Interactive quizzes actually support teachers in helping students understand or address areas of the material presented. When combined with the Electronic Student Worksheet (E-LKPD), this technology can be a solution to encourage active and flexible learning.

Fadilah, (2023) further highlighted that Quizizz serves as an effective learning medium for enhancing student motivation and interest in classroom settings. By providing interactive question-and-answer sessions with immediate feedback, Quizizz encourages students to engage actively with instructional content, resulting in increased enthusiasm and sustained participation in the learning process. The positive student perception of Quizizz as an assessment tool has been extensively documented in the literature. Rosa et al., (2020) found that students appreciated Quizizz for its enjoyable and competitive features, which transformed conventional assessment activities into engaging learning experiences, thereby encouraging greater student accountability for their own learning outcomes.

Electronic Student Worksheets (E-LKPD) represent a contemporary advancement in digital learning materials that offer significant advantages over conventional printed worksheets. A development study by Musdalifah et al., (2024) demonstrated that Canva-based E-LKPDs effectively improved student learning outcomes in biology subjects, with results confirming that E-LKPD constitutes a valid and reliable instructional tool for enhancing student learning quality across school levels. The integration of interactive features into E-LKPD design further enhances its educational value.

Research by Rahmayani et al., (2025) developed an interactive E-LKPD using the Live-Worksheets platform and found content validity scores of 90%, media validity of 86%, and practicality ratings exceeding 89%, while students

demonstrated significant improvements in learning outcomes and engagement levels, confirming that well-designed E-LKPDs can effectively support student-centered learning and foster digital literacy skills. Based on the statement above, the aim of the socialization is to introduce Waingapu 1 State Vocational School which was given socialization treatment on the use of the E-LKPD-based *Quiziz application*.

The broader potential of gamification and game-based learning in vocational education has been systematically documented in recent scholarly literature. Dahalan et al., (2024) conducted a comprehensive systematic literature review using Scopus, Web of Science, ScienceDirect, and PubMed databases, revealing a growing body of evidence demonstrating that gamification and game-based learning can significantly improve academic performance, engagement, and motivation among vocational education learners, with digital learning platforms and simulation technologies identified as the most promising pedagogical tools in this domain.

The impact of gamification on student motivation and academic performance has also been substantiated through systematic review evidence. Jaramillo-Mediavilla et al., (2024) analyzed nine systematic review articles indexed across Web of Science, Scopus, and Scielo databases, finding consistent evidence that gamification positively influences student motivation and academic outcomes, with technology-based gamification tools proving particularly effective in sustaining learner engagement and fostering more active participation in instructional activities across diverse educational settings.

Recent quasi-experimental evidence further reinforces the value of Quizizz as an interactive learning platform. Liu et al., (2025) investigated the effectiveness of Quizizz for enhancing vocabulary acquisition and student engagement among rural elementary students, demonstrating that gamification elements embedded in Quizizz, including leaderboards, instant feedback, and competitive scoring, effectively functioned as extrinsic motivators that sustained student participation and improved learning outcomes, particularly in contexts where prior exposure to technology-enhanced instruction was limited.

In the domain of digital worksheet development, research has extended beyond single-platform designs to encompass diverse technological frameworks. Afifah et al., (2024) demonstrated that Liveworksheet-based E-LKPD integration improved learning outcomes in science and social subjects for elementary students, confirming that E-LKPD formats, when combined with interactive online platforms, are effective in raising student learning interest and academic achievement across multiple subject domains, thus establishing a strong empirical basis for the cross-subject applicability of E-

LKPD as an instructional medium.

The development of advanced E-LKPD formats continues to expand across disciplines and educational levels. Pandiangan, (2025) developed and evaluated STEAM-based E-LKPDs for science learning, with material, media, and design validation scores consistently exceeding 84%, while field trials demonstrated significantly higher average learning outcomes in the experimental group compared to the control group using conventional Kemdikbud-published worksheets, confirming that technology-enhanced electronic worksheets represent a superior instructional resource when designed with appropriate pedagogical frameworks and validated through rigorous development procedures.

