

English Student Teachers' Preparedness to Utilize Quizizz as a Learning Evaluation Tool in Differentiated Instruction Context

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Abstract

This study investigates the preparedness of English student teachers employing Quizizz as a digital assessment tool within the context of differentiated instruction. In a technology-driven educational environment, Quizizz provides a flexible platform for both formative and summative assessments, addressing diverse student needs and learning styles. This study collected the data through questionnaires, interviews, and classroom observations focused on student teachers' experiences, perceptions, and challenges in integrating Quizizz into differentiated learning environments. The study's findings revealed a wide range of student teachers' preparedness, with varying confidence levels of participants on how to use Quizizz influenced by their own knowledge, pedagogical background, and understanding of differentiated instruction principles. From the study, specific training program for incorporating technology into classroom in differentiated learning context is suggested to foster teaching quality and students' performance.

Key words: Quizizz, student teachers, differentiated instruction, language learning evaluation, teacher preparedness.

INTRODUCTION

The role of technology in educational settings has changed from traditional practices of teaching learning into modern ways by introducing new methods of engagement and assessment. Quizizz, a well-known digital learning platform, has earned much attention for its capacity to give interactive and gamified assessments which fulfill different learning needs. (Abbasi et al., 2023). In the framework of differentiated instruction, which highlights adapting educational experiences to match the diverse needs of learners, tools like Quizizz have the potential to improve teaching effectiveness and student achievement. The growing demand for inclusive and adaptive teaching practices emphasizes the importance of equipping prospective teachers to successfully use digital resources (Ferdousy, 2017). Previous studies have elaborated the efficacy of Quizizz as a tool for self-directed learning and formative assessment. For example, Quizizz provides gamified evaluations, real-time feedback, peer interaction, this tool is valuable for enhancing critical thinking and self- assessment in English teaching and learning (Rahayu & Purnawarman, 2019). Utilizing Quizizz into differentiated instruction

develops its benefit that provides teachers to adjust with their lesson plan, evaluation, and feedback to the diverse students' need (Putra, 2023).

The effectiveness of Quizizz in language teaching are portrayed in some studies, barely highlight to English student teachers' preparedness to implement the tool into different educational environment. Differentiated instruction, which requires teachers to adjust material, procedure, and evaluation based on learners' various skills and interests, presents significant challenges for teachers, particularly those in education (Suryati et al., 2023). Despite the growing acceptance of Quizizz in education, there is little study on how student teachers evaluate its utility and their competency in using it to meet the complexity of individualized instruction (Zulfa & Ratri, 2022). Teacher preparedness and competence are critical factors in the efficacy of integrating Quizizz into differentiated instruction. Existing research frequently describes the general benefits of Quizizz or the comprehension of students, avoiding the specific challenges and opportunities that emerged in the context of teacher education. (Pham, 2022). To prepare future teachers with the appropriate competency and expertise to effectively utilize Quizizz as a digital tool in a diverse classroom environment, it is pivotal to address this gap.

This study investigates to which extent English student teachers are competent to utilize Quizizz as English learning instruments within the context of differentiated instruction. In particular, this assesses the preparedness, confidence, and perceptions of student teachers in relation to the way they use Quizizz to fulfill the different needs of the students. This study also contributes to the ongoing discourse on differentiated instruction and technology-enhanced learning by addressing these aspects.

LITERATURE REVIEW

Quizizz as Learning and Assessment Tool

Quizizz is a well-known and widely used online learning instrument that promotes an enjoyable learning experience. This application enhances the learning experience by allowing users to incorporate amusing memes or images into any query. The founder of Quizizz is Deepak Jox Cheenath. Quizizz was launched in 2015 and is designed for elementary, middle, and high schools, as well as institutions. Interactive learning applications can be implemented

to mitigate the tedium generated by the educational system. Quizizz enables users to generate or utilize the question templates that are provided as assessment material. Quizizz is a famous online learning platform that provides numerous of quizzes that can be incorporated into the daily lessons of both instructors and students. The questions listed on the website are accessible for copying and sharing at any time and from any location, provided that an internet connection is available. Educational application with gamification, Quizizz offers various activities to the classroom, thereby it portrays classroom enjoyable and interactive practice. Students are able to carry out exercises in class on their electronic devices, using Quizizz. The screen display on each student' device portrays multiple-choice questions with responses worth two, three, or four points on Quizizz. This leads them to respond to the questions at their own pace and evaluate the responses at the conclusion.

