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Rajang River Run: Improving Vocabulary Acquisition Among Young Learners through Gamified Storytelling

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ABSTRACT

This study examined the use of flashcard games as a game-based learning and storytelling approach to acquire new vocabulary, construct engaging sentences, and increase students' motivation. The study was conducted at a national government-funded public primary school in Putrajaya, Malaysia, involving 15 Primary one students. The game design thinking approach was employed to develop the game, which acts as a guide to scaffold creativity and collaboration. The findings showed that learning through the Rajang River Run could boost pupils' capacity and desire to learn unfamiliar words. The implication of this study suggests that gamified learning, such as gamified narrative, increased players' motivation to play the game and improved memory retention and attentiveness.

Keywords: vocabulary, storytelling, education, primary learners, game-based learning

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1 INTRODUCTION

Malaysia has established English as a second language, as specified in Article 152 of the Federal Constitution (Azmi, 2013). Although Bahasa Malaysia is the official language to use on many occasions and in administration, English continues to play an essential role in our social, economic, and educational lives. In Malaysia's Education Blueprint 2013–2025, English remains a primary concern and challenge to be improved. The third wave of education transformation highlighted the expanding innovations and opportunities to continually improve BM and English language ability and give more options for new languages (Ministry of Education Malaysia, 2013).

The problem to be addressed in this study is that many students are reluctant to speak in English at the lower primary school level as they cannot construct sentences using simple structures and sustain the target language structure. In addition, they were hesitant to speak English with their teachers and friends inside and outside of school because they were concerned about making grammatical errors and were perplexed about their lack of language proficiency (Abdul Aziz & Kashinathan, 2021). Abdul Aziz and Kashinathan (2021) also reported that learners struggled to communicate fluently due to their lack of vocabulary. Another study by Abdul Aziz (2021) found that challenges faced by English Second Language learners are that most students have difficulty communicating in English, both in and out of class. The author also indicated that anxious students are more inclined to expect adverse reactions from others, and the situation worsens if they cannot manage their anxiety. The finding from Abdul Aziz's (2021) study is in line with Renganathan's review (2021) that the difficulty in communicating in English is because of a lack of necessity to utilise English, especially in rural settings.

Various methods for enhancing vocabulary include using media to educate and acquire English vocabulary. The flashcard is one of them (Ngarofah & Sumarni, 2019). As a tool for teaching vocabulary, flashcards can improve student attention, making using flashcards to acquire vocabulary one of the most effective approaches. The idea is supported by Chen and Chan's (2019) study found that AR flashcards can help children acquire vocabulary, and those kindergarten students who use AR flashcards should make considerable progress in vocabulary acquisition scores. One medium that can grab students' attention and motivate them to learn and get interested in English is flashcards. It helps to demonstrate that flashcards help increase students' vocabulary proficiency. According to the Cognitive Theory of Multimedia Learning by Richard Mayer, the words and images that we use during the teaching and learning process are meaningful. This theory addresses the human mind as a dual-channel, limited-capacity, and active-processing system. Mayer takes a constructivist approach to learning, where multimedia is seen as cognitive support for knowledge building rather than information delivery methods (Mayer, 2012, p.14). Hence, flashcards are an effective method for students to construct their knowledge and mental models to enhance learning.

This study addresses the following objectives:

1. To help students recognise at least ten English vocabulary which describes the culture and lifestyle of the people in Sarawak.
2. To encourage the students to learn vocabulary using the learning tool.
3. To help students memorise and retain new words by repeatedly connecting a word with an image and generating sentences using the words on the flashcards.

Three research questions also guide this study:

1. Can students recognise at least ten English vocabulary words?
2. Will the students learn vocabulary words independently?
3. Will the students retain new words and be able to make sentences independently?

Collaborative learning is a method of instruction in which students work in groups to achieve a common learning objective. According to previous research, students who engage in collaborative learning perform better academically than those who study independently. It has been shown that collaborative learning promotes the development of critical thinking skills in pupils. Dignath-van Ewijk et al. (2015) discovered that collaborative learning enhances students' critical thinking skills, as measured by their ability to analyse, evaluate, and create. Chan et al. (2019) conducted a study to examine the correlations between interactivity, active collaborative learning, and students' learning performance and to see if these connections were mediated by the degree of pleasure students had when utilising personal response systems (PRS) and found that active collaborative learning is indeed related with interaction and student learning.

