Research Articles

Received: 2022-05-06 **Revised:** 2022-06-27 **Accepted: 2022-06-27**

The Effects of Nearpod Application on Improving Vocabulary Knowledge of Mathayom Suksa 3 Students at Sansaiwithayakom School in Chiang Mai Province

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Abstract

The objectives of this research were 1) to develop the vocabulary lessons via the Nearpod application to enhance the vocabulary knowledge of Mathayom Suksa 3 students at Sansai Withayakhom School in Chiang Mai province, 2) to compare the vocabulary knowledge of the students before and after learning vocabulary via the Nearpod application, and 3) to investigate the students' satisfaction with learning vocabulary via the Nearpod application. The study was quantitative research and the research instruments consisted the vocabulary lessons via the Nearpod application, a vocabulary knowledge test, and a Satisfaction questionnaire. The first finding presented that the vocabulary lessons via the Nearpod application were effective (IOC=0.7-1). The second finding found that the learning achievement of vocabulary knowledge via Nearpod application after learning was significantly higher than before at 0.08. Finally, the third finding showed that the students' high satisfaction with Mathayom Suksa 3 with learning vocabulary via the Nearpod application.

Keywords: Nearpod application, vocabulary lessons, knowledge

Introduction

Nowadays, it was generally accepted that English was a crucial language for global communication and it was the largest common language spoken universally (Nishanthi, 2018: 871). English had become a tool for communication in the new era of globalization and information technology. Because of the importance of the English language, many countries around the world had mandated English as a second or foreign language, and it was taught at both school and university levels. Therefore, English for communication was necessary for everyone related to businesses, industries as well as education. In Thailand, English had been regarded as a foreign language, but recently, the Ministry of Education had aimed to reform education to enable learners to communicate and work effectively using English as well as Chinese or other languages (Kaur, Young, & Kirkpatrick, 2016: 345-361)

Although, successive governments had recognized that English was necessary for Thai students but teaching and learning English still face a huge problem based on the four language skills. Vocabulary was one of the aspect that affects the success of foreign language acquisition (Zhang, 2011: 14-15). When learners did not have adequate vocabulary knowledge, they had difficulties comprehending the messages conveyed by the speaker or from the text. With a strong vocabulary repertoire, the skills of listening, speaking, reading, and writing could be performed easily. Moreover, teachers realized that vocabulary teaching was very significant before starting the class, whether it was a grammar class, reading, listening, speaking, writing, or pronunciation. In general, English classes in Thailand were conducted by using the traditional teaching method with teachers acting as knowledge providers. Learning activities were mostly paper-based, leading to classroom boredom and low motivation among the students.

Moreover, Thai students' level of vocabulary knowledge was considered to be at a low level because they still possessed a small vocabulary size for both receptive and productive skills (Thangaroonsin, 2016: 4). Similarly, the Mathayom Suksa 3 students at Sansai Witthayakom School had been found to have encountered difficulties in reading English materials. Consequently, their English O-net average scores had been very low compared to the standard criteria of the Ministry of Education's requirements. Moreover, according to a preliminary survey, it was revealed that vocabulary teaching was frequently overlooked at the school and in the Thai educational system in general. What had been found was that teaching English at Sansai Witthayakom School mainly focuses on grammar patterns leading to poor vocabulary development of the students. Furthermore, the Thai educational system basically followed traditional methods of passive learning which had led to lesser students' engagement and thus made the classroom environment boring and less interesting. Due to the problems mentioned above, it was worth finding an effective method to improve the students' vocabulary knowledge and acquisition.

Recently, technology and education could be said to be almost inseparable entities. As a result, technology in the form of applications had particularly become a part of learning and teaching languages around the world. This was true for learning English in the globalized world. The use of applications allowed the students to learn languages in various convenient, effective, efficient, and creative ways. Moreover, they could learn on their own time and were able to tailor the contents to fit their specific individual needs. Furthermore, utilizing applications could make learning English more enjoyable. Instead of repeating English words in a classroom setting, students could play games and interact with their teacher both onsite and online. These advantages could enhance and improve educational experiences for students and teachers alike.

