



**CREATIONS de UiTM**  
INTERNATIONAL MEGA INNOVATION CARNIVAL **2023**  
*Fostering Innovation to Global Communities*

**LET'S CRAFT A BETTER WORLD TOMORROW!**

ePROCEEDING

20<sup>th</sup> MAY 2023

---

UNIVERSITI TEKNOLOGI MARA  
CAWANGAN SELANGOR, KAMPUS DENGKIL  
MALAYSIA

ORGANISED BY:



UNIVERSITI  
TEKNOLOGI  
MARA

Pusat  
Asasi



# THE MOOVY I: INTERACTIVE GAME FOR VOCABULARY LEARNING

\*Noor Farahani Mohd Lazim, Nina Marlini Ahmad, Nurul Nadia Zainal Abidin, Siti Zairyn Fakurol Rodzi

PASTEM Foundation Centre, Universiti Malaysia Terengganu, 21300 Kuala Nerus, Terengganu, Malaysia

E-mail: n.farahanilazim@umt.edu.my

## ABSTRACT

Vocabulary is the backbone of any language because, without sufficient vocabulary, nothing can be conveyed. There is no greater frustration in language learning than not being able to convey messages to others. Consequently, it would take away the joy of learning. In learning a language, traditional vocabulary learning strategies have included matching exercises – synonyms and antonyms, fill-in-the-blanks worksheets, and flash cards. While some of these strategies remained beneficial, teachers and students in today's technology-driven world are strongly urged to adapt to Generation Z's learning style which is learning by doing and through gadgets. For this reason, numerous mobile applications have been developed, especially for English language learners. Nevertheless, some applications are not tailored to the needs of Malaysian pre-university students preparing for the Malaysian University English Test (MUET). This standardized language proficiency is used to assess the proficiency level of pre-university students who wish to pursue their first degree and they should obtain a minimum band score to qualify for admission into their desired course of study. Hence, this study aims to assist MUET students in enhancing their vocabulary through gamified lessons using a tool called MOOVY I. The MOOVY I prototype has incorporated a few game mechanics such as points and challenges that would motivate students to learn and complete tasks. The tool has significant commercial potential in the educational technology market, especially in Malaysia where it can be marketed to individuals, including MUET test-takers, who are looking to improve their English language skills. In conclusion, MOOVY I has substantial commercial potential in the education technology market, and with the development strategies, it can become a leading vocabulary learning tool in Malaysia and beyond.

**Keywords:** Vocabulary; Malaysian University English Test (MUET); gamified lessons; game mechanics

## INTRODUCTION

MUET stands for Malaysia University English Test. It is an English proficiency test used to assess the English language proficiency of Malaysian students who wish to pursue tertiary education in Malaysia or abroad. It is also a yardstick used by universities and colleges in Malaysia as a requirement for admission and by employers as a measure of English Language proficiency. The test consists of four language components: Listening, Speaking, Reading, and Writing.

Recent studies conducted locally revealed that many pre-university students are still struggling with writing. According to a case study conducted in a suburban school in Mukah District, Sarawak, 40% of the students who took the MUET Writing Paper did not perform

satisfactorily, receiving scores in Band 1 and Band 2 categories [1]. This was attributed to their inadequate proficiency in the English language. Many studies revealed that one of the biggest stumbling blocks in writing is poor vocabulary [2,3]. Nation (2013) argued that "vocabulary knowledge is fundamental to almost all aspects of language use, and it is essential for listening, speaking, reading, and writing" (p. 6) [4]. This is similar to other recent studies which suggested that poor vocabulary knowledge is a significant barrier to developing language skills, but targeted vocabulary instruction can be an effective approach to improving students' proficiency [5,6,7].

