

Proverb Quest: A Gamification-Based Mobile Application for Learning Malay–English Proverbs

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ABSTRACT

The declining mastery of Malay proverbs among younger generations has become a growing concern due to limited cultural exposure, the figurative nature of proverbs, and the predominance of conventional teaching approaches that often fail to engage digital-native learners. As important carriers of cultural identity, moral values, and local wisdom, Malay proverbs play a significant role in preserving the nation's linguistic heritage. This study introduces Proverb Quest, a gamification-based mobile application designed to promote the learning of Malay–English proverbs through interactive digital experiences. Developed using the Design Thinking approach, the application comprises five phases: Empathize, Define, Ideate, Prototype, and Test. The application integrates gamification features such as interactive quizzes, star rewards, achievement badges, and progressive learning levels to enhance learner motivation and engagement. It is organised into four thematic modules, Nature, Family, Wisdom, and Life, with each Malay proverb accompanied by explanations, equivalent English proverbs, intercultural comparisons, and formative quizzes. Preliminary testing with student users indicated that the application was well received in terms of usability, engagement, and educational value. The bilingual approach not only improved learners' understanding of proverb meanings but also strengthened intercultural awareness by highlighting similarities and differences between Malay and English expressions. Furthermore, the thematic organisation enabled students to relate traditional wisdom to contemporary life, making learning more meaningful and contextualised. Overall, Proverb Quest demonstrates the potential of combining gamification, bilingual learning, and cultural heritage preservation to enhance language education in the digital era. The innovation also offers promising opportunities for wider educational implementation and future commercialisation within digital learning platforms.

Keywords: Malay Proverbs, Gamification, Bilingualism, Digital Learning, Language Preservation

INTRODUCTION

Knowledge of proverbs is highly significant in reinforcing national identity while simultaneously showcasing the beauty of the Malay language on the international stage. Proverbs are not merely linguistic embellishments; they embody moral values, collective thought, and local wisdom essential to the formation of a cultured society. They reflect the Malay mindset, encompassing concepts of existence (metaphysics), knowledge (epistemology), human conduct (ethics), reasoning (logic), and beauty (aesthetics), thereby demonstrating the creativity and sophisticated intellect of the Malay community (Md Nasir & Subet, 2023).

Furthermore, a study by Anuar et al. (2024) emphasizes that proverbs are not just aesthetic expressions but contain moral lessons and local wisdom that can serve as a foundation for building personal identity and a sustainable culture. This indicates that mastering proverbs is crucial not only linguistically but also as a medium for transmitting cultural values to the new generation. The current generation, particularly those living in urban areas, faces significant challenges in truly grasping the meaning of Malay proverbs. This difficulty stems from a lack of exposure to the traditional elements, animals, and plants frequently referenced in these proverbs, elements that are vital for understanding their context (Yusuf et al., 2023). Consequently, this situation hinders comprehension, cultural appreciation, and efforts to preserve linguistic heritage among today's generation.

Proficiency in proverbs among school and university students also remains at a concerning level. Phuong (2023) found that students struggle to understand proverbs and idioms due to their non-literal meanings, insufficient exposure, and the absence of systematic teaching approaches. Malaysian students face this same challenge; an analysis of textbooks revealed that many proverbs lack in-depth explanation, making it difficult for students to relate them to real-life contexts (Md Nasir & Subet, 2023).

From a pedagogical perspective, low-achieving students are found to be more significantly affected by this shortcoming. Lin (2023) demonstrated that idiom-based learning strategies can help improve comprehension, motivation, and argumentative skills among struggling students. This study supports the idea that an innovative approach linking Malay proverbs with idioms in other languages, specifically English, can serve as an effective intervention to address challenges in proverb mastery.

Although different types of digital language learning applications have been developed to support vocabulary acquisition, idiom learning, and general language proficiency, there is a gap presented to integrate Malay–English proverb learning with gamification and intercultural comparison within a single mobile learning platform. To address this issue, the "Proverb Quest" innovation was introduced. It is a gamified mobile application designed for learning Malay and English proverbs. This innovation aims to strengthen appreciation for the Malay language, enhance bilingual understanding, and broaden intercultural awareness through an interactive learning experience. It represents an effort to increase the availability of digital content regarding the Malay world and language, an area that, according to Supyan et al. (2004), is still striving to reach a commendable standard. The Proverb Quest application was developed to preserve and elevate Malay linguistic heritage in a digital format. The application incorporates gamification features such as leveled quizzes, star and badge rewards, and cultural context to help students grasp the meanings of proverbs..

It is structured around four main themes:

Nature – illustrating the relationship between humans and the environment.

Wisdom – highlighting the community's sagacity and life experiences.

