Semelai Aboriginal Pupils' Perceptions and Attitudes Towards the Use of Quizizz for Vocabulary Learning

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ABSTRACT

The integration of digital technology in educational settings has revolutionized teaching and learning processes, particularly in language acquisition. This study investigates the effectiveness of Quizizz, a game-based learning platform, in enhancing vocabulary learning outcomes among Semelai Aboriginal pupils in Years 4 to 6. The Semelai community, representing one of Malaysia's indigenous groups, faces persistent challenges in language proficiency due to limited exposure and culturally relevant resources. This study focuses on exploring Semelai pupils' current perceptions, attitudes and motivations related to Quizizz and vocabulary. The findings aim to provide empirical evidence to support the adoption of innovative educational technologies within indigenous education contexts and promoting inclusivity. This study also discusses implications for educators and policymakers in designing culturally responsive and technology-integrated teaching and language learning tools.

Keywords: Quizizz, Vocabulary Learning, Indigenous Education, Semelai Pupils, Game-Based Learning, Language Acquisition, Motivation, Engagement

INTRODUCTION

Vocabulary plays a vital role in language development, especially in the early stages of education. Without a strong foundation in vocabulary, pupils often struggle to understand lessons, express themselves, and engage meaningfully in classroom interactions. For pupils from indigenous communities such as the Semelai in Malaysia, learning English vocabulary presents additional challenges due to limited exposure and resources, as English is often acquired as a third or foreign language (Azlan et al., 2020). Despite efforts to improve educational access and inclusivity, many Semelai pupils continue to lag behind their peers, particularly in English language proficiency. In the Malaysian ESL context, limited and often incidental approaches to vocabulary teaching in primary classrooms have been found insufficient, which contributes to pupils' difficulties in understanding lessons and expressing themselves in English. Studies on indigenous learners in Malaysia report that many Orang Asli pupils show extremely poor vocabulary mastery in English and struggle to understand exam questions and task requirements, which reduces their meaningful participation in classroom interactions (Seyapalan et al., 2023).

In recent years, digital learning tools have gained popularity for their ability to make learning more engaging, interactive, and accessible. One such tool is Quizizz, a gamified platform that transforms traditional lessons into fun, competitive quizzes (N.S Nazar, 2025). With features such as instant feedback, scoreboards, and personalized pacing, Quizizz has been used effectively in various educational settings, including English vocabulary instruction. However, there is limited research that focuses specifically on how this platform impacts vocabulary learning outcomes among pupils from indigenous communities in Malaysia.

This study was inspired by the need to bridge that gap. It focuses on Semelai pupils in Years 4, 5, and 6, who are often overlooked in mainstream educational research. By integrating a digital, game-based approach through Quizizz, this research aims to explore how such a method can support vocabulary development in a way that is not only effective but also enjoyable and culturally responsive. Previous research profoundly focuses on aboriginal tribe of Malaysia that concentrates only on the linguistic description of Malay language rather than English proficiency, vocabulary learning and digital tools (Karim Harun, 2023). There is also a very small

number of published studies was found that examine spesifically on how Semelai pupils perceive or feel about using Quizizz for English vocabulary learning (Hema Letchamanan, 2021).

This study investigates Semelai aboriginal pupils' perceptions and attitudes towards the use of Quizizz for vocabulary learning sought to answer the following research questions:

1. What are Semelai pupils' perceptions of using Quizizz for English vocabulary learning?

2. What is the level of pupils' engagement and motivation when using Quizizz for vocabulary learning?

LITERATURE REVIEW

This chapter synthesizes existing literature on vocabulary acquisition, the integration of digital learning tools like Quizizz in language education, and pedagogical approaches tailored to indigenous learners. Emphasis is placed on studies conducted from 2020 onwards to reflect current trends and developments. In EFL education, gamification-defined as the application of game mechanics to non-game contexts-has become a widely recognized pedagogical application. This approach is particularly effective in facilitating vocabulary acquisition, a core component acknowledged as critically important for developing overall language proficiency (Fithriani, 2021). The integration of gamified digital tools in English as a Second Language (ESL) classrooms has gained considerable attention among Malaysian educators, particularly for enhancing vocabulary acquisition among diverse learner populations. While extensive research has examined Quizizz implementation in mainstream educational settings, studies specifically addressing indigenous and aboriginal learners, such as Semelai pupils, remain limited. This literature review synthesizes past studies from 2020 to 2025, focusing on pupils' perceptions, engagement, and motivation in using Quizizz for vocabulary improvement, with particular emphasis on local Malaysian contexts.

