

CHAPTER 17

ZOOLOGY VENTURES: A WAY FORWARD INTERACTIVE MULTIMEDIA TOOL TO ENHANCE VOCABULARY MASTERY AMONG PRIMARY SCHOOL STUDENTS

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ABSTRACT

Vocabulary is an important aspect in developing English language skills and ensuring students' vocabulary mastery is crucial in teaching ESL. However, it is found that students were unmotivated and unable to recall and retain the words they had learnt especially during HBL. Hence, this study is to find out the effectiveness of interactive multimedia tools in enhancing vocabulary mastery among primary school students. This study enlisted the participation of 30 Year 4 students in Sarawak and a PowerPoint-based innovation called Zoology Ventures was created, concentrating on animal related words and exercises. In addition to the design, development, implementation and evaluation, quantitative pre and post tests and informal qualitative interview were conducted. This innovation is easy to use in online and offline learning and can be used in other lessons like Science. It has an added bonus feature, which is the talking encyclopedia. It is also available in PDF format to aid students who do not have appropriate devices or applications to run it. The results showed that students' vocabulary acquisition improved after using the interactive module. Based on the interview, students were more engaged and more motivated to learn interactively. This innovation emphasised that, rather than employing traditional chalk and talk approaches, interactive lessons are essential as a source of motivation to grab students' attention and interest in learning. Thus, the benefits of learning with interactive multimedia tools are apparent, as it has the potential to bridge the gap between conventional and modern learning methods for students in the 21st-century.

Key Words: vocabulary mastery, interactive multimedia, ESL

1. INTRODUCTION

English as a second language (ESL) in Malaysia aimed to expose students to communicate effectively and efficiently in social and professional situations. It also provides an additional means of access to academic, professional and recreational materials. As the second important language, it is used widely in many fields and has become one of the main requirements to be employed. Owning the ability to communicate in English will also provide a wide access to other cultures. Due to the rapid development of the country, students are required to equip themselves with adequate English competencies. Sadly, the level of proficiency among the students has created a lot of reaction among the community. The industries, on the other hand, pointed out that the majority of the university graduates were unable to be employed because they were unable to communicate proficiently in English.

Due to the Covid-19 pandemic, students' learning has shifted to home-based learning (HBL). It is found that students were having difficulty in vocabulary retention and were unmotivated to learn especially during HBL, which makes ESL learning more difficult. The importance of vocabulary in the development of listening, speaking, reading, and writing skills is critical in ESL, and ensuring students' vocabulary mastery is important. Insufficient practice of the language has made these students having difficulties to remember the words they have learned and the traditional chalk and talk teaching needs to change in order to grab students' attention and interest to learn. Thus, the researchers have outlined the research objectives and research questions for this study as follows:

Research Objectives

1. To study the effectiveness of an interactive multimedia tool, Zoology Ventures, in enhancing vocabulary mastery among primary school students.
2. To find out students' motivation in learning vocabulary using interactive multimedia tool, Zoology Ventures.

Research Questions

1. Is an interactive multimedia tool, Zoology Ventures, effective in enhancing vocabulary mastery among primary school students?
2. Are the students motivated in learning vocabulary using interactive multimedia tool, Zoology Ventures?

2. LITERATURE REVIEW

The value of vocabulary in ESL is important because without it, students will be unable to understand others or convey their own thoughts. According to Zimmerman (1997 in Agnes, 2008), vocabulary is important to language for young learners, and words are critical to language acquisition. William (2008) stated that the teaching of vocabulary is highly valued in ESL classes since it aids in the development of the four ESL language skills: listening, speaking, reading, and writing. The greater the student's vocabulary, the

easier it is for them to improve their language skills. Boyinbode (2018) on the other hand, stated that one of the most important aspects of language learning is vocabulary, and having a diverse vocabulary is essential for understanding written and spoken language. To achieve this, teaching and learning need to be planned well, especially in terms of instructions, activities and the use of learning materials. At the same time, the execution of the lesson should be able to create fun and positive learning environments.