As a platform that provides interactive game-based learning, Quizizz encourages student engagement and offers an innovative approach to classroom activities. It helps students engage in real-time assessments, guiding them through learning with a scoreboard system that displays live scores. Students' comprehension of the material is improved through this gamified experience, which helps them maintain their attention. (Yanuarto & Hastinasyah, 2023). Moreover, Akhtar et.al (2019) adds that teachers are facilitated to easily integrate teaching materials, assessments, review, and reflection by accessing various kinds of activities provided and also possibly created by themselves in this platform. The collaboration features support the teachers to innovatively create activities using various instructional tools. The program effectively enhances student motivation by integrating gamification components such as time-sensitive activities and instantaneous feedback. This has been demonstrated to markedly enhance educational achievements, particularly in disciplines such as English and mathematics (Anggoro & Pratiwi, 2023; Mesterjon et al. 2024).

Quizizz serves as an effective resource that provides a variety of advantages for both students and teachers. One of its advantages is its capacity to present comprehensive statistics and insights regarding students' performance. Teachers are capable of obtaining statistical data, which includes scores, time allocation, and all class performance. This enables them to identify areas in which students require more assistance. (Permana & Permatawati, 2020). In addition, Quizizz is highly adaptable, as it is suitable for both homework assignments and classroom activities. Due to its adaptability, teachers can incorporate it into their lesson plans in a variety of contexts to accommodate different learning environments (Zuhriyah & Pratolo, 2020).

Teachers can conduct an effective analysis of student data with the platform's user-friendly interface, which allows them to configure the time allotment for questions and submit the results in formats such as Excel (Pitoyo et al., 2020). Further, its visually appealing and gamified interface attracts students, leading to a more dynamic and engaging learning experience. The gamification contributes to the overall engagement of students by maintaining their motivation and concentration during exams (Handoko et al., 2021).

Quizizz has some specific limitations, despite its great benefits. Its utility is still rely on the consistency of internet connection, which is as its significant problem. In some rural area with insufficient internet connection and infrastructure, students may encounter some difficulties in engaging their participation (Rahayu & Purnawarman, 2019). Furthermore, the platform necessitates that students possess devices such as smartphones, tablets, or PCs, which may not be attainable for disadvantaged learners (Maryo & Pujiastuti, 2022). The intended sequence of questions in quizzes is an additional constraint. Quizizz forbids students from prioritizing or selecting questions based on their difficulty, which may restrict their strategic approach during examinations. This presents a substantial obstacle for students who select for answering straightforward questions initially in order to build their confidence (Niek & Aziz, 2022). These constraints underscore the necessity for educators to evaluate the technological and logistical prerequisites before integrating Quizizz into their pedagogical approaches.

The literature review focuses on the preparedness of student teachers utilizing Quizizz as an educational tool, drawing upon recent studies that highlight the effectiveness of gamified learning platforms in enhancing student engagement and learning outcomes. The investigation opens with Cameron and Bizo's (2019) work, which examines the broader context of educational gamification and its implications for learner engagement. According to their research, such platform like Quizizz can foster competitive and collaborative ambience that allow students assessing their comprehension of learning materials in real time. They emphasize the role of intrinsic and extrinsic motivation in encouraging students' engagement, stating that 92% of participants having tendency to recommend the platform despite the drawbacks of internet access. This basic understanding serves as the foundation for the examination of the precise implementation of Quizizz in classroom settings.

Zainuddin (2023) identifies critical themes surrounding the integration of gamification in remote learning environments, particularly through platforms like Quizizz, in order to further

expand the discussion. His research suggests that the use of interactive assessments as alternative of traditional assessment methods significantly enhance students' engagement and participation. Quizizz's competitive elements and immediate feedback encourage student motivation and perseverance, allowing learners to effectively monitor their progress. These investigations are aligning with the findings of previous research, which strengthens the idea of gamifications learning context not only foster students' independent learning, but also booster students' engagement.

