

# The Effect of Using the Powtoon Application on Student Learning Motivation

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## Abstract

Many investigators have recently turned to investigate online learning during the COVID-19 pandemic. However, when the learning process takes place, the issue that arises is a lack of supervision and variances in each student's learning motivation, having a significant impact on how much knowledge learners can accept. Therefore, we believe it was desirable to conduct a study into the impact of the Powtoon application on student learning motivation. This research employed a comparison method, with a total of 84 participants taking part in the present study. They were students of the eleventh grade of a state Islamic high school located in a rural area in Central Lampung, Lampung Province, Indonesia. They majored in social studies and were divided into two groups: 41 students in the control group and 43 in the experimental. The collected data were then analyzed using an Independent Samples T-test. The results show that the use of the Powtoon Application could increase students' learning motivation where the mean value increased significantly from 62.69 to 72.31, and the increase in motivation of the experimental group was higher than the control group, with the T-test result showing a significance value of  $<0.05$ . Thus, the Powtoon Application can boost student learning motivation and be used as a useful learning tool in the online learning process. The implications of the findings and limitations of the present study are also discussed.

## Keywords

Online Learning; Learning Media; Powtoon Application; Learning Motivation

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## Introduction

Many investigators have recently turned to investigate online learning during the COVID-19 pandemic. Governments throughout the world have enacted policies related to this, such as online learning and working from home. In Indonesia, for example, the Government of the Republic of Indonesia directed in 2020 that a work from home movement (WFH) be implemented, requiring people to work online from their homes in order to break the COVID-19 transmission chain (Hodges, Moore, Lockee, Trust, & Bond, 2020). Of course, this has a significant impact on public activities in various aspects, including education (Cucinotta & Vanelli, 2020). Learning and teaching must take place online, using a variety of media and methods. However, when the learning process takes place, the issue that arises is a lack of supervision and variances in each student's learning motivation, having a significant impact on how much knowledge learners can accept (Setyaningsih, Ahmad, Adnan, & Anif, 2021). It is generally accepted that learning motivation is acknowledged as one of the most important factors influencing the success of online learning, since the encouragement or desire of learners to participate in an activity is referred to as motivation to learn. (Elçi & Abubakar, 2021; Garavan, Carbery, O'Malley, & O'Donnell, 2010; Kang & Ritzhaupt, 2021; Wiśniewski, 2021) There are two student learning motivations, intrinsic motivation and that of extrinsic (Corpus & Wormington, 2014; Harandi, 2015; Serin, 2018) The intrinsic motivation stems from within the students, such as a desire to be involved, interest, satisfaction, and so on, whereas the extrinsic stems from the outside, such as a desire to receive presents, praise, or grades, among other things. (Gehlbach & Robinson, 2021; Harandi, 2015; Lusa, Adnan, & Yurniwati, 2021) Several strategies can be used to keep the value of students' learning motivation at a high level, one of which is using various learning media with novel values. (Arief & Isnain, 2020; Puspitarini & Hanif, 2019) Thus, learners will be more engaged in the learning process. Learning media is a critical component of online learning activities, used to transmit information from the teacher to students and assist learning activities (Alqahtani & Rajkhan, 2020; Kumar & Ashok, 2021) The teacher's use of media and practices to stimulate students' feelings, thoughts, will, and attention determines whether or not the learning process is exciting. (Kumar & Ashok, 2021; PUSPITARINI & Akhyar) In other words, quality learning can be organized through the use of appropriate media. Despite the fact that the notion explains, teachers continue to use limited learning media (Setyaningsih et al., 2021), particularly in today's online learning. Based on our observation in an Islamic high school located in Central Lampung, Indonesia, we found out that teachers primarily employed Microsoft PowerPoint media that was distributed via WhatsApp messages to class groups, particularly in History topics. Students were simply instructed to study the subject using the PowerPoint Presentation and then complete the assignment. Of course, learning in this manner will not be able to pique students' interests to the fullest extent possible, and it will become monotonous (Kang & Ritzhaupt, 2021). As a result of variances in learning motivation, the material will not be given optimally. History subjects, on the other hand, necessitate more meaningful learning because they teach students about the process of change and community development over time, as well as how to develop historical perspectives and awareness in discovering, understanding, and explaining national identity in the past, present, and future in the midst of a world that is changing (Susanti, 2021). This occurs because teachers' information technology (IT) mastery levels are still poor, making it challenging to design engaging and dynamic instructional materials. Powtoon is one of numerous application service providers for effortlessly creating learning material. (Mbatha; Safar, 2016; Singh, 2020) It is a web-based application for quickly creating animated cartoons and video presentations (Puspitarini & Hanif, 2019). This application can help teachers make animated exposures with features like handwriting animation, cartoon animation, and more vibrant transition effects with easy timing. (Balwant & Doon, 2021; Puspitarini & Hanif, 2019) The Powtoon application operates in a similar way to PowerPoint, in that it creates slides with teaching content. The distinction is in the animated character features, wherein Powtoon there are many different sorts of engaging animations that can assist the information to be presented, making it more interesting to deliver. Based on the background above, the question regarding the effect of learning media on promoting students' learning motivation, in history subject, in particular, remains open. Therefore, we believe it was desirable to conduct study into the impact of the Powtoon application in learning on students' learning motivation.