RESEARCH METHOD

This study employed a quantitative descriptive research design to assess the effectiveness and participant responses to the socialization of the *Quizizz* application integrated with E-LKPD. Sampling was conducted using purposive (judgment) sampling, in which participants were selected based on specific criteria relevant to the research objectives. The sample comprised 3 teachers and 33 Class X Hospitality students at SMK Negeri 1 Waingapu who directly participated in the socialization program. It is acknowledged that this study was conducted as part of a community service activity (service to society); hence, the quantitative approach was applied specifically to measure participants' perceptions and satisfaction levels using structured questionnaire instruments. Data collection methods included structured observation, semi-structured interviews, documentation, and Likert-scale satisfaction questionnaires administered to both teachers and students. Literature review was also conducted to strengthen the theoretical framework supporting the use of *Quizizz* and E-LKPD in science and mathematics learning contexts.

Quantitative descriptive research is defined as a methodology that describes the characteristics of a phenomenon systematically and accurately using numerical data Alfabeta, (2016) In this study, the descriptive quantitative approach was selected to provide a clear and systematic portrayal of participant responses to the socialization activities, enabling transparent presentation of satisfaction levels and program effectiveness without requiring inferential generalization to broader populations.

Data collection through structured Likert-scale questionnaires is an established instrument for measuring attitudes, perceptions, and satisfaction levels in educational program evaluations. Widoyoko, (2012) emphasizes that Likert-scale instruments enable the systematic quantification of qualitative responses, and that the reliability of such instruments must be assessed to

ensure that the data collected accurately reflect the true perceptions of respondents, thereby ensuring the validity of program evaluation conclusions.

1. Subject study:
 - a. 3 teachers of Waingapu State Vocational School 1
 - b. 33 class X hospitality students as beneficiaries of the use of the *Quiziz application* in the learning process. Request for permission to conduct research related to the use of the *Quiziz application*.
2. Place and location of research: the location of community service is at State Vocational School 1 Waingapu, Jalan Jenderal Soeharto, Matawai Village, Waingapu City District, East Sumba Regency, East Nusa Tenggara. In the Class X Hospitality room projector available And access Internet as supporting facilities in implementing the *Quiziz application*.
 - a. Stages of research activities:
 - Preparation: initial survey, coordination with the principal and preparation of a training schedule,
 - b. Implementation: socialization of teacher and student training in using the *Quiziz application*, creation of digital E_LKPD and trial in class,
 - c. Evaluation: observation of implementation, filling out the teacher and student satisfaction questionnaire in using the *Quiziz application*.
3. Method implementation: method data collection: socialization, observation, interviews, documentation and teacher and student satisfaction questionnaires.

RESULTS AND DISCUSSION

Preparation

Prior to the socialization of the *Quiziz application*, we conducted interviews and observations at SMP Negeri 1 Kambera. Based on the results of our observations and interviews, most teachers at SMP Negeri 1 Kambera have not yet used the *Quiziz application* in the learning process. Most still use lecture methods and written practice questions, so the learning atmosphere tends to be less interactive. This condition provides an opportunity to present more innovative and enjoyable learning methods for students.

After obtaining the results from observations and interviews, we proceeded to the planning stage of the outreach activities. Therefore, process This, we coordinate with The school determines the appropriate timing for the socialization. We also prepare appropriate materials and delivery methods to ensure effective socialization. And give benefit maximum for teachers and students.

