

## Powtoon: Does It Promote Primary Students' Autonomous Learning?

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### Abstract

Implementing appropriate teaching media results in effective teaching and promotes students to be more responsible for their learning through autonomous learning. This study aimed (1) to discover a significant difference between the students who learned by using PowToon videos and those by YouTube videos, and (2) to investigate the responses of the students who learned autonomously by using PowToon videos. This research employed an Explanatory Sequential Mixed Method Design consisting of quantitative and qualitative data obtained at a private kindergarten in Singaraja. The data were gained through post-test, interview, and questionnaire. The results showed that there was a significant difference between students who used PowToon and those by YouTube since the former average score reached 91.67. The effect of treatment on the students in the experimental group was moderate. The moderate effect was influenced by two factors, that is, a relatively short period in administering the treatment and the adaptation of using digital media in the learning process. According to the results of the interview and questionnaire, it was found good responses from the students and could help them learn English with greater passion and autonomously. In addition, the students mentioned that utilizing PowToon could provide a pleasurable learning environment for them. Thus, utilizing proper media leads to the student's independent learning.

Keywords: Animated Videos; Autonomous Learning; Learning Media; PowToon; Primary Students

### Introduction,

Very young learners have a wide range of differences and characteristics in learning new languages compared to older learners. There are several characteristics of very young learners in relation to learning new languages. Slattery & Willis (2001) mention those characteristics are as follows, very young learners acquire language through hearing and experiencing lots of new languages in much the same way they acquire their first language, they learn things through playing, they are not consciously trying to learn new words or phrases since learning new

language for them is incidental, they love playing with language sounds, imitating, and making funny noises, they are not able to organize their learning, they are not able to read or write in their first language, it is important to recycle language through talk and play, and their grammar will develop gradually on its own when exposed to lots of words in context.

The aforementioned characteristics become opportunities as well as challenges for teacher in teaching a new language – in this context is English. Teacher could use the opportunities to enhance the learning by utilizing a proper learning media. One of the ways is by utilizing videos in learning processes. This is supported by Yoon et al. (2013) who state that The Alpha generation-including the very young learners under the age of seven-are surrounded by multimedia and digital devices since in their early age. They are familiar as well as comfortable with the use of high technology and small screen devices. In addition, they grow up in an increasingly technological and digital environment and incorporate technology into their education (Apaydin & Kaya, 2020; Sarkar et al., 2017). The students can quickly and efficiently locate the specific knowledge using their own device. It provides an opportunity for students to develop into autonomous learners or learners who commit to obtaining educational access in an independent manner (Kemala, 2016). Then, it is a challenge for teachers that learning media should also be improved to fit the needs of the students so they can learn on their own. The teacher must support the students' learning by incorporating. Utilizing learning media which integrate the technology is considered important and could be done by using PowToon videos.

PowToon is one application used to create animated presentations containing video and sound (Semaan & Ismail, 2018). A number of studies implementing PowToon in language learning were recorded. Studies were done by Wardani (2023), Trisnawati et al. (2021) and (Suprianti, 2020) about the use of PowToon media to increase the students' vocabulary mastery. In addition, other researches about the implementation of PowToon videos as edutainment were managed by Pratiwi et al. (2022) and Adnyani et al. (2021). Similar media was also implemented about the use of animation videos to improve students' skill (Ramadhani et al., 2020; Suprianti et al., 2021). The use of PowToon videos could help the students learn English more successfully, enthusiastically, and joyfully. In the present research context, the kindergarten students were able to use the PowToon videos because they are on their golden age (between 4-5 years old), thus there

were rapid changes occurring in their cognitive, social, physical, and emotional development. This is supported by Citrowati (2020). It is stated that PowToon is audio-visual media packed, might be a good stimulant for kids and it can accommodate both visual and audio learning methods.

Regarding to the phenomena that the students can learn on their own by integrating technology, it was considered important to facilitate the students to be autonomous learners with the use of learning media. Benson (2001) argues that autonomous learners are learners who take more control over their learning both inside and outside classroom. Ozer & Yukselir (2023) highlight that the language learners' autonomous learning beyond the classroom should be encouraged. One alternative way is by utilizing PowToon in the learning process carried out in and beyond the classroom. In relation to Benson (2001), Benson & Voller (1997) state that learner autonomy involves the students' awareness (the learner is the recipient of information), involvement (the learner becomes the reviewer and selector among given options), intervention (the learner adapts their goals in learning), creation (the learner becomes the inventor, originator and creator of their own learning goal) and transcendence (the learner identifies their own interests and create goals relevant to those interest).

