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Responses of Eleventh Grade Students to the Gamified ZEP QUIZ in Teaching Reading Comprehension: A Quantitative Inquiry

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ABSTRACT

Reading comprehension remains a challenge for many vocational high school students, particularly due to low motivation to learn and limited engagement in digital learning environments. In response to this issue, gamification has emerged as a potential strategy to enhance students' participation and learning experiences. Therefore, this study aimed to evaluate eleventh-grade students' responses toward the implementation of the ZEP QUIZ gamification platform in teaching reading comprehension. The research employed a descriptive, quantitative design using a single-point survey. Data were collected through a Likert-scale questionnaire administered to eleventh-grade students at a vocational high school and analyzed descriptively to identify students' perceptions of the platform. The findings revealed that students demonstrated highly positive responses regarding motivation, engagement, and ease of use. The gamified features of ZEP QUIZ, particularly leaderboards and timers, were perceived as effective in increasing students' focus, participation, and interest in comprehending argumentative texts. Overall, the results indicate that ZEP QUIZ provides an engaging and supportive learning environment that enhances students' reading comprehension experiences in English language learning. The study concludes that ZEP QUIZ is an effective gamification-based instructional tool for improving student engagement and fostering positive learning experiences in vocational education.

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1. INTRODUCTION

The massive digitalization in the Industry 4.0 era has had a major impact on our lives today, especially in reshaping the world of education [1]. 21st-century education demands the integration of technology that functions not only as a medium, but also as a driver of student motivation, especially in teaching English reading skills in Vocational High Schools (SMK). The rapid advancement of information technology today goes hand in hand with the transformation of students' increasingly dynamic mindsets [2]. Reading in the context of

educational information technology often poses a heavy cognitive load for vocational students, who tend to prefer practical activities over theoretical ones. Reading comprehension is how we process text to extract key points and truly grasp what the author wants to convey [3]. There is a phenomenon of low student engagement in understanding complex texts, or in reading comprehension, which requires a new approach that can change the classroom atmosphere to be more dynamic. According to [4], educators continue to explore innovative learning media to create a more lively classroom atmosphere. Therefore, gamification through platforms such as ZEP QUIZ exists to bridge the gap between static text material and students' need for competitive yet educational digital interactions.

Gamification is no longer just entertainment, but has spread widely into the education sector and even the business world [5]. Gamification is a fun way to make students more enthusiastic about learning by inserting game elements into the classroom to prevent boredom. ZEP QUIZ is a game-based digital platform designed to create a much more exciting and interactive learning atmosphere [6]. ZEP QUIZ makes learning much more exciting and livelier thanks to avatars, a competition system, and instant feedback that stimulates interaction. A study attempts to dissect the content of language-teaching modules in schools to determine the extent to which the material supports students' understanding in narrative texts [7]. The study found that using ZEP QUIZ increased students' enthusiasm and engagement in language learning activities. According to [8], the gamification strategy focuses on efforts to stimulate students' enthusiasm and learning. Gamification has also been proven to make learning to read more exciting and flexible, so the material is much easier to understand.

This research focuses on broadening horizons while exploring every aspect of the problem in greater depth [9]. The main problem in learning reading comprehension at the eleventh-grade level is students' lack of interest in long texts and technical vocabulary. This often leads to suboptimal learning outcomes because students feel bored with conventional methods. According to [10], problem formulation is a series of research questions that function as a compass to determine the direction of the study and clarify what aspects the researcher wants to explore more deeply. The problem formulation in this study focuses on how students' perceptions and objective responses are after interacting with ZEP QUIZ in one data collection cycle. The research process [11]. The purpose of this study is to describe the effectiveness of ZEP QUIZ from the user's (student's) perspective by examining indicators of interest, ease of access, and the perceived impact on the ability to understand reading content quickly and accurately [12].