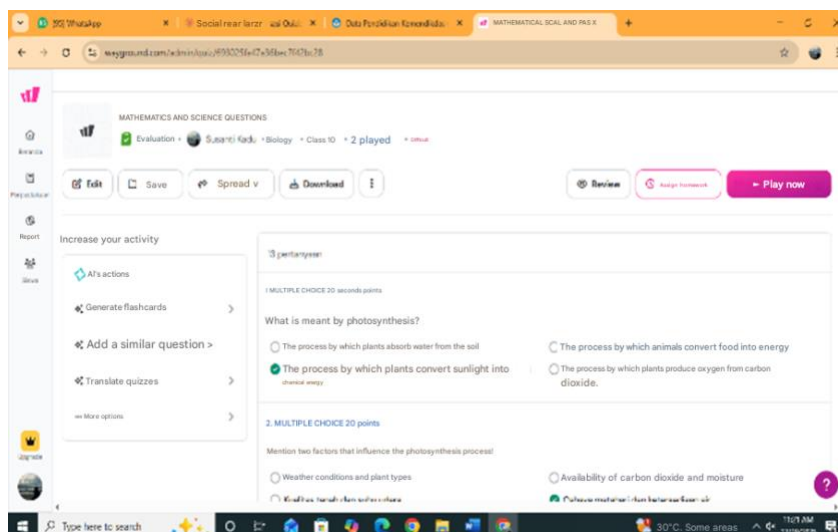


Figure 1. Displays Science and Mathematics Questions

Regarding the material, we have prepared several presentation slides that introduce the *Quiziz app*, its functions and benefits, and a step-by-step guide to using it in the learning process. To support the smooth dissemination process, we have also prepared facilities and infrastructure such as laptops, projectors, and... questionnaire Which functioning as tool assist in delivering material as well as evaluation media after socialization activities ongoing. With this preparation, we hope that the socialization can run smoothly and provide understanding Which clear to teachers regarding the use of the *Quiziz application* in learning.

Implementation

The implementation of the socialization began on Friday, December 5, 2025 at State Vocational School 1 Waingapu with the award understanding of the functions and advantages of using the *quiziz application* as an interactive learning medium. After that, participants given the opportunity For direct practice making account, as well as editing quiz, and participants educate in give chance directly to join on game Which Already provided or that Already in edit by students, Which in accordance with process requirements learning for Teacher.

Activity this aims so that teachers can mastering technology learning digitally effective so that can increase motivation and participation student in the teaching and learning process. By Because That, expected use application *quiz* This can be a solution innovative in create learning atmosphere Which more interesting And pleasant.

The steps in the login and join process in the application are:

1. The first step is for students to direct teachers and students to open the

Quizizz app or the Quizizz website on Google using a smartphone. Users can access the website by typing www.quizizz.com in a browser. Once the app opens, users will see a login page with several authentication method options.

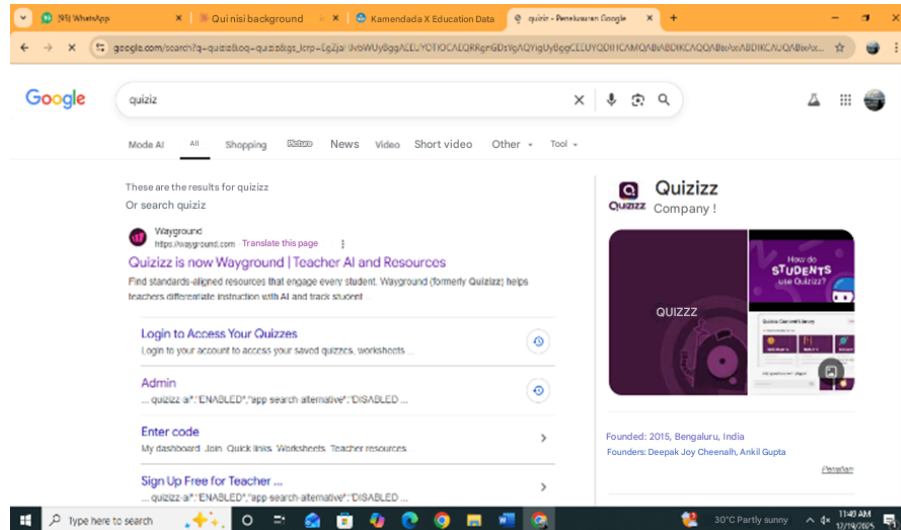


Figure 2. Initial view of Quizizz

2. The second step is to select the Google sign-in option. On the login page, users will see several login buttons in different colors. Participants must find and click the button that says "Sign in with Google," "Continue with Google," or "Sign in with Google" (depending on the language used). This button is usually blue or has the Google logo on it. After clicking the Google sign-in button, the system will automatically open the Google login page. Users will see an input field to enter the email or phone number associated with their Google account. Users enter their full Gmail email address (for example, name@gmail.com) in the field provided.