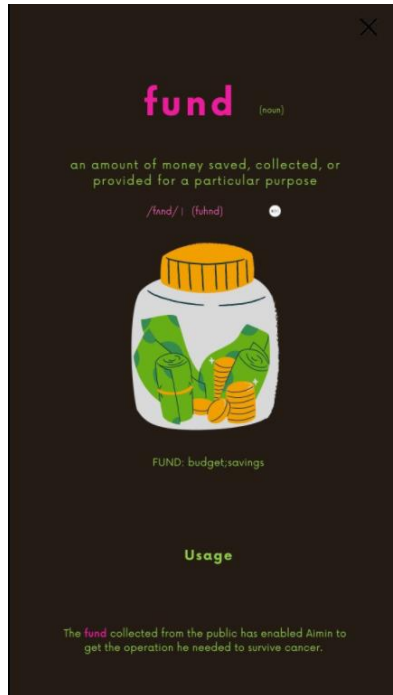
In essence, vocabulary knowledge is a crucial component of language proficiency and is a key factor in achieving high scores in MUET. Acquiring new vocabulary can be time-consuming and monotonous for many students, and traditional teaching methods may not always be effective especially for Generation Z. To address this challenge, this study presents the prototype of the MOOVY I which is designed to assist students in acquiring MUET-specific vocabulary through gamified lessons. The platform uses techniques such as gamification, and spaced repetition to ensure that students acquire vocabulary knowledge in a way that is both fun and effective.

In conclusion, The MOOVY I can be a promising tool for students who are preparing for MUET. Its gamified lessons and spaced repetition features make it an engaging and effective way for students to acquire MUET-specific vocabulary. By addressing the challenges that students face in learning vocabulary, MOOVY I has the potential to improve students' language proficiency and their MUET scores.

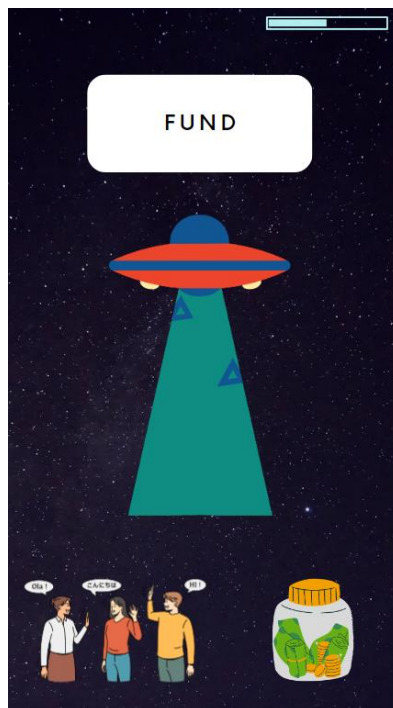
## **INNOVATION DEVELOPMENT**

The MOOVY I is an innovative gamified learning tool that offers a personalized approach to vocabulary learning. The web-based application is designed to be engaging and fun for students and its unique features set it apart from traditional learning methods.

One of the most inventive features of MOOVY I is its gamification approach. The application incorporated multimedia learning resources such as audio, visuals, interactive games, and quizzes to reinforce learning and offer instant feedback to help students identify areas where they need to improve. This approach has been proven to be effective in engaging students and encouraging them to persist in their learning [8].



**Figure 1:** Innovation Prototype (Interactive Flash Card)



**Figure 2:** Innovation Prototype (Quiz)

Another important feature of MOOVY I is its use of spaced repetition. This technique involves revisiting previously learned vocabulary at specific intervals to ensure that the knowledge is retained in long-term memory [9]. This is important as vocabulary knowledge needs to be retained over an extended period, especially for students who are preparing for MUET. MOOVY I incorporates spaced repetition into its lessons, ensuring that students are constantly reviewing and reinforcing their vocabulary knowledge.

Most importantly, the game is highly accessible in which it is designed to be user-friendly. It can be accessed through a web-based platform, making it accessible at any time, from any device with an internet connection. This makes it a flexible and convenient solution for students who may not have access to traditional classroom resources. Additionally, it is also designed to be intuitive and user-friendly, making it easy for students to navigate and use on their own.



**Figure 3:** Innovation Prototype (Menu page)

Overall, the focus on MUET-specific vocabulary is a key feature of the application's novelty and originality, as it sets it apart from other vocabulary learning tools and makes it more relevant and useful for MUET students.

