

Research Article

Utilising the VIBE Module on Quizizz to Enhance Vocabulary Learning among Year 5 Pupils

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Abstract: The influence of technological progress on the education system is substantial, especially in highlighting the need for innovative applications in teaching and learning. However, previous studies found that Malaysian primary school pupils across the country needed refinement in the mastery of English vocabulary. Therefore, this study aims to develop a module that consists of 6 sets of questions which are then presented interactively via the use of Quizizz and to investigate its effect on pupils' vocabulary learning. The effectiveness of using the developed module via Quizizz is evaluated from the design point of view and to pupils' experience and cognitive style in the context of year 5 (11 years) primary school in Sabah. This innovation uses Quizizz, an interactive online learning platform as a medium to implement the developed module. This study uses the ADDIE model, which is divided into five phases; Phase 1 (analysis), Phase 2 (design), Phase 3 (development), Phase 4 (implementation), and Phase 5 (evaluation). Additionally, each set adheres to five steps in vocabulary learning; Step 1 (translating into first language), Step 2 (using pictorial stimuli), Step 3 (vocalisation), Step 4 (answering quiz), and Step 5 (cloze test). Experts were consulted to verify the application and design of this innovation. Results revealed that the questions in the Quizizz can be used to enhance pupils' vocabulary learning. This application enables the creation of interactive, engaging, and entertaining learning experiences. This study also acknowledges the limitations and future recommendations of this study.

Keywords: Quizizz, Vocabulary learning, Interactive learning

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1. INTRODUCTION

The advent of technology in education has changed the teaching and learning processes (Haleem, Javaid, Qadri, & Suman, 2022). In the last few years, the use of more interactive resources and platforms has been an essential endeavour for educational progress. These advancements, in particular, are relevant in helping Malaysian primary school pupils in acquiring English vocabulary. This means that vocabulary is the basic requirement in language learning, and adequate vocabulary affects the learner's ability to express thoughts or ideas and the reader's ability to understand and process information in texts (Soeharto, 2022). However, the literature has always pointed out deficiencies of vocabulary acquisition among Malaysian primary school pupils, which calls for effective strategies to close the gap.

Gaining new vocabulary can be made easier through interactive web-based platforms such as Quizizz. Wang (2021) says that learning through gamification increases their participation. With such

tools, teachers are able to incorporate creative and effective approaches to teaching that meet the needs of learners with different learning and cognitive styles. The study intends the development of a specialized vocabulary improvement module geared towards Year 5 pupils of Sabah as they deem it fit given the context of their study. The development of this module is intended to meet the needs of learners through well organized and interactive activities using Quizizz.

In order to produce a quality text in the correct order the study uses the ADDIE model for instructional design. The ADDIE model, which consists of five stages – analysis, design, development, implementation and evaluation is known to serve as an effective model in developing educational programs (Spatioti, Kazanidis, & Pange, 2022). Each phase of the model is implemented in a systematic manner to achieve the study aims which were designed career goals to evaluate the design of the constructed module and its influence on pupils' experiences in vocabulary classroom activities.

In order to aid the learners in strengthening their informally acquired vocabulary and words, the module adds a five step process of learning new words which includes: translation into first language, pictorial stimuli, vocalization, answering a quiz and a cloze test. These activities are intended to target the pupils' both mental and emotional processes, comprehension and application of newly learnt vocabulary. The content and design of the module are verified by experts ensuring that the contents are appropriate and effective in achieving the expected learning outcomes.

This paper particularly seeks to establish the effects that the developed module has on the pupils' vocabulary acquisition at year five in Sabah while considering how effective its design is and the degree of experiential learning that was achieved using Quizizz. This study intends to fill the identified gaps in vocabulary mastery and advances the increasing research on the use of innovative educational practices and provide practical recommendations for teachers who want to use technology in their teaching approaches. The research objectives of this study were twofold; (1) To evaluate the effectiveness of the VIBE module in improving vocabulary acquisition among Year 5 pupils, and (2) To explore the experiences, engagement, and motivation of Year 5 pupils while using the VIBE module and Quizizz for vocabulary learning. Subsequently, from the research objectives, two research questions were developed; (1) How does the developed VIBE module, implemented through Quizizz, affect Year 5 pupils' vocabulary acquisition?, and (2) What are the experiences and perceptions of Year 5.

2. METHOD & MATERIAL

2.1 Research Design

This study employed a quantitative approach to evaluate the effectiveness of the developed vocabulary module. The research design utilized quantitative data collection methods to provide an understanding of the module's impact through the use of Quizizz. The ADDIE model—consisting of five phases: analysis, design, development, implementation, and evaluation—was used as the guiding framework for module creation and research execution.