Moreover, collaborative learning can enhance students' communication abilities. Students who work collaboratively must communicate effectively with their peers to attain their learning goals. According to a study by Liang et al. (2021), collaborative learning enhanced students' oral communication abilities and capacity to articulate their thoughts. Collaborative learning can boost student engagement and motivation. Students are more likely to be invested in their learning when working with others towards a common objective. Roseth, Johnson, and Johnson (2008) discovered that students who participated in collaborative learning were more motivated and engaged than those who learned separately. It was also shown that collaborative learning could have positive social benefits, such as developing cooperation and leadership abilities and enhancing student social relationships. Furthermore, with collaborative learning, students can enhance their self-regulation in critical thinking (Supena et al., 2021).

The term "gamification" refers to using game mechanisms in non-gaming environments to improve the processes performed and the experiences of those involved to motivate and engage the participants (Giakalaras, 2016). Gamification and game-based learning are mobile and technical trends that leverage game features to encourage desired behaviours and drive corporate

learning results (Zainuddin et al., 2020) since they can help motivate students to improve their learning processes (Kapp, 2012). Storytelling refers to transmitting events in words, sound, and images, often by improvisation or embellishment (Giakalaras, 2016). The term "storytelling" is used narrowly to refer to oral storytelling and broadly to refer to techniques used in other media to unfold or disclose the narrative of a story. Every culture has shared stories or narratives for entertainment, education, cultural preservation, and instilling moral values. The narrative's plot, characters, and point of view are all essential components of stories and storytelling.

However, combining these two terms is more complex than it appears. Gamification exists in the absence of solid storytelling. However, combining these two terms yields a valuable and powerful tool. Gamification combined with storytelling can be used in a variety of situations. The gamification features can also attract users by giving them fun and flowing experiences as the users create and collaborate on a story together (Reeves & Read, 2009). Gamification fundamentally functions as an entertainment activity, which makes the collaborative storytelling game users enjoy actively participating and engaging with each other (Hsu et al., 2013).

Gamified storytelling has been shown to increase engagement and motivation among learners. According to a study by Huizenga et al. (2013), gamification elements, such as badges and leaderboards, can increase learners' intrinsic motivation to engage with the content. A study by Kaptein, Markopoulos, and De Ruyter (2015) found that gamified storytelling improved learning outcomes, specifically regarding knowledge retention, compared to traditional e-learning methods. Gamified storytelling can promote social learning, as learners can collaborate and compete. It was proven by Mora et al. (2017) that gamified storytelling facilitated social learning and created a sense of community among learners. While gamified storytelling has shown promise, its use has limitations and challenges. A study by Hamari et al. (2014) found that the effectiveness of gamified storytelling can depend on the individual learner and that some learners may not be as responsive to gamification elements as others. Additionally, there is a risk that gamified storytelling can become overly complex or distracting, leading to reduced learning outcomes.

Vocabulary learning is a significant aspect of language learning. Vocabulary can be defined as a set of familiar words that a person knows. Generally, vocabulary learning among young learners develops as it is an essential tool that helps them communicate and expand their knowledge. The meanings of new words are frequently emphasised, whether in books or verbally. Vocabulary is considered the key to teaching language. Few studies indicate that teaching vocabulary can be problematic, as some teachers are unsure of the best practices for teaching and are sometimes unsure of how to begin forming an instructional emphasis on vocabulary learning (Berne & Blachowicz, 2008). Vocabulary proficiency is frequently observed as a crucial component of language learning, as limited vocabulary hampers poor communication in a second language. Schmitt (2000) emphasises that lexical knowledge is essential to communicative competence and learning a second language when considering the significance of vocabulary acquisition.