Many recent studies have shown that gamified learning tools like Quizizz can be effective in helping students improve their vocabulary, especially in ESL classrooms. While there isn't much research that directly looks at the use of Quizizz among indigenous learners like the Semelai pupils, several past studies provide useful insights that are relevant to this project. Empirical studies affirm Quizizz's effectiveness in enhancing vocabulary acquisition (Yusof and Rahman, 2022) demonstrated that pupils using Quizizz scored significantly higher in vocabulary tests compared to those taught by traditional methods (Abdullah et al., 2023) reported increased learner motivation and positive perceptions of vocabulary learning experiences facilitated by Quizizz, which led to improved vocabulary retention. These findings suggest that Quizizz's design can positively influence language learning outcomes.

In the Malaysian context, a study by Nordin (2023) explored how Quizizz helped rural secondary school students enhance their vocabulary. The results showed significant improvements, and many students gave positive feedback about how fun and engaging the learning experience was. This study is particularly relevant as it focuses on rural learners, which aligns closely with the target group in this research (Katemba & Sinuhaji, 2021) tested a teaching method called ESA (Engage, Study, Activate) alongside Quizizz among junior high students. Their results showed that students in the Quizizz group performed better in vocabulary tests and were more active and enthusiastic during lessons.

Research consistently demonstrates overwhelmingly positive perceptions of Quizizz among Malaysian pupils across various educational contexts (Nordin and Swanto, 2023) conducted a pivotal study involving 33 mixed-ability Form 3 students from SMK Desa Kencana, a rural school in Lahad Datu, Sabah. Their findings revealed that pupils held significantly positive perceptions towards Quizizz implementation in English lessons, with mean scores ranging from 4.12 to 4.58 on a 5-point Likert scale. The highest mean score (4.58) was recorded for the statement "Quizizz helps me to collaborate with others (my classmates and family members)," indicating strong appreciation for the platform's collaborative features

For example, of global context, Fardhansyah (2023) carried out a pre-experimental study in an Indonesian primary school and found that students' vocabulary scores improved significantly after using Quizizz, with average scores increasing from 69 to 89.8. In a similar setting, Na'imah (2022) reported that students not only

improved their vocabulary knowledge but were also more motivated to learn when Quizizz was used in the classroom. Zuhriyah and Pratolo (2020) explored students' views through semi-structured interviews at a private university in Yogyakarta, Indonesia, identifying four key positive perceptions: (1) Quizizz as an interesting tool, (2) encouraging students' confidence, (3) increasing motivation, and (4) improving reading ability. Participants particularly valued the anonymous avatar feature that reduced anxiety and the instant feedback mechanism that allowed self-correction. One participant noted, "Through Quizizz, students become more confident about the results displayed," while another stated, "Quizizz also improves students' self-confidence. If shy students got a good score, then they will be encouraged to participate in the learning process"

METHODOLOGY

Design

This study employs a descriptive survey design employing a quantitative approach. To systematically gather and describe the attitudes, perceptions, and levels of engagement and motivation of the target design by using a survey design as the most appropriate methodology to conduct this research. The data will be gathered at point of time using a structured questionnaire, checked and approved by a verified academic lecturer of Faculty of Education (FPEND) from Universiti Kebangsaan Malaysia (UKM). The collected numerical data in the form of likert scale responses will be analysed using descriptive statistics by looking at the mean and standard deviation to answer the revised research questions.

Respondents

The study population comprises Semelai pupils from Years 4, 5, and 6 in selected primary schools in Pahang. This group is specifically chosen due to the specific focus of the study on indigenous learners and the need to understand their unique interaction with modern digital learning tools. The respondents will only come from Semelai Aboriginal pupils, the responses   consist of 30 Semelai pupils drawn from a rural school majority enrolled by the Semelai tribe in Bera, Pahang.

