Exploring Veterinary Students' Practice and Challenges in Using Quizizz for Critical Reading in a Private University

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Abstract

This study explores the effectiveness of Quizizz in enhancing critical reading skills among veterinary students in an ESP (English for Specific Purposes) course. Using a descriptive qualitative research design, the study involved 90 veterinary students from a private university who regularly use Quizizz for reading practice. Data were collected through surveys and semi-structured interviews, focusing on students' experiences, benefits, and challenges. The responses were analyzed using thematic analysis to identify key patterns related to learning effectiveness and obstacles. The results indicate that Quizizz enhances engagement, motivation, and reading comprehension by integrating gamified features such as instant feedback, leaderboards, and interactive questions. However, the study also found limitations in fostering deeper critical reading skills, as the platform primarily supports surface-level comprehension rather than higher-order thinking. Challenges such as technical issues, lack of personalized feedback, and stress from competition were also noted. To address these challenges, the study suggests integrating discussion-based activities, incorporating instructor feedback, balancing competition with collaboration, and designing questions that promote analytical thinking. Future research should explore how adaptive learning technologies and AI-driven tutoring can further support critical reading skills in veterinary ESP courses.

Keywords: Quizizz, veterinary students, critical reading, gamification, digital learning,

1.Introduction

Learning English as a foreign language (EFL) is essential in global education, with critical reading being a crucial skill for academic and daily life (Wibowo & Munir, 2024) . However, EFL students often face challenges, including boredom, which can reduce motivation and focus, ultimately hindering comprehension (Rif'attullah & Putra, 2024). Critical reading is essential for veterinary students as it enables them to analyze, interpret, and apply medical texts effectively in both their studies and future careers (Kasch, 2019 ; Wibowo et al., 2024 ; (Kulamikhina et al., 2020)

Research in English for Specific Purposes (ESP) has consistently emphasized the necessity of tailoring language instruction to meet the unique demands of specialized fields, including veterinary medicine. Veterinary students require proficiency in English not only for general communication but also for interpreting complex medical texts, understanding research articles, and engaging in professional discourse within the global veterinary community. ESP instruction must

align with students' academic and professional needs, integrating discipline-specific vocabulary, discourse structures, and reading strategies to enhance their ability to comprehend and analyze technical content.

Several recent studies have explored the role of ESP in vocational and medical education, which can offer insights applicable to veterinary education. For instance, Fauzi & Hanifah (2019) designed reading materials specifically for medical science students in vocational high schools, emphasizing the importance of content that aligns with students' professional fields. Similarly, Hermawati (2022) investigated the needs of agribusiness students in an ESP reading context, highlighting the necessity for materials that cater to the specific linguistic demands of the discipline. Juita (2023) examined the use of authentic materials in ESP classes for medical laboratory technology students, finding that such materials significantly enhance vocabulary mastery and reading comprehension.

While Quizizz has been widely studied in general and medical education contexts, its application within veterinary ESP has not been thoroughly explored. This study aims to address this gap by investigating how veterinary students at a private university utilize Quizizz for critical reading practice. By examining both the benefits and challenges associated with this platform, the research seeks to contribute to the broader discourse on ESP pedagogy, offering insights into how gamified learning can enhance veterinary students' academic and professional literacy.

Critical reading in veterinary medicine necessitates comprehension of specialized terminology, clinical reasoning, and problem-solving strategies that are distinct from general academic reading skills (Kulamikhina et al., 2020). Given the complexity of veterinary texts, ESP-based pedagogical approaches can better equip students with the analytical skills required for interpreting medical literature, understanding case reports, and engaging in evidence-based veterinary practices (Hyland, 2006). The integration of digital learning tools within ESP instruction can further enhance students' motivation and facilitate more effective learning experiences (Stefanova, 2021)

Veterinary students' disciplinary literacy needs in English-medium instruction environments, highlighting challenges in language skills including reading, and academic genres necessary for clinical tasks and professional communication (Pun & Onder-Ozdemir, 2023). However, many students struggle to develop critical reading skills due to the technical nature of veterinary texts and the necessity for precise comprehension and interpretation (Wilson, 2016 ; Thompson & Thompson, 2023 ; Istiqfaroh et al., 2024). These challenges highlight the need for effective educational tools that can enhance students' engagement and learning outcomes.

