

Interactive English Vocabulary Mobile Games for UiTM Pre-Diploma Students

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ABSTRACT

Knowing that education is a part of important element in economic growth, this research was focused on the development of interactive mobile game specifically to create vocabulary related to idioms for young learners of English. The major concern among Pre-Diploma students is their lack of English vocabulary despite years of learning the subject. Therefore, this has affected their confidence level whenever they are required to use English either in spoken or written communication. We investigate the effect of mobile games on learning targeted vocabulary for Pre-Diploma students. Moreover, this study also examines whether the interactive mobile games created can improve motivation to learn and foster a deeper processing of vocabulary especially in terms of idioms for young learners of English. Therefore, through the mobile game, students will be exposed to the benefits of technology development nowadays. Lecturers also can opt for a more interactive way of teaching vocabulary rather than relying on the traditional methods alone. The functional testing and usability test have been conducted by the expert and real users to ensure that the project delivered meets the objectives. This project was developed using GameSalad that and published to the mobile with Android platform. Expected outcome was achieved after experiment conducted.

Keywords: *interactive, mobile game, learning*

INTRODUCTION

Long time ago, game has been introduced in education but limited with a range of option such as keep their score and published over selected medium especially in traditional practice. With the advancement of technology, game in education (aka gamification) widely introduced. Introducing vocabulary through games creates opportunities for engaging learners in developing and retaining vocabulary (Peregoy& Boyle, 1993). This study investigates the effect of mobile games on learning targeted vocabulary for pre-Diploma students. According to Hendricks (2009), by using a triangular approach to data collection by pre-test or post-test, observations, Likert scale, and interviews he concluded that games might have been a factor in successful student acquisition and retention of vocabulary.

This study has been conducted in UiTM Pulau Pinang which is a public institution specifically for bumiputera students. The participants of this study are Pre-Diploma students who are majoring in pre-science field. They are within the range of 18 to 19 years old and they have had 11 years of exposure to English ever since kindergarten. The purpose of this study is to examine whether mobile games and activities can improve motivation to learn and foster a deeper processing of vocabulary for pre-diploma students learners of English. Students will focus on meaning, facilitate memory of vocabulary words, and being enjoyable in the process through games (Shaw, 2009).

PROBLEM STATEMENT

The major concern among Pre-Diploma students is their lack of English vocabulary despite years of learning the subject. Therefore, this has affected their confidence level whenever they are required to use English especially in spoken and written communication. Besides that, Pre-Diploma students are having problems to focus using traditional vocabulary learning method such as chalk and talk by the lecturers. This is even more complicated when it comes to the learning of idioms as effort is required at every moment and must be maintained over a long period of time due to its high level of difficulty. Therefore, the purpose of this study is to create an interactive mobile game that can engage students in learning vocabulary via a more fun and interactive way so that they can remember whatever that they have learned in class and will not feel bored. Moreover, this study also examines whether the interactive mobile games created can improve motivation to learn and foster a deeper processing of vocabulary especially in terms of idioms for young learners of English.

Research Questions

The research questions that must be answered after the implementation of this interactive mobile game are as follows:

- i. What is the level of acceptance of using interactive mobile games in the language classroom to teach vocabulary?
- ii. To what extent does the game help the lecturers in the teaching of idioms?

Research Objectives

The objectives of this research are:

- i. To create an interactive mobile game that can engage students in learning vocabulary via a more fun and interactive method.
- ii. To enable lecturers to complement the traditional teaching techniques of teaching vocabulary.

Project Scope

This research focuses on creating interactive mobile game on vocabulary enrichment which is English idioms. Basically, English lecturers using traditional vocabulary teaching method such as chalk and talk to teach students in class. This is even more complicated when it comes to teaching of idioms as effort is required at every moment and must be maintained over a long period of time due to its high level of difficulty. Besides, the scope of this study is to give different views of teaching method using interactive mobile games. The other scope of this study is also to engage students in learning vocabulary via a more fun and interactive way so that they will remember whatever that they have learned in class and will not feel bored.

Research Significance

This study aims to provide an interactive mobile game for UiTM Pre-Diploma students. Students will be able to enrich their vocabulary especially in terms of English idioms in a more engaging technique using mobile games. The reason why this interactive mobile game was developed is due to students' attachment to their mobile phones and this would also deliver value on a smart phone technology. Therefore, through the mobile game, students will be exposed to the benefits of technology development nowadays. Lecturers also can opt for a more interactive way of teaching vocabulary rather than relying on the traditional methods alone.