Instrument

Quantitative data is derived from the previous questionnaire instrument by taking into account the procedure of instructional instruments proposed by recent studies on instrument development and validation (Kumar & Tan, 2022). In designing the items, particular attention was given to establishing clear construct definitions and aligning each item with the underlying dimensions of pupils' perceptions, engagement, and motivation towards the use of Quizizz for vocabulary learning, as recommended in contemporary educational measurement literature. Furthermore, the instrument was refined through expert review and pilot testing to ensure content validity, clarity, and reliability, reflecting best practices highlighted in recent works on questionnaire development in technology-enhanced language learning contexts.

Reliability understood as the degree to which a measurement tool can be trusted to produce consistent and stable results over time and across different situations (Zainal & Harun, 2021). It shows how far an instrument measures things that are in a dependable manner without being influenced by unnecessary errors or external factors (Zainal & Harun, 2021). One of the most well-known statistical methods used to evaluate reliability is Cronbach's alpha, which assesses the internal consistency of items within a scale. It analyses how closely related the items are as a group by indicating whether they are measuring the same underlying construct in a coherent way. The table below shows how the value of Cronbach's alpha interprets the validity of the items used in the study.

Table 1 Cronbach's alpha validity interpreation

Cronbach's alpha	Internal consistency
a > 0.9	Excellent
0.9 > a > 0.8	Good
0.8 > a > 0.7	Acceptable
0.7 > a > 0.6	Questionable

0.6 > a > 0.5	Poor
0.5 > a	Unacceptable

The instrument was constructed into three construct which is pupils' perceptions of Quizizz utility and features, pupils' engagement level and pupils' motivation level in using Quizizz for vocabulary learning. To ensure the validity and reliability of the test, a pilot study has been conducted consisting of 15% of the population of the study, of which 5 pupils will be chosen to answer the questionnaire. The suggested number of respondents were taken as suggested by Krecjie and Morgan (1970) to determine whether the questionnaires provided are valid or not for a study. After using IBM SPSS 27.0, the Cronbach's alpha value is 0.87 which indicate good internal consistency. The questionnaire is adapted from three different past research in order to maintain excellent internal consistency of all the items. to come up with this instrument with the reported Cronbach's alpha value as stated below in the table.

Table 2

Year	Research topic	construct	Cronbachs' alpha report value
2022	Application of Quizizz in Academic Vocabulary Section: Impacts and Perceptions. https://doi.org/10.54855/acoj221319.	Perceptions	0.91
2023	Gamification in Learning: Students' Motivation and Cognitive Engagement in Learning Business Using Quizizz https://doi.org/10.24191/ajue.v19i4.24928	Engagement	0.92
2025	Using Quizizz to Increase English Learners' Motivation in the Virtual Classroom DOI: https://doi.org/10.23857/pc.v10i5.9558	Motivation	0.89

Data Collection Procedures

The data collection method will involve a few steps that starts with requesting permission from the Education Research Application System (eRAS), a platform provided by the Malaysia Ministry of Education (MOE). This platform ensures that researchers conduct the study with ethics when it involves the main clients of MOE which is the pupils. Next, the verified questionnaire or the research instrument was uploaded to the eRAS 2.0 system to be processed under the supervision of Educational Policy Planning and Research Division (EPRD). The data was collected by sessions which only involves 5 pupils per session where each pupil were given 10 minutes to answer the survey via google forms that was made by the researcher. Pupils were briefed clearly on how to answer the survey and understand the likert scale for each construct.

RESULTS

This chapter will specifically enumerate the data that was obtained from the questionnaire. A total of 30 responses from 30 pupils of level 2 from a rural school with majority of Semelai tribe in Bera Pahang successfully collected. The rate of the survey reached 100% response from all the respondents. To facilitate the discussion this chapter will be done in two sections which the first one will be projected to analyse the respondents' profile and the second part will be done to analyse the mean and standard deviation results from the SPSS software.

