# Bijak Peribahasa : An Adventure Game In Learning Malay Proverb

**Siti Nur Shafirah binti Mokhtar[1], Siti Khadijah binti Othman[2], Mazliana binti Hasnan [3], Azlin binti Dahlan[4]**

Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA, Cawangan Melaka, Kampus Jasin

nurshafirah97@gmail.com, khadijah.othman73@gmail.com, mazliana@uitm.edu.my , azlindah@uitm.edu.my

**ABSTRACT**

Bahasa Melayu is one of the core subjects that students need to pass in Ujian Penilaian Sekolah Rendah (UPSR). From the preliminary study, the findings showed that students find it hard to memorize the Malay proverb and its meaning. Moreover, students only learn Malay proverbs during class sessions and only memorize for exams without understanding the meaning. The purpose of this project is to design and develop game-based learning applications for UPSR students in learning Malay Proverb. The project was implemented as a Game-based Learning Model as a guideline to develop the application, which involves nine factors including game goal, game fantasy, challenge, game mechanism, sensation, interaction, freedom, game value and mystery. The Game Development Life Cycle Model (GDLC) was implemented as a methodology in this project. Findings of evaluation shows that the game receives 96% level of agreeability as response by the users of the game. Future work for this game is to develop this game on mobile platform, improve by adding multi-player, provide high score for players and enhance the contents of the game.

KEYWORDS : Game-based learning, Malay proverb, adventure game, Bahasa Melayu, primary school student.

## 1       INTRODUCTION

In Bahasa Melayu, Dewan Bahasa & Pustaka (2017) defines proverb (peribahasa) as bidalan, pepatah, verses or group of fixed words and have a particular significance. Proverbs in Bahasa Melayu are wonderful components to convey advice, Malay teaching and moral qualities. Proverb is a basic component in the Bahasa Melayu that turn out to be progressively productive and viable.

Based on the Kurikulum Standard Sekolah Rendah (2012), proverbs include simpulan bahasa, perumpamaan, bidalan and pepatah that are need to be taught in Bahasa Melayu (Mohd Mahzan Awang, Noor Azam Abdul Rahman, Noraziah Mohd Amin, & Abdul Razaq Ahmad, 2015). This is because the proverb is a contributor to good writing. Students who are less interested by the instruction of proverbs will experience issues tending to the subject and after that giving "bad result" which is low marks and weak in writing (Arni Johan, 2012).

Numerous past investigations have shown that learning inspiration and efficiency can be improved through game-based learning (Liu & Chen, 2013). Video games can give students a chance to experience ways for discovering that stress immersion in a training, supported by structures that lead to mastery, professional skills, and innovative thinking (Admiraal, Huizenga, & Akkerman, 2011). Research published by University of Rochester neuroscientists C. Shawn Green and Daphne Bavelier, (2003) suggests that playing video games has the beneficial outcome of improving student visual specific consideration. Computer games are not the foe, yet the best open door that need to connect with student in genuine learning (Admiraal et al., 2011). The consolidation of game into learning process is frequently more viable than customary showing techniques in upgrading learning inspiration, dynamic interest, and focus among understudies likewise diversions can improve the social aptitudes of understudies just as improve their abilities in comprehension and tackling issues (Liu & Chen, 2013).

From a preliminary study, the findings showed that students find it hard to memorize the Malay proverb and its meaning. Students mostly memorize the Malay proverb without understanding the meaning which is hard for them to keep memorize the Malay proverb. Students have difficulty to understand the proverbs well because for the students the proverb contains abstract meanings also phrase that have never been heard today that are hard to memorize (Arni Johan, 2012). Statistic results found that 12.5% of the participant strongly stated that they have never used proverb in their essay and 93.8% have mixed feelings on whether they should use proverb in their essay or not.

Based on the problem discussed, there is a necessity to improve the Malay proverb learning. This project is to design and develop game-based learning applications for UPSR students in learning Malay Proverb with the aim of learning Malay proverb not only during school hours but also continued beyond school hours as well. Students can play the games and practice the Malay proverb at the same time.

## 2    OBJECTIVE

The project has three main objectives. The first objective is to design a game concept of game-based learning applications for UPSR students in learning Malay Proverb. Next is to develop a game-based learning application on learning Malay proverb for UPSR students. Lastly, to evaluate the usability of learning Malay proverb via desktop game application.

