

EFFECTIVENESS OF DIGITAL GAMES IN STUDENTS' VOCABULARY

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ABSTRACT: *Vocabulary is a crucial element in language learning. It has a vital role in building communication. Learning vocabulary is challenging. However, some strategies would help, like digital games. This study aimed to investigate the effectiveness of Digital vocabulary games in developing vocabulary level and attitude among 30 grade 8 learners of Dagatkidavao Integrated School. The vocabulary level of the respondents was identified using a 50-item test, while learners' attitude towards vocabulary learning was determined through a 20- item Likert scale questionnaire adapted from Gimolatan (2016). Descriptive statistics such as mean and mean percentage was used to determine learners' vocabulary level, attitude towards vocabulary learning, experts' assessment, and learners' perception after using Digital vocabulary games. On the other hand, paired sample t-test was used to determine the significant difference in the vocabulary level and attitude of the learners before and after the intervention. Moreover, an Independent t-test was utilized to identify the significant difference in learners' post-tests when grouped according to their attitude. Results showed that the participants improved their vocabulary level and attitude towards vocabulary learning after the intervention. Moreover, the increase in vocabulary level, attitude, and difference in the post-test scores when grouped according to their attitude was statistically significant. Thus, Digital vocabulary games effectively improved the learners' vocabulary level and enhanced their attitude towards vocabulary learning. Furthermore, the experts and learners find the material ready to be utilized and develop learners' vocabulary level. Hence, educators and school administrators are encouraged to incorporate digital games in the teaching and learning process, explicitly enhancing learners' vocabulary levels. Keywords: digital vocabulary game, attitude, vocabulary level.*

KEYWORDS: Teaching during the pandemic, vocabulary problems, ADDI for vocabulary GBL

INTRODUCTION

Vocabulary is one of the knowledge areas in language that has always played a significant role in acquiring a language. Unarguably, it is considered the essential component for language proficiency which links the four skills of listening, speaking, writing, and reading. According to Rohmah (2017), vocabulary promotes fluency, improves academic achievement, and enhances thinking and communication skills since words are considered tools in analyzing, inferring, evaluating, and reasoning. Accordingly, learners need to have 5000 words to make specific uses

of English like reading newspapers, reading novels, watching movies, and taking part in the conversation. However, several learners are less likely to have the appropriate knowledge base and vocabulary to communicate and comprehend texts in content-area classes.

In the Philippines, this problem manifested in the 2018 Programme for International Student Assessment (PISA) result. PISA is a worldwide study by the Organization Economic Co-operation and Development (OECD) that examines students' reading, mathematics, scientific knowledge. Reading was the main subject assessed among 15- year old students. The Philippines' average score is only 340, 100 points less than the OECD average, 487. This result shows that Philippines performance in reading comprehension ranked lowest among 79 participating countries, and it is believed that one contributing factor of this is the students' poor vocabulary level. As Rahmin (2015) supported, vocabulary is a determinant factor of success in reading comprehension. Students need to understand the meaning of the words they will be reading to promote understanding.

Furthermore, the country's National Achievement Test (NAT) fails to reach the required 75% mastery level across all learning areas for the school year 2019-2020. The test also evaluates learners' understanding, comprehension, knowledge, and capability in a particular site. Even in the local classroom setting, there is an increasing problem with learners' vocabulary competence as manifested in their inability to convey ideas and get the necessary information from a material. In addition, they also find it challenging to understand what the words mean, resulting in poor comprehension and, thus, poor academic performance.

In Dagatkidavao Integrated School, a Diagnostic reading Test was conducted by School's reading coordinator last June 2019. Results revealed that out of 256 Grade 8 learners, 125 or 48.82% were frustration readers, and there were only 5 or 1.95% were classified as independent readers. This data shows that learners have poor reading comprehension, and one of the factors affecting this is the learners' poor vocabulary level.

Several researchers and educators facilitate second language vocabulary acquisition using educational technology. One of such strategies is Game-based Learning. In this strategy, games are used to involve students in learning. Well-chosen and designed games are invaluable as they give learners a break and at the same time allow learners to practice language skills. Many studies conducted related to the benefits and advantages of digital games in vocabulary acquisition. For instance, the study conducted by Anyi (2018) entitled "Evaluating the effectiveness of Digital Game-Based Learning in Second Language Vocabulary Acquisition" found that digital games are effective in vocabulary acquisition. Since students and teachers perceive DGBL as interactive and fun, it stimulates memory retention, is easy to use, and appeals to the generation of technology users.