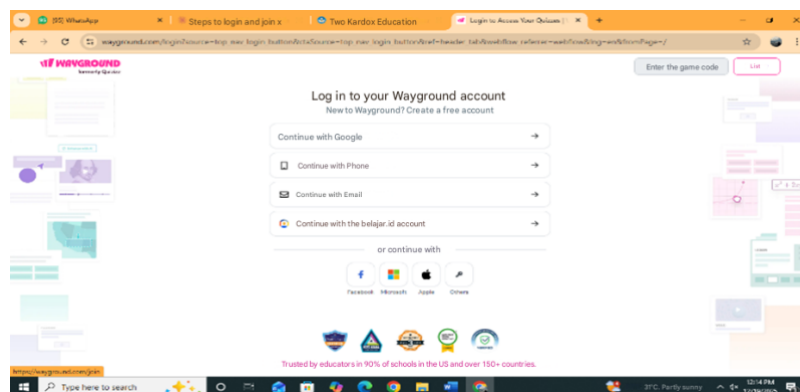


Figure 3. Display of the account options entered

3. Step is to log in to the Quizizz dashboard. After granting permission, the system will automatically redirect the user back to the Quizizz app. A

successful login will see the Quizizz dashboard or homepage. On this page, users can see various options such as "Join a Quiz," "Create Quiz," "My Quizzes," and other features. This signifies that the participant has successfully logged in to the Quizizz app using their Google account.

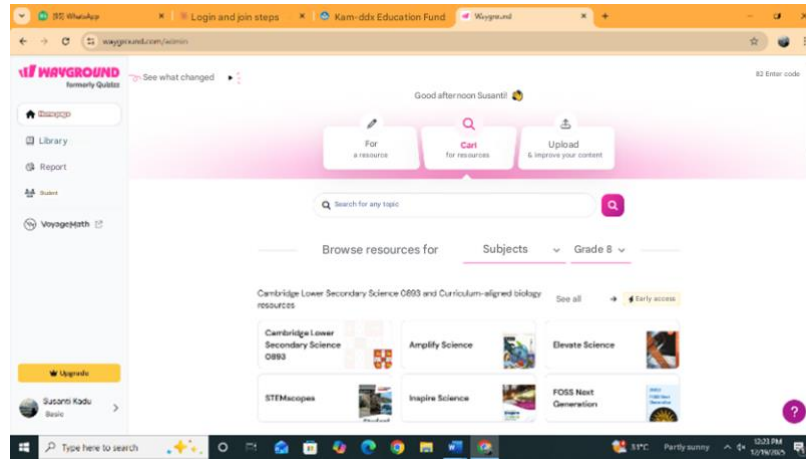


Figure 4. Quizizz homepage view

4. After successfully logging in, participants can join the quiz prepared by the teacher. Participants need to find and click the "Join a Quiz" button on the main page of the Quizizz dashboard. Next, participants will see an empty input field to enter the quiz code provided by the teacher. Participants enter the quiz code carefully and ensure there are no typos. After entering the code correctly, click the "Enter" or "Join" button to continue. The system will validate the code, and if the code is valid, participants will be taken to the pre-quiz page. On this page, participants can enter or confirm their name that will be displayed during the quiz. Once the name is correct, click the "Ready" or "Siap" button to indicate that the participant is ready to start the quiz and just wait for the teacher to give the signal to begin.