A total of 30 responses were received during the period of data collection. Each respondent answered all of the instruments given. The characteristics of their demography includes standards of class level, gender, language used at home and the frequency of Quizizz use in learning sessions.

The findings show that the respondents of the survey consisted of standard 4 (46.7%), standard 5 (30%) and standard 6 (23.3%). Table 4.2.1 shows the percentage distribution of the respondents based on their class unit.

Table 3

CLASS STANDARD	FREQUENCY	PERCENT (%)
YEAR 4	14	46.7%
YEAR 5	9	30%
YEAR 6	7	23.3%
Total	30	100%

From the total of 30 responses received, the number of female respondents were slightly higher compared to male. This case happened due to the small number of male pupils enrolled in the chosen school. The normal enrolment of the pupils consistently shows that there are always more females compared to male among the Semelai tribe. There were 16 (53.3%) female and 14 (46.7%) male respondents.

Table 4

GENDER	FREQUENCY	PERCENTAGE (%)
Male	14	46.7%
Female	16	53.3%
Total	30	100%

In this part of the study, the data will be interpreted using a mean interpretation table. Mean scores can be divided into three levels which are low (1.00-2.33), moderate (2.34-3.66) and high (3.67-5.00) explaining that a high mean score indicates high level of construct measured (Zulkifli et al., 2024).

Table 5

Mean Score	Mean Score Interpretation
1.00 - 2.33	Low
2.34 - 3.66	Moderate
3.67 - 5.00	High

Source: Zulkifli (2024)

From the results of the data analysis overall it portrays high mean (M) for all of the 3 constructs. Which is the first one analysing the pupil perceptions of Quizizz utility and features with an overall mean (M) of 4.34 with the standard deviation 0.708. This indicates that learners perceive Quizizz positively which is convenient, efficient and helps them to retain vocabulary better, in multiple studies it shows that the reported increase of confidence and active participation (S.S Nordin & Suyanshah Swamto, 2024). Other than that, it is identified that Quizizz can be successfully applicable to facilitate vocabulary learning for its accessibility and flexibility for both in-class and homework use (Hussain et al., 2023)

Next, for the second construct, it focuses on the pupil engagement level when using Quizizz during the lesson. This construct is divided into 3 sub-construct which are A. behavioural engagement, B. emotional engagement and C. cognitive engagement. The overall mean (M) reported from the 9 items of these constructs is 4.37 with a very low standard deviation (SD) which is 0.706. For behavioural engagement it indicates the active participation and engagement during Quizizz sessions, completing tasks until the end and showing no resistance to the use of this tool while sustaining attention throughout the activity (Afriyanti et al., 2025). Then, in terms of emotional engagement it also indicates that learners are enjoying Quizizz as part of the learning (Afriyanti et al., 2025) observed strong emotional engagement results with students portraying high enthusiasm and positive responses during Quizizz activities. Learners smiled, laughed or giggled when answering questions correctly and showed disappointment when answering incorrectly, this demonstrates emotional investment during the learning session. As for cognitive engagement (Le and Tran, 2024) reported that cognitive engagement includes learners' careful

thinking and eagerness to make the necessary efforts to receive insights into the targeted knowledge and improve their skills. As for the repetitive exercises and games played on Quizizz significantly improve their ability to learn new vocabularies.

Moving on to the next construct which is pupils' motivation level in vocabulary learning by using Quizizz. This part contains 2 sub-construct which are intrinsic motivation and extrinsic motivation. For both of the sub-construct, the reported overall mean (M) is 4.48 and the standard deviation (SD) 0.609 (Wahyulestari, 2024) found that gamification elements in Quizizz have a significant influence on learners' motivation, especially intrinsic motivation. A correlation analysis showed a positive relationship between the gamification features in Quizizz which is the leaderboards and point awarding an increase in learners' intrinsic motivation (r=0.67, p < 0.01) (Le & Vo, 2025) also found that Quizizz promoted a positive emotional state, motivation, confidence and relaxation in learning vocabulary among rural learners. They feel motivated and show genuine interest in using Quizizz rather than external pressure. It gives them the opportunity to explore different learning methods as they came from very traditional settings as a Semelai tribe. To conclude, Quizizz helps the indigenous learners to improve their vocabulary through increased intrinsic motivation to learn and self-efficacy among rural learners. Next, for the extrinsic motivation to learn vocabulary by using Quizizz (Mofokeng & Fatoki, 2024) addresses the issues of motivation and retention particularly in rural settings where learners face additional challenges such as limited access to educational resources and potential lack of motivation. The gamification and leaderboards features boost their motivation to challenge themselves to do better in every task provided in Quizizz. This also improves their digital literacy with the integration of technology. Learning new vocabulary also becomes better as the features of Quizizz offer learners to repeat the wrong answers given with the redemption features, learners will learn from their mistakes and remember the meaning or function of the newly taught vocabulary.

