Volume 6 Issue 5 (2022) Pages 4661-4668
Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini
ISSN: 2549-8959 (Online) 2356-1327 (Print)

The Effectiveness of Project-Based Learning through Vlog to Improve Pre-Schoolers' Vocabulary Mastery

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DOI: 10.31004/obsesi.v6i5.2232

Abstract
The purpose of this study was to find the impact of project-based learning using vlogs in improving the vocabulary skills of Early Childhood Education (PAUD) students. Participants in this study were 60 students. Sampling was done randomly. The method used is a one-group experiment. This study provides treatment for group experiments using pre-test and post-test. The research instrument has been tested using content validity by three supervisors with doctoral degrees. The results of the study concluded that the approach or learning method with learning media based on the student's background and the situation of the online learning environment had a significant effect on improving student learning outcomes. The concept of project-based learning applied through vlog design in PAUD classes has had a major impact on increasing students' vocabulary. The results of the study also have implications for teachers' understanding in solving problems through joint or individual projects that direct students to use their learning experiences and seek information to produce good vlogs.

Keywords: *project-based learning; vlog; pre-schoolers; vocabulary.*

Abstrak
Tujuan dari penelitian ini adalah untuk menemukan dampak pembelajaran berbasis proyek menggunakan vlog dalam meningkatkan kemampuan kosakata siswa Pendidikan Anak Usia Dini (PAUD). Partisipan pada penelitian ini adalah 60 orang siswa. Pengambilan sampel dilakukan secara acak. Metode yang digunakan adalah eksperimen satu kelompok. Penelitian ini memberikan perlakuan untuk eksperimen kelompok dengan menggunakan pre-test dan post-test. Instrumen penelitian telah diujikan menggunakan validitas isi oleh tiga orang pembimbing bergelar doktor. Hasil penelitian menyimpulkan bahwa pemilihan pendekatan atau metode pembelajaran dengan media pembelajaran berdasarkan latar belakang siswa dan situasi lingkungan belajar online berpengaruh signifikan terhadap peningkatan hasil belajar siswa. Konsep pembelajaran berbasis proyek yang diterapkan melalui desain vlog di kelas PAUD telah memberikan dampak besar pada peningkatan kosakata siswa. Hasil penelitian juga berimplikasi pada pemahaman guru dalam mengelola pemecahan masalah melalui proyek bersama atau individu yang mengarahkan siswa untuk menggunakan pengalaman belajarnya dan mencari informasi untuk menghasilkan vlog yang baik.

Kata Kunci: *project-based learning; vlog; siswa paud; kosakata.*

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Received 3 January 2022, Accepted 9 June 2022, Published 19 June 2022

DOI: 10.31004/obsesi.v6i5.2232

Introduction

The Covid-19 pandemic has shifted the patterns of human life in the world that influence various fields of life. It impacts the implementation of education from pre-school to university (Aristovnik et al., 2020), and it influences students' and parents' psychology (Sakarneh, 2021). Various learning activities are done using online systems that require the students and teachers engagement (Philomina & Amutha, 2016; Hendawi & Nosair, 2020). This teaching and learning process certainly requires all parties, including parents, but many of them are not ready with the online concept (Dong et al., 2020). This case is globally experienced by all level of students. More specifically, these online learning activities are considered more challenging for students in the pre-elementary level.

Common problems that students often face when studying online are quotas, internet network problems, awareness in motivating themselves to learn, and the desire to achieve learning goals in each course (Hidayati et al., 2021). As in the English class, an Integrated Islamic of pre-elementary school in Riau Province still encounters challenges and problems related to vocabulary competence. Several research studies in the teaching of English, Computers and Composition from 2000-2010 show that larger and more complex scientific conversations refer to rhetoric and social constructs of society that contribute to the framework of scientific writing (Werner, 2015).

The document analysis of learning outcomes showed that students experienced a decrease in grades compared to English subject. While the results of learning observations for 4 months showed that 1) students still had limited numbers of vocabulary, 2) students had lacked the ability to pronounce the words correctly, 3) students had difficulty in spelling the words, and 4) students did not fully understand many of the words they pronounced and unable to use contextually. While the evaluation results from interviews at the end of the learning (March - July 2020 period) concluded that the level of awareness in developing English vocabulary competence was low and the desire to learn was less motivated. Moreover, online classes via Zoom were still dominated by a few students (20%), so that other students were less interested in learning.