The relationship between vocabulary knowledge and language practice is characterised by Nation (2001) as complementary; vocabulary ability makes language use possible and vice versa. The more the individual speaks, the more vocabulary he or she will acquire. Vocabulary is the foundation of language ability that will reflect how well the listeners listen, speak, read, and write (Kunnu, Uiphant & Sukwises, 2016). Learning the skills of speaking, listening, reading, and writing skills are essential. Young learners must obtain 3000 – 4000 new vocabulary words each year for better communication and learning (Alqahtani, 2015; Bakhsh, 2016; Misbah, 2017). Vocabulary is vital in linking the four language skills of listening, speaking, reading, and writing (Indriyani & Sugirin, 2019). However, most primary students have low vocabulary acquisition, which hinders them from being well-versed in the target language.

Nonetheless, research studies have shown that language learning technology can help learners expand their vocabulary. Amelia et al. (2019) conducted a study to investigate the advantages and disadvantages of employing a tablet-based digital storytelling application in vocabulary development among 11-year-old of six ESL learners from three levels which are high, intermediate, and low. The result from this study indicated that learning is made feasible, simpler, and more convenient by the digital storytelling application's multi-featured, multi-functioned, and highly interactive capabilities. Furthermore, the author found that using a digital storytelling application on a tablet might drive learners to acquire new vocabulary. Hassan and Hashim (2021) examined 50 primary students from different levels on their perceptions and motivation about using Plickers in learning ESL vocabulary. Plickers is a free online card activity tool for instructors and learners. Data from this study were collected using a survey questionnaire and interviews with 20 students out of 50. Findings found that Plickers was simple for the students because none thought it was not easy, and students understood the instructions for using Plickers. The students also agreed that Plickers helped them enhance their intrinsic motivation in acquiring language.

Learning vocabulary through games helps to promote collaboration, competitiveness, teamwork, and turn-taking (Orlick, 2006). Previous research by Derakhshan and Khatir (2015) mentioned that games effectively teach vocabulary because students usually involve friendly competition and a collaborative learning environment among them (Calvo-Ferrer, 2017; Al Neyadi, 2007). Previous researchers reported that the way the students communicated with each other proved that they were interested and participated actively in the learner-centred activity. This learning activity provided a meaningful experience for the students as they communicated with each other. In a nutshell, through this flashcard game, the acquisition of language vocabulary is encouraged (Segal-Drori et al., 2010).

Frugal Education is a strategic approach mainly adapted to designing educational games. Frugal Education focuses on leveraging resources, embracing sustainability, and utilising the power of design thinking to create innovative, practical, and sustainable education for everyone. The idea is inspired by the discipline of "frugal innovation," which is the art of bringing down the manufacturing costs and complexity of goods and services while still meeting consumer awareness and sustainability demands, as well as those of developing nations. Frugal Education design has

six principles: design thinking, circular economy, frugal innovation, sustainable development, doughnut economics, and systems thinking. On top of this base, the idea adds design thinking, systems thinking, circular economy, doughnut economics, and sustainable development to the education setting (Clarke et al., 2020).

2 METHODOLOGY

2.1 Game Development

The Rajang River Run was inspired by game design and game-thinking approaches that guide creativity and collaboration among the authors. The design thinking process (see Figure 1) is a method to structure an iterative design process. It demonstrates how it is possible to frame a problem so that it is understandable and easy to confront (Arnab, Clarke & Morini, 2019). In this research project, the authors implemented this design thinking process to develop the product via a straightforward brainstorming process to discover the audience's needs, design, development, testing, sharing, and more.

Figure 1. Game Design Thinking process (source: https://squaresequel.com/reimagining-strategy-using-design-thinking/).

The game design process used in this project is explained below:

i) Empathise
Before designing the game, the authors conducted proactive discussions via Google Meet and Whatsapp to determine the target participants and the rising issues in English language learning. It was decided that the target participants would be Primary One students from a school in Putrajaya. In this research, analysis was essential to identifying the vocabulary-learning problem among the students and was conducted via interviews.

ii) Define

The gathered data was interpreted at this stage. It has been identified that the majority of the Primary 1 students were reluctant to speak in English as they could not construct sentences using simple structures and sustain the target language structure. Furthermore, they were hesitant to speak English with their teachers and friends inside and outside of school due to their lack of confidence to converse in the language.

iii) Ideate

The ideation phase was carried out via Google Meet, where researchers brainstormed. All team researchers proposed the game ideas based on the learning problem defined. The ideas were built upon one another, and knowledge about the problem was collaboratively transformed into actionable ideas for problem-solving. The voting process used Figma (see Figure 2) to determine the most suitable game. A modified version of the Flashcard Game was chosen for the game-based lesson.