Language Learning Evaluation in Differentiated Instruction Context

Assessing learning includes various critical strategies which are required by the teachers to be integrated into their teaching learning activities. This assessment is a continuous process, systematically incorporated into the phases of effective instruction and learning. It must be carefully prepared and connected with educational support elements to function as a mechanism for evaluating the efficacy of teaching and learning processes in attaining specified learning objectives specified in the teacher's instructional plan (Rodin & Rodin, 1972). Assessment instruments enhance the educator's capacity to attain effective and pragmatic learning objectives. Evaluation, as an essential element of educational activities, assesses the effectiveness of programs by gathering extensive data on the learning process and its results (Goldsmichmid, 1978). Furthermore, evaluation is essential for analyzing student performance through systematic methods that yield dependable data for gauging the quality of their learning outcomes (Hulston, 2013).

Personalized instructions integrating in the diverse activities to address the different characteristics of students and adapt the teaching-learning process accordingly are known as differentiated instructions. The differentiation includes a set of instructional methos that incorporate a mindset and a series of ideas utilized in designing and implementing teaching acrivity. It is defined by continuous contemplation on the optimal approach to convey educational material to students with diverse characteristics. Furthermore, Tomlinson and Imbeau (2010) emphasized that differentiated instruction includes seven essential components that address the distinct requirements of pupils. The initial component recognizes that every student enters the classroom with unique backgrounds, experiences, cultures, and genders. the learning process that is influenced by the variations, requiring that teachers are in charge for making sure all students understand the lesson. Therefore, teachers should develop strategies

to engage many students with different characters, aligning the materials with student characteristics, and adjust teaching methods to accommodate variations among students. Furthermore, teachers must engage in continuous reflection to identify the distinct needs of each student at a given phase of the learning process and modify their strategies accordingly to guarantee that every student achieves understanding of the topic.

Differentiation in the learning process allows students to engage in learning in the way that best suits their specific needs, since it facilitates personalized instruction based on each student's unique characteristics, talents, and readiness. The process of differentiation includes several different strategies, such as how students respond to teacher directions, teaching learning media, textbooks, and student-centered worksheets tasks including group debates and presentations. The teachers deliver identical conceptual content or abilities to all students during differentiation, although they are allowed to engage in diverse learning activities customized to their own needs. Personalized learning is adjusted aligning to preferences, attributes of the students, or their preparedness level. The purpose is to improve students' competence to achieve learning outcomes in the most effective and preferred way. Many techniques are used to differentiate the learning process, including interactive journals, tiered exercises, graphic organizers, manipulatives, and learning centers.

Learning products are the means via which students exhibit or express their learning outcomes, encompassing their knowledge, understanding, and skills. To guarantee that the evaluation of learning outcomes accurately represents students' true abilities, differentiation in learning products is employed (Dee, 2011). Thus, differentiation in learning products can function as an assessment that quantifies and provides statistics on the degree to which students have achieved or have yet to achieve specific learning outcomes. It is essential to have a multi-tiered paradigm for the differentiation of educational materials. This indicates that the educator formulates material gradations and assessment techniques that are customized to the pupils' proficiency levels or readiness. More challenging assignments will be allocated to pupils at an advanced level, in addition.

METHODOLOGY

This project aims to gather data on English student teachers regarding their preparedness implementing Quizizz in the context of Differentiated Instruction. This research involves 67 student teachers EFL teachers at a university in Semarang. This research utilized survey and interview to gather the data. Direct and online-mediated interviews were conducted with the participants to ascertain their experiences about the implementation of differentiated learning.

The data were analyzed using thematic analysis. Thematic analysis is a qualitative research method that facilitates the identification, analysis, and reporting of patterns within data, presenting them comprehensively and in detail. Besides its capacity to provide rich and complex information, theme analysis can also interpret a variety of various issues.

FINDING AND DISCUSSION

Student Teachers Understanding of Differentiated Instruction and their confidence utilizing Technology in Language Assessment

Table 1

The number of Student Teachers Understanding Differentiated Instruction and Utilizing Technology

Confidence level	Differentiated instruction	Differentiated instruction	Technology Use	Technology use
1 (Poor)	0	0%	1	1.5%
2 (Adequate)	18	27%	5	7.5%
3 (Confident)	44	66%	47	70 %
4 (Very confident)	5	7%	14	21 %
Total	67	100%	67	100%

The data from the questionnaire reflect that in a group of 67 future teachers, the majority (66%) showed moderate confidence (3) in their ability to use differentiated instruction in English classes. Twenty-seven percent rated their readiness at a lower level (2), and only 7% felt highly confident with a level 4 rating. Interestingly, none of the participants felt they were at the lowest level (1), showing that everyone had a good understanding of the concept. This information reveals that there is a lack of strong expertise despite a general understanding.