In recent years, digital learning tools have gained popularity in education, with gamification platforms like Quizizz emerging as valuable resources (Walker et al., 2021 ; Hughes et al., 2013). Quizizz is an interactive quiz-based platform that integrates game elements such as leaderboards, instant feedback, and adaptive questioning (Puspitayani et al., 2020 ; Dhamayanti, 2021). Studies suggest that incorporating gamification into learning fosters increased student engagement, motivation, and retention of information (Nunan et al., 2003 ; Cameron & Bizo, 2019).

The research on its specific effects within veterinary education remains relatively scarce, particularly regarding the development of critical reading skills among veterinary students (Mayuni et al., 2020 ; Sumarni & Salsabila, 2023 ; Hove, 2011). Given the technical complexity and specialized terminology found in veterinary texts, it is essential to explore how Quizizz can support students in improving their reading comprehension and analytical abilities, which are fundamental for their academic progress and professional competence (Zhang & Crawford, 2024). Integrating Quizizz into an English for Specific Purposes (ESP) framework allows educators to tailor critical reading instruction to the unique demands of veterinary studies. This approach not only enhances the relevance of reading tasks but also ensures that students develop the domain-specific literacy skills necessary for interpreting and analyzing complex veterinary materials effectively (Walsh, 2022).

Several studies have explored the impact of gamified learning platforms on student engagement and comprehension in general education settings. For instance, Pradnyadewi & Kristiani (2021) examined how Quizizz enhances reading motivation among high school students, while Dhamayanti (2021) investigated its role in improving reading comprehension among undergraduate learners in non-technical disciplines. Similarly, Mazeas et al., (2022) focused on the effectiveness of gamified quizzes in reinforcing vocabulary acquisition in English language learning contexts. In the field of science education, Carrión Candel & Colmenero, (2022) highlighted how Quizizz aids in conceptual understanding among medical students, whereas Parker and Green (2023) studied its impact on problem-solving skills. Redjeki & Muhajir (2021) further emphasized the potential of gamification in fostering analytical thinking within higher education.

There is significant gap in research examining the role of Quizizz in veterinary education, particularly in the development of critical reading skills. Veterinary students face unique challenges due to the complexity of specific texts, which require advanced analytical skills and the ability to interpret specialized terminology. However, limited studies have specifically investigated how gamified learning tools, such as Quizizz, support veterinary students in navigating these challenges.

This study seeks to bridge this research gap by investigating how veterinary students at a private university utilize Quizizz for critical reading practice. It aims to explore both the benefits and challenges that students encounter when using this digital platform. By examining student experiences and learning outcomes, this research contributes to the growing body of literature on gamified education in veterinary medicine, providing insights into its effectiveness in enhancing domain-specific literacy and fostering deeper engagement with complex academic texts.

2.Method

This study used a descriptive qualitative research design to understand how veterinary students use Quizizz for reading assignments (Chowdhury, 2015 ; Creswell, 2018). The study involved 90 veterinary students from a private university who regularly use Quizizz for reading practice. These students were selected based on their active participation in ESP (English for Specific Purposes) courses and their familiarity with the platform (Gaffas, 2023 ; Marina S et al., 2018)). Data were collected through surveys and semi-structured interviews with veterinary students who regularly use Quizizz. The survey in this study explored key aspects of gamification, motivation, engagement, and critical reading and examined how gamified features of Quizizz, such as leader boards, instant feedback, and competition, influence students' learning experiences. Motivation was assessed through the game's ability to encourage active participation, while engagement focuses on how the interactive format sustains students' interest. The survey also looks at how Quizizz enhances comprehension and critical thinking skills in the context of veterinary education. The surveys and interviews included open-ended questions about students' experiences, challenges, and the benefits of using Quizizz for reading practice (Chowdhury, 2015). The responses were analyzed using thematic analysis to identify common themes related to learning effectiveness and obstacles (Maguire, 2017; Anis et al., 2018). Patterns in student feedback helped highlight key factors influencing their reading comprehension and engagement with the platform (Wood, 2021 ; Carter et al., 2023)