From these problems, the teacher implemented project-based learning (PjBL) through vlogs to teach English to pre-schoolers in the odd semester of 2020-2021. Many studies have been conducted using PjBL in vocabulary classes. Kimsesiz et al. (2017) investigate the use of PjBL to teach vocabulary to pre-school children in Turkey. They conclude that (1) PjBL was infrequently implemented in EFL classes in Turkey, (2) PBL instruction could increase EFL vocabulary learning gains when compared to common methods and (3) young learners were observed to have been more active in PBL classes. From these findings, it can be inferred that PjBL has positive impacts on the students' vocabulary mastery in Turkey, even though this method was not really well-recognized and implemented in their teaching contexts, especially for pre-school children. Moreover, another study also informs that Project-Based Learning has recently becomes among the most effective technologies in teaching the English language and makes learning English accessible to a broader range of pre-school children. It lets generate language atmosphere and actual condition at English lessons (Ivanivna, 2016). Similarly, two studies conducted in Indonesia also confirmed the former studies mentioned that PjBL is effective to teach preschoolers, especially in improving children's fine motor and gross motor (Junita et al., 2021; Wangsadanureja et al., 2022). In short, it can be stated that PjBL provides many positive benefits for increasing the pre-schoolers' vocabulary mastery.

Thus, it can be seen that technological-based PjBL provided an increase in vocabulary mastery. However, this research is directed at implementing project-based learning in designing vlogs to increase vocabulary mastery. As the novelty of this current study, in this practice, the researchers want to explore the learning experiences that have been conducted in English class. Students with a maximum learning experience can display developing and interesting video projects with quality pronunciation and extensive vocabulary. This concept certainly provides something different from previous research related to video application in

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increasing vocabulary. This concept is relevant to the theory, which has shown that video in language learning classes has long been seen as a way to enrich the student experience and increase student engagement (Xiang, 2017). In the modern era of English language teaching, media technology such as video, pictures, animation, and interactive games, CDs or DVDs, the use of the internet, chat rooms and video conferencing and Apple's iPad have narrowed distance and turned the whole world into a global community (Ahmad, 2012).

The purpose of the study was to find the impact of project-based learning using vlogs in improving vocabulary learning. This research is also expected to provide benefits to teachers and students in developing multimedia technology. Moreover, digital reading sources have been easily obtained so that students have the convenience of utilizing technological advances during the implementation of teaching and learning activities to advance their vocabulary. This is also expected to make students more active and creative during the learning process and can develop their vocabulary mastery.

Methodology

The participants were the pre-schoolers who took English subjects in the odd semester of 2020/2021. There were two classes as the group of experiments. The number of participants was 60 students. This study was conducted from March until July 2021. The sample was taken using a random sampling technique. The method used was one-group experimental study. This study gave the treatment for group experiments using pre-test and post-test. Students get pre-test and post-test through a project-based learning approach, namely vlog (video). Students got a pre-test of vocabulary and a post-test after they got a project-based learning approach with vlogs. There were four primary aspects taken as indicators to examine students' vocabulary. The aspects were adopted from Kucan's (2012) concept that can be seen in table 1.

Table 1 Indicators of Vocabulary Mastery

No.	Indicators	Descriptions
1.	Pronunciation	The way the students make sounds of the words.
2.	Spelling	Students' ability to name the letters of the words.
3.	Meaning	Students' understanding of the words' definition or limitation.
4.	Use/context	Students' competence to implement the words in particular position in a sentence.