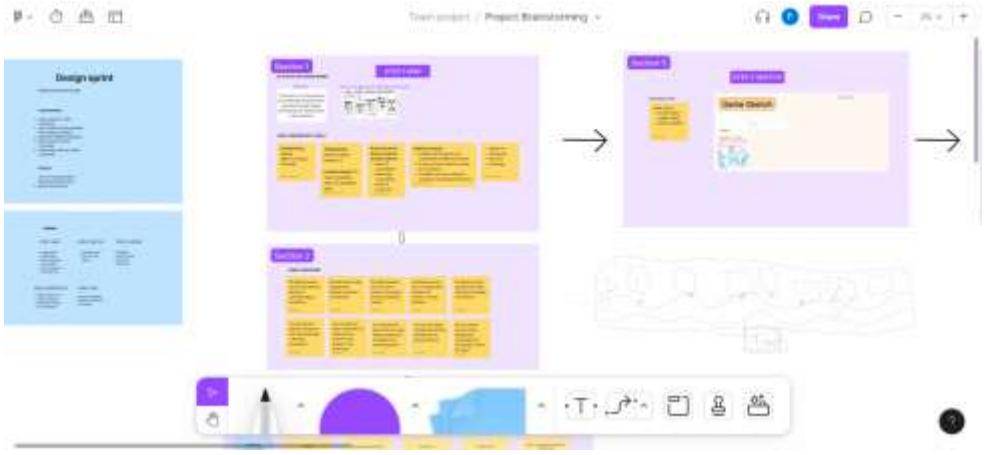


Figure 2. Design sprint using Figma.

iv) Prototype

The prototype phase was conducted after completing the ideation process, as the authors put the ideas into practice and assessed the suite of design concepts during the pilot test, focusing on concept development, workable needs, and specific requirements. The prototype was designed as a flashcard game with colourful images and simple texts based on the game mechanics discussed among the team members. After further discussion, more improvements were made to the prototype by adding a game name and board (see Figure 3) to make the game more fun and interesting for young learners.

Figure 3. Screenshot of the Rajang River Run board game prototype.

v) Testing

Feedback was obtained from target participants, experts, and everyone involved in bringing into action the idea and solution generated from the design process in solving the problem identified at the test phase (Scheer et al., 2012). The feedback obtained can be utilised to refine the solution or idea for solving the problem more effectively. The game begins with an introduction by a researcher, followed by an explanation of the game mechanics. Two English teachers were assigned to lead their students during the play day. At the end of the lesson, students could construct seven sentences using the cards with limited anxiety in a collaborative and gamified environment. Based on the analysis of the observations and feedback from the teachers, they agreed that the Flashcards game was delightful, and students enjoyed this kind of gamification approach to teaching and learning. Furthermore, Frugal Education Action Cards assisted the authors in developing the game. Alex Masters of GameChangers UK, from Coventry University, created the card games to help users design educational interventions in frugal and sustainable ways. The cards contain twenty-seven frugal education topics organised by their connected features and themes. Each card is intended to spark users' imagination as they ponder how to effectively incorporate it into their design. However, the authors have selected three principles to incorporate into the game design: (a) minimal, (b) practical, and (c) collaborative.

(a) Minimal (Keep it simple)

Cover different topics and follow the "culture and lifestyle" theme of people in Sarawak. The central theme is the 'Rajang River Run.' Researchers designed a game using a simple design to make it easier to understand, especially for young target learners.

(b) Practical (User-friendly)

Flashcards are small note cards where users can put information. The prompt and information regarding the prompt are often printed on opposite sides of a flashcard. Names,

words, concepts, or techniques may be included. They allow students to interact with the material in a way that helps them remember it. They are purposefully created to improve and promote active recall. It actively recalls a piece of knowledge, engaging memory.