Preliminary research on developing PowToon videos for kindergarten students was conducted by Dewi & Suprianti (2021). The research was a Research and Development employing ADDIE model from Branch (2009). The developed PowToon videos were targeted to kindergarten students that fit their materials on the syllabus. The videos were excellent in the term of the quality and could support the students' autonomy English learning. However, the effect of those media in the classroom had not yet been tested. The research on the effect was required in order to determine whether the learning process was enjoyable and motivated the students to learn English as autonomous learners. Therefore, it was considered important to conduct the present study. The students' response about how PowToon videos were used in the English learning process was also investigated in the research context. The present study focuses on answering questions "Is there any significant difference between kindergarten students' English achievement of using PowToon video as learning media and other media in learning English?" as well as "What is the kindergarten students' response as autonomous learners toward the usage of PowToon?"

**Research Methodology,****Research Design**

This study employed a mixed-method design that combined quantitative and qualitative techniques. For this study, Explanatory Sequential Mixed Method Design (Quan-Qual Study) by Creswell (2014) was used. The design involved a two-phase project collecting quantitative data in the first phase, analyzing the results, and then using the results to build on to the second phase, that is, qualitative phase. The purpose of using this design was to have the qualitative data help explain in more detail the initial quantitative results. In the present study, the first phase was conducted by employing a quasi-experiment study within the post-test only control group design. It aimed to discover a significant difference between the students who learned by using PowToon videos and those by YouTube videos. Then, the second phase was done by distributing survey to help explain the quantitative one. It intended to investigate the responses of the students learned autonomously by using PowToon video as well as how PowToon video helped the kindergarten students became autonomous learners.

**Research Site and Participants**

Students at a private kindergarten in Singaraja were involved as population of this study. The consideration of conducting the present study at this school due to the situation in which this particular school encouraged the students to learn English from a young age and also permitted the use of various technology resources and learning tools. The PowToon videos were used as learning media to assist students in learning English on their own. They could learn new vocabularies through PowToon videos related to their daily lives. Thus, in the context of this study, the PowToon videos were launched to assist the students English by using an engaging technology-related learning media so they could also learn it autonomously. The classes that were picked as the research sample shared a common characteristic. The samples for the study were split into two groups, that is, the control and experimental groups. The former group was labelled as B1 while the later was B2. The students in B1 learned by YouTube videos while those in B2 were treated by using PowToon videos.

**Data Collection Technique/Research Instrumentation**

In order to gain data for the research, there were several data collection techniques were done. Implementing lesson plans in both groups, administering English achievement test were conducted to gain quantitative data. Meanwhile, distributing questionnaire as well as conducting interview were done in order to gain qualitative ones.

Regarding to the quantitative data obtained, two types of lesson plan were designed. Lesson plans implemented in the control group were different from the ones implemented in experimental group since the learning media and the strategy used were different. The aimed of designing different lesson plans for both groups were to be able to deliver the lesson properly and systematically for the kindergarten students. English achievement test was administered as a post-test which aimed to measure the achievement of kindergarten students in both experimental and control groups. The test was examined based on its validity and reliability. After the result of the validity and the reliability were checked, it was found out that 10 out of 30 items were drop so there were 20 items could be used for the post-test.

To obtain qualitative data, distributing questionnaire as well as conducting interview were done. The questionnaire was used to find out the responses of the students learned autonomously during the implementation of PowToon videos. There were 10 items in the questionnaire distributed to the students. It was distributed to the experimental group. Since it was found out hard for the kindergarten students to fill in the questionnaire, they were assisted by their parents or caregivers. In addition to the qualitative data, interviewing three students were conducted. The interview was done in order to find out more detailed information toward their responses to the implementation of PowToon videos. The selection of the interviewees was based on the post-test score obtained. Moreover, after gaining response from the interviewees, it was found out that the data had already been saturated. Both questionnaire and interview guide were developed based on the theory of learner autonomy from Benson & Voller (1997), involving the students' awareness, involvement, intervention, creation and transcendence

## Data Analysis

The collected data were analyzed quantitatively and qualitatively. The quantitative data analysis was done by making the comparison between the post-test score from the experimental and control groups.