3. Findings and Discussion

The study investigated the use of Quizizz as a gamified learning platform to support critical reading skills among veterinary students in an ESP context. The analysis of survey responses and interview data from 90 veterinary students revealed several key findings related to engagement, comprehension, motivation, and challenges in using Quizizz for critical reading practice.

Increased Engagement and Motivation

A majority of participants reported that Quizizz significantly enhanced their engagement and motivation in reading activities. The incorporation of game elements, such as leader boards, instant feedback, and competitive elements, created a more dynamic learning environment that encouraged students to participate actively in reading exercises. Many students found that the interactive nature of Quizizz reduced boredom and made reading practice more enjoyable, thereby increasing their willingness to engage with complex veterinary texts.

One participant mentioned in an interview, "Before using Quizizz, I found reading veterinary articles very tedious. But now, the game-like format keeps me engaged, and I feel more motivated to complete the exercises." This statement highlights how the interactive elements of Quizizz can transform students' attitudes toward reading complex texts. The following table presents key findings on how Quizizz impacts veterinary students' engagement and motivation in reading activities.

Table 1: Student Perceptions of Quizizz in Enhancing Engagement and Motivation

Statement	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Quizizz makes reading activities more engaging.	65%	25%	7%	2%	1%
The game-like format of Quizizz increases my motivation to complete reading exercises.	60%	28%	8%	3%	1%
Quizizz helps reduce boredom while reading veterinary texts.	58%	30%	7%	4%	1%
Instant feedback in Quizizz improves my reading comprehension.	55%	32%	8%	4%	1%
Competitive elements (leaderboards, timers) encourage active participation.	50%	35%	10%	3%	2%

This table shows that most students found Quizizz helpful in making reading more engaging and enjoyable. 90% of students agreed or strongly agreed that Quizizz made reading activities more interesting, while 88% reported feeling more motivated because of its game-like format. Many students found that the interactive features, such as leaderboards and instant feedback, made reading exercises less boring. 88% of students stated that Quizizz helped reduce boredom when reading veterinary texts, making them more willing to engage with complex materials. 87% of students felt that instant feedback improved their reading comprehension by helping them understand mistakes and learn from them. 85% of students found that competitive elements, such as timers and rankings, encouraged them to participate more actively. These findings show that Quizizz successfully makes reading practice more engaging by turning it into an interactive and motivating experience. The platform's gamified features not only capture students' interest but also help them improve their critical reading skills in a fun and effective way.

Enhanced Reading Comprehension

Students indicated that using Quizizz helped improve their reading comprehension skills by breaking down complex veterinary texts into manageable questions. The immediate feedback feature allowed students to identify their

mistakes and learn from them in real-time, reinforcing their understanding of specialized vocabulary, discourse structures, and clinical reasoning skills required in veterinary medicine.

Another interviewee stated, "The instant feedback helps me understand why I got a question wrong. Instead of waiting for a teacher's explanation, I can immediately see my mistakes and learn from them." This response underscores the role of real-time feedback in improving comprehension and retention of information. The following table summarizes the students' responses regarding how Quizizz impacted their reading comprehension:

Table 2 : Impact of Quizizz on Reading Comprehension

Reading Comprehension Benefits	Number of Students (N = 90)	Percentage
Quizizz helped break down complex texts into smaller, manageable questions.	77 students	86%
Instant feedback helped students learn from mistakes immediately.	78 students	87%
Improved understanding of specialized veterinary vocabulary.	76 students	84%
Enhanced ability to analyze clinical cases and apply reasoning.	75 students	83%

This table shows that a large majority of students found Quizizz helpful in improving their reading comprehension. Eighty-six percent of students agreed that Quizizz made complex veterinary texts easier to understand by breaking them into smaller questions. Additionally, 87% of students reported that the instant feedback feature helped them learn from mistakes immediately, allowing them to improve their comprehension in real-time.