## 3    SIGNIFICANCE

The significance of this project is to  help the UPSR students to learn Malay proverbs by increasing their understanding about the meaning of the Malay proverb. Students can fill their free time by playing game that test the player's knowledge of the Malay proverb. In this way, indirectly students can learn the Malay proverb outside school hours. The content of the game will focus on learning proverb and their meanings based on the textbook syllabus. This project will include image, animation, sound and text which can make the game more interesting and players will be excited to learn Malay proverb.

## 4    METHODOLOGY

Game development life cycle (GDLC) is a guideline which encompasses the game development process (Ramadan & Widyani, 2013). The proposed GDLC consists of six

phases: initiation, pre-production, production, testing, beta, and release. The proposed GDLC takes the iterative approach to allow for a greater degree of flexibility in the development process towards changes. The GDLC product is evaluated by 5 usability quality criteria that are fun, functional, balanced, internally complete and accessible to deliver a good quality game (Ramadan & Widyani, 2013).

*A. Initiation*

The first phase in the Game Development Life Cycle is Initiation. Initiation is the first step to create a rough concept of what kind of game to be created. There are important sub processes involved in this phase which are building a story and script, and feasibility study.

A preliminary study has been conducted to obtain more information and data about this project. The survey manages to gather the data of 30 respondents through distributing a questionnaire and obtain 1 data from respondents through interviewing.

*B. Pre-production*

Pre-production involves the making and updating game design and creating game prototypes. Game design focuses on defining storyline, mission, challenge and reward.

*C. Production*

In the production phase both the actual back-end and front-end programming is done, game assets are created and merged together. To create a game, the function is supported using software and hardware requirements. After deciding the type of game to develop, software and hardware requirements need to be considered.

*D. Beta*

Based on the GBL design model, there are 9 elements to be evaluated which are game goals, game fantasy, challenge, game mechanism, sensation, interaction, freedom, game value and mystery (Y.-R. Shi & Shih, 2015). The target participants involved for the testing are standard 3 until standard 5 of Sekolah Kebangsaan Jasin, Jasin, Melaka.

Each question will be scored from 1 to 5, a scale between strongly disagree to strongly agree about the game. The result from the questionnaire will be summed up to the score received. Then, the score would be averaged according to the amount of questions for each factor.

## 5     RESULT

Table 5 Mean of each dimension

| Factor | Total Mean |
|---|---|
| Game goals | 4.84 |
| Game Mechanism | 4.80 |
| Interaction | 4.89 |
| Narrative | 4.78 |
| Sensation | 4.73 |
| Game Value | 4.63 |
| Challenge | 4.89 |
| Game Fantasy | 4.73 |
| Flow | 4.97 |
| **OVERALL MEAN** | **4.81** |
| **Percentage of overall Mean** | **96%** |

Table 5 shows the result of the total mean of each factor that is calculated from the averaged value of items from each respective factor. The result was obtained from the survey conducted by students in standard 3 to 5 of SK Jasin. The overall total mean value is used to determine the result of the usability evaluation based on game-based learning. The overall average from the total mean is 96%, which shows the level of agreeability as response by the user of the game. From the result, the project's objective is to evaluate the usability of learning Malay proverb via desktop game application.

## 6    CONCLUSION

Game-based learning is a very effective tool that is yet to be utilized to its full extent. Education today works in a way that the knowledge is forced onto the learners instead of creating a learning experience that they would enjoy and remember better. By creating this game-based learning, players will be more excited to learn more.

Bijak Peribahasa game also successfully developed for students to learn Malay proverb and proven by the evaluation result that players are able to control, learn and understand the goal of the game. Player also can easy to memorize the Malay proverb by animation to illustrate the Malay proverb, example sentences for each Malay proverb and game quiz which make them want to learn more where is include 9 element (game goals, game mechanism, interaction, narrative, sensation, game value, challenge, game fantasy and flow) to make the game more interesting.

Bijak Peribahasa is an adventure game-based learning program focused on learning Malay proverbs which evaluate the usability of this game via personal computer. The limitation of this game been found out in order to make improvement to this project to be more functional than before such as by developing on mobile platform, adding multi-player, providing a high score and enhancing the content of the game.

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