(c) Collaborative (Listen)

Before this, researchers had listened to ideas and suggestions from the target learners. Hence, the game was developed based on our target learners' needs and expectations.

2.2 The Rajang River Run

2.2.1 Game Components

During the game development, we identified the following components:

1. Number of players
2. Duration of game
3. Themes (seven cards for each set)
4. Board game design

2.2.2 Game Cards & Themes

To make the game enjoyable, we developed six cards with different themes based on Sarawak's culture and lifestyle (see Figure 4). Among the themes selected are: ethnicities, places, animals, fruits, local foods, and plants. Each card was designed with colourful images and information, just like a flashcard.

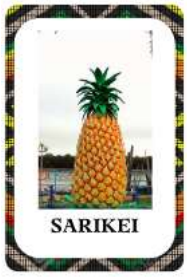
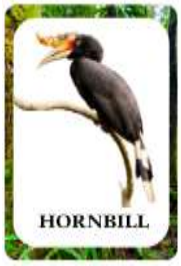
<table>
<tr><th colspan="3">Themes</th></tr>
<tr><th>Ethnics</th><th>Places</th><th>Animals</th></tr>
<tr><td> 
</td><td> 
</td><td> 
</td></tr>
<tr><th>Fruits</th><th>Local Food</th><th>Plants</th></tr>
</table>

Figure 4: Rajang River Run game cards and themes.

2.2.3 Game Board

In order to create a suitable game board for the study, the authors decided to produce it in a landscape format with large-scale printing. The choice of a landscape format was made to provide ample space for the game mechanics and player movement, as well as facilitate ease of use during gameplay. To ensure the board is durable and reusable, it was printed on canvas material compatible with whiteboard markers. The canvas material was chosen for its durability, enabling the board to withstand repeated use over an extended period. Overall, these design choices were made to create a game board that is functional and user-friendly but also resilient and cost-effective in the long run.

Figure 5. Rajang River Run board.

The game board (see Figure 5) in question comprises several integral components, each with its specific function, such as:

i. Card Placement Box

The card placement box is a designated area for players to place cards during gameplay. This box is strategically placed on the game board to ensure ease of access for players and facilitate the smooth flow of the game mechanics.

ii. Starting and Finishing Points

This feature serves as the beginning and endpoint of the game, providing players with a clear sense of direction and objective. It is often placed at one end of the board, with the card placement box located nearby to allow for ease of transition between these critical areas.

iii. Penmanship Box

Finally, the penmanship box is an essential component of the game board, providing a designated space for players to practise their penmanship based on the word drawn from the card deck. This box is located at the bottom of the board.

Together, these components form an integral part of the game board, enhancing the gameplay experience and facilitating ease of use for players. By strategically placing each component in a specific location on the board, the players can experience a seamless and intuitive gameplay experience that is engaging and user-friendly.

2.2.4 Game Instructions

1. Players will be divided into groups of 4-5 pupils, and the teacher will choose the group members.
2. The game uses a Rajang River Run Board with seven checkpoints.
3. Every player is required to pass the seven checkpoints to complete the story within 20 minutes.
4. Players must narrate their stories based on the card they will draw from the first checkpoint until the final checkpoint.
5. When a player draws a card, he cannot skip his turn until he completes the phrase based on the card.
6. The group completing all the checkpoints within 20 minutes will win.

This study was conducted at a primary school involving 15 Primary One students. This study employed the homogeneous purposive sampling technique in choosing participants. According to Etikan (2016), the researchers determined the required information to discover people who can and will offer it based on their expertise or experience. The homogeneous sampling technique focuses on potential participants with comparable features or attributes. For this study, the students are chosen among Level 1 and Level 2 performance levels for their speaking assessment in English Language subject.