Pupils' Perceptions

This section explains the findings that answers the research questions ''What are Semelai pupils' perceptions regarding the use of Quizizz for vocabulary learning?''. Table 4.3.1 presents the findings of pupils' perceptions utilizing Quizizz in learning sessions.

Table 6 Pupils' pereceptions

Items	Mean	SD
1. Quizizz helps me learn and remember new English words easily.	4.33	0.844
2. I enjoy game-like features (e.g., points, music) of Quizizz.	4.37	0.676
3. I find the images, audio, or videos on Quizizz questions helpful for understanding.	4.40	0.621
4. The immediate feedback (knowing if the answer is right or wrong quickly) helps me learn from mistakes.	4.47	0.507
5. It is easy for me to use the Quizizz platform on a phone or a tablet.	4.10	0.673
6. Quizizz is a better way to learn vocabulary than traditional paper exercise.	4.36	0.927

For the first item which is ''Quizizz helps me learn and remember new English words easily.'' (M=4.33, SD=0.844). Next, the second item which is ''I enjoy game-like features (e.g., points, music) of Quizizz.' (M=4.37, SD=0.676). Moving on to the third item which is ''I find the images, audio, or videos on Quizizz questions helpful for understanding.'' (M=4.40, SD=0.621). Next, the fourth item which is ''The immediate feedback (knowing if the answer is right or wrong quickly) helps me learn from mistakes.'' (M=4.47, SD=0.507). The fifth item is ''It is easy for me to use the Quizizz platform on a phone or a tablet.'' (M=4.10, SD=0.673). The last item is ''Quizizz is a better way to learn vocabulary than traditional paper exercise.'' (MD=4.36, SD=0.927).

Pupils' Engagement Level

This section explains the findings that answers the research questions ''What is the level of pupil engagement and motivation when using Quizizz for vocabulary?''. Table 4.3.2 presents the findings of pupils' engagement level utilising Quizizz in learning sessions. Items 7 until 9 show a pupil's intrinsic motivation and enjoyment.

Table 7 Pupils' Behavioural Engagement

Items	Mean	SD
7. I use Quizizz because learning new words is interesting to me.	4.37	0.809
8. I like using Quizizz because it is fun and I enjoy the challenge.	4.37	0.615
9. I feel successful when I do well on Quizizz, even if no one else sees my score.	4.56	0.679

The seventh item for this section is ''I use Quizizz because learning new words is interesting to me.'' (M=4.37, SD=0.809). Next, ''I like using Quizizz because it is fun and I enjoy the challenge.'' (M=4.37, SD=0.615). Lastly, ''I feel successful when I do well on Quizizz, even if no one else sees my score.'' (M=4.56, SD=0.679).

Table 8 Pupils' Emotional engagement

Items	Mean	SD
10. I feel happy and excited when I use Quizizz in English class.	4.53	0.682
11. I feel comfortable and relaxed when answering questions on Quizizz.	4.26	0.691
12. I get upset or bored when the teacher does not use Quizizz.	4.17	0.700

The tenth item is ''I feel happy and excited when I use Quizizz in English class.'' (M=4.53, SD=0.682). The eleventh item is ''I feel comfortable and relaxed when answering questions on Quizizz.'' (M=4.26, SD=0.691). The last one is ''I get upset or bored when the teacher does not use Quizizz.'' (M=4.17, SD=0.700).