Adjusting teaching techniques to accommodate various student needs through differentiated instruction requires the ability to adapt and be resourceful (Tomlinson, 2001). The confidence levels, ranging from moderate to low, could stem from inadequate hands-on experience or opportunities for professional growth. The study conducted by Santangelo and Tomlinson (2009) emphasizes the importance of thorough teacher training in order to successfully incorporate differentiated strategies.

In order to tackle this problem, it is crucial for teacher training programs to integrate practical experience, opportunities for self-assessment, and continual guidance from experienced mentors. These results are consistent with prior studies demonstrating that new teachers often feel unprepared to adapt their teaching methods to meet the needs of diverse students, even though they acknowledge its significance (Doubet & Hockett, 2015). Improving training programs can narrow this divide and enable teachers to establish inclusive and successful learning settings for all students.

The data presented also portrays the 67 student teachers' confidence levels utilizing technology for language assessment. A significant number that is 70% of respondents, which amounts to 47 individuals, indicated a moderate level of confidence (level 3). In contrast, 20% (14 respondents) showed high confidence (level 4), while only 7.5% reported limited confidence (level 2), and 1.5% the participants rated their confidence at level 1, implying that all of them possess at least a basic understanding of technology in language evaluation. The widespread occurrence of moderate confidence (level 3) is consistent with larger studies indicating that while future teachers acknowledge technology's potential in education, they frequently feel restricted by insufficient preparation and experience (Zhao, 2020). The 20% representation at level 4 indicates that a portion of student teachers is knowledgeable and self-assured, potentially owing to previous exposure or advanced studies.

Studies have shown that there is a consistent disconnect between educators' understanding of digital tools in theory and their ability to effectively use them in the classroom. A recent study by Gómez et al. (2021) revealed that teachers acknowledge the significant role of technology in facilitating personalized and efficient assessment, however they often do not have the appropriate ability to effectively leverage its potential. It is pivotal for teachers' education to prioritize the inclusion of practical experience with digital educational tools in order to develop student teachers' confidence and expertise.

Student Teachers Preparedness Utilizing Quizizz

Quizizz is a well-known teaching tool among student teachers, with 56 of 67 respondents (83.6%) expressing their understanding. Quizizz is positioned as one of the most recognized tools, followed by Duolingo, which somewhat passes it with 77,6% familiarity. Quizizz's dynamic and gamified attributes render it especially attractive for educators seeking to engage pupils efficiently. Its popularity may indicate its user-friendliness, accessibility, and compatibility with contemporary pedagogical methods that prioritize student-centered learning. In comparison to comparable tools such as Kahoot (35.8%) and Quizlet (25.4%), Quizizz emerges as a prominent platform, indicating its efficacy and extensive utilization in educational settings.