## Methods

### Research Design

This research employed a comparison method with Quasi-Experimental Designs in the form of Non-Equivalent Control Groups in an experimental study (YİĞİT & KARATEKİN, 2021). In this study, two groups of participants were treated; the first group served as the control class, while the second served as the experimental class. (McDermott et al., 2021; Riehle, Harutyunyan, & Barcomb, 2021) The two groups of subjects were not chosen at random, and they were both given a pretest and a posttest. The use of Powtoon Application learning media was the independent variable in this study, while student learning motivation was the dependent variable.

**Table 1.**  
Research Design

$O_1$	X	$O_2$	Experimental
$O_3$		$O_4$	Control

Information:

- $O_1$  : Pre-treatment Value (Experimental Class)
- X : Treatment (Powtoon Application)
- $O_2$  : Post-Treatment Grades (Experimental Class)
- $O_3$  : Pre-treatment Value (Control Class)
- $O_4$  : Post-treatment Grades (Control Class)

### Participants

A total of 84 participants took part in the present study. They were students of the eleventh grade of a state Islamic high school located in a rural area in Central Lampung, Lampung Province, Indonesia. They majored in social studies and were divided into two groups: 41 students in the control group and 43 in the experimental group.

### Data Collection and Analysis

Because of the COVID-19 pandemic, the data of the present study was collected online. The information was gathered by students filling out an instrument that was sent via the Google Forms application. Using the SPSS application, the data was then processed and statistically examined to look at the Normality Test, Homogeneity Test, and T-test. In the normality test, the significance value of  $>0.05$  indicates that the data is normally distributed (Rashid & Sipahi, 2021). This also applies to the homogeneity test. While in the T-test, the significance value of  $<0.05$  indicates that the mean is significantly different and if it is  $>0.05$ , then the mean is not significantly different (Rashid & Sipahi, 2021).

### Results

All of the data, both in the control and experimental groups, has a normal distribution. The significance value is greater than 0.05, indicating this (Sig.  $>0.05$ ) (Rashid & Sipahi, 2021). Furthermore, the homogeneity test results between the control and experimental groups revealed a significance value of  $>0.05$ , indicating that the two groups are homogeneous (Rashid & Sipahi, 2021). These two test results are required in order to conduct a dependent T-test and an independent samples T-test in the analyses of the two groups. The treatment was administered to both control and experimental groups. The control class was given a PowerPoint presentation by the teacher to perform online learning as usual. The Powtoon Application was used to deliver material to the control class. To determine the effect of each treatment, we ran a paired T-test. Table 2 below shows the result of the analysis.

**Table 2.**

Paired T-Test Results in the Experimental Class

Pretest mean score	Posttest mean score	Sig.
62.69	72.31	0.000

Based on the information in Table 2, it can be observed that when the Powtoon Application is utilized to deliver material, the value of student learning motivation increases. The difference between pre- and post-treatment values is 9.62. When viewed from the perspective of significance value, it is less than ( $<$ ) 0.05. The next stage was to compare students' learning motivation values in both control and experimental groups. This analysis aimed to see the difference in the value of motivation after treatments were given to the two groups. The results of the analysis can be seen in Table 3 below.