Nearpod application was an online application for interactive presentations and assessments. It was able to create an enriched multimedia presentation with useful and user-friendly interactive features. Teachers could then share the content with the students and control the activities by using this application. Students had the full capability to receive the content and share their work or assignments to the whole class, leading the classroom environment to become more interactive. This enhanced the students' engagement and critical thinking skills (Sanmugam, Selvarajoo, Ramayah, and Lee, 2019: 8908-8915). Additionally, the other interactive features in the application could help not only the teacher monitor the student engagement as well as understand their learning progress but also the students participate openly in discussions in the class (Krahenbuhl, Smith, 2015: Online). In addition, the responsive feedback, another feature of the Nearpod application, was beneficial for both teachers and students to provide instant feedback during their learning process. This was favorable for the teacher to monitor the students' progress as well as the students themselves to improve their understanding.

Hence, this study focused on the use of the Nearpod application to enhance the vocabulary knowledge of Mathayom Suksa 3 students at Sansai Witthayakom School. With this method, the students were able to enhance their vocabulary knowledge in an interactive, engaging, and enjoyable way of learning English, which could ultimately contribute to their higher achievement scores on their tests and vocabulary knowledge.

Research Objectives

1. To develop the vocabulary lessons via the Nearpod application to enhance vocabulary knowledge of Mathayom Suksa 3 students at Sansai Withayakhom School in Chiang Mai province

2. To compare the vocabulary knowledge of the students before and after learning vocabulary via the Nearpod application

3. To investigate the students' satisfaction with learning vocabulary via the Nearpod application

Research Methodology

Population:

The population in this study consisted of Mathayom Suksa 3 students at Sansai Wittayakhom School. There were eight classes of Mathayom Suksa 3 students, with a total of 300 students.

Sample group:

The sample group was selected from the population by applying the cluster sampling method. The sample group comprised 40 Mathayom Suksa 3 students at Sansai Wittayakhom School, who were enrolling in the second semester of the 2021 academic year.

Research Instruments:

The instruments for treatment were the English vocabulary lessons with the incorporation of the Nearpod technology and vocabulary lessons. Moreover, the data were further collected using a vocabulary knowledge test (pre-test and post-test), and a satisfaction questionnaire.

Data Analysis:

1) For the analysis of the Index of Item-Objective Congruence (IOC), the mean score ($\bar{x}$) standard deviation (SD) was obtained by using the following formula.

2) The mean scores from vocabulary knowledge tests that were the pre-and post-test were compared using the pair-sample t-test to find out the improvement of the students' vocabulary knowledge. The descriptive statistics used to calculate the data were mean, standard deviation, and t-value.

3) The data from the questionnaire were analyzed for a mean and standard deviation of each questionnaire item based on the five-point rating scale from highest, high, moderate, low to lowest.

Results

The purposes of this study were to develop vocabulary lessons via Nearpod application to improve the English vocabulary knowledge of English students had the efficiency, to compare students' vocabulary knowledge before and after learning with vocabulary lessons via Nearpod application, and to explore students' satisfaction with the developed vocabulary knowledge. The participants were 40 Mathayom Suksa 3 students at Sansai Withayakhom School in Chiang Mai province by using a cluster sampling method. They were assigned to learn English vocabulary by utilizing the developed vocabulary lessons. The lessons were provided to the students using the Nearpod application. The experiment was implemented for sixteen hours within two months. The instruments for collecting data in this study included vocabulary knowledge tests and a questionnaire. The vocabulary knowledge pre-test was administered to the students before the experiment. They must test consisting of 40 question items related to English vocabulary. After the experiment, a vocabulary knowledge post-test which was parallel to the pre-test was given to the students to examine the students' English vocabulary knowledge mprovement. Then, all students were assigned to complete their satisfaction with the vocabulary lessons v. is Nearpod application. The data were statistically analyzed for percentage, mean, standard deviation, and t-test.

The findings revealed that the developed vocabulary lessons, pre-, and post-test vocabulary lessons via Nearpod application had the efficiency of all at 1 and 0.7 by using the Index of Item-Objective Congruence (IOC). The acceptable conformance index value must be 0.50 or higher. Furthermore, students' English vocabulary knowledge was improved significantly as there was a significant difference in the mean scores before and after learning with the developed vocabulary lessons via the Nearpod application at the 0.05 level. Thus, it can be said that the developed vocabulary lessons via the Nearpod application can help students improve their

English vocabulary knowledge. In addition, the students were high satisfaction with the developed vocabulary lessons via the Nearpod application as the overall average of students' satisfaction with learning English vocabulary through the developed vocabulary lessons via Nearpod application was at a high level. From the open-ended questions in a questionnaire, it was found that the students were satisfied with the developed vocabulary lessons via the Nearpod application in assisting them to learn English vocabulary because this tool was convenient, interesting, and new. It had various functions that enabled them to understand the lessons better, such as images, video clips, cartoons, games, graphics, and other multimedia. The contents of the lessons were also easy to access. Moreover, they thought that learning vocabulary via the Nearpod application could motivate them to learn more, and it was flexible as the students could use it anywhere and anytime at their own pace. However, there were some limitations including, the modernity of personal computers, tablets, and mobile phones, internet connection, technical problems, etc. In summary, the students agreed that the vocabulary lessons via the Nearpod application were an efficient tool to assist English vocabulary learning; however, they should be used as a part of the learning process.