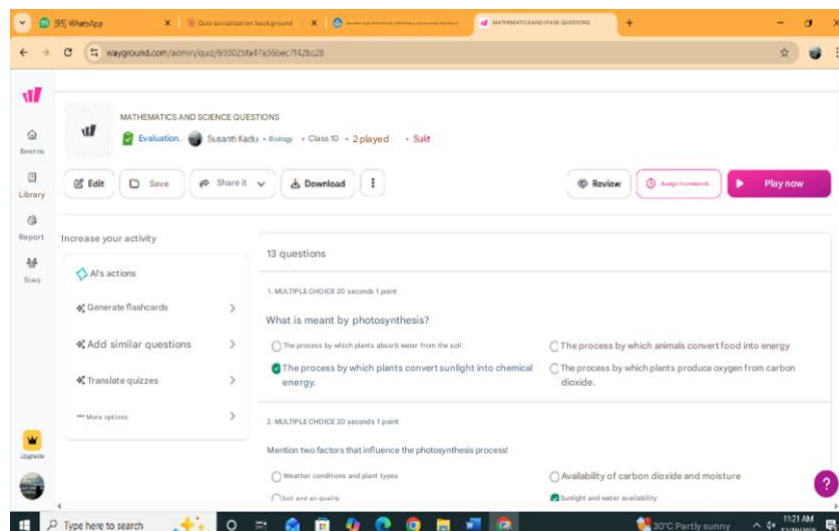


Figure 5. Question display

After being given an explanation and direct practice, for participant, Good Teacher and Students are invited to participate in quizzes using their respective devices. This aims to provide them with a firsthand experience of interactive and enjoyable learning through the *Quiziz app*. By participating in the quizzes in a hands-on manner, participants are expected to better understand how the app works and its benefits in improving their academic performance. involvement And motivation study in class.

Evaluation

As for end from activity socialization what we do, namely we do evaluation to find out or assess how effective the implementation of activities is and the participants' response to the material provided, We also conducted an evaluation by asking the participants, Good student and Teacher, For fill out the questionnaire provided. This step is in line with This questionnaire used as tool For collect data And response participant related activity which has been implemented. Collect data regarding opinions, impressions and views of students and teachers related to their experiences when participating in the socialization of application use *quiz* the. As for results from questionnaire data analysis as following:

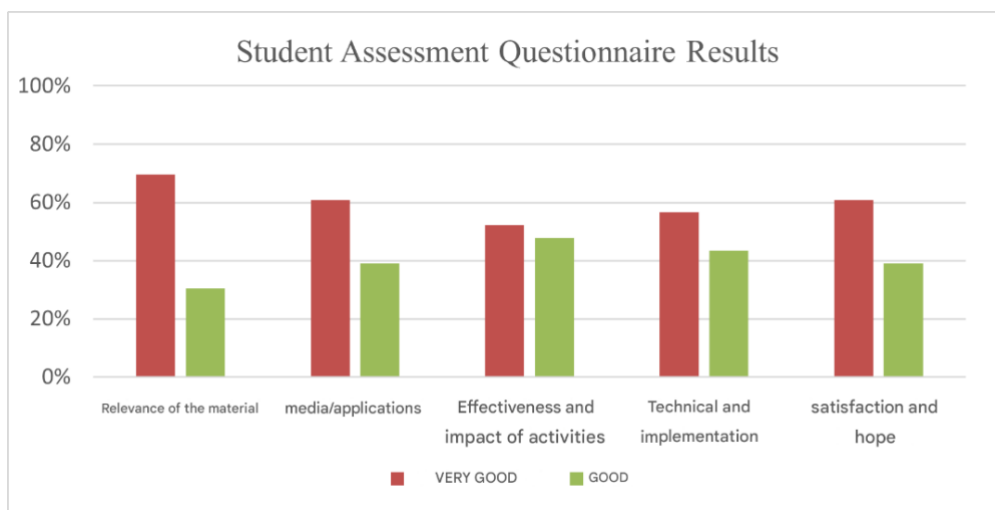


Figure 6. Results Questionnaire Student

Based on the results of the questionnaire completed by students after participating in the socialization of the use of the *Quiziz application*, it was found that the majority of respondents gave positive responses. Positive. Regarding the relevance of the material, 70% of students rated it as very good, while 30% gave it a good rating. Whereas on the use of media/applications and the effectiveness and impact of activities socialization Which in do

participant students assess that the media is suitable for use or good, which shows the level of acceptance of this learning method. In terms of technical and implementation aspects, 57% of respondents gave a good rating, and 43% gave a fair rating. good. Meanwhile, in terms of satisfaction and expectations, 61% of students felt very satisfied And the rest 39% give a good rating. Overall, these results indicate that *Quiziz -based learning* has succeeded in creating a learning experience that is quite effective, enjoyable, and in line with student expectations.