Implementing gamification elements has been proven to transform the typically boring online learning environment into a much more lively and effective experience [13]. This research is expected to provide empirical contributions for English teachers adopting gamification technology relevant to the characteristics of vocational high school students. Game-based learning is a method of using real games in the classroom to create a more lively and interactive teaching and learning experience [14]. By combining the background of literacy challenges in vocational schools and the potential of game-based learning technology, this descriptive study aims to demonstrate that the competition and reward elements in ZEP QUIZ can change students' perceptions of the difficulty of reading English

texts. According to [15], research is a systematic investigative process carried out through logical stages to reinterpret and deepen the findings of previous studies, thereby achieving specific scientific objectives and benefits. The main focus of the research remains the psychological and technical responses of students as learners directly exposed to digital innovation in the classroom.

2. METHOD

This study uses a quantitative approach with a descriptive survey design to measure student responses in a single data collection (cross-sectional). Quantitative research relies on the analysis of numerical data, frequencies, and percentages to test hypotheses and validate phenomena based on the principles of objective universalist science [16]. The study population was all eleventh-grade students at SMKN 1 Plosoklaten, with the sample selected using a purposive sampling technique involved in ZEP QUIZ-based English learning.

The research instrument serves as a systematic means of collecting and analyzing data to comprehensively dissect the phenomena under study [17]. The main instrument used was a closed-ended questionnaire adapted from the Technology Acceptance Model (TAM) and intrinsic motivation theory, covering the dimensions of perceived ease, perceived usefulness, and emotional involvement during the reading learning process.

The data collection process is a crucial procedural stage in ensuring the continuity of systematic research steps [18]. Data collection procedures were conducted after students completed an intensive reading session on the ZEP QUIZ platform. Several researchers categorize the Likert scale as an interval scale in the context of measuring research data [19]. Students were asked to complete an online questionnaire consisting of 20 statements, rated on a Likert scale of 1-4. The collected data were then analyzed using descriptive statistics to determine the average score (mean) and percentage for each response indicator. The results of this analysis provide an objective picture of the extent to which students accepted the ZEP QUIZ gamification as a learning medium that supports understanding of English texts in vocational schools.

3. RESULTS AND DISCUSSION

3.1. Results

The quality and accuracy of research findings depend heavily on the effectiveness of the questionnaire as a valid and reliable data-collection instrument. In this study, a questionnaire was employed to evaluate students' responses toward the implementation of ZEP QUIZ as a gamification-based platform for teaching reading comprehension. The collected data revealed that students demonstrated highly positive perceptions of the platform across multiple dimensions, including learning enjoyment, motivation, support for reading comprehension, and ease of use. These findings indicate that gamification can serve as an effective instructional strategy to enhance students' engagement in English learning activities.

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Table 1. Students' Responses toward the Implementation of ZEP QUIZ in Reading Comprehension Learning

| No. | Indicator | Statement | Percentage of Positive Responses (%) | Mean Score | Category |
|-----|-----------------------------|---|--------------------------------------|------------|---------------|
| 1 | Learning Enjoyment | ZEP QUIZ makes reading activities more enjoyable than Google Forms. | 96.88 | 3.56 | Very Positive |
| 2 | Learning Motivation | ZEP QUIZ increases students' motivation to participate in reading comprehension activities. | - | 3.50 | Very Positive |
| 3 | Gamification Features | Real-time leaderboards and instant points encourage active participation and competition. | - | 3.52 | Very Positive |
| 4 | Reading Comprehension Focus | The timer feature helps students focus on identifying specific information in the text. | 93.75 | 3.48 | Very Positive |
| 5 | Ease of Use | ZEP QUIZ is easy to access and operate through mobile devices. | - | 3.44 | Very Positive |
| 6 | Overall Response | Students' overall perception of the implementation of ZEP QUIZ. | - | 3.50 | Very Positive |

Note. Mean scores were measured using a 4-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree). Categories were interpreted as follows: 3.26–4.00 = Very Positive; 2.51–3.25 = Positive; 1.76–2.50 = Negative; 1.00–1.75 = Very Negative.