2.2 Participants

The study targeted Year 5 pupils from a primary school in Ranau, Sabah, Malaysia. A total of 25 pupils, aged 11 years, participated in the study. The participants were selected through purposive sampling whereby participants with weak vocabulary mastery identified through their test "*ujian pertengahan sesi akademik*" and teacher's observation during lessons.

2.3 VIBE module

The primary material developed for this study was the Vocabulary Improvement and Building Exercises (VIBE) module, which consists of six sets of interactive vocabulary activities. Each set followed a structured five-step approach to vocabulary learning:

1. **Translation into the first language:** Introducing new words by providing their meanings in the pupils' first language.

2. **Pictorial stimuli:** Using images to visually represent the vocabulary.
3. **Vocalization:** Encouraging pupils to pronounce the words aloud.
4. **Interactive quizzes:** Engaging pupils with gamified quizzes on Quizizz.
5. **Cloze tests:** Assessing understanding through fill-in-the-blank exercises.

The Quizizz platform was utilized to host the interactive activities, providing a gamified learning experience with real-time feedback and leaderboards. Additional materials included worksheets for cloze tests and teacher-guided instructions for in-class implementation.

2.4 Novelty

The *Dokumen Standard Kurikulum dan Pentaksiran* (DSKP) for Year 5 specifies the vocabulary competence of Year 5 students, which is addressed in the Vocabulary Improvement and Building Exercises (VIBE) module. The VIBE module adopts an enjoyable and methodical approach to vocabulary learning, drawing inspiration from the dynamic and captivating features of Duolingo. It uses Quizizz as a platform to build a gamified and captivating learning environment that inspires students and improves their language learning process.

The VIBE module incorporates Duolingo's interactive methodology into an organised vocabulary learning process that consists of five steps: cloze exams, interactive quizzes, vocalisation, visual stimuli, and translation. Visual, auditory, and kinaesthetic learners may all successfully interact with and remember new language thanks to these five processes, which accommodate a variety of learning methods.

This module's gamified application, Quizizz, provides interactive vocabulary exercises, competitive leaderboards, and real-time feedback to make learning new words fun. Additionally, this platform encourages motivation, enabling students to take an active role in their education. The VIBE module's contextualisation for Malaysian Year 5 students guarantees alignment with their language requirements, competency levels, and the DSKP's goals. Through the integration of Quizizz and Duolingo's captivating features, the VIBE module produces an entertaining and effective vocabulary-learning experience.

2.5 Practicality

Through the use of Quizizz, the VIBE module has a special gamified layer that makes learning vocabulary engaging and fun. Students stay actively involved in the learning process by utilising game-based components including timers, point systems, and competitive leaderboards. As kids complete vocabulary exercises, this method not only holds their interest but also fosters a feeling of accomplishment. Furthermore, a crucial part of the VIBE module is the incorporation of real-time feedback. Students can take prompt remedial action since they can quickly recognise their areas of strength and growth. This characteristic promotes ongoing development, self-evaluation, and increased self-assurance in their linguistic skills.

The VIBE module's accessibility is one of its best qualities. The module offers instructors and students alike unmatched ease and is made to work with both computers and smartphones. The VIBE module guarantees continuous access to vocabulary exercises whether in a conventional classroom environment or during remote learning sessions. Students may review assignments and tests at their own leisure because of its digital format, which also facilitates asynchronous learning. It is an inclusive tool appropriate for a variety of educational settings because of its adaptability to different learning demands and timetables.

The VIBE module stands out as a flexible teaching tool due to its versatility. The framework may be readily altered to accommodate various English vocabulary themes or even foreign languages, even if its current purpose is to improve vocabulary competency in English. Regardless of language ability or curricular requirements, this scalability enables teachers to modify the module's content to suit the unique needs of their students. Additionally, the modular architecture makes it easy to include

into multiple language learning frameworks, guaranteeing its applicability in a variety of linguistic and cultural situations.

Through its gamified framework, instant feedback, and captivating activities, Quizizz's integration improves the module's usefulness and aligns with the Year 5 DSKP objectives. In addition to being a useful teaching tool, the VIBE module is scalable and adaptable to larger educational settings, guaranteeing vocabulary instruction's long-term viability and influence. Through its gamified framework, instant feedback, and captivating activities, Quizizz's integration improves the module's usefulness and aligns with the Year 5 DSKP objectives. In addition to being a useful teaching tool, the VIBE module is scalable and adaptable to larger educational settings, guaranteeing vocabulary instruction's long-term viability and influence.