Literature Review

Fundamental of Vocabulary

The fundamental and key to learning a new culture and language is vocabulary words (Carter, 2001). One of the vocabulary components that students need to learn in order to enrich their language is idioms. Therefore, it is vital for students to understand them and be able to use them. Idioms are not easy to understand because their meaning cannot be understood from the individual verbs which form them. Their meanings are metaphorical rather than literal.

According to (Diaz-Rico, 2004), for second language learners, vocabulary acquisition may be re-enforced and enhanced by students in exercise activities that make instruction motivating and meaningful. Nguyen and Khuat (as cited in Yip & Kwan, 2006) had initiated that English language students who were memorizing and studying vocabulary found it unexciting and difficult. Thus, Yip and Kwan's (2006) study discovered that students who learned vocabulary through games have improved learning and retention while making learning fun and arousing interest.

Advantage of Using Games in English Vocabulary Learning

The added advantage of using games for second language adults is the opportunity to practice vocabulary informally (Heaton, as cited in Celce-Murcia & McIntosh, 1979). Constantinescu (2012) listed advantages of using games in the language classroom and some of them are:

- Games make up English students repertoire in a familiar and comfortable environment.
- Games increase motivation and desire for self improvement.
- Challenge and competition are key factors for any game and students pay more attention to completing the task.
- Games comprise clear objectives and rules.
- Games build up students 'ability to study.
- Games develop imagination, problem solving and critical thinking.

METHODOLOGY

There are several phases involve namely:

Planning Phase

Planning is the first phase that is being carried out in research methodology. Customarily, the title of the project is defined at the planning phase. Planning phase contains two activities which are feasibility of study and defining the project. Electronic articles and journals are reviewed to produce structured chart and literature review as the deliverables.

Feasibility of Study

Feasibility of study looks at the possibility of the project with an emphasis on identifying potential problem and to determine whether the project would work and can proceed successfully. These activities included identifying the area, defining the problem, objective, scope and significance of the project.

Define Project

Project area, problems, objectives, scope and significance would be defined after all the feasibility study activities have been gathered via reviewing and discussed related articles and journals. Then Gantt chart and literature review table would be the deliverables of this phase.

Information Gathering Phase

In this phase, theoretical study is established by reviewing the existing journal and articles. It summarized important topic such as the adoption of interactive games to support learning, the problem that students face in learning and memorizing English vocabulary. Vocabulary is important because it is fundamental to aid understanding and to enhance their communication skills with others.

An existing interactive games on the internet and the Smartphone provided ideas on how the project looked like. Each of these games was compared, and the information on expertise and weakness are taken to improve the new project. Focus on this project is to create an interactive game that can engage students in learning vocabulary via a more fun and interactive way so that they will remember whatever that they have learned in class and will not feel bored. It also enables lecturers to opt for a more interactive way of teaching vocabulary rather than relying on the traditional methods alone.

Creating

During this phase, some of interactive games software that can be used was analysed. The software includes software for editing graphics, sounds, and also for developing the interactive game like Adobe Flash, Audacity, Sound Forge, GameSalad and Photoshop, Microsoft Power Point and Adventure Game Studio.

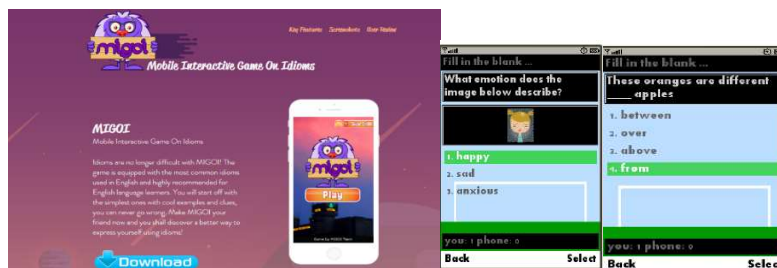


Figure 1: Interactive page was developed

Data Collection Phase

This phase explains more about the collection of data and sources needed to complete the project. Through interview, the problems that contribute to the study have been determined. These include the pre-diploma students' awareness about the importance of learning vocabulary. Besides that, researcher has also interviewed the English lecturers to gather data about the period of their English students learning process and their usage of the language in the class.

Testing

Functional Testing

According to William (2006), functional testing focuses especially on the outputs created in response to selected inputs and execution condition. For this project, this testing involves ensuring that the functionality specified in the functional requirements list. These functions must help eliminate the problems that were

trying to be solved and achieve research objectives simultaneously. Only three people were involved in this testing which is the researcher, supervisor and UiTM Penang English lecturer. For this functional testing, it is better to have expert testers who know what to expect from the application. It would help to enhance the application and make it better functionally.