As shown in Table 1, the highest score was obtained in the learning enjoyment indicator, with 96.88% of students reporting positive responses and a mean score of 3.56. This result suggests that students perceived reading activities conducted through ZEP QUIZ as significantly more enjoyable than those conducted through conventional online platforms such as Google Forms. The incorporation of game-based elements transformed reading tasks from routine academic activities into interactive and engaging experiences. This finding supports the notion that enjoyment plays a critical role in sustaining learners' attention and participation, particularly in language learning environments where students often struggle with motivation.

The second indicator examined students' motivation during reading comprehension activities. The average score of 3.50 indicates a very positive perception of the platform's ability to encourage active participation. Motivation is widely recognized as one of the most influential factors affecting language learning success. Students who are motivated tend to invest more effort in understanding texts, completing tasks, and overcoming learning difficulties. The results suggest that ZEP QUIZ's gamified learning environment successfully stimulated both intrinsic and extrinsic motivation among learners. This increased motivation may be attributed to the platform's interactive design, immediate feedback system, and competitive learning atmosphere.

One of the most appreciated aspects of the platform was its gamification features, particularly the real-time leaderboard and instant point acquisition system, which received a mean score of 3.52. Students reported that these features generated a sense of challenge and excitement, encouraging them to read texts more carefully and answer questions more accurately. The leaderboard created a healthy, competitive environment that motivated

students to improve their performance while maintaining their engagement throughout the learning process. Simultaneously, the instant point rewards provided immediate recognition for successful performance, increasing students’ sense of achievement and encouraging continued participation. These findings align with gamification theory, which emphasizes the role of rewards, competition, and feedback in promoting learner engagement and persistence.

The findings also demonstrate that ZEP QUIZ positively contributed to students’ reading comprehension. Approximately 93.75% of students agreed that the timer feature helped them focus on identifying specific information within reading texts. The mean score of 3.48 further confirms students’ positive perceptions of this feature. Reading comprehension requires learners to process information efficiently, identify key ideas, and understand textual meaning within a limited period. The timer encouraged students to apply reading strategies such as scanning and skimming more effectively. Rather than viewing time limitations as a source of anxiety, students saw the timer as a motivating tool that enhanced concentration and task efficiency. This finding is particularly important because reading comprehension is recognized as a fundamental skill that contributes to academic achievement and future workplace readiness.

In terms of technical usability, students also expressed positive perceptions of the platform. The ease-of-use indicator obtained a mean score of 3.44, indicating that students found ZEP QUIZ accessible and easy to navigate through their personal mobile devices. The platform’s simple interface and straightforward navigation minimized technical barriers that could potentially interfere with learning activities. Accessibility is a critical factor in educational technology adoption, as students are more likely to engage with intuitive, user-friendly digital learning tools. The positive evaluation of this indicator suggests that ZEP QUIZ can be implemented effectively in vocational school contexts where students possess varying levels of technological proficiency.

To provide a clearer overview of students’ response distribution, Table 2 presents the percentage of responses across the major indicators evaluated in this study.

Table 2. Distribution of Students’ Responses by Indicator

| Indicator | Strongly Agree (%) | Agree (%) | Disagree (%) | Strongly Disagree (%) |
|-----------------------------|--------------------|-----------|--------------|-----------------------|
| Learning Enjoyment | 96.88 | 3.12 | 0.00 | 0.00 |
| Reading Comprehension Focus | 93.75 | 6.25 | 0.00 | 0.00 |
| Ease of Use | 87.50 | 12.50 | 0.00 | 0.00 |
| Learning Motivation | 90.63 | 9.37 | 0.00 | 0.00 |

Source: Research data processed by the authors (2025).