Discussion

The findings have important issues to be discussed below:

According to the results, the efficiency of the vocabulary lessons via Nearpod application for Mathayom Suksa 3 students at Sansai Withayakhom School in Chiang Mai province showed, that the IOC was 0.7 and 1 which acceptable conformance index value must be 0.50 or higher, indicating that the vocabulary lessons via Nearpod application have enough efficiency for being a tool to assist English vocabulary teaching and learning by the experts and revised in terms of content and design. The researcher gave the students direction on how to use the tool to support learning. After using the tool, the

students' scores had been increasing. The important factors which resulted in the successful learning were the design of the Nearpod application which facilitated learning by providing learners flexibility and substantial media which were inspired and noticeable by the usage Nearpod application for accessing the media easily. It maintained a high level of enjoyment and engagement during the learning process. CALL embraces a wide range of information and communications technology applications and approaches to teaching and learning foreign languages (Levy, 1997: 1-12). Moreover, Hakami (2020: 119)) stated that the Nearpod application could promote active learning in the classroom, and Shehata, Mitry, Shawki & El-Helaly (2017: 877) said that the application is an online platform that facilitates the use of interactive teaching materials through mobile devices to perform structured assessments in the classroom. It also helped to increase the autonomous skill of learners and provide more opportunities for learners to have direct experience because of the use of authentic materials. Stephen & William (2018: 1) believed that the students expressed positive comments about the use of Nearpod in their studies, in particular, to foster engagement with the delivered topic and increased interaction. This research provided the students with opportunities to learn English vocabulary by themselves. They were able to manage their learning. They also had a direct experience because of the authentic media provided in the Nearpod application, such as videos and native speaker sounds. Moreover, the Nearpod application empowered the students to learn and understand English vocabulary lessons better. It was confirmed that the Nearpod application helped learners to understand things easier.

Furthermore, the student's vocabulary knowledge was improved significantly. It could be seen from the students' achievement deriving from the developed vocabulary lessons via the Nearpod application. It showed that there was a statistically significant difference in the mean scores before and after learning with the developed vocabulary lessons via Nearpod application

at the 0.05 level. The findings were consistent with the studies of Nation (2011: 169). On the other hand, Chamula (2018: 49-52) stated that Nearpod was not primarily developed for language learning and this presents some obstacles, but Chamula (2018: 49-52) suggested that to a certain extent, a teacher's creativity is essential in the use of Nearpod, it suggested that future work should be devoted to how to create language lessons on Nearpod and how to creatively overcome the obstacles inherent in the platform. In this study, the findings suggested that the Nearpod application could help to improve the vocabulary knowledge of Mathayom Suksa 3 students as well as enabled students to understand more about English lessons. Although these previous studies focused on the different subjects and other skills of the English language, the results revealed the benefits of Nearpod application in teaching and learning. Apart from the benefits of the Nearpod application, the learning approach is another factor that affects the students' vocabulary knowledge improvement. In the study, the students were assigned to use the Nearpod application to learn English vocabulary developed by the researcher. Although the experiment was very short (two-month period), it appeared that with eight-lesson units in the developed vocabulary lessons via the Nearpod application, the students could learn by themselves, regardless of time and place and students were free to learn. They could choose what, where, when, and how to study that suit to their learning habits. It is called a self-directed learning approach. According to Levy (1997: 1-12), using computers in language teaching and learning provided students' a chance to show their learning responsibility; in contrast to, teacher-directed learning, the role of teachers has changed from content transmitters to facilitators of learning (Knowles, 1975) that back to learners is more beneficial than other approaches. Moreover, Alzatma (2020: 55) stated that the advantage of using mobile phones in studying English was convenience which meant learners have a greater sense of time and location independence and they can take advantage of their free

time to study language whenever and wherever. In this study, the students were responsible to manage their learning process and the students were facilitated to learn with the developed vocabulary via the Nearpod application. Besides, what teachers should do to support students is to provide learners with accessible and available content and recourses. The Nearpod application was used to access learning content and resources. All of these influences increased student learning efficiency which results in higher student achievement.