Furthermore, 84% of students found that Quizizz reinforced their understanding of veterinary-specific vocabulary, while 83% believed it helped them develop better clinical reasoning skills. These results highlight how the gamified format of Quizizz, particularly its interactive feedback system, supports veterinary students in improving their reading comprehension and analytical abilities.

Development of Analytical and Critical Thinking Skills

The data revealed that Quizizz facilitated the development of analytical and critical thinking skills necessary for interpreting medical literature and clinical case reports. By engaging with carefully designed questions that required higher-order thinking, students were able to analyze information more critically and apply their knowledge to real-world veterinary scenarios. Some students noted that this approach helped them prepare for professional situations where critical reading skills are essential.

One veterinary student noted, "Some of the questions require me to think beyond just definitions; I have to analyze and apply the concepts, which helps me in understanding real-life veterinary cases." This illustrates how the platform can support critical thinking skills beyond basic comprehension.

The following table presents the students' responses regarding how Quizizz contributed to their analytical and critical thinking development:

Table 3: Impact of Quizizz on Analytical and Critical Thinking Skills

Analytical and Critical Thinking Benefits	Number of Students (N = 90)	Percentage
Encouraged deeper analysis of medical literature and case studies.	74 students	82%
Helped develop structured problem-solving skills.	72 students	80%
Required higher-order thinking beyond simple memorization.	73 students	81%
Improved ability to apply concepts to real-world veterinary scenarios.	71 students	79%

This table shows that a majority of students found Quizizz effective in improving their critical thinking skills. Eighty-two percent of students reported that Quizizz helped them analyze medical literature and case studies more effectively. Additionally, 80% of students indicated that it supported the development of structured problem-solving skills, which are crucial for interpreting complex veterinary cases.

Moreover, 81% of students noted that Quizizz challenged them to think beyond basic memorization, encouraging them to evaluate, analyze, and apply information in a critical manner. Lastly, 79% of students found that the platform helped them apply theoretical concepts to real-world veterinary cases, reinforcing their ability to think critically in professional settings. These findings highlight how Quizizz supports deeper learning and prepares students for the analytical demands of veterinary practice.

Accessibility and Flexibility

advantages of using Quizizz for veterinary students is its accessibility and flexibility. As an online platform, Quizizz allows students to engage with reading activities at their own pace, enabling self-directed learning beyond the classroom environment. This flexibility is particularly beneficial for students who prefer to review materials multiple times to reinforce their understanding. Many participants reported that the ability to revisit quizzes and track their progress provided them with a structured approach to independent study, ultimately enhancing their retention of complex veterinary texts. The following table summarizes student responses regarding the accessibility and flexibility of Quizizz:

Table 4 : Perceived Accessibility and Flexibility of Quizizz

Accessibility and Flexibility Benefits	Number of Students (N = 90)	Percentage
Allowed learning at own pace	78 students	87%
Enabled review of quizzes for better understanding	76 students	84%
Provided opportunities for independent study	75 students	83%
Made learning more convenient and accessible	77 students	86%

This table illustrates that a significant proportion of students found Quizizz to be a flexible and accessible learning tool. Eighty-seven percent of students agreed that Quizizz allowed them to learn at their own pace, giving them control over their study schedules. Additionally, 84% of students found value in the ability to review past quizzes, which helped them reinforce their understanding of veterinary texts.