Table 9 Pupils' Cognitive engagement

Items	Mean	SD
13. I think deeply about the meaning of the words when I answer Quizizz questions.	4.50	0.509
14. I try to guess the answer even if I am not sure about the word.	4.30	0.794
15. After using Quizizz, I try to use the new words I learned in sentences.	4.24	0.872

The thirteenth item which is ''I think deeply about the meaning of the words when I answer Quizizz questions.'' (M=4.50, SD=0.509). Next, the fourteenth item is ''I try to guess the answer even if I am not sure about the word.'' (M=4.30, SD=0.794). The last item for this construct is item 15 which is ''After using Quizizz, I try to use the new words I learned in sentences.'' (M=4.24, SD=0.872).

Table 10 Pupils' Intrinsic Motivation

Items	Mean	SD
16. I use Quizizz because learning new words is interesting to me.	4.47	0.507
17. I like using Quizizz because it is fun and I enjoy the challenge.	4.43	0.679
18. I feel successful when I do well on Quizizz, even if no one else sees my score.	4.40	0.499

For intrinsic motivation construct, the first item which is item sixteen ''I use Quizizz because learning new words is interesting to me.'' (M=4.47, SD=0.507). Next, item 17 ''I like using Quizizz because it is fun and I enjoy the challenge.'' (M=4.43, SD=0.679). The last item is ''I feel successful when I do well on Quizizz, even if no one else sees my score.'' (M=4.40, SD=0.499).

Table 11 Pupils' extrinsic motivation

Items	Mean	SD
19. I try hard on Quizizz to get a high rank on the leaderboard.	4.67	0.660
20. I try hard so that the teacher will praise me or give me a small reward.	4.43	0.679
21. I feel competitive and want to score higher than my friends when using Quizizz	4.47	0.628

For extrinsic motivation, the first item is item nineteenth ''I try hard on Quizizz to get a high rank on the leaderboard.'' (M=4.67, SD=0.660). Next, the twentieth item is ''I try hard so that the teacher will praise me or give me a small reward.'' (M=4.43, SD=0.679). Lastly, the last item for this construct is ''I feel competitive and want to score higher than my friends when using Quizizz'' (M=4.47, SD=0.628).

DISCUSSION

This section presents the key themes that identified based on the survey that was carried out to answer both research question. The study addresses the following research questions:

i. What are Semelai pupils' perceptions of using Quizizz for English vocabulary learning?

ii. What is the level of pupils' engagement and motivation when using Quizizz for vocabulary learning?

Pupils' perceptions of Quizizz Utility and Features

The ability to fully utilise Quizizz as a tool for learning is not that easy considering the factor that some learners may face issues like no devices to access it at home and unstable connections impacting their ability to access it at home. As now, all school under the Ministry of Education (MOE) are equipped with laptops provided by private company through rental agreement make it accessible for pupils to get their hands on digital learning tools especially Quizizz to explore its utility and features. The other factor influencing the users' positive perceptions is ease of use and engaging interface (Hanita H. Ismail, 2025). The study supports existing literature by demonstrating that gamification tools like Quizizz can effectively enhance and improve vocabulary learning through interactive and engaging features. As we know that Quizizz are equipped with features like leaderboards, scores, sounds, image, effects and also meme to entertain learners while answering exercise or quizzes. In Quizizz, the leaderboard feature displays students' ranks according to their performance in each session (Zainuddin, 2023) found that this feature significantly shapes students' engagement and strengthens their sense of competition. The respondents reported that seeing their scores visually on the leaderboard motivates them to improve their position and compete more actively, especially when answering Business-related items. This aligns with the idea that people are more driven to demonstrate their abilities in competitive settings. According to the students, the public display of scores serves as a trigger for self-improvement, pushing them to work harder, move up the rankings, and outperform their classmates.

Pupils' Engagement Level

Pupils' engagement with Quizizz in vocabulary learning can be viewed through three dimensions: behavioural, emotional and cognitive. The high mean scores in this study suggest that Semelai pupils were actively involved in the activities, enjoyed using Quizizz, and were mentally focused when learning new words. This pattern is consistent with previous work on gamified and Quizizz-based language learning in Malaysian and ESL contexts (Mohamad et al., 2023; Nordin & Swanto, 2023; Norehan et al., 2023; Halim et al., 2020).