Figure 1

Familiarity of Quizizz among student teachers

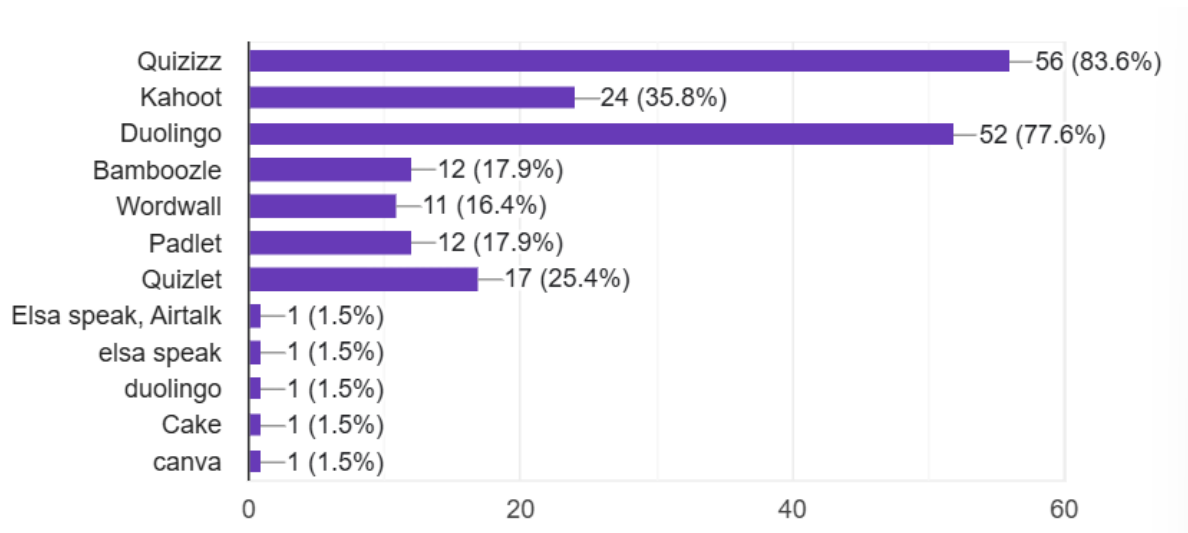
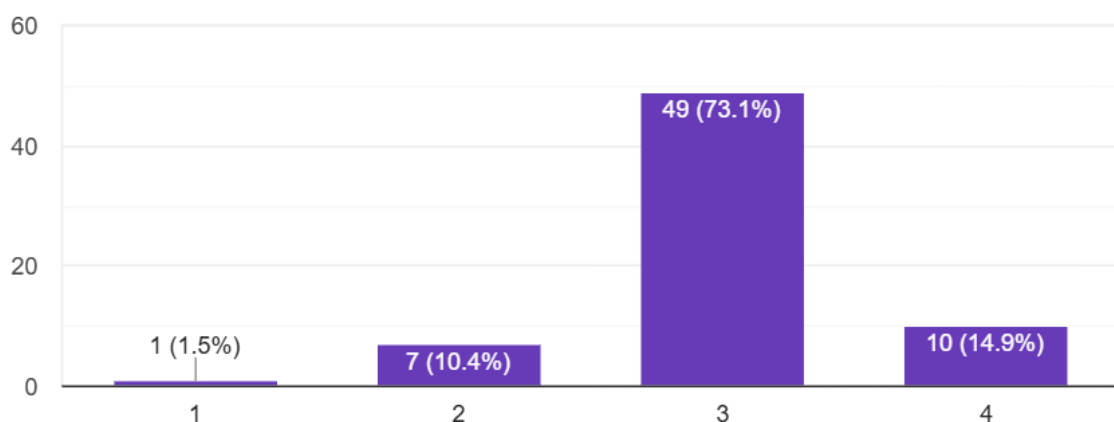


Figure 2

The potential of Quizizz Accommodating divers Learners

67 responses

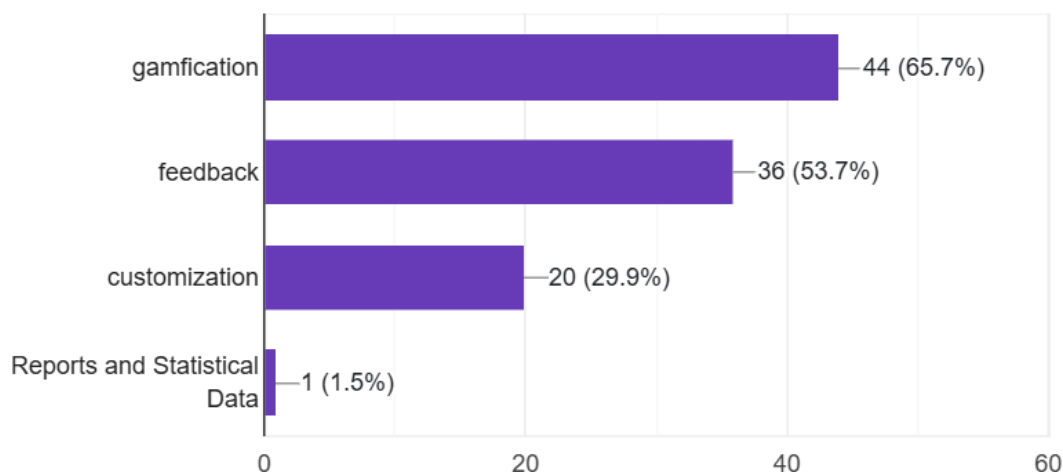


The chart illustrates the portrayed potential of Quizizz to meet different needs of learners in a differentiated instruction environment. Quizizz was rated at level 3 by a large percentage of respondents, 73.1% (49 respondents), indicating that they considered it to be moderately effective in meeting the learning requirements of a diverse community. Furthermore, 14.9% (10 respondents) rated it at level 4, indicating a high level of confidence in its capabilities. In contrast, 10.4% (7 respondents) rated it at level 2, indicating that it was of limited efficacy, while only 1.5% (1 respondent) assigned it the lowest rating of 1.