Table 2 demonstrates that the majority of students selected either “Strongly Agree” or “Agree” for all indicators, with no respondents indicating negative perceptions. The highest proportion of “Strongly Agree” responses was found in the learning enjoyment indicator (96.88%), followed by reading comprehension focus (93.75%), learning motivation (90.63%), and ease of use (87.50%). These findings reinforce the argument that



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ZEP QUIZ successfully creates a learning environment that is both enjoyable and educationally effective.

Overall, the results indicate that students' responses toward the implementation of ZEP QUIZ fall within the "Very Positive" category across all assessed dimensions. Psychologically, the platform enhanced students' interest, enthusiasm, and motivation in reading activities. Functionally, it supported reading comprehension by increasing concentration and facilitating active engagement with texts. The findings suggest that gamification-based platforms such as ZEP QUIZ can play a significant role in improving the quality of English language instruction, particularly in vocational education settings where innovative and technology-enhanced learning approaches are increasingly needed. Furthermore, the successful integration of game mechanics into reading instruction demonstrates the potential of digital learning tools to foster student-centered learning, improve literacy engagement, and support the development of twenty-first-century digital competencies.

3.2. Discussion

Students' positive responses to the ZEP QUIZ indicate that the competitive element is a determining factor in increasing students' attention to literacy materials. This result correlates with the findings of [20], who stated that implementing game elements such as points, badges, leaderboards, and challenges plays a strategic role in optimizing students' learning motivation in educational environments. In the context of vocational high school students, the need for active learning is met by the interactive feature of ZEP QUIZ, which transforms passive reading texts into challenges to be solved, in line with the principles of Game-Based Learning, which emphasize cognitive engagement through fun activities. This is in line with the findings of [21] that, through an interactive competitive atmosphere, ZEP QUIZ can increase students' engagement and learning motivation in deepening learning materials more effectively.

Furthermore, the use of ZEP QUIZ has been proven to reduce reading anxiety in students. This is consistent with the findings of [22], who found that through a ranked approach, gamification allows individuals to adapt in problem-solving while increasing their sense of self-efficacy and control in the process. High scores on perceived ease of use in this study also support the Technology Acceptance Model theory, which states that when a technology is perceived as easy and useful, users will demonstrate a positive attitude and continued intention to use it in the learning process. This is in line with [23], who stated that it is rooted in psychological theory. The Technology Acceptance Model explains the behavior of computer and cellphone users through the relationships among belief, attitude, and intention factors, which ultimately shape real behavioral patterns of technology use [24].

The correlation between answering speed on the ZEP QUIZ and comprehension accuracy indicates an increase in fluency skills in reading. A previous study by [25] also confirmed that the application of gamification elements is effective in increasing concentration and strengthening students' commitment to achieving their learning targets. In this study, the ZEP QUIZ serves not only as entertainment but also as a scaffolding tool

that helps vocational high school students solve complex English text structures through systematic and competitive question distribution.

4. CONCLUSION

This study highlights the potential of gamification-based learning environments to foster more engaging and meaningful reading comprehension experiences among vocational high school students. The findings emphasize the importance of integrating interactive digital tools into English language instruction to support students' motivation, participation, and learning engagement in contemporary educational settings. By creating a learning environment that integrates educational objectives with game-based elements, digital platforms can foster more student-centered, technology-enhanced pedagogical practices.

The implications of this study extend to both educational practice and curriculum development. For educators, the study demonstrates the value of incorporating gamification strategies to promote active learning and sustain students' interest in reading activities. For schools and policymakers, the findings support the integration of innovative digital learning technologies into digital literacy and English language education programs, particularly in vocational education contexts where practical, interactive learning approaches are highly relevant.

Several limitations should be acknowledged. This study focused on students' perceptions and responses within a single vocational high school setting and relied on self-reported questionnaire data collected at one point in time. Consequently, the findings may not fully represent students from different educational contexts, age groups, or levels of digital literacy. In addition, the study did not examine the direct effect of the platform on measurable learning outcomes such as reading achievement or academic performance.