**Table 3.**

Independent Samples T-test Results in the Control and Experimental Groups

Group	Number of participants	Pretest mean score	Posttest mean score	Sig.
Control	41	61.40	66.29	0.001
Experimental	43	62.69	72.31	

Table 3 shows that learning motivation scores increased in both groups of students, with an increase of 4.89 points in the control class and an average final score of 66.29, while in the experimental class, with an increase of 9.62 points and an average final score of 72.31. The significance value of the results of the independent samples T-test in these two groups was 0.001.

## Discussion

Table 2 shows that the increase in the value of learning motivation in the experimental class was statistically significant, with a significance value of 0.000 (sig.  $<$ 0.05) (Rashid & Sipahi, 2021). However, if we look at the statistics in Table 3, we can see that the significance value for the control group increased as well. To determine whether the improvement between the control and experimental groups was significantly different, a comparative analysis was required. Its goal was to evaluate if using the Powtoon application has a greater impact on enhancing learning motivation. Table 3 presents the significance value of 0.001, which is less than ( $<$ ) 0.05. That is, the two groups' motivation values are significantly different (Rashid & Sipahi, 2021). This has bolstered the argument that the use of mobile apps has increased student motivation to learn more effectively. (Ciampa, 2014; Teri et al., 2014) Of course, changes in student learning motivation are driven by differences in the learning media employed and the delivery of students' learning materials in class. The present study's findings have bolstered the findings of previous research (Ali & Adilham, 2020; Puspitarini & Hanif, 2019) that the use of the Powtoon Application has increased students' learning outcomes (Morochó Pintado, 2017; Rioseco, Paukner-Nogués, & Ramírez-Muñoz, 2017), which is also in line with the results of another study (Jabir, Rohana, & Pada, 2021), showing a significant effect of using the Powtoon Application on students' interest and learning outcomes. (Buchori & Cintang, 2018; Nurdiansyah, El Faisal, & Sulkipani, 2018) Of course, this is related to their increased motivation, which stems from a desire to deliver material in order to improve their ability to receive and listen to it. Powtoon learning media combines students hearing and seeing at the same time in one exercise, allowing them to better absorb the topic (Balwant & Doon, 2021). Audio-visual media has intriguing features that can drive students to study more material, exercise listening skills, and practice analyzing what they have heard and seen. (Mashudi, Komariah, & Irvan, 2021; Muñoz, Pujadas, & Pattemore, 2021; Octaviyanti, Suarni, & Widiyana, 2020; Samosir & Tambunan; Zakir, Maiyana, Khomarudin, Novita, & Deurama, 2021) Using the Powtoon Application in the online learning process can assist the learning process in becoming more effective by including audio-visual elements. Moreover, it is easy and simple. Teachers are also especially attracted to it since the final Powtoon results can be uploaded to several other applications such as YouTube and Facebook or provided directly to students in the form of video through multiple programs such as WhatsApp, Line, Telegram, E-Learning, and others, making it more user-friendly for students to open and use.

## Conclusion

The Powtoon Application can boost student learning motivation. This is due to the intriguing animation characteristics that it contains. The ease with which it may be used is an advantage, especially for teachers with limited IT knowledge. As a result, the Powtoon can be used as a useful learning tool in the online learning process. Based on the findings, this present study is also with implications. It is necessary to build and develop a simple and well-organized online learning and instructional framework to encourage students to become more motivated, engaged, and focused. However, this study also has limitations. Despite the fact that this study revealed a significant insight into students' learning motivation of online learning during the COVID-19 crisis in Indonesia, it was conducted with a small sample size (n=84). Therefore, to gain a better understanding of the phenomenon in the context of Indonesia, we believe that more research with a larger number of participants and more advanced quantitative and qualitative data analyses is still required. By doing this, we would be able to construct more valid findings and conclusions.

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