Quantitatively, descriptive and inferential analysis by using SPSS 25.0 were undergone. In descriptive analysis, the measurement of mean, median, modus, range, deviation standard, as well as variance were conducted. Following the descriptive analysis, inferential one was done including normality test, homogeneity test, hypostasis test and effect size.

Then, it continued by analyzing qualitative data by using a model proposed by Miles et al. (2014) including the following steps: data reduction, data display, and conclusion drawing/verification. In data reduction, the process of filling in the students' questionnaire was done with the help of their parents or caregivers. The students gave a checklist on every statement based on their responses. To complete the result of the questionnaire, the interview was proceeded in the three students in the experimental group. In relation to data display, the result of the questionnaire and the interview were managed to be easily understood. The responses of the students toward the learning English processes by using PowToon videos were collected and transformed into the charts. In addition, the interview result was transcribed so the data would be easily explained. The last step in qualitative analysis was organized by drawing conclusion from the result of the questionnaire and the interview.

## Findings and Discussion,

### Findings

#### **Significant difference between students' English achievement of using PowToon video as learning media and other media in learning English**

Initiating the quantitative analysis, the measurement of mean, median, mode, range, deviation standard, and variance were conducted. The result is displayed in table 1.

**Table 1.** The Result of Descriptive Analysis (Post-Test)

Mean	Median	Mode	Range	Deviation Standard	Variance
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<b>Experimental Group</b>	91.67	90.00	90.00	15.00	5.77	33.33
<b>Control Group</b>	83.33	85.00	75.00	40.00	10.94	119.70

Table 1 shows that the mean, median, mode of the experimental group was greater than the control one. Meanwhile, the range, deviation standard, and the variance are revealed higher in the control group. This result of descriptive analysis is depicted as a summary of data shown in implementing PowToon videos.

After completing the descriptive analysis, the analysis was proceeded to inferential one, including normality test, homogeneity test, hypostasis test and effect size. Shapiro-Wilk test was conducted to check the normality of data distribution. According to the measurement, the significant value was 0.03 categorized as not normally distributed because the significant level value was less than 0.05. Then, a homogeneity test was done. It was found that the significant value based on mean was 0.06, based on median was 0.09, based on the median and with adjusted df was 0.09, and based on trimmed mean was 0.07. According to those results, the data were categorized as homogeneous. Since the data of normality test were not normally distributed, then the a non-parametric (Man-Whitney U) test was conducted to test the significant difference of the implementation of PowToon videos for kindergarten students as autonomous learners. All of the data were computed by using SPSS 25.0 at 5% level of significant. The result showed that the significant value was 0.04. Then, the null hypothesis was rejected since there was a significant difference on both samples in the experimental and control groups, as indicated by the value of  $p (0.04) < 0.05$ . it could be concluded that there was a significant difference between the students who learned by using PowToon videos and those by YouTube videos. The last analysis in the quantitative phase was discovering the effect size. The aim of conducting effect size test was to depict the impact of the treatment that could influence the students. The category of effect size from Cohen (1988) could be seen in table 2.

**Table 2.** The Effect Size Category

<b>Size Category</b>	<b>Interpretation</b>
Very Small	$0.0 < 0.1$
Small	$0.1 \leq r < 0.3$
Moderate	$0.3 \leq r < 0.5$

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Large	$r \geq 0.5$
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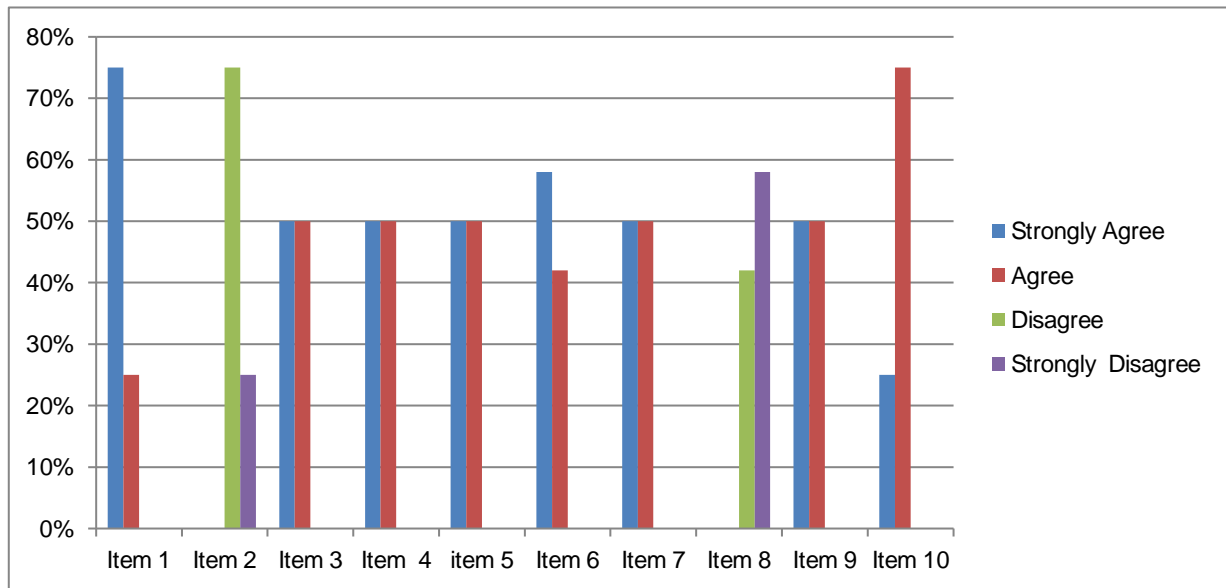
(adopted from Cohen, 1988)