This study employed an observation checklist (see Appendix A) for data collection. The observation checklist consisted of written remarks to take note of any pupils' behaviours and interactions throughout the implementation of the Rajang River Run to serve as a triangulation in

this research. The checklist is derived from the Revised Conceptual Model of Academic Success (York, 2015), which defines academic success as inclusive of academic achievement, attainment of learning objectives, acquisition of desired skills and competencies, satisfaction, and persistence. Nine items are covered based on the checklist: goal setting, mindset, time management, study skills and strategies, relationships, participation, self-regulation, purpose and motivation and resilience.

Due to the nature of the research, which involved human subjects, the researcher was ethically responsible for protecting the rights and safety of the participants in the study. On agreeing to participate in that study, the participant had to read and sign a consent form. A short brief was given to the participants and their parents, and parental consent letters were given to seek approval for their participation. After obtaining approval, the participant still had the choice to withdraw at any time she felt uncomfortable throughout the study. Also, the participants' actual names were not used in the final report to protect the participants' confidentiality. Pseudonyms were used based on their actual gender. The participants' data and the school's names were kept confidential. However, only the location and demographics of the school were revealed for research purposes.

3 FINDINGS & DISCUSSIONS

It showed that students were earnest and engaged in the vocabulary lesson (see Figure 6). Based on the observation, students could sustainably construct seven sentences using the cards with limited anxiety in a collaborative and gamified environment. They also agreed that the Rajang River Run game was delightful, and students enjoyed this gamification approach to teaching and learning.

Figure 6. A scenario of the gameplay day with the teachers and the students.

3.1 Recognising English Vocabulary

The post-observation results revealed that students could recognise at least ten English vocabulary after implementing flashcard games that portrayed the culture and lifestyle of the people in Sarawak. For instance, the student can create a sentence like *"On Monday, Ahmad walked by Rajang river and found a crocodile"*. Furthermore, the game managed to reinforce the vocabulary learned among the students, which also adhered to the focus of this paper. Through the teacher's observation, students could read and speak the given words on the flashcard. To quote the feedback

of the students from the flashcard game, The students who used the words "Wild Orchid," "Crocodile," and "Bamboo Chicken" demonstrated that they were able to read and talk while engaging in the Rajang River Run game. It shows positive student feedback as they could read/speak in front of their teachers and friends and overcome their nervousness and shyness. This is also supported by Richard-Amato (1988), whereby learning vocabulary via games helps to reduce nervousness and shyness, especially if the game is played in small groups (Uberman, 1998). Previous researchers also supported that learning via games will create a meaningful environment where young learners communicate before, During, and after the game (Wright, Betteridge, & Buckby, 2005). The positive learning environment aids in forming comprehensible input, such as what they comprehend. It is undeniable that learning vocabulary via games would give a chance for students to experience a more positive and encouraging learning environment (Takeuchi & Vaala, 2014).

3.2 Self-efficacy using the Rajang River Run game

Based on post-test observations, it was found that using flashcard games to learn vocabulary can increase students' interest in the subject. Teachers who used the game reported, "Flashcard games have colourful cards with images, and students were excited to play this game in the classroom. The feedback from students with the words "best" and "enjoy" indicated that they enjoyed playing the game and found it interesting. It suggests that learners were motivated to learn new vocabulary through flashcard games. According to Al Neyadi (2007), motivation is crucial in language learning and provides a supportive environment that stimulates and engages students. The observation also found that students collaborated by helping to explain the vocabulary words' meanings. Derakhshan and Khatir (2015) stated that games effectively teach vocabulary by encouraging friendly competition and a collaborative learning environment. This observation proves that the way students communicate with each other indicates their interest and active participation in the learner-centred activity. The learning activity provided a meaningful experience for the students as they communicated with each other. In summary, using flashcard games encourages language vocabulary acquisition (Segal-Drori et al., 2010).