2.6 Procedure

The study was conducted in five phases following the ADDIE model:

1. **Analysis:** Vocabulary learning needs were identified by analysing pupils' mid-academic session test (*ujian pertengahan sesi akademik*) results and conducting interviews with English teachers. This phase included identifying common vocabulary difficulties, assessing the pupils' current proficiency levels, and understanding the gaps in their vocabulary acquisition.
2. **Design:** A detailed framework was designed, outlining clear learning objectives, instructional strategies, and assessment tools. Each activity within the module was tailored to address specific learning goals, ensuring alignment with the national curriculum and focusing on fostering vocabulary retention and comprehension.
3. **Development:** Module content was meticulously developed and integrated into the Quizizz platform. Each activity was designed to be interactive, visually engaging, and student-friendly. The module underwent a validation process by a School Improvement Specialist Coach (SISC+), who provided feedback to refine content quality, instructional design, and user experience.
4. **Implementation:** The module was implemented over six weeks, with one set of vocabulary activities introduced weekly during English lessons. Each session involved teacher-led guidance, followed by independent pupil participation on Quizizz. Pupils received real-time feedback, which helped them identify mistakes and reinforce learning.
5. **Evaluation:** The effectiveness of the module was assessed using a structured questionnaire focusing on pupil engagement, vocabulary improvement, and overall user experience. Data from this evaluation were analysed to determine the module's success in meeting its objectives.

2.7 Data Collection

Quantitative data were collected through a questionnaire from the participants to explore participants' acquisition in vocabulary. Data were gathered through a questionnaire completed by pupils, focusing on their experiences using the module and Quizizz. The questionnaire was divided into 4 sections (Section A; Section B; Section C; and Section D). Section A collected participants' demographic information; Section B collected the effectiveness of the VIBE module; Section C collected the participants' experience with Quizizz; and Section D collected overall experience and perception of the VIBE module and Quizizz. The closed-ended questionnaire in section B, C, and D requires participants to express their agreement or disagreement via Likert's Scale (1 represents "Strongly Disagree"; 2 represents "Disagree", 3 represents "Neutral", 4 represents "Agree", and 5 represents "Strongly Agree")

2.8 Data Analysis

To gain insight into how the intervention affected students' vocabulary acquisition and general participation in class activities, descriptive analysis was used to identify the meaning of its mean, median, and mode. These results were then compiled to understand students' engagement, motivation, and learning experiences.

3. FINDINGS

The efficiency of the VIBE module and its implementation using Quizizz in enhancing Year 5 students' vocabulary learning was determined by analysing the questionnaire responses from the participants.

3.1 Effectiveness of the VIBE Module

According to the questionnaire's Section B results, most participants thought the VIBE module helped them become more proficient in vocabulary. With a mean score of 4.5, the majority of responses to the statement "The vocabulary introduced in the VIBE module was easy to understand" were positive, suggesting that students regarded the vocabulary components of the module to be understandable and accessible.

Additionally, students acknowledged an improvement in their vocabulary mastery following the VIBE module, as seen by the statement "The VIBE module helped improve my vocabulary skills" receiving a mean score of 4.6. With a mean score of 4.4 for the statement, "I feel confident using the new vocabulary I learnt through the VIBE module," students also demonstrated confidence in their ability to use the recently acquired vocabulary.

With a mean score of 4.5, the translation into first language function was judged to be the most successful of the module's constituent components. Additionally, students said that interactive quizzes (mean score 4.6), vocalisation (mean score 4.3), and visual stimuli (mean score 4.4) were most helpful in aiding their word learning. Although the cloze tests were useful, some students may have found them more difficult than the other activities, as indicated by their somewhat lower mean score of 4.2.

3.2 Experiences with Quizizz

Section C focused on pupils' experiences with Quizizz, and the findings revealed a high level of engagement and motivation. With a mean score of 4.7, the statement "I found the Quizizz activities engaging" showed that students found the platform's gamified features very enticing. With a mean score of 4.8, Quizizz's gamified features were considered to be especially motivating, confirming the notion that these kinds of technologies may successfully boost student involvement (Bond & Bedenlier, 2019).

3.3 Overall Experience and Perception

The total effect of Quizizz and the VIBE module on students' vocabulary acquisition was evaluated in Section D. A high mean score of 4.6 was given to the statement, "The VIBE module and Quizizz made vocabulary learning more enjoyable," indicating that using these two resources together produced a fruitful learning experience. The majority gave Quizizz and the module a mean score of 4.5 when asked whether they would promote them to other students, indicating substantial approval for their usage in vocabulary education.