Family – emphasizing values such as affection, respect, and responsibility within the family unit.

Life – reflecting advice, lessons, and guidance for navigating daily challenges.

Each Malay proverb is accompanied by a detailed explanation. To reinforce student understanding, English proverbs with identical or similar meanings are also included. Explanations regarding the similarities and differences between the two proverbs are provided, thereby helping students grasp the context of usage more deeply and from an intercultural perspective. This explanatory session concludes with a brief quiz to assess the students' level of understanding.

METHODOLOGY

The development of the Proverb Quest mobile application was guided by the Design Thinking approach, a user-centred innovation framework widely adopted in educational technology to create solutions that address authentic user needs. Design Thinking emphasises empathy, creativity, iterative development, and continuous refinement, making it particularly suitable for designing digital learning applications that are engaging, practical, and responsive to learners' experiences. The framework comprises five interconnected phases: Empathize, Define, Ideate, Prototype, and Test.

The first phase, Empathize, focused on understanding students' learning experiences and identifying the challenges they encounter in mastering Malay proverbs. A review of previous literature, classroom observations, and informal discussions with students revealed that many learners perceived proverbs as difficult to understand because of their figurative meanings, unfamiliar vocabulary, and limited exposure to the traditional cultural contexts in which they originated. Additionally, students expressed greater interest in technology-enhanced

learning environments than conventional textbook-based instruction. These findings highlighted the need for an innovative learning solution that combines cultural preservation with interactive digital learning.

The second phase, Define, involved translating the identified challenges into clear educational objectives. Based on the needs analysis, the application was designed to achieve three primary goals: (i) preserve and promote Malay proverbs in a digital format, (ii) improve students' understanding of Malay proverbs through bilingual comparison with English proverbs, and (iii) increase learner engagement through gamified learning experiences. At this stage, the scope of the application, intended learning outcomes, and target users were clearly established to ensure alignment between pedagogical objectives and technological development.

The third phase, Ideate, centred on generating innovative ideas to enhance student engagement and learning effectiveness. Various instructional and gamification strategies were explored before selecting features considered most suitable for secondary school and university learners. The final design incorporated interactive quizzes, star rewards, achievement badges, progressive learning levels, and immediate feedback to create an enjoyable and motivating learning experience. In addition, bilingual explanations and cultural notes were integrated to encourage intercultural understanding and enable learners to appreciate the similarities and differences between Malay and English proverbs.

During the Prototype phase, an initial version of the Proverb Quest mobile application was developed. The application was organised into four thematic modules, Nature, Family, Wisdom, and Life, to provide authentic contexts for proverb learning. Each module contains carefully selected Malay proverbs accompanied by detailed explanations of their literal and figurative meanings, equivalent or similar English proverbs, comparative cultural interpretations, and short formative quizzes to reinforce understanding. The interface was designed to be intuitive, visually appealing, and accessible to learners with varying levels of digital literacy.

Finally, the Test phase involved evaluating the prototype with a target group of students to examine its usability, attractiveness, and educational value. Participants explored the application by completing learning activities and interactive quizzes before providing feedback on their overall learning experience. Evaluation focused on several aspects, including ease of navigation, interface design, clarity of explanations, engagement with gamification features, and perceived usefulness in improving proverb comprehension. The feedback obtained was used to identify areas for refinement and future enhancement, ensuring that the application remains user-friendly, pedagogically effective, and relevant to contemporary digital language learning.

Overall, the adoption of the Design Thinking approach enabled the systematic development of Proverb Quest from problem identification to prototype evaluation. By placing learners' needs at the centre of the development process, the framework facilitated the creation of an engaging, culturally meaningful, and technologically relevant mobile application that supports both Malay language preservation and bilingual language learning.

Findings and Discussion

The development of Proverb Quest yielded several significant findings:

i. Integration of Gamification.

Gamification elements, such as interactive quizzes, star rewards, and badges, proved successful in boosting student motivation and engagement. An enjoyable learning experience encourages students to repeat activities, thereby reinforcing their retention of the proverbs. Reward features also provide immediate user satisfaction, sustain interest, and foster healthy competition among students. This aligns with previous research findings indicating that gamification enhances cognitive and affective engagement in digital learning.

ii. Bilingual Approach.

A key unique feature of the application is the pairing of Malay proverbs with English idioms. Through this approach, students not only gain a clearer understanding of the proverbs' meanings but also observe similarities and differences in cultural mindsets. This strengthens intercultural awareness and renders the learning process more meaningful and globally oriented. For local students, the approach enriches vocabulary in both languages,

while for international users, it offers an opportunity to explore Malay culture through authentic linguistic comparison.

iii. Cultural Themes.