Additionally, the students' satisfaction with the vocabulary lessons via the Nearpod application from the questionnaire that the students were satisfied with the tool because it was interesting and attractive. It also had various functions that enabled them to understand the lessons better, such as graphics, games, pictures, videos, sounds, colorful screens, and novel fonts. They believed that using the Nearpod application to assist in learning English vocabulary could help them to understand lessons better. The Nearpod application capacitated the students to increase their motivation in learning English vocabulary. The contents of the lessons were also easy to access and learners could learn according to their abilities and proficiencies. The lessons were linked to other learning resources, making it more convenient to study. This finding agrees with the previous studies (Hakami, 2020: 119; Stephen & William, 2018: 1; Shehata, Mitry, Shawki & El-Helaly, 2017: 137) that the participants were satisfied with the use of the Nearpod application for learning. However, some students found problems while learning with the application. The modernity of personal computers, tablets, and mobile phones, internet connection, technical difficulties in scanning the QR code, and teacher contact were the main challenges that should be developed. In detail, the internet connection in some places was still low which affected the accessibility of the Nearpod lessons. The internet connection and condition of the smartphones or tablets also caused difficulty in scanning the QR code. Furthermore, due

to the problem with the software, the students needed to hold their smartphones all the time; otherwise, the lessons on the screen became small.

To sum up, the developed vocabulary lessons via the Nearpod application were appropriate to use as an assisted tool to learn English vocabulary. Furthermore, the students' satisfaction with the developed vocabulary lessons via the Nearpod application could positively involve the improvement of their English vocabulary knowledge of the students.

Knowledge

According to the result, the new knowledge of this research was using the Nearpod application as the vocabulary teaching and learning tool. The teacher could create various the vocabulary lessons interacting the authentic media and fake media; moreover, the vocabulary lessons via Nearpod application were used by students to learn vocabulary by

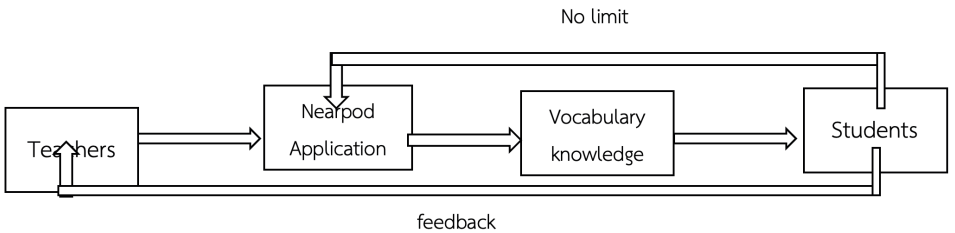

Figure 1: the vocabulary learning process via Nearpod application

themselves which could show the learning process following:

Conclusion

Summary of the result of the research, vocabulary lessons via the Nearpod application is an efficient tool that could help the students improve

their vocabulary knowledge essentially. Furthermore, the students' satisfaction with this tool was high. However, there were some challenges with the vocabulary lessons via the Nearpod application. The modernity of personal computers, tablets, and mobile phones, internet connection, technical difficulties in scanning the QR code, and teacher contact should be developed.

Recommendations

According to the results of this study, the recommendations for this research and further studies are discussed as follows.

Recommendations for this research:

1) These developed vocabulary lessons via the Nearpod application can be used as a tool or resource for inspiring and motivating the students to improve their vocabulary knowledge. It should be a supplementary tool for learning enhancement and practicing outside the classroom. Furthermore, teachers should facilitate, assist, and give advice to students in using the tool.

2) The results of the study can apply to improve the vocabulary course for other levels of Mathayom Suksa.

Recommendations for further studies:

1) Nearpod application should be adopted to use with other groups of participants for a longer period of time.

2) A delayed post-test to investigate the retention of the vocabulary knowledge students gain from learning with the developed vocabulary lessons via the Nearpod application should be employed in further studies.

3) Future researchers may explore the efficiency of the Nearpod application to improve students in other English skills.

4) Since the present study used a one-group pre-test, post-test design, it might be questioned whether the increase in students' scores was actually due to the treatment or the nature of learning. Therefore, further

studies should be conducted by using control and experimental groups to be more empirical.

5) According to the results of the study, using the Nearpod application can improve English vocabulary knowledge. Therefore, we should find other applications that are similar to use as a tool to develop vocabulary lessons.

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