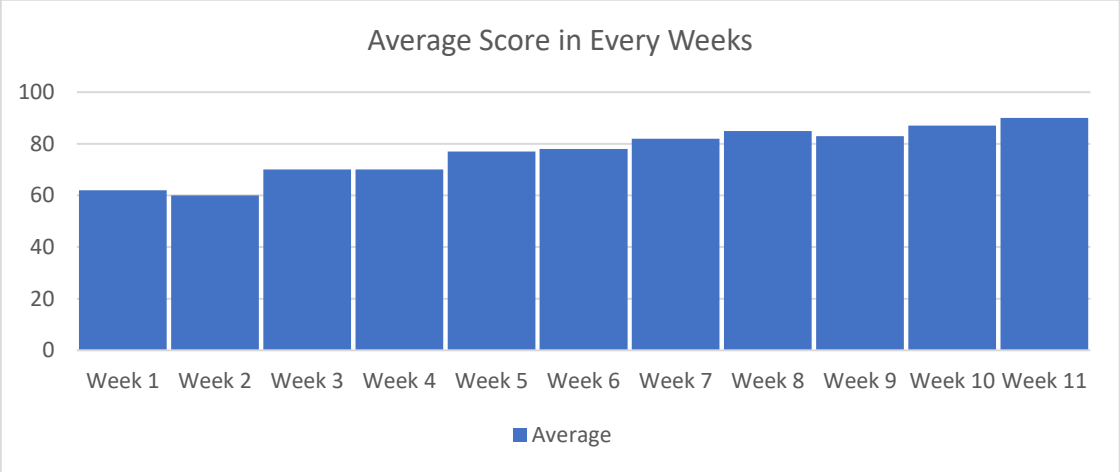
The vocabulary assessment criteria are applied to the vlogs that students have made. The instrument for assessing students' vocabulary mastery has been tested using content validity. Three supervisors with doctoral degrees have conducted the validation towards the instrument. The process of collecting data was by conducting a test. The observation was conducted when the students did online learning using zoom. The learning Documents were taken from the weekly assignment, while interviews were done at the end of the learning process to get students' suggestions of the learning process. While the test is taken from the result of the vlog that has been shared on YouTube. Meanwhile, the data analysis used paired sample t-test.

Resulst and Discussion

The results of the observations showed that the students had different levels of enthusiasm after the concept of learning was carried out using a project based on the video. This is reinforced by the results of interviews conducted by participants after the learning activities for the English vocabulary class ended. Each student was asked to answer questions given by the teacher about project-based learning activities. Students consider that the project given for each speaking practice provides a different challenge every week. Moreover, the theme given by the teacher is still related to everyday life. This makes it easy for students to

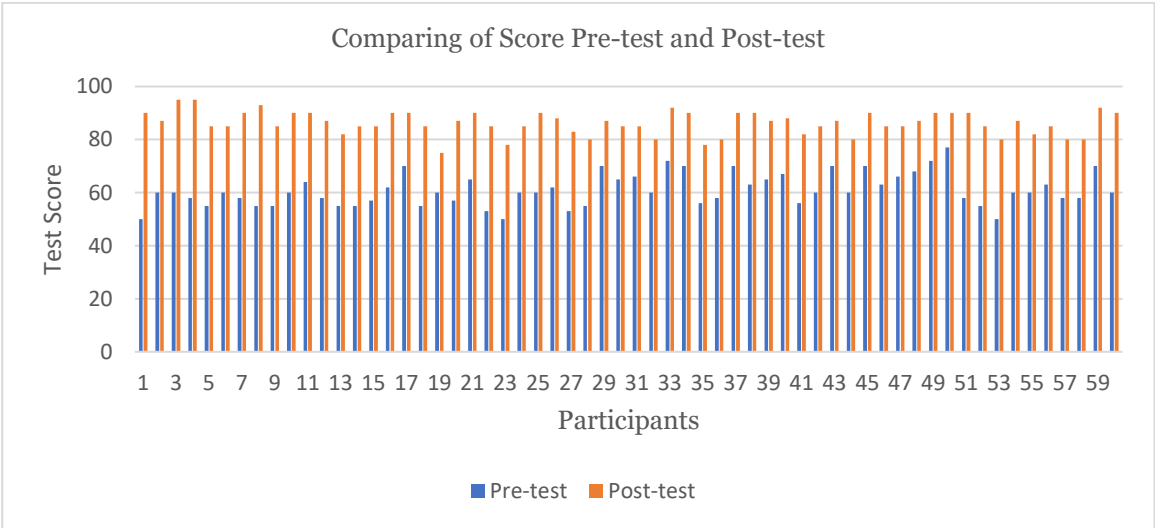
DOI: 10.31004/obsesi.v6i5.2232

develop their vocabulary set in the lesson plan with the information they already have. As explained in the background, the concept of learning vocabulary through this project is closely related to the context of student life. The theory that has been mentioned shows the relevance of the function of video in the learning process. Meanwhile, the learning outcomes document also shows that the average value every week has increased quite significantly, as graph 1.



Graph 1. The average score of Vocabulary assignments every week

Graph 1 shows that the average score of the class every week for video project results is always increasing. Even though at week 9, the average score decreased compared to week 8. However, it did not have a big impact on student progress in advancing the number of vocabulary because it increased again in week 10. In addition, the score from pretest to posttest for each student experienced a significant increase as shown in the following graphic 2.



Graph 2. The score of pretest and posttest for English vocabulary using vlog project

Graph 2 showed the student's experience is the result of implementing the vlog project. It has a positive impact on students' learning progress. Besides, it gave confidence in pronouncing the words. While the result of the t-test is as table 1.