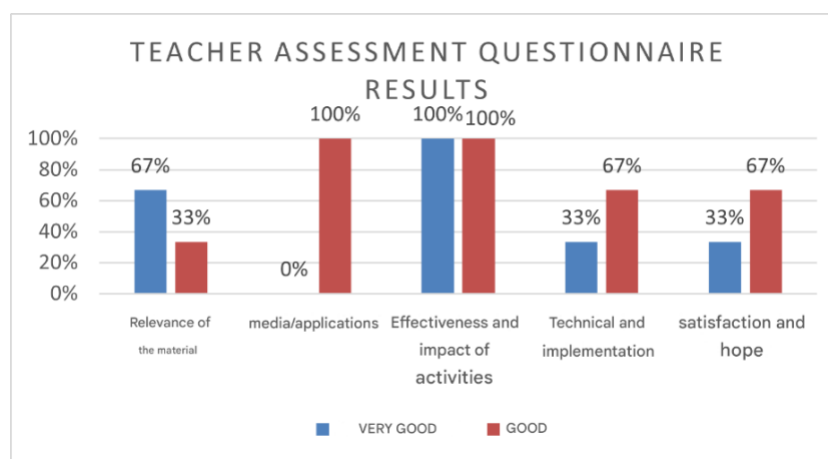


Figure 7. Results of the Teacher Assessment Questionnaire

The questionnaire data obtained from the three participating teachers revealed consistently positive evaluations across all assessed dimensions. Regarding the relevance of socialization materials, 67% of teachers rated the content as very good and 33% as good, indicating a high degree of perceived alignment between the program content and actual classroom needs. These findings are theoretically consistent with the principle of needs-based instructional design, which posits that training programs must be anchored to the authentic professional contexts of the target participants. With respect to the use of the *Quizizz* application as a learning medium, all teachers (100%) assigned a good rating, demonstrating broad acceptance of the application as a viable pedagogical tool.

This is particularly noteworthy given the limited prior exposure to digital learning media in the school context, suggesting that targeted, hands-on socialization can effectively bridge the gap between technological availability and actual adoption in classroom practice. Regarding effectiveness and activity outcomes, all teachers (100%) rated these aspects as good, affirming that the program met its intended objectives in terms of enhancing instructional capability and awareness. However, the uniform “good” ratings—rather than “very good”—across several dimensions indicate that there remains

considerable room for optimization, particularly in terms of deepening teachers' technical proficiency and expanding the scope of E-LKPD content development. In terms of technical implementation and overall satisfaction, 33% of teachers rated the program as very good and 67% as good, reflecting adequate but not optimal execution.

These results suggest that future iterations of similar socialization programs should incorporate more extended and differentiated training modules to better accommodate varying levels of ICT literacy among teachers. Overall, the teacher assessment data substantiate the conclusion that the *Quizizz*-based learning model, when systematically introduced through structured socialization, constitutes an effective and feasible instructional innovation with strong potential for sustainable adoption in the vocational school context. The variation in teacher performance ratings, with some dimensions rated good rather than very good, reflects the broader landscape of digital technology maturity in Indonesian vocational education.

Astuti et al., (2021) noted that teachers in Indonesian vocational schools demonstrate a spectrum of digital technology competency levels, and that sustained, differentiated training is necessary to bring all teachers to optimal levels of technology proficiency for effective classroom integration. From a theoretical perspective, the effectiveness of the current program's gamification-based approach is well-grounded in educational research. The overall program outcomes are further contextualized by research demonstrating *Quizizz*'s capacity to foster intrinsic motivation and self-efficacy in learners. Hernanz et al., (2024) found that students who engaged regularly with *Quizizz* reported higher levels of intrinsic motivation and learning satisfaction, a finding that underscores the potential for *Quizizz*-based learning to cultivate long-term, self-directed learning habits among vocational school students.