Furthermore, 83% of students appreciated how Quizizz supported independent study, providing a structured yet flexible way to engage with reading materials outside the classroom. Lastly, 86% of students highlighted that Quizizz made learning more accessible and convenient, ensuring they could study anytime and anywhere. These findings emphasize the importance of digital learning platforms in fostering autonomous learning, making veterinary education more adaptable to students' diverse study preferences.

Challenges in Using Quizizz for Critical Reading

Although Quizizz offers several advantages for critical reading practice, students also reported certain challenges that impacted their learning experience. One major concern was the limited depth in questioning. Some students felt that Quizizz focused primarily on surface-level comprehension rather than encouraging deeper critical analysis. While the platform was effective for vocabulary retention and basic understanding, it lacked the depth needed for fostering interpretative skills and in-depth discussions on complex veterinary texts.

Another challenge was related to technical issues and internet dependence. Some students reported experiencing slow internet connections and occasional platform glitches, which disrupted their reading activities. These technical difficulties sometimes led to frustration and affected their ability to complete quizzes efficiently.

The students highlighted the lack of personalized feedback as a limitation. While Quizizz provided instant feedback on correct or incorrect answers, many students expressed a need for more detailed explanations and instructor guidance. They believed that additional context and reasoning behind correct answers would further enhance their critical reading skills beyond what automated responses could provide. in addition, some students found the competitive nature of Quizizz to be a double-edged sword. While competition motivated many students, others felt that it caused stress and diverted focus from deep comprehension to speed-based answering. This overemphasis on competition sometimes distracted students from engaging fully with the reading material in a thoughtful manner. The following table presents the key challenges faced by students when using Quizizz for critical reading practice:

Table 5 : Challenges Faced by Students in Using Quizizz for Critical Reading

Challenges	Number of Students (N = 90)	Percentage
Limited depth in questioning	55 students	61%
Technical issues and internet dependence	50 students	56%
Lack of personalized feedback	58 students	64%
Overemphasis on competition	46 students	51%

This table highlights the most common challenges students faced when using Quizizz for critical reading. Sixty-one percent (61%) of students reported that Quizizz quizzes often focused on surface-level comprehension, limiting their ability to engage in critical analysis. Fifty-six percent (56%) of students encountered technical difficulties, such as slow internet connections or platform glitches, which negatively affected their reading experience.

Moreover, 64% of students expressed dissatisfaction with the lack of personalized feedback, stating that automated responses were not enough to support their deeper understanding of veterinary texts. Finally, 51% of students felt that the competitive nature of Quizizz sometimes caused stress and distracted them from focusing on deep comprehension rather than answering quickly.

These findings suggest that while Quizizz is an effective tool for engagement and motivation, educators may need to supplement it with additional instructional strategies, such as teacher-led discussions, personalized feedback, and alternative assessment formats, to enhance critical reading outcomes for veterinary students.

2. Discussion

The findings of this study align with previous research on the impact of gamified learning platforms in higher education, particularly in English for Specific Purposes (ESP) contexts. Numerous studies emphasize how digital tools like Quizizz contribute to student engagement and motivation, making learning more dynamic and interactive (Suryarini, 2024 ; Cameron & Bizo, 2019). The positive impact of Quizizz on veterinary students' reading comprehension is

consistent with findings in other medical and technical fields, where gamification has been shown to enhance learning effectiveness (Tanouri et al., 2019 ; T. Chao et al., 2011 ; Thambu et al., 2021) .

However, while Quizizz successfully promotes engagement and surface-level comprehension, its effectiveness in developing higher-order analytical and critical thinking skills remains a challenge. This limitation reflects broader concerns in educational research about the depth of learning facilitated by gamification. While game-based learning fosters participation and knowledge retention, studies suggest that it does not always encourage deep cognitive processing (Gonzalez Ardeo, 2013 ; Meurant, 2009).