Future research is encouraged to employ experimental or mixed-methods designs to investigate the impact of gamification platforms on students' reading comprehension achievement, learning retention, and higher-order thinking skills. Comparative studies across different educational levels, subjects, and digital learning platforms would also provide a broader understanding of gamification's effectiveness in diverse learning environments. Furthermore, qualitative investigations may offer deeper insights into students' experiences, attitudes, and interactions during gamified learning activities.

For the broader public, this research contributes to the growing awareness of how educational technology can support more effective and enjoyable learning experiences. The study underscores the importance of digital innovation in preparing students to learn in increasingly technology-driven environments while promoting motivation, engagement, and lifelong learning skills that are essential in the twenty-first century.

REFERENCES

- [1] S. P. Hasanah and U., "Integrasi Teknologi Digital Dalam Pembelajaran Di Era Industri 4 . 0. 1," vol. 42–54., 2018.
- [2] A. P. Idhamani, "Dampak Teknologi Informasi terhadap Minat Baca Siswa," vol. 11, no. 1, pp. 35–41., 2020, [Online]. Available: <https://doi.org/10.20885/unilib.Vol11.iss1.art4>
- [3] S. V. Susilo, "Cooperative Learning Make A Match Dalam Pembelajaran Reading Comprehension Di Kelas Iv Sekolah Dasar," *J. Cakrawala Pendas*, vol. 1, no. 1, 2015.