In reality, vocabulary is taught apart from language skills. The vocabulary is usually given by the teacher, who then asks students to write it down in their notebooks and then memorize it for the next lesson. This traditional method is tedious, and the students despise the lessons as a result. As one of the crucial language elements, vocabulary teaching must be aided with a variety of teaching tools. The use of technology and multimedia is one of the most appealing teaching approaches in ESL classrooms. Multimedia is a visually attractive electronic resource that is created based on the content of the learning subject and the educational standard syllabus. It is aided by animations, videos, images, texts, and sounds, which can assist students in learning more efficiently and enriching the subject matter's content (Ogay, 2020). Multimedia is defined in other studies as the use of numerous types of media in a presentation (Schwartz, 1999) such as images, audio, video and movies, as well as the usage of different text typefaces (Greenlaw, 1999). It is used in many teaching and learning settings because it provides a sophisticated multi-sensory experience in exploring the world through the presentation of information in the form of texts, images, audios, and videos. It not only allows for a deeper understanding of vocabulary, but it also saves time and energy when it comes to preparing teaching and learning materials (Khyabani et al., 2014). In comparison to traditional chalk-and-talk teaching methods, interactive multimedia can help with teaching and learning by providing a well-structured instruction with a variety of illustrations that can help students retain and understand information even if the sentences are not grammatically correct (Mthethwa, 2018). At the same time, it is able to encourage the student's active participation during the lesson (Adeniyi et al., 2016)

3. METHODOLOGY

The primary goal of this study was to create an interactive multimedia tool and evaluate its feasibility and effectiveness in enhancing vocabulary mastery among primary school students. An innovation called Zoology Ventures using PowerPoint presentation as the major instrument was created, whereby 58 slides were made via PowerPoint using animal-related vocabulary as the main focus. A total of 30 intermediate to low proficiency primary school students from two schools in Sarawak were purposely selected to participate in this study. This study was carried out for three weeks using a mixed method approach. Figure 1 shows the ADDIE model utilised in this study.

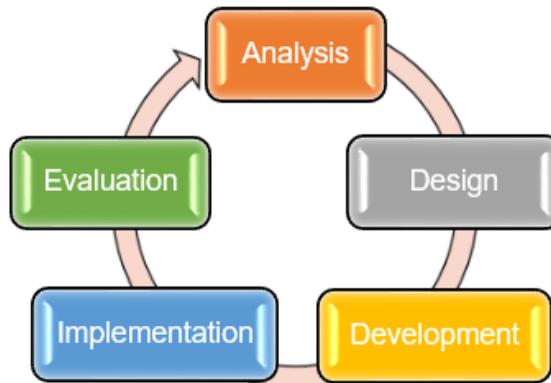


Figure 1: ADDIE Model

In the analysis stage, the researchers found that there are issues in vocabulary retention among students. A pre-test was constructed and carried out using Vocabulary Knowledge Scale (VKS). Students were given 20 animal related words and they had to respond according to the scales given (1 - I have never seen/heard the word, 2 - I have seen/heard the word but I do not know what it means, 3 - I know this word. It means...). After collecting the pre-test result, Zoology Ventures was designed and developed using PowerPoint. Then in the implementation stage, four days were given to implement the interactive module, where the teacher explained on how to use it on the first day and the next three days were given for the students to fully utilise and explore the module. For students who do not have appropriate devices or applications to run the interactive module, they are provided with printable PDF format modules. After four days, they are required to respond to the VKS post test, to identify how much vocabulary they were able to recall after the implementation of the module. The last stage is the evaluation stage where the data from the pre and post test were analysed and interpreted in the form of percentage to identify the effectiveness of the module. Informal interviews with the students were also conducted to get feedback about the impacts of the module towards their vocabulary acquisition and motivation to learn. Figure 2 shows a compilation of extracts from the innovation.

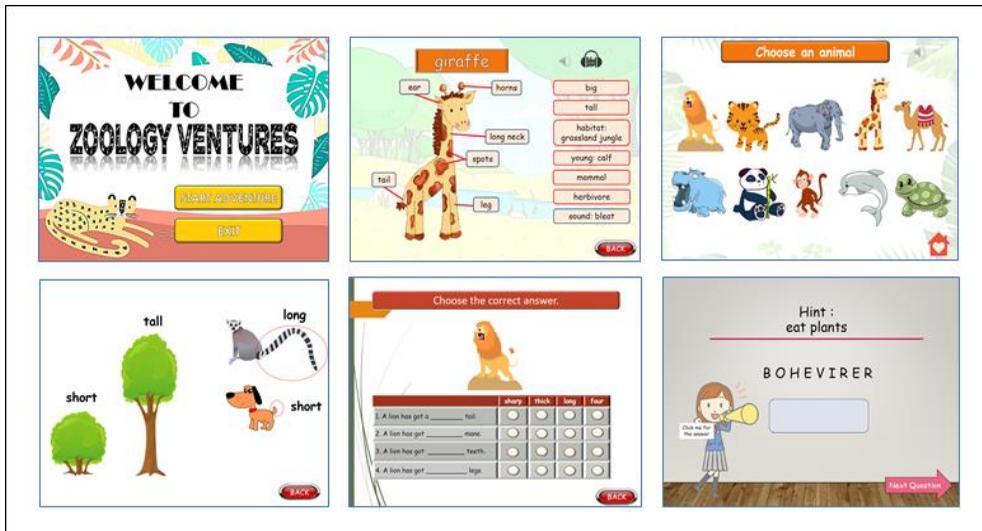


Figure 2: Extracts from the innovation

4. RESULT & DISCUSSION

As this paper aimed to design, develop and evaluate the effectiveness of the implementation of Zoology Venture in improving the ESL students' vocabulary mastery, the result of the study is reflected in Figure 3 below.