There are four categories of effect size by. In this study, the result of the effect size was 0.4 meaning that the effect of treatment in relation to the students in experimental group was moderate or the effect of the PowToon implementation could not give a big effect for the students. The moderate effect was influenced by two factors. First, the treatment was administered during a relatively short period of time, so it was found hard for the students to quickly pick up new information. The effect could be higher if the treatment period was longer. Second, the situation in which the students could not adapt the learning process using digital media properly in post pandemic era. However, it had a positive impact on the academic achievement of kindergarten students and could make them learn autonomously.

### **The students' response as autonomous learners toward the usage of PowToon**

Then, it was continued to qualitative data including the result of questionnaire as well the interview. There were 10 items in the questionnaire consisting of positive statements (item 1, 3, 4, 5, 6, 7, 9, and 10) as well as negative statements (item 2 and 8) and including four responses (strongly agree, agree, disagree, and strongly disagree). The data obtained after distributing questionnaire were related to learner autonomy involving the students' awareness, involvement, intervention, creation and transcendence (Benson & Voller, 1997). The result of the questionnaire about the students' responses toward the learning English processes by using PowToon videos is illustrated in figure 1.





**Figure 1.** The Result of Questionnaire

Figure 1 shows that most of the students responded "Strongly Agree" and "Agree" to the positive statements and they responded "Strongly Disagree" and "Disagree" to the negative ones. A conclusion could be drawn that the implementation of the PowToon videos gained positive responses from the students in terms of their autonomy in learning. They were given autonomy in their awareness, involvement, intervention, creation and transcendence in learning English. Besides, the students felt the English learning could be done effectively and they could follow the lesson better with the existence of PowToon videos as the learning media. They also addressed that the lesson was more fun when it was compared to the one using other media. The ease of conducting discussion and adjusting the lesson integrated with technology as well as doing the task independently after watching PowToon videos also became the consideration. Other points mentioned was about the opportunity the students got to relate the lesson with the surroundings and reviewing the topics from PowToon videos to their friends.

## Discussion

There were two research questions in the present study, that is, "Is there any significant difference between kindergarten students' English achievement of using PowToon video as learning media and other media in learning English?" and "What is the kindergarten students' response as autonomous learners toward the usage of PowToon?"

To answer the first research question, a test was administered and followed by descriptive and inferential statistics. It was found that there was a significant difference between the students who learned by using PowToon videos and those by YouTube videos. The result of the present study was in line with two previous research conducted by Adnyani et al. (2021), Pratiwi et al. (2022), and Ramadhani et al. (2020). Those researches focused on the implementation of PowToon as Edutainment (Education and Entertainment) in teaching English to young learners. The result revealed that implementing PowToon gave positive effect on the students' comprehension. The positive effect given by the implementation of PowToon is influenced by features provided in the application. This is in accordance with Semaan & Ismail (2018) which mentioned PowToon was an application that created animated presentations containing video and sound and took a brief period, and the display is eye-catching, which influenced young learners interested in joining the learning. Regarding to the implementation of PowToon, Pratiwi & Waluyo (2023) agree that utilizing digital technologies and autonomous learning concepts could improve students' learning outcomes.