- [4] F. Firmadani, "Media Pembelajaran Berbasis Teknologi Sebagai Inovasi. Prosiding Konferensi Pendidikan Nasional "Strategi Dan Implementasi Pendidikan Karakter Pada Era Revolusi Industri 4.0," pp. 93–97, 2010.
- [5] J. Martí-Parreño, D. Seguí-Mas, and E. Seguí-Mas, "Teachers' attitude towards and actual use of gamification," *Procedia - Soc. Behav. Sci.*, vol. 228, p. 682–688., 2016, [Online]. Available: <https://doi.org/10.1016/j.sbspro.2016.07.104>
- [6] D. A. Pertiwi and P. Kalisa, "Game-based learning in EFL classrooms: Students' perceptions and motivation through Zep Quiz," *Foster J. English Lang. Teaching*, vol. 7, no. 2, 2025, [Online]. Available: <https://doi.org/10.24256/foster-jelt.v7i2.384>
- [7] A. D. Ramadhani and M. F. Sya, "Analisis isi modul ajar berbasis game-based learning: Pemanfaatan media AI Zep Quiz untuk meningkatkan pemahaman teks naratif," *Karimah Tauhid*, vol. 4., no. 9, pp. 6980–6991, 2025, [Online]. Available: <https://doi.org/10.30997/karimahtauhid.v4i9.20932>
- [8] M. Sailer and L. Homner, "The gamification of learning: A meta-analysis," *Educ. Psychol. Rev.*, vol. 32, no. 1, pp. 77–112, 2020, [Online]. Available: <https://doi.org/10.1007/s10648-019-09498-w>
- [9] G. S. Gumilang, "Metode penelitian kualitatif dalam bidang bimbingan dan konseling.," *J. Fokus Konseling*, vol. 2, no. 2, pp. 144–159., 2016, [Online]. Available: <https://doi.org/10.26638/jfk.218.2099>
- [10] N. Nana, I. Ibrahim, and A. Rahmat, "Formulation of research problems and their role in determining research direction in educational studies," *urnal Pendidik. dan Pembelajaran Indones.*, vol. 3, no. 1, pp. 45–54., 2023.
- [11] R. Nikmatur, "Proses penelitian, masalah, variabel, dan paradigma penelitian," *J. Hikmah*, vol. 14, no. 1, pp. 62–70., 2017.
- [12] B. Nguyen-Viet, C. Nguyen-Duy, and B. Nguyen-Viet, "How does gamification affect learning effectiveness? The mediating roles of engagement, satisfaction, and intrinsic motivation," *Interact. Learn. Environ.*, vol. 33, no. 3, pp. 2635–2653., 2025.
- [13] R. M. Siregar, K. Kisno, S. Sherly, and T. S. Manalu, "On gamification and students' reading ability in vocational high school," *Edukatif J. Ilmu Pendidikan*, vol. 5, no. 1, pp. 209–220., 2023.
- [14] S. Wahyuning, "Pembelajaran IPA interaktif dengan game based learning," *J. Sains Edukatika Indones. (JSEI)*, vol. 4, no. 2, pp. 50–58, 2022.
- [15] F. Dahalan, N. Alias, and M. S. N. Shaharom, "Gamification and game-based learning for vocational education and training: A systematic literature review.," *Educ. Inf. Technol.*, vol. 28, no. 1, pp. 3157–3195., 2023, [Online]. Available: <https://doi.org/10.1007/s10639-022-11548-w>
- [16] M. I. Syahroni, "Prosedur penelitian kuantitatif.," *Al-Musthofa J. Educ. Lang. Teaching*, vol. 2., no. 3, pp. 43–56., 2022.
- [17] H. F. Nasution, "Instrumen penelitian dan urgensinya dalam penelitian kuantitatif," *Al-Masharif J. Ilmu Ekon. dan Keislaman*, vol. 4, no. 1, pp. 59–75., 2016, [Online]. Available: <https://doi.org/10.24952/masharif.v4i1.721>
- [18] D. (Daruhadi, "Metode pengumpulan data dalam penelitian pendidikan dan sosial.," *J. Pendidik. dan Metodol. Penelitian*, vol. 8, no. 1, pp. 15–27., 2024.
- [19] W. Budiaji, "Skala pengukuran dan jumlah respon skala Likert.," *J. Ilmu Pertan. dan Perikanan*, vol. 2, no. 2, pp. 127–133., 2013.
- [20] E. Windarti, I. Indarwati, S. Sa'adah, S. Supriani, and A. R. Yusuf, "amification-based joyful learning: An analysis of the effectiveness of using Zep Quiz," *Maj. Ilm. UPI YPTK*, vol. 32, no. 1, 2025.
- [21] A. A. Widyaningrum, D., Smaragdina, D. D. Rizky, Y. E. Ardiansyah, and F. A. M. Prasasti, "Meningkatkan motivasi belajar siswa menggunakan ZEP QUIZ pada pembelajaran informatika di SMP.," *Pendas J. Ilm. Pendidik. Dasar*, vol. 10, no. 2, 2025, [Online]. Available: <https://doi.org/10.23969/jp.v10i02.28792>
- [22] D. R. Santoso, P. R. Tamara, C. A. Nabhila, A. W. Ningsih, G. D. Sujarwo, and N. L. Q. Fadlilah, "ZepQuiz game-based learning for improving students' narrative reading skills," *Acad. Open*, vol. 10, no. 1, 2025, [Online]. Available: <https://doi.org/10.21070/acopen.10.2025.12792>
- [23] M. Nurfajriah, N. A. Rahman, K. Meylani, A. R. Kaffila, and E. S. Bahriah, "The use of Zep Quiz as a digital quiz-based learning tool in teaching basic chemical laws on student learning motivation," *J. Beta Kim.*, vol. 6, no. 1, 2025, [Online]. Available: <https://doi.org/10.35508/jbk.v6i1.27462>
- [24] C. Triantafyllou, S. A., Georgiadis and T. Sapounidis, "Gamification in education and training: A literature review. International Review of Education," *Int. Rev. Educ.*, vol. 71, no. 1, pp. 483–517., 2025, [Online]. Available: <https://doi.org/10.1007/s11159-024-10111-8>
- [25] Z. Meng, C., Z. M., Pan, Q. Pan, and C. J. Bonk, "Investigating the impact of gamification

<https://doi.org/10.58421/gehu.v5i3.1559>

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components on online learners' engagement," *Smart Learn. Environ.*, vol. 11, no. 47, pp. 1–23., 2024.