## COMMERCIAL POTENTIAL

The development of the web-based application, MOOVY I is highly relevant in addressing the problem of vocabulary learning among students. The MUET exam is a high-stakes exam that requires a strong grasp of specific vocabulary in order to perform well. However, many students struggle with vocabulary learning, which can hinder their academic and professional success. The application addresses this problem by providing a gamified, interactive learning experience that is specifically designed to support MUET students in learning the vocabulary required for the exam.

The market potential for application is significant, given the large number of MUET students who require support in vocabulary learning. In addition, the application has the potential to be adapted for use in other language learning contexts, further expanding its market potential.

MOOVY I provides a solution to the user's needs by offering a gamified, interactive learning experience that is specifically tailored to the vocabulary requirements of the MUET exam. The program is highly customizable, allowing students to focus on the areas where they need the most support. The application's innovative approach and focus on MUET-specific

vocabulary make it highly marketable, as it fills a gap in the market for effective, targeted vocabulary learning tools.

The proposed selling price for the application will depend on a number of factors, including development costs, marketing expenses, and competition in the market. However, given the program's unique features and potential market demand, it is reasonable to expect a competitive selling price with a healthy profit margin.

## CONCLUSION

In conclusion, the MOOVY I is a highly innovative and effective tool for supporting vocabulary learning among MUET students. Befitting to its purpose, the tool will be tailored to the vocabulary requirements of the MUET exam. It has the potential to significantly improve students' vocabulary knowledge, which will ultimately contribute to their academic and professional success.

Future development of the game could involve expanding its market potential to other language learning contexts, as well as including a data-driven approach to learning. Improvisation planning could also involve incorporating new features, such as speech recognition technology, which would enable students to practice their speaking skills and pronunciation.

Overall, the MOOVY I application is an innovative and highly relevant solution to the problem of vocabulary learning among MUET students. Its unique approach, incorporating gamification and interactive elements, makes it highly engaging and motivating for learners. With further development and refinement, it has the potential to revolutionize the way in which students learn vocabulary and improve their academic and professional prospects.

## REFERENCES

- [1] Jee, S., & Aziz, A. (2021). The Application of the Process-Based Writing Approach in Composing an Argumentative Essay: A Case Study of a Suburban Secondary School of Mukah District in Sarawak. *Creative Education*, 12, 880-896.
- [2] Xin, J., Li, X., & Chen, L. (2020). Vocabulary knowledge and writing proficiency: A study of Chinese university students. *Journal of English for Academic Purposes*, 46, 100869. <https://doi.org/10.1016/j.jeap.2020.100869>
- [3] Kuo, Y.-C., Chen, C.-Y., & Lee, H.-T. (2020). The effects of a vocabulary intervention program on EFL learners' vocabulary knowledge and writing skills. *International Journal of English Linguistics*, 10(3), 1-18. <https://doi.org/10.5539/ijel.v10n3p1>
- [4] Nation, I. S. P. (2013). *Learning vocabulary in another language* (2nd ed.). Cambridge University Press.
- [5] Coxhead, A., & Ng, S. H. (2020). The role of prior vocabulary knowledge and reading proficiency in second language vocabulary learning. *Studies in Second Language Acquisition*, 42(2), 387-411. <https://doi.org/10.1017/S0272263119000456>
- [6] Mwakanyamale, E. M., & Callender, M. (2020). Vocabulary and reading comprehension of learners in English: A comparative study of Tanzanian and British primary schools. *Educational Studies*, 46(3), 334-350. <https://doi.org/10.1080/03055698.2020.1749012>
- [7] Zheng, X., & Joshi, R. M. (2021). The relationship between vocabulary and reading comprehension for low-achieving adolescent readers in a Chinese context. *Reading and Writing*, 34, 741-765. <https://doi.org/10.1007/s11145-020-10160-4>

- [8] Dicheva, D., Dichev, C., Agre, G., & Angelova, G. (2015). Gamification in Education: A Systematic Mapping Study. *Educational Technology & Society*, 18(3), 75-88.
- [9] Rottmann, T., & Kappas, A. (2020). The effect of spaced repetition on the acquisition of vocabulary in an unfamiliar language. *Journal of Educational Psychology*, 112(8), 1605-1620. <https://doi.org/10.1037/edu0000419>