Finally, the statement "I was satisfied with the learning experience provided by the VIBE module and Quizizz" had a mean score of 4.5, indicating that students were generally satisfied with the educational process.

| Section | Statement | Mean Score | Median Score | Mode Score | Interpretation |
|--|---|------------|--------------|------------|------------------|
| Section B: Effectiveness of the VIBE Module | The vocabulary introduced in the VIBE module was easy to understand. | 4.50 | 4.50 | 4 | Highly Effective |
| | The VIBE module helped improve my vocabulary skills. | 4.60 | 4.50 | 5 | Highly Effective |
| | I feel confident using the new vocabulary I learned through the VIBE module. | 4.40 | 4.00 | 4 | Effective |
| | The translation into first language components of the VIBE module were effective. | 4.50 | 4.50 | 5 | Highly Effective |
| | The pictorial stimuli components of the VIBE module were effective. | 4.40 | 4.00 | 4 | Effective |
| | The vocalization components of the VIBE module were effective. | 4.30 | 4.25 | 4 | Effective |
| | The interactive quizzes components of the VIBE module were effective. | 4.60 | 4.50 | 4 | Highly Effective |
| Section C: Experiences with Quizizz | The cloze tests components of the VIBE module were effective. | 4.20 | 4.00 | 4 | Effective |
| | I found the Quizizz activities engaging. | 4.70 | 4.50 | 4 | Highly Effective |
| Section D: Overall Experience and Perception | The gamified elements of Quizizz motivated me to learn vocabulary. | 4.80 | 4.50 | 4 | Highly Effective |
| | The VIBE module and Quizizz made vocabulary learning more enjoyable. | 4.60 | 4.50 | 5 | Highly Effective |
| | I would recommend the VIBE module and Quizizz to other pupils. | 4.50 | 4.50 | 4 | Highly Effective |
| | I was satisfied with the learning experience provided by the VIBE module and Quizizz. | 4.50 | 4.25 | 4 | Highly Effective |

Table 1. Questionnaire findings

4. DISCUSSION

The results of this study demonstrate the beneficial effects of interactive, web-based resources like Quizizz in improving vocabulary learning among Sabah Year 5 students. The VIBE module and Quizizz worked well together to engage students and increase their vocabulary, as seen by the high mean scores obtained in every section of the questionnaire.

The translation into the first language component had a very favourable reaction, which emphasises how crucial it is to include concise, understandable vocabulary explanations. (Ramzan, Javaid, & Ali, 2023; Wei, 2021). The importance of visual aids in promoting understanding and memory was further supported by the discovery that the pictorial stimulus component was a significant contribution to vocabulary learning.

Quizizz's gamified feature was essential to sustaining students' enthusiasm and interest. This supports Bond & Bedenlier (2019) claim that gamification boosts student involvement. Quizizz's leaderboard, competitive environment, and real-time feedback were probably important factors in motivating students to actively engage in the vocabulary-learning process.

It is crucial to remember that cloze examinations offer an extra level of evaluation to gauge vocabulary knowledge, even if they were given somewhat lower marks (Trace, 2020). This implies that even while the exercise was helpful, some students could have found it more difficult than the previous exercises, suggesting that additional modifications are necessary to make these exercises more approachable.

All things considered, the results of this study demonstrate that the VIBE module, when combined with Quizizz, provides a very interesting and successful way to enhance Year 5 students' vocabulary learning. English language instruction in elementary schools benefits greatly from the use of interactive and gamified resources as they not only improve learning results but also make learning more pleasurable and inspiring.

5. CONCLUSION

The results of this study show that Year 5 students in Sabah greatly improved their vocabulary learning when the Vocabulary Improvement and Building Exercises (VIBE) module was combined with the Quizizz platform. Students gave the module positive reviews for simplicity of comprehension, participation, and overall learning experience, among other aspects. It was discovered that the VIBE module's main components—pictorial stimuli, vocalisation, interactive quizzes, cloze tests, and translation into the native language—were successful in promoting vocabulary application and retention. With its gamified components, Quizizz was used to encourage students' motivation and active engagement.

Additionally, the study emphasises how interactive, tech-based resources may help alleviate Malaysian primary school students' language gaps. The module's connection with students' learning needs and curricular requirements was guaranteed by the methodical and planned implementation of the ADDIE paradigm. To sum up, the VIBE module presents teachers looking to enhance English vocabulary instruction in elementary schools with a creative and promising option. In addition to improving learning results, its combination with a gamified platform such as Quizizz makes learning vocabulary fun and interesting. Similar technology-enhanced teaching strategies for vocabulary acquisition should be implemented in different situations, according to the study.

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