Table 1 shows the result of data analysis using a t-test. It shows that t Stat < t-table (--35,25 < 2.06). It means that Ho is rejected and H1 is accepted. So, it concluded that project-based learning using vlogs has given a positive impact on students' vocabulary mastery. They can increase the number of vocabulary as well as pronounce and use them appropriately.

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From the results of the overall data analysis, it can be seen that the problems the students found in the previous vocabulary class can be solved by using the concept of project-based learning through vlogs. To support this statement, Luthvitasari & Linuwih (2012) revealed that the Project-Based Learning model is learning that involves students in transferring knowledge and skills through a discovery process with a series of questions arranged in a task or project. Moreover, Project-Based Learning model is also considered as a learning method that uses projects/activities as a medium, where students explore, assess, interpret, synthesize, and provide information to produce various forms of learning outcomes (Kemendikbud, 2013). With this regard, Olson explains that in project-based learning, students plan and carry out investigations on several topics or themes that use cross-subject or cross-material (Widyantini et al., 2013).

Table 1. t-Test: Paired Two Sample for Means

	Pre-test	*Post-test*
Mean	61	86
Variance	35,95	19,14
Observations	59	59
Pearson Correlation	0,483	
Hypothesized Mean Difference	0	
df	58	
t Stat	-35,25	
P(T<=t) one-tail	3,57	
t Critical one-tail	1,67	
P(T<=t) two-tail	1.19	
t Critical two-tail	2.06	

Thus the problem of student activity, difficulty developing vocabulary, or information into conversational content and student learning resources has been minimized because from the results of the mapping, these problems still arise in students who have low self-confidence so that their learning experience is less explored. The data analysis shows several findings related to the condition of students while completing their projects, namely a) students can make decisions about vlog projects and create frameworks, b) students can solve problems encountered when carrying out vocabulary improvement activities that appeared previously, c) students can play the role as a designer to produce products from drilling practice, d) students can use their learning experiences in vlog projects, and e) the class has an atmosphere that tolerates mistakes and changes.

Thus, teachers must be able to design a variety of tasks related to digital technology. Moreover, nowadays, students have become native in the use of technology and this condition facilitates the use of technology in the classroom. This means that technological devices have a part of the educational process (Lai & Bower, 2019), such as mobile App (Domingo & Garganté, 2016). Students can also easily study and design video projects. This is what is called the process of involving students during the teaching and learning process (Heflin et al., 2017). Moreover, the global era has demanded the use of technology for the educational process (Shatalebi et al., 2011).

This study explains that video is a quite effective model and makes learning English vocabulary easier (Bal-Gezegin, 2014). Students have also used smartphones for learning vocabulary (Wu, 2015). Also, the video game is used to create self-learning (Toh & Kirschner, 2020) and other researchers concluded that video game is used to learn Malay vocabulary (Alias et al., 2015). As it is today, YouTube has become a medium to develop English vocabulary Kabooha & Elyas, 2015). It concluded that video helps the students easier in increasing their English skills. Videos that have been made by students are not monotonous. The vlog can encourage students to manage their vocabulary mastery (Agustina, 2019).

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Technology provides a very big change to the concept of learning and practice of learning vocabulary (Nisbet & Austin, 2013).

Conclusion

This study is an investigative attempt to examine whether there is influence of PjBL as a learning method on pre-schoolers' vocabulary mastery. This implies that the selection of learning approaches or methods with learning media that are by the student's background and the situation of the learning environment (online class) has a significant impact on improving student learning outcomes. Technological developments and changes in human life have demanded every student with a quality level of scientific development and mastery of technology. Moreover, 21st-century skills in the world of work require students to master technical skills and soft skills. The use of project-based learning concepts implemented through the design of vlogs in English vocabulary classes has had major impacts on improving students' vocabulary mastery. The results of the study also have implications for the understanding of teachers in managing problem solving through joint or individual projects. Projects lead students to use their learning experiences and search for information to produce good vlogs. However, this research is still limited to applying vlogs in project-based learning for English vocabulary classes. The results of this study have not been developed or analyzed more deeply related to students' literacy skills in designing vlogs. Therefore, further research can take advantage of this limitation for the development of research on English vocabulary mastery through the integration of other language components or other learning media.

Acknowledgment

We would like to deliver our sincere appreciations to the participants involved in this study for their voluntarily participations.

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