3.3 Learning and memory retention

The post-test observation has found that learning vocabulary using flashcard games could enhance the student's ability to memorise and retain new words by repeatedly connecting a word with the given image. To quote the answers from the students from the flashcard game *"On Monday, I saw Crocodile"* and *"On Tuesday, I ate Kolo Mee",* the students revealed that they could memorise and create sentences via this flashcard game. The flashcard game encourages the students' collaboration in remembering the spelling and the meaning of the vocabulary. As Vygotsky (1978) mentioned, learning via games will help develop problem-solving skills and enhance creativity and communication among primary students. It is because the students must try to remember the spelling of the vocabulary words and their meanings too. It is also supported by past researchers who believed that using games could help teachers create numerous contexts in which students can use the language for communication, exchanging information, expressing their own opinion,

and spelling new vocabulary (Derakhshan & Khatir, 2015). It shows that most students agreed that they knew how to remember the meanings of the words they had learned and generate sentences using the words on the flashcards. It shows the effectiveness of games in developing students' vocabulary skills. It is also supported by Taghiadeh et al. (2017) that using games enables children to learn vocabulary better than using traditional ways.

4 CONCLUSION

The present study contributes to a better understanding of the importance of technology use in education. The Rajang River Run game can help enhance the student's vocabulary skills. In this research, it was proven via observation from the pre-test and post-test showed that the majority of the participants had positive experiences in learning vocabulary through the Rajang River Run game, apart from having better memory retention of the vocabulary learned, which promoted the learners' interest in expanding their vocabulary bank. The student's level of motivation was observed to be improving, and they provided positive feedback through the implementation of flashcard games in learning new vocabulary. Based on the results above, we conclude that the flashcards successfully reinforced the participants' taught vocabulary while also introducing the culture and customs of the people of Sarawak—gamified learning, such as gamified storytelling, enriched participants' motivation to engage with the game. The supportive and engaging environment has helped the participants' memory retention to improve, as well as their attention. For students, using flashcard games is a fun and interactive way to learn new vocabulary without entirely depending on memorising and drilling. The feedback gathered from the participants of the gamified lesson proved that Flashcards could be an effective tool in supporting English teachers and learners in creating a learning environment where students can become more engaged in learning vocabulary via gamified storytelling. Apart from the contributions given by this project and study, a digitised version of flashcards should be available to increase accessibility among future potential users.

There are several limitations related to this study. The participants of this study were only 15 number of student from one primary school in Putrajaya. Therefore, it is warranted that future studies investigate and test out flashcards of Rajang River Run to other primary schools in Malaysia, especially ones in rural areas. Thus, it can help researchers to acknowledge the effectiveness of gamified storytelling by using flashcards to enhance students' vocabulary in English. Another limitation is that this study's findings rely only on researchers' observations and students' verbal feedback during the game. Hence, for future studies, it is best to measure students' feedback individually through the Motivated Strategies for Learning Questionnaire (MSLQ) to assess how gamified learning impacted their learning experiences.

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APPENDIX A

Observation checklist based on a revised conceptual model of academic success

No.	Item/Questions	Remarks
1.	Goal Setting	
	Has the student set clear, realistic academic goals?	
	Are the goals specific, measurable, achievable, relevant, and time-bound (SMART)?	
2.	Mindset	
	Does the student have a positive attitude towards learning?	
	Does the student approach challenges with a growth mindset?	
3.	Time Management	
	Does the student manage their time effectively?	
	Does the student prioritise tasks based on importance and urgency?	
	Does the student avoid procrastination and use their time efficiently?	
4.	Study Skills and Strategies	
	Does the student use active learning strategies, such as asking questions, making connections, and applying concepts?	
	Does the student use self-texting and retrieval practice to reinforce learning?	
5.	Relationships	
	Does the student build positive relationships with peers, mentors, and professors?	
	Does the student seek help and support when needed?	

	Does the student engage in collaborative learning and group work?	
6.	Class Attendance and Participation	
	Does the student participate actively in discussions and activities?	
	Does the student positively contribute to the learning community?	
7.	Self Regulation	
	Does the student monitor and evaluate their learning progress?	
	Does the student use feedback to improve their performance?	
	Does the student reflect on their learning and identify areas for improvement?	
8.	Purpose and Motivation	
	Does the student have a sense of purpose and motivation for academic success?	
	Does the student take personal responsibility and ownership of their learning?	
9.	Resilience	
	Does the student build resilience and adapt to challenges and setbacks?	
	Does the student learn from failures and use them as opportunities for growth and development?	
	Does the student persevere through difficulty and maintain a positive attitude?	