In answering the second research questions, a questionnaire was administered then followed by conducting an interview. Both the result of questionnaire and interview show positive responses from the students in terms of their autonomy in learning when PowToon was implemented. Similar responses toward the implementation of PowToon in teaching English to young learners were also observed in previous study done by Minarni et al. (2023), Pratiwi et al. (2021) and Suprianti et al. (2020). The study was conducted by involving the third-grade students and initiated with developing PowToon videos and then proceeded to the implementation. After the implementation, it was known that the animation video could attract the students' attention and it also motivated the students in learning English. Therefore, PowToon animation-based video could be used as an alternative media in learning English.

Adding the questionnaire result, the interview result was transcribed. There were six questions in the interview used to gather information about the students' responses toward the use of PowToon videos as teaching media in learning English. The first question was whether learning English with PowToon videos could make the student understand the material easier. The first student answered that the material was easier to be understood after watching the PowToon videos. An improvement

on the vocabulary was gained. The second student said it was also easier to understand the material properly because of the new vocabularies from the videos and the spelling could be listened well. The third student said similar response in relation to the vocabulary, that is, after watching PowToon videos, it was easier to do homework at home. The result of the research about how PowToon could improve the students' vocabulary mastery was also proved by previous researches conducted by Trisnawati et al. (2021) and Wardani (2023). Those students were conducted by involving junior high school students who took English as the subjects. In relation to vocabulary mastery, the use of PowToon to improve achievement as well as language acquisition also became a focus in a study by Semaan & Ismail (2018). When the students could understand the material easier after watching the PowToon videos, they were in the level of awareness in learning autonomously. According to Benson & Voller (1997), awareness is when the learner is the recipient of information. In order to get the students' attention, in the beginning the teacher asked the students to watch a PowToon video about "five senses". By showing the PowToon video, the teacher let the students receive information about "five senses" as well as let them become aware of the learning goal at the moment, that is, they were going to learn "five senses".

The second one was about how the students' felt when learning English by using PowToon videos as the teaching media. The first student revealed the feeling of being motivated and happiness in learning English. The second student mentioned the feeling of enthusiasm while learning. The third student said that she enjoyed the learning process because the visual and the audio given from the PowToon video were interesting. In line with the presents study, specifically the use of PowToon for motivating students, a study was done by Puspitarini & Hanif (2019). It was found that there was a significant difference between students' attention to the instruction-based video and traditional text-based instruction in Cipawon, Purbaligga Regency. As a result, learners are more interested in instruction-based video than the later one. Additionally, similar result found by Yuliani et al. (2021). The result showed that the students were exciting about PowToon video, and they felt motivated when using technology to learn. Benson & Voller (1997) state that when the learner becomes the reviewer and selector among given options, they are in the level of involvement. When the teacher implemented the PowToon video about "five senses", most students paid attention to it and they were enthusiastic. It could

be seen from their facial expression. After watching it, they were invited to mention any "senses" they remembered and they raised their hand quickly.

The third question was confirming what the students had learned after watching the PowToon videos and how they applied it in their real life. The first student said some materials such as five senses, clothes, animals, and house were learned. Furthermore, the second student answered by mentioning some vocabularies such as "nose" and "skin" that was included in five senses topic, "kitchen" that was mentioned in the part of house topic, and "cat" that was included in animals topic. When someone asked, the second student could tell others how to name something in English, for example when someone asked what "kucing" in English was then he could tell "cat" as the answer. The third student answered the question by mentioning four materials such as five senses, house, clothes, and animals. The third student revealed that it was easier to say the English name of things while touching the things, for instance touching eyes and say the English name. A study on the use of PowToon and how the experience gained after watching the videos implemented to solve problem in their life was conducted (Yhonara et al., 2022). It was known that the use of PowToon videos could enhance the students in solving everyday problems. Thus, this kind of learning process helped the students to be active in learning and the student learning outcomes also increased. As proposed by Benson & Voller (1997), in the intervention level, students adapt their goals in learning. When the teacher asks the students to mention five senses they had watched from the PowToon videos, there were some mispronunciations. The teacher smoothly asked the mispronounced vocabulary to be repeated by saying "once again, please". The utterance from the teacher might get the students realize that the pronunciation needed to be revised. This may help them see and ask how to pronounce the words correctly. As a result, the students become aware of the goal in learning was not only mentioning the five senses correctly but also pronouncing them properly.