Usability Testing

Usability testing is the process by which the human-computer interaction characteristics of a system are measured and weakness is identified for rectification (Levi & Conrad, n.d.). This testing is one of the critical parts that must occur before the mobile games can be distributed. This testing is done in order to get feedback from users to identify any flaws and lack of the application for the future improvement and adjustments.

Answer The Idioms game has been tested by 28 students from Pre-Diploma program Faculty of Applied science and also by Madam Isma Noornisa Binti Ismail, lecturer for the class who willingly participate in the experiment. Apart from that, this mobile game has also been tested by 3 other lecturers who are teaching pre-diploma students. They need to play the mobile game from level one to level two. During the testing, researcher did not assist and guide them for the usage of the mobile game. After finished playing Answer the Idioms, participants need to answer a set of questionnaire given by the researcher. All the entire feedback and response from them has been analyzed to determine the result.

FINDING

Each question's response was extracted and responses with 'Strongly Agree' and 'Agree' were considered as satisfied or positive responses. Those responses were translated and accumulated into categories which are content, navigation, interface and students feel.

Figure 2 shows the overall analysis of the questionnaire to measure user's satisfaction through the responses of users after using the mobile game. 97 percent shows that users are satisfied with the content of the mobile game, 97 percent of users agree on navigation is understandable and reliable through all the application, 94 percent of users agree on the ease to understand the interface design of application and straightforward of information

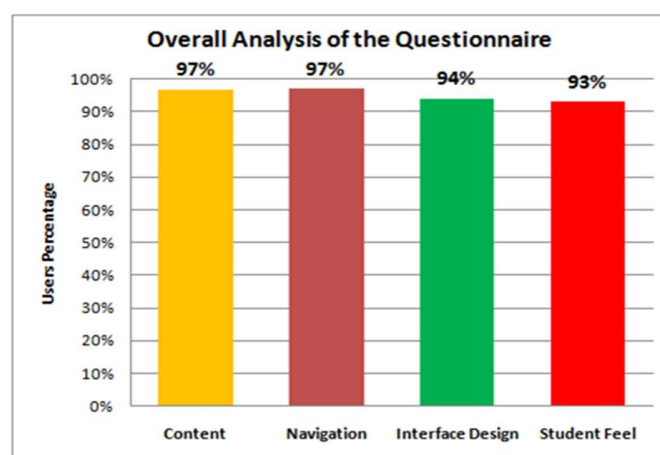


Figure 2: Overall analysis of the questionnaire

Comments and Advices from Users

In overall, most comments from users are regarding the question and level of the Answer the Idioms game. Most of them suggested that this game should have more questions on each level and more challenging questions should be created. Users also want the mobile game to have more levels in the future and answer will be shown if users choose the wrong answer.

From the figure 3 below, it can be concluded that 100% of users agree if this mobile game is used as one of the alternative source to learn and teach vocabulary in their class.

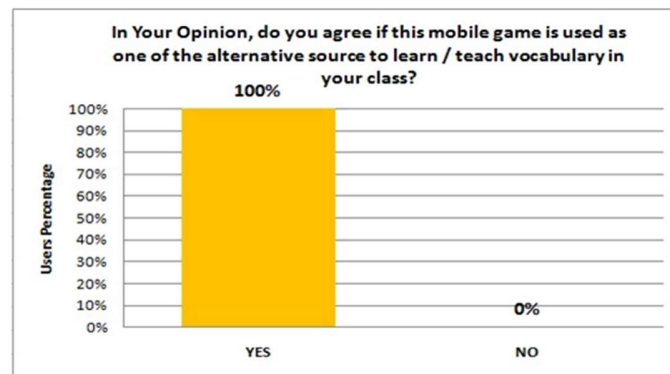


Figure 3: Users agree if this mobile game is used in their class

CONCLUSION AND RECOMMENDATION

It can be concluded that this game can offer roughly new and dynamic for learning in engaging with students. This mobile game can be used as one of the alternative source to learn and teach vocabulary in the class. As a result, the mobile game enables lecturers to complement the traditional teaching techniques of teaching vocabulary. However, for the future improvement and enhancement still needed where it can be synchronized with online access and using cloud storage for storing their attempt and score. Gamification principles should be added to increase ease of use and increase overall enjoyment for a better user experience.

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