Despite myriads of studies on digital games and vocabulary learning, poor vocabulary level is still a pressing problem encountered in the academic world. More studies need to be conducted to verify the effectiveness of digital games in improving learners' vocabulary, especially in this

pandemic time where there are no face-to-face classes. Also, there is a need to develop and invest in vocabulary development, such as using new and various approaches to improve learners' vocabulary level. Since, without intervention, literacy deficits in learners' early years of Education will follow a downward spiral in progress in their following years. Therefore, the researcher finds it necessary to develop a material that would help improve learners' vocabulary level by incorporating Digital vocabulary games. This strategy appeals to the learners who are technology users. Also, incorporating Digital games in the teaching and learning process in this pandemic time fits the new landscape of Education, distance learning.

METHODOLOGY

Research Design

This paper used a one-shot pre-experimental design where a single group of test units is exposed to an experimental treatment, and a single measurement is taken afterwards. It only measured the post-tests and did not use a control group. In the paper, the researcher only used one group of respondents who were given treatment and assessed after the intervention.

Research Locale

Dagatkidavao Integrated School is the locale of the study. An Integrated school located at the Purok Pag-asa, Dagatkidavao, Valencia City, Bukidnon. DKDIS offers the following in the Senior High School Curriculum: General Academic Strand (GAS) and HE combination (Cookery, FBS, and House Keeping). In the overall population, one hundred fifty-seven (157) of them are grade 8 students from 2019-2020. During the pandemic, the teacher delivered instruction by providing printed and digital modules for grade 11 learners since the Division of Valencia provides netbooks and tablets to the specified grade level.

Research Participants

The study respondents were the thirty grade 8 frustrated readers with cellphones from the school data provided by School's reading coordinator. Frustration readers are the grade 8 learners whose reading speed is slow, specifically 120 and below words per minute. The learners were enrolled for the S.Y. 2019-2020 in Dagatkidavao Integrated School.

Data Gathering Procedure

To make the data gathering easy, the researcher observed the proper protocol. Asking permission from the school principal where the study was conducted was done first. After which, the researcher secured a copy of grade 8 frustrated readers from the School's reading coordinator. These learners are described to have low reading speed and have poor reading comprehension. However, the researcher selected only those who have cellular phones to participate during the implementation of the developed material. And since it's pandemic, there is no face-to-face interaction between the participants and the researcher.

In order to communicate and ask for the participant's consent, the researcher created a group chat (G.C.) in the messenger where she gave the study's procedure and information on how they could

participate. In addition, the researcher provided them with a guided reading lesson module where all the instructions and directions were given. The researcher also provided the load and codes of the game for them to download the application where the digital vocabulary game can be accessed. The learners were assured that the safety and confidentiality of their identity and privacy would be taken with the utmost consideration. After which, the researcher assessed the vocabulary level of the learners and their attitude towards vocabulary learning online, specifically google forms. After conducting these tests, the researcher developed a digital vocabulary game based on the ADDIE instructional design Framework, consisting of five cyclical phases- Analysis, Design, Development, Implementation, and Evaluation phases. After downloading the application, learners are asked to open the application and go to "Shared with me" and enter the codes of the following games.

Statistical Techniques Used

The following statistical tools were used to aid the analysis and interpretation of data. The researcher used descriptive statistics such as mean and mean percentage to determine the level of vocabulary skills of learners, the attitude of the learners towards vocabulary learning, evaluation of the experts, and perception of the learners' after the use of digital vocabulary games. While paired sample t-test was used to determine the significant difference in the vocabulary level and attitude of the learners before and after the intervention. Moreover, an independent T-test was used to identify the significant difference in learners' post-test scores when grouped according to their attitude

Summary

This study focused on the effectiveness of the Digital Vocabulary game on the vocabulary level and attitude of grade 8 learners at Dagatkidavao Integrated School. The study's primary purpose was to determine the effectiveness of Digital vocabulary games. Specifically, the paper aimed to: assess the students' level of vocabulary learning before and after the use of Digital vocabulary games, determine the attitude level of the students towards vocabulary learning before and after the use of the Digital vocabulary games, evaluate the significant difference in the gain score in vocabulary test before and after the use of digital vocabulary game, consider the significant difference in the gain score and post-test score in vocabulary test of students when grouped according to their attitudes towards vocabulary learning, evaluate the significant difference in the students' attitude towards vocabulary learning, determine the expert's assessment of the newly developed material and determine the learners' perception after utilizing the digital vocabulary game. The data were gathered from thirty grade 8 frustrated learners with cellphones of Dagatkidavao Integrated School, Dagatkidavao, Valencia city. Results revealed that learners' vocabulary level did not meet the expectations. However, after exposure to Digital Vocabulary games, their scores were significantly increased. The respondents developed a positive attitude after the intervention in terms of their attitude.