The fourth question was confirming whether the students could answer the questions given after watching the PowToon videos. The first, the second, and the third students responded that they were able to answer all the questions because they remembered the material in the PowToon videos. In accordance to this result, the result of the research by Syafitri et al. (2018) had proven that the implementation of PowToon influenced the result of students' scores on tests. Therefore, it is

recommended for teachers to use PowToon in teaching English, specifically in teaching speaking, when they want to improve students' skill. Creation is when the learners become the inventor, originator and creator of their own learning goal (Benson & Voller, 1997). In the context of implementing PowToon video about "five senses", the students were asked to point out their five senses while mentioning the names in English. In mentioning the five senses, it was not necessarily the same order as what their previous friends mentioning. It meant that each student was their own creator of the order in mentioning the five senses.

The fifth question was about the students' ability to teach his friend who did not understand the material yet. The first student answered if he could help his friends by teaching them about the material by telling the vocabularies. Then, the second student gave the example of how to tell his friend by mentioning the English name of things. Moreover, the third student gave responses by touching her nose and saying the English name of it. On the last level of learning autonomously, that is transcendence, the learners identify their own interests and create goals relevant to those interest (Benson & Voller, 1997). During the implementation of PowToon video about "five senses", the students were asked to reflect their learning by retelling the material they had learned to their friends. This helped the students realized for themselves what they could and could not do as well as realizing gap in their learning. In other words, they were unconsciously learning of their strengths and weaknesses. Similar syntax of learning in transcendence level was also delivered in a best practice article by Kaya & Keçik (2021).

The sixth item was whether the PowToon videos implemented was interesting for the students, what things made them interesting or not. The first student answered if he felt interested with the PowToon videos because the videos were fun and interesting. Then, he also said if the visualization, the audio, the picture, and the music were good and made him understand the material well. He added that he would study using PowToon at his house later. Then, the second student answered if he felt happy while learning the PowToon videos because the video made him understand English better. Moreover, the image and audio were also interesting. He felt motivated to study English by using PowToon videos because it could make his English achievement better. Lastly, the third student mentioned if she got a joyful feeling while learning English using PowToon videos because there were image and sound that could catch her attention. She also got some new vocabularies in the

video and could understand it while looking at the picture. She added if the videos were good and she would study English using PowToon at home because it could reduce her boredom. This was evidence that those students enjoyed the exposure to the English through PowToon videos. As mentioned in the research by Firman et al. (2020). It was mentioned that learning English as a foreign language needed more exposure in order to have more opportunities for independent learning activities for students so that they could build a feeling of learning responsibilities. Besides, to be able to learn independently, there were EFL teachers, material and curriculum writers, and supporting material and media to encourage the students.

The interview's findings led to the conclusion that the students enjoyed utilizing PowToon videos to teach themselves English. Then, it improved their capacity for technological learning. PowToon video had positive effects on students' learning growth, including making the material easier to understand, increasing their enjoyment of the learning process, providing materials that were relevant to their daily lives so they could apply the vocabulary they had learned in a real-world setting, making it easier for them to respond to questions, and helping them improve their peer tutoring skills. In short, the PowToon video assisted the students in learning English with greater passion and autonomously.

### **Conclusion and Suggestion**

According to the findings of the study, PowToon videos gave a positive impact on the academic achievement of kindergarten students and could make them learn autonomously. The outcomes of descriptive and inferential statistical analysis served as proof. According to the data of hypothesis testing (Mann-Whitney Test) and effect size, there was a significant difference between the students in the experimental and the control groups.

The finding of qualitative data collection also proved that majority of the students enjoyed and they felt more motivated by using PowToon videos. A great response was shown because the students could enhance their performance in learning English on a specific topic and enthusiastic in studying in a pleasurable learning environment. The lesson carried was also able to provide relevant materials to their daily lives so they could apply the vocabulary they had learned in a real-world setting, making it easier for them to respond to questions, and helping them improve their peer tutoring skills as well as assisting them in making good

achievements. In brief, the use of PowToon videos would then aid them in achieving those goals and could support them in becoming the autonomous learners

Thus, utilizing appropriate media lead to the students' independent learning. In the context of present study, the PowToon videos which represented the real thing affect the students' curiosity. The material provided in the videos could be used not only for teaching the simple vocabularies but also to teach more complex material in English or for other subjects. By being able to create, combine as well as implement the PowToon video in specific and animated videos in general, teacher would be able to facilitate the students to be more autonomous in learning with the help on technology integration in learning.

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