The effectiveness of E-LKPD as an interactive digital worksheet has been confirmed across multiple independent studies. Musdalifah et al., (2024) both documented that E-LKPDs, when developed with appropriate multimedia elements and interactive components, achieve high validity and practicality scores while significantly improving learning outcomes, corroborating the present study's conclusion that the integration of E-LKPD with *Quizizz* represents a pedagogically sound and empirically validated strategy for replacing conventional printed learning materials in vocational school contexts.

The role of student engagement and active participation in maximizing the benefits of gamified learning has been further elucidated in recent empirical research. Hernanz et al., (2025) demonstrated that the level of student engagement and active participation significantly moderates the

contribution of Quizizz-based gamification to academic performance, meaningful learning, motivation, and self-confidence, underscoring that the effectiveness of gamified digital tools is contingent not only on platform quality but also on the degree to which participants are genuinely immersed in the learning experience. This finding is directly relevant to the present study's socialization approach, which emphasized hands-on participation as a central component of the program design.

The theoretical basis for using Quizizz as a gamified formative assessment tool is also well-grounded in self-determination theory. Zhang et al., (2024) investigated EFL learners' motivation in a gamified formative assessment environment using Quizizz, employing paired t-tests and linear regression analysis, and found that gamified formative assessments using Quizizz produced strong positive correlations in both control and experimental group scores, while also significantly enhancing students' internalization of motivation. These findings reinforce the theoretical consistency of the present study's approach, affirming that Quizizz constitutes a theoretically-grounded and empirically-supported tool for fostering motivation in diverse learning environments.

The challenge of defining and measuring technology integration in school settings is itself a significant area of scholarly inquiry. (Consoli et al., 2023) conducted a systematic review of survey instruments measuring technology integration in K-12 education from 2010 to 2021, published in *Computers and Education*, highlighting the conceptual complexity of technology integration and the critical need for structured, validated frameworks when introducing digital tools into classroom practice. This body of evidence lends academic credibility to the structured, multi-stage socialization approach employed in the present study, wherein teacher training was systematically scaffolded to support meaningful technology adoption rather than superficial tool exposure.

The digital competency challenges facing vocational school teachers in Indonesia have been empirically documented and are directly relevant to interpreting the present study's findings. Riyanda et al., (2025) analyzed digital skills and technology integration challenges among 105 SMK teachers in Solok City, West Sumatra, finding that while teachers demonstrated high average digital competency scores, key barriers including limited access to technological devices, insufficient technical support, and a lack of structured digital learning resources continued to impede effective technology integration in classroom practice. These findings parallel the conditions observed at SMK Negeri 1 Waingapu and underscore the critical importance of targeted socialization programs in bridging the gap between teachers' existing digital competencies and optimal ICT-integrated instructional practice.

From a broader instructional design perspective, the integration of digital tools such as Quizizz and E-LKPD aligns with contemporary evidence on the effectiveness of interactive multimedia in enhancing learning outcomes. (Jaramillo-Mediavilla et al., 2024) affirmed through their systematic review that gamification tools incorporating features such as points, leaderboards, and adaptive challenges consistently yielded positive effects on both student motivation and academic performance across diverse educational contexts, with particularly strong effects noted in settings where conventional instructional approaches had previously failed to sustain student engagement. These findings provide a robust empirical foundation for recommending the sustained and expanded implementation of Quizizz-integrated E-LKPD as a transformative instructional strategy in vocational schools across Indonesia.

CONCLUSION

The socialization of the *Quizizz* application integrated with E-LKPD at SMK Negeri 1 Waingapu demonstrated measurable effectiveness in enhancing students' learning interest and motivation. Quantitative evaluation data indicated that 70% of students and 67% of teachers rated the material relevance as very good, 90% of students assessed the application as easy to use, and 80% of students reported increased learning interest following the program. Notably, 100% of teachers endorsed the continued implementation of *Quizizz* and E-LKPD as digital instructional innovations.

These findings collectively affirm that the integration of game-based digital tools with structured electronic worksheets can serve as a viable and impactful alternative to conventional print-based LKPD, particularly in vocational school contexts with limited prior exposure to ICT-based learning. Future programs are recommended to extend training duration and include differentiated support for varying ICT competency levels to maximize the sustainability and depth of technology adoption among educators and learners.

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