

Vol. 17 No.4 2023

## EFFECTIVENESS OF ONLINE LEARNING USING THE SCHOOLGY APPLICATION

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### Abstract

**Submit:**

17/10/2023

**Accept:**

12/12/2023

**Publish:**

31/12/2023

The outbreak of the popular corona virus disease with covid-19 (corona virus diseases-19) has changed the order of human life, one of which is in the field of education. Various efforts by the Indonesian government to stop the spread of Covid-19 in society are by imposing policies on maintaining social and physical distancing, avoiding crowds, washing hands frequently and using masks. Learning is carried out with an online learning system which is an application of social distancing and social distancing. Blended learning is a solution that can be used as a reference by using the Schoology learning platform application. This research aims to find out the differences in online learning using the schoology application, so that it becomes a learning solution during the Covid-19 pandemic. This type of research is a quasi-experimental with a pretest-posttest control group. The results of this study indicate that the use of blended-with schoology learning for Informatics Engineering Education students during the COVID-19 pandemic period can have a positive impact in the form of increasing learning outcomes so that the schoology application can be used as a learning solution during the co-19 pandemic

**Keywords:** Online Learning, Schoology, Higher Education, Teaching, Method

<http://publikasi.lldikti10.id/index.php/jit>

DOI : <https://doi.org/10.22216/jit.v17i4>

PAGES : 950-958

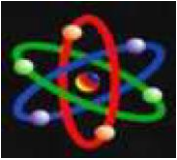


## INTRODUCTION

The world was shocked by the emergence of a virus that is popularly known as the corona virus disease -19. (covid-19) The initial appearance of this corona virus in the Wuhan area of China was at the end of 2019 based on the 37th WHO report on the Covid-19 situation, February 26 2020. There have been many human deaths caused by this corona virus. Not only in China, but has spread throughout the world. All continents in the world have been infected by the covid-19 virus. The spread of the corona virus is very fast between patients infected with the covid-19 virus and other humans. The spread can be through direct contact with Covid-19 patients, can be through the eyes, nose and mouth as well as the hands of people with Covid-19. There has been an unprecedented increase in individual cases affected by this virus (Elzainy, A., El Sadik, A., & Al Abdulmonem, n.d.) WHO policies and appeals to state leaders to enforce wearing masks, wash hands frequently and are advised to work and carry out activities, which have been carried out in outside the house to be moved to be able to do it at home only. This applies to almost all areas of life, including education. The world was shocked by the emergence of a virus that is popularly known as the corona virus disease -19. (covid-19) The initial appearance of this corona virus in the Wuhan area of China was at the end of 2019 based on the 37th WHO report on the Covid-19 situation, February 26 2020. There have been many human deaths caused by this coronavirus. Not only in China, but has spread throughout the world. All continents in the world have been infected by the covid-19 virus. The

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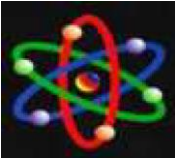
learning has been challenging, requiring the integration of screen-based virtual simulations and other innovative learning activities. Other research from (Safitri et al., 2019) states that in general between the use of technology and increasing confidence in digital competence in distance language learning modes in particular, Overall, students recognize the beneficial effects or impacts of ICT on their learning and expect their learning high value in the future by utilizing technology in the form of distance learning. Another study on research on blended learning shows that students can successfully learn and retain skills using blended learning through e-learning programs (Dolenc & Šorgo, 2020). Based on research conducted by (Sefriani & Veri, 2019) learning with the help of mobile learning using an Android smartphone is effective in digital simulation learning for Vocational High School students. (Jafnihirda et al., 2019) also conducted research on the use of interactive modules in the form of android in learning digital photo composition which showed good results for student learning. Referring to research (Jafnihirda et al., 2019)(Muhtia, A., 2018) online learning platforms such as Schoology in mixed learning environments, and attracting the attention of education practitioners and related parties to participate in overcoming blended learning challenges to improve student learning experiences. Mulyanti, B.: 2020 explained in her research that most of the students could understand the lessons taught online and they were given the opportunity by their teachers to participate actively during the learning process. Based on the explanation from the results of previous research, research was carried out

on students majoring in Informatics Engineering Education, Teaching and Education Faculty, Putra Indonesia University Yptk Padang, with the hope that it could become a reference or reference for implementing learning during the Covid - 19 pandemic. So that it becomes an alternative solution in blended learning namely by using the schoology application learning platform.

## RESEARCH METHODS

This study is a quasy experimental study, using a pretest-posttest control group design. Quasi Experiment said by (Sugiyono, 2014) is the design used because in fact it is difficult to obtain a control group used for research. This study aims to determine differences in the use of learning by using learning platform applications using schoology, which can improve student learning outcomes in informatics engineering during the Covid-19 pandemic. There were two groups in this study that were randomly selected by providing different learning models. Pretest and posttest were given to both groups to find out the difference between the pretest and posttest results between the control class and the experimental class. The experimental class uses a blended learning model using the schoology application, while the control class uses ordinary learning. After applying the learning model, the results of the pretest and posttest in each class were compared so that the difference between the two was obtained. The technique used in sampling in this study used a purposive sampling technique, namely the sampling method with