Furthermore, it was found that there is a significant statistical difference in the level of vocabulary level and attitude of the learners towards vocabulary learning pretest and post-test scores. In addition, it was also found that there is a significant difference in the post-test score in vocabulary

test of learners when grouped according to their attitude towards vocabulary learning. Also, the developed material meets the eligibility standard, which means that it is ready to be utilized but needs to be revised by incorporating the panel of experts' suggestions. And lastly, the learners have a positive perception of the newly developed material.

CONCLUSION

From the data gathered in the study, the following conclusions were made:

First, the learners' vocabulary level improved after the intervention, which means that Digital vocabulary games are an effective tool that helps learners in enhancing their vocabulary level. This result also implies that educators can incorporate digital games as an added tool in developing learners' vocabulary in this pandemic where there is no face-to-face interaction between teachers and learners.

Second, the participants had a "moderately positive attitude towards vocabulary learning before the intervention regarding their philosophy. However, after the intervention, the respondents developed a positive attitude. Hence, Digital vocabulary games positively influence learners' attitudes towards vocabulary learning, which the educators must consider as one of the factors in improving learners' attitude towards vocabulary learning. This also implies that learners appreciate and think of the use of games as an effective tool that will help in enriching their vocabulary.

Third, a significant statistical difference in the level of vocabulary achievement of the participants' pretest and post-test. Thus, the use of Digital vocabulary games helps in improving learners' vocabulary levels. This also implies that incorporating technology such as digital games is an effective strategy to enhance learners' vocabulary level. Also, this means that learners' exposure to new material and approach is effective in developing their vocabulary learning hence teachers must be innovative and updated to the new trends of language approaches that could be utilized for students' development.

Fourth, a highly significant difference in the learners' attitude after the exposure was noted. This implies that Digital vocabulary games enhance the learners' attitude towards vocabulary learning. Also, it means that the teacher's material in the teaching and learning process plays a significant role in improving learners' attitudes. Hence, teachers must be able to use not only appropriate but engaging materials that would fit the learners' level and interests.

Fifth, a significant difference in the vocabulary level of the participants, when grouped according to their attitude, was noted. It means that learners who had a positive attitude towards vocabulary learning had a higher vocabulary level. This implies teachers must consider the learner's attitude towards vocabulary learning as one of the factors that will help improve their vocabulary level. This also means that the teacher must exert an effort to develop a positive attitude of the learners first before introducing them to the lessons to assure learning improvement, as it is one of the factors that influence their learning.

Sixth, the experts found that the Digital vocabulary games are eligible, which means that the material is ready to be used but needs some revisions. Again, the researcher followed through incorporating the panel of experts' comments and suggestions.

Lastly, the learners positively perceive the newly developed material, the digital vocabulary games. Hence, teachers are encouraged to utilize digital games to improve learners' vocabulary levels since learners consider it a tool that would help them improve their vocabulary levels. This also implies that teachers should consider developing a material that fits and would catch learners' interest since this is one way to create a positive attitude among our learners that would lead them in improving their academic performance.

Recommendations

In the light of the findings and conclusions of the study, the following are recommended: English teachers are suggested to incorporate Digital vocabulary games to address the students' difficulty in vocabulary mastery and improve their reading comprehension level and attitude towards vocabulary learning. School administrators may encourage the language teachers to utilize Digital vocabulary games to attain optimum knowledge of vocabulary learning of every learner. Educators may create classroom situations and activities using Digital Games to motivate learners to think inductively to discover new concepts independently. Moreover, the games will also give them enjoyment while learning. Further research and a more extended experimental period are also hoped to be conducted to yield better results in terms of vocabulary achievement. Also, it is recommended to conduct studies investigating other factors that affect and influence the level of vocabulary achievement of learners.

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