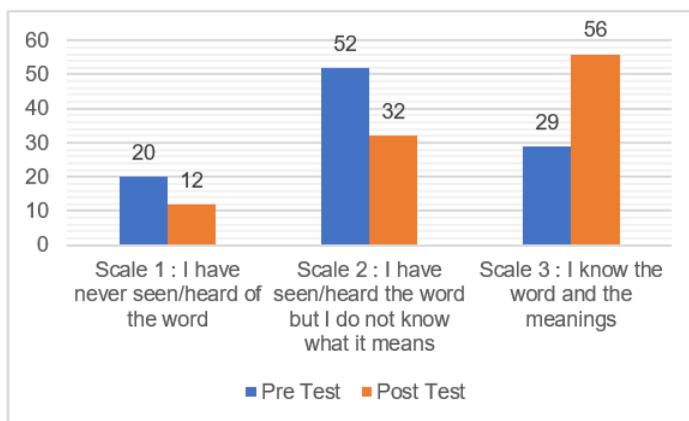


Figure 3: Pre-Test and Post-Test Results

A comparison of the result obtained in pre-test and post-test showed a drastic improvement in students' vocabulary acquisition as shown in Figure 3. From the results, 20% of the students responded that they have not seen/heard the words given in the pre-test but this result decreased in the post-test to 12%. Meanwhile, 52% of the students, which is the highest percentage in pre-test, responded that they have seen/heard the words but they do not know what the words mean. However, this result has decreased to 32% in

the post-test. The third scale results depicted a great success when the percentage of students who know the words and the meanings increased from 29% in the pre-test to 56% in the post test. As this study aimed to see the effectiveness of the material in students' vocabulary ESL learning, the results have proven that the use of Zoology Ventures had successfully improved the vocabulary mastery among the primary 4 students.

Informal interviews were also carried out after the implementation of Zoology Ventures to get the students' personal feedback of the module. Based on the interviews, the majority of the students admitted that the material is fun, helpful and easy to use and navigate. The inclusion of the animations, colourful images, words and sounds in the material did help them to understand the meaning of the vocabulary better. Some of the feedback from the students are reflected in Table 1 below.

Table 1: Students' feedback on the implementation of Zoology Venture

Student 1: The materials given were very helpful
Student 2 : The PDF about the animal helped me. Easy to understand when looking at the picture.
Student 3 : It is fun and easy to use.
Student 4 : I like it. Easy to understand and learn.
Student 5 : I prefer to learn using PowerPoint because it is fun.

Based on the result, the significant improvement portrayed the success of the effectiveness of the interactive multimedia tool in helping the student to obtain better retention and understanding in vocabulary learning. The outcome of the post-test is supported by a previous study which also indicated the same result (Ogay, 2020). As the innovation of the material is designed and developed with variation of animated images, sound and audio, it managed to stimulate the student's interest in the lesson. The fun nature of the innovation had made the learning navigated easily. The same findings also reflected in Mthethwa (2018) that claimed the students learn and retains longer while participated in the lesson activities. Meanwhile other study supported the used of the word of approval, praise and supportive emoji in the tool had a major influence in contributing the student's motivation to learn (Khiyabani et al., 2014).

5. CONCLUSION & RECOMMENDATION

The study aimed to identify the effectiveness of the interactive multimedia tool in improving the students' vocabulary mastery in ESL classrooms. It has proven to improve the students' vocabulary mastery as it is designed with fun and interactive elements and has a good potential to stimulate the students' interest and promote active language learning. The outcomes of the study may have implicated the methodology of teaching ESL. The traditional teaching method should shift to more interactive learning that is able to create a fun and positive learning atmosphere. The findings of the study provide an insight on the application of interactive multimedia tools in ESL classrooms especially in

teaching vocabulary. Future studies may look into different types of interactive activities in other language skills. As a result, the advantages of interactive multimedia tools are apparent, and they have the potential to bridge the gap between conventional and modern learning approaches for 21st-century students.

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