The integration of Quizizz into ESP instruction for veterinary students highlights the potential of gamification in domain-specific literacy development. Unlike general English instruction, ESP requires students to acquire specialized reading strategies to comprehend complex medical texts effectively (Ridhwan et al., 2020 ; Diva et al., 2022 ; Arnó-Macià & Mancho-Barés, 2015). By providing interactive quizzes tailored to veterinary discourse, Quizizz helps bridge the gap between general EFL learning and the specific linguistic demands of veterinary medicine.

Despite these advantages, gamified platforms like Quizizz tend to prioritize engagement over deep learning. This study found that students benefited from real-time feedback and competition, but some struggled with the lack of in-depth critical analysis. The issue is particularly relevant in technical disciplines like veterinary science, where students must interpret clinical data, evaluate medical cases, and apply theoretical knowledge to practical situations (Mayer, 2022). Research suggests that game-based learning environments are most effective when combined with other instructional methods that promote critical thinking and problem-solving (Pujiati & Arjulayana, 2024)

To optimize the effectiveness of Quizizz in ESP instruction for veterinary students, educators should adopt additional instructional strategies to address the challenges identified in this study. The following measures can help improve students' critical reading skills while maintaining the engagement benefits of gamification:

Integrating Discussion-Based Activities: While Quizizz encourages active participation, it does not fully support higher-order reading skills. Incorporating discussion-based tasks—such as debates, case studies, or peer reviews—can help students analyze and interpret veterinary texts in greater depth. Studies on blended learning approaches suggest that combining digital quizzes with collaborative discussions leads to better comprehension and critical thinking outcomes (Wibowo & Munir, 2024 ; Ulfaika et al., 2025)

Providing Detailed Explanations and Instructor Feedback: One limitation of Quizizz is the lack of personalized feedback. While automated feedback is useful for quick corrections, students benefit more from instructor-led feedback sessions, where they can ask questions, clarify misunderstandings, and receive detailed explanations (Wood, 2021). Adding supplementary instructor feedback can improve students' ability to engage critically with complex texts.

Balancing Competition with Collaborative Learning: Although many students found competition motivating, others experienced stress and distraction. To address this, educators can adjust Quizizz settings to include more team-based activities that emphasize collaboration over competition. Group-based quizzes and peer discussions encourage shared learning experiences, reducing pressure while maintaining engagement (Donohue, 2014)

Enhancing Question Design for Higher-Order Thinking: Quizizz questions often focus on recall and recognition rather than analysis and synthesis. To enhance critical reading development, educators can design more complex, case-based questions that require students to interpret veterinary scenarios, evaluate data, and justify their reasoning. Research suggests that scaffolded question design, where students progress from basic recall to analytical reasoning, can improve comprehension and problem-solving skills (Sari & Prasetyo, 2021)

4. Conclusion

The findings of this study highlight that Quizizz is an effective tool for enhancing engagement and motivation in veterinary students' reading activities. The incorporation of game elements such as leaderboards, instant feedback, and competition makes reading more interactive and enjoyable. Many students reported that Quizizz helped them stay focused and encouraged them to engage with complex veterinary texts, making learning less tedious. Additionally, the immediate feedback feature improved their comprehension by allowing them to quickly identify mistakes and correct misunderstandings.

However, the study also reveals several challenges in using Quizizz for critical reading. While the platform is useful for building vocabulary and improving surface-level comprehension, it is less effective in developing higher-order analytical skills. Some students felt that the questions lacked depth, focusing more on recall rather than critical thinking. Others mentioned technical difficulties, the need for more detailed feedback, and stress from competitive elements. These limitations suggest that Quizizz should be supplemented with additional instructional strategies to maximize its benefits.

To optimize the use of Quizizz in veterinary ESP instruction, educators should integrate discussion-based activities, provide instructor-led feedback, balance competition with collaboration, and design more analytical questions. By combining Quizizz with interactive discussions, case-based questions, and structured feedback, students can enhance both their engagement and critical reading skills. Future research should explore long-term impacts of gamification on veterinary students' reading proficiency and examine how other digital tools can complement Quizizz to address its limitations.

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