This data emphasizes Quizizz's adaptability as a tool that can facilitate differentiation, which is likely a result of its customizable assessments, gamified approach, and capacity to monitor individual progress. Nevertheless, the relatively lower percentage of respondents who rated it at level 4 underscores the necessity of further investigation into its full potential. These results are consistent with research that underscores the significance of digital tools in fostering personalized learning experiences and active engagement (Tomlinson, 2001). In order to optimize its effectiveness, educators may benefit from professional development that emphasizes the utilization of Quizizz's capabilities to build adaptive learning strategies for students.

Figure 3

Features in Quizizz for Evaluation



The data demonstrates which features of Quizizz have been considered to be the most beneficial for evaluation by 67 respondents. Gamification is the most frequently mentioned feature, with 65.6% (44 respondents) emphasizing its utility. This is showing of the tool's potential for making evaluations interactive and engaging. The significance of real-time, constructive input in facilitating learning and improvement is underscored by the fact that feedback is selected by 53.7% (36 respondents). Customization was selected by 29.9% of the respondents (20 respondents), showing the importance of personalizing exams to meet the unique learning objectives and student needs. In contrast, only 1.5% of respondents (1 respondent) referenced reports and statistical data, showing that this analytical feature has been underused or underrated in comparison to the immediate interactive and engaging elements.

The findings are in line with studies that highlights the usefulness of gamification and feedback in improving student comprehension and motivation (Dichev & Dicheva, 2017). The more limited choice for findings and information may suggest that teachers requires additional training or awareness regarding the utilization of analytics for formative and summative assessments. In general, the interactive design of Quizizz is in line with the emphasis placed on the development of responsive and engaging evaluation processes by teachers.

The interview with the student teachers reveals the findings that Quizizz is broadly noticed as effective digital tool for English evaluation due to its ability to fulfill the needs of the diverse learners through engaging and interactive gamified features that significantly support students learning engagement. As assessment tool, it provides instant-feedback, real-time analytics, and customizable quizzes that facilitates the assessment area on targeted skills such as grammar, vocabulary, and reading comprehension. Most participants highlighted that this platform help creating a relaxed and fun language assessment, reducing students' anxiety during the evaluation. Facilitating Differentiated Instruction, Quizizz offers various types of questions, diverse difficulty levels, multimedia elements that can be aligned to students' learning styles. Huang et al. (2022) emphases that this platform fosters inclusivity and adaptability in diverse classroom environment. This potential is best implemented with other methods to evaluate skills like speaking or writing that need personalized assessment.

Some limitations and challenges are also emerged during the implementation of Quizizz in the context of differentiated instruction. According to the participants, this platform usage is still depended on the inequity of students access to internet connection. In assessing productive

skills like speaking and writing, this platform tends to be less effective. Moreover, the gamified features that always considered as fun, sometimes raise students' anxiety. Multiple choice questions have some limitations on assessing high-order thinking, writing and speaking skills. Rahman (2020) highlights the necessary of combining Quizizz with other instructional design to achieve the learning purpose. To overcome the challenges, teachers should offer technical assistance, ensure equal access to resource. By doing so, Quizizz can be a valuable tool to create inclusive and engaging learning and evaluation.

CONCLUSION

This study highlights the potential of Quizizz as a digital tool for differentiated instruction in English language teaching, empowering the features such as gamified, instant feedback, and customizable quizzes which are designed to meet the students' diverse learning needs and improve their learning engagement. The findings indicate that the majority of the student teachers are moderately confident in their ability to utilize Quizizz, understanding its necessary in developing interactive, and effective learning activities. Nevertheless, the significant of the supplementary methods is underscored by some challenges such as the anxious feeling caused by gamification features, the difficulty to assess higher-order thinking and productive skills. The problem in implementing Quizizz in the educational settings also include the unequal access of technology in some particular rural area. This study recommends the implementation of Quizizz with other instructional strategies and provision of targeted teacher training to deal with the drawbacks. Quizizz can effectively facilitate differentiated instruction and create more equitable and engaging experiences.

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