The four selected themes, Nature, Family, Wisdom, and Life, provide an authentic context that resonates with students' daily experiences. For instance, the Nature theme links proverbs to natural elements that frequently serve as sources of metaphor in Malay culture. The Family theme emphasizes virtues such as respect, affection, and responsibility. These themes make it easier for students to relate the meanings of the proverbs to their own lives, thereby enhancing learning effectiveness.

iv. Revitalization of Cultural Heritage among the Younger Generation:

The application plays a significant role in revitalizing and preserving traditional Malay proverbs by transforming them into an engaging, interactive, and technology-enhanced learning experience that resonates with Generation Z learners. As the use of proverbs in everyday communication continues to decline due to the dominance of digital communication and modern language practices, the application serves as a bridge between traditional cultural heritage and contemporary learning environments. Through gamified activities, multimedia elements, and contextual learning scenarios, students are encouraged to appreciate the richness of Malay wisdom while understanding the cultural values, moral lessons, and social norms embedded within each proverb. By presenting cultural heritage in a format that aligns with the digital preferences of today's learners, the application contributes to the long-term preservation and appreciation of Malay linguistic and cultural identity among younger generations.

v. Promotion of Autonomous and Flexible Learning:

The application promotes learner autonomy by providing students with the flexibility to engage in learning anytime and anywhere at their own pace. Unlike traditional classroom instruction, which is often constrained by time and teacher availability, the digital platform empowers learners to revisit lessons, repeat exercises, and monitor their own progress according to their individual learning needs. This self-directed learning approach accommodates diverse learning styles and proficiency levels, allowing students to take greater ownership of their learning journey. Additionally, the private and non-threatening learning environment reduces the fear of making mistakes, thereby lowering language anxiety and increasing learners' willingness to practise and experiment with proverb usage. The application's accessibility across multiple devices further supports lifelong learning and continuous language development beyond the classroom.

vi. Enhancement of Language and Literacy Skills:

The application is designed to strengthen learners' overall language proficiency by developing their ability to understand, interpret, and appropriately apply Malay proverbs in various communicative contexts. Through interactive reading passages, contextual exercises, writing tasks, quizzes, and authentic communication activities, students expand their vocabulary, improve reading comprehension, and enhance critical thinking skills while learning the figurative meanings of proverbs. Furthermore, the application supports the development of writing skills by encouraging learners to integrate suitable proverbs into essays, speeches, and reflective writing, thereby producing more expressive, persuasive, and culturally enriched texts. Regular exposure to contextualised proverb usage also improves oral communication skills, enabling students to speak with greater confidence and cultural sensitivity. Ultimately, the application fosters higher levels of language literacy while nurturing an appreciation for the aesthetic and rhetorical value of traditional Malay expressions in both academic and everyday communication.

CONCLUSION

This study demonstrates that Proverb Quest is a high-impact educational innovation that successfully integrates gamification, bilingual learning, and cultural heritage preservation into a single mobile learning application. By transforming the traditional learning of Malay proverbs into an engaging and interactive digital experience, the

application addresses contemporary challenges faced by digital-native learners while promoting meaningful language acquisition. The incorporation of game-based elements, such as quizzes, achievement badges, star rewards, and progressive learning levels, enhances learner motivation, encourages continuous participation, and improves knowledge retention. Meanwhile, the bilingual presentation of Malay and English proverbs enables learners to appreciate linguistic similarities and cultural differences, thereby fostering intercultural competence and global awareness.

Beyond its pedagogical contribution, Proverb Quest serves as an important initiative in preserving and promoting the Malay language in the digital era. By digitising traditional proverbs and presenting them within authentic thematic contexts, the application ensures that valuable cultural knowledge remains relevant and accessible to younger generations and international learners alike. The innovation also aligns with current educational priorities that emphasise technology-enhanced learning, cultural sustainability, and the development of twenty-first-century competencies.

Furthermore, Proverb Quest possesses strong potential for future expansion and commercialisation. Opportunities include the introduction of premium subscription packages, integration with Learning Management Systems (LMS) and national e-learning platforms, multilingual adaptations, AI-powered personalised learning features, educator dashboards, and curriculum-aligned learning modules for schools and higher education institutions. These developments would not only enhance the application's educational value but also increase its scalability and marketability within the growing educational technology sector.

In conclusion, Proverb Quest contributes significantly to the advancement of digital language education by demonstrating how traditional cultural knowledge can be revitalised through innovative technology. The application offers a sustainable model for preserving Malay linguistic heritage while promoting bilingualism, intercultural understanding, and learner engagement. As education continues to embrace digital transformation, innovations such as Proverb Quest have the potential to strengthen national identity, support global appreciation of the Malay language, and inspire future developments in culturally responsive educational technology.

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