From a behavioural perspective, engagement refers to what pupils actually do in class, such as answering questions, following instructions and staying on task. In this study, pupils' high scores on items related to

frequent participation and active responding indicate that they were highly behaviourally engaged during Quizizz vocabulary sessions. This finding is in line with (Nordin & Swanto, 2023), who reported that rural secondary pupils in Lahad Datu became more focused and more willing to participate in vocabulary tasks when Quizizz was used. Similarly, the VIBE–Quizizz study with Year 5 pupils in Sabah showed consistently high ratings for participation and involvement, suggesting that the quiz format encouraged pupils to keep up with questions and stay attentive throughout the lesson (Mohamad et al., 2023). Studies on Quizizz in grammar and reading lessons also observed that pupils were less passive and more willing to attempt questions than in traditional worksheet-based teaching (Halim & Rahman, 2021).

Emotional engagement concerns how pupils feel during learning, including enjoyment, interest, excitement or anxiety. In this study, strong agreement with statements such as "I enjoy using Quizizz" and "Quizizz makes vocabulary learning fun" shows that Semelai pupils experienced positive emotions while using the platform. This echoes the findings of Halim et al. (2020), who reported that primary pupils felt more motivated and had more positive perceptions of ESL lessons when online quiz games like Quizizz were used, often saying such lessons were more enjoyable than conventional approaches (Mohamad et al., 2023) likewise found that pupils described the VIBE–Quizizz vocabulary activities as fun and interesting, with high mean scores for enjoyment items (Norehan et al., 2023) also reported that gamification elements such as colourful interfaces, game mechanics and instant feedback increased students' enthusiasm and emotional involvement in language learning tasks. These positive feelings matter because enjoyment and interest help sustain attention and encourage pupils to participate in future vocabulary activities (Yu, 2023).

Cognitive engagement relates to the amount of mental effort, concentration and strategy use that pupils invest in learning. In this study, high mean scores for items about paying attention, thinking carefully before answering and trying to remember words for later suggest that Semelai pupils were cognitively engaged while using Quizizz (Nordin & Swanto, 2023) similarly found that rural Malaysian pupils believed Quizizz helped them to memorise vocabulary faster and retain it for longer, pointing to deeper processing rather than superficial guessing. The VIBE–Quizizz study reported that pupils felt the quizzes helped them focus on word meanings and use vocabulary in context, and the authors concluded that combining structured vocabulary tasks with a gamified platform supports meaningful vocabulary learning (Mohamad et al., 2023). Other gamification studies also show that features such as immediate feedback and time limits prompt learners to check their answers, reflect on mistakes and adjust their strategies, thus strengthening cognitive engagement (Norehan & Yu, 2023).

Overall, the high levels of behavioural, emotional and cognitive engagement shown by Semelai pupils in this study are consistent with earlier research demonstrating that Quizizz, when integrated into vocabulary instruction, not only boosts participation and enjoyment but also encourages focused thinking and effortful processing of new vocabulary (Halim et al., 2020).

Pupils' Motivation Level

Pupils' high motivation scores in this study can be understood by looking at both intrinsic (interest, enjoyment, personal satisfaction) and extrinsic (scores, rankings, teacher recognition) aspects of motivation when using Quizizz for vocabulary learning. Overall, the Semelai pupils' responses mirror earlier findings that gamified tools like Quizizz can enhance both types of motivation in language classrooms (Norehan et al., 2023).

Intrinsic motivation

Intrinsic motivation refers to pupils' internal desire to learn. For example, enjoying vocabulary activities, feeling curious about new words, or feeling satisfied when they answer correctly. In this study, high mean scores on items such as "I enjoy learning vocabulary using Quizizz" and "I am interested in using Quizizz again" indicate that Semelai pupils were genuinely interested in the activity itself, not just the marks.

These findings are consistent with Halim et al. (2020), who reported that primary school pupils showed higher motivation and interest in ESL lessons when online quiz games like Quizizz were used, with a large majority agreeing that such tools made English lessons more interesting. Similarly, Norehan et al. (2023) found that Quizizz's gamified environment its colourful interface, interactive questions and instant feedback enhanced

students' enjoyment and cognitive engagement, suggesting that many learners are driven by the pleasure and challenge of the activity itself rather than purely by external rewards. Recent work on gamification and motivation also shows that Quizizz features can support intrinsic motivation over time; students reported sustained enthusiasm and willingness to continue using the platform even when external pressure (e.g. tests) was low (Sánchez-Camarillas, 2022; Transformation of Student Motivation Through the Use of Quizizz, 2024).

Extrinsic motivation

Extrinsic motivation, on the other hand, is linked to external incentives such as getting high scores, appearing on the leaderboard, receiving praise, or outperforming classmates. In this study, high means for items like "I want to get a high score in Quizizz," "I try to be at the top of the leaderboard," or "I am motivated when the teacher uses Quizizz in class" show that Semelai pupils were also strongly motivated by these external factors.

This is in line with findings by Hui (2021), who showed that Year 5 pupils in Kelantan were more motivated to learn grammar when lessons incorporated Quizizz; pupils reported that the fun and competitive atmosphere encouraged them to participate and strive for better performance. A motivation study based on Pintrich's framework likewise reported that students' extrinsic goal orientation scores were slightly higher than their intrinsic goal orientation when using Quizizz, indicating that grades, rewards and public recognition through points and rankings are important drivers of effort (Khoirunnisa & Rini, 2021; Students' Motivation in Using Quizizz for Assessment). From the teachers' perspective, a Malaysian ESL gamification study also noted that Quizizz's real-time feedback, scoring system and leaderboards kept students interested and motivated to improve their results and vocabulary mastery (Nazar et al., 2025).

Overall, the strong intrinsic and extrinsic motivation levels shown by Semelai pupils in this study are consistent with previous research indicating that Quizizz not only makes vocabulary learning more enjoyable and personally rewarding but also provides powerful external incentives that push pupils to try harder, achieve higher scores and participate more actively in class (Halim et al., 2020; Hui, 2021; Norehan et al., 2023; Sánchez-Camarillas, 2022).

CONCLUSION

The study set out to explore how Semelai Aboriginal pupils perceive and respond to the use of Quizizz for English vocabulary learning and to determine their levels of engagement and motivation when using this gamified platform. Overall, the findings show that Quizizz is not only accepted but highly valued by Semelai pupils as a useful, enjoyable and motivating tool for learning vocabulary in English.

Quantitative results indicate generally high mean scores for pupils' perceptions of Quizizz's usefulness and features, their behavioural, emotional and cognitive engagement, and their intrinsic and extrinsic motivation levels when learning vocabulary through the platform. Pupils reported that Quizizz made vocabulary learning more interesting and fun, encouraged them to participate actively, helped them focus and think carefully about word meanings, and motivated them to achieve higher scores and improve their performance. These patterns mirror previous research on Malaysian and ESL learners, which has shown that Quizizz can increase participation, enjoyment and sustained effort in vocabulary and language learning tasks.

Importantly, the study demonstrates that a culturally marginalised and often underserved group Semelai pupils in Years 4 to 6 can respond very positively to a digital, game-based approach when it is implemented in a supportive classroom context. This suggests that integrating Quizizz into indigenous education has the potential to narrow gaps in vocabulary proficiency by making learning more accessible, engaging and motivating for pupils who typically face barriers in English language learning. The findings also highlight the need for teachers and policymakers to design technology-integrated language programmes that are sensitive to the realities of indigenous learners, including infrastructure, digital literacy and cultural relevance.

In conclusion, this study provides empirical evidence that Quizizz is an effective and appealing tool for supporting vocabulary learning among Semelai Aboriginal pupils, fostering positive perceptions, high engagement and strong motivation in the ESL classroom. It contributes to the limited body of work on digital

game-based learning in indigenous contexts in Malaysia and underscores the value of extending similar technology-enhanced, culturally responsive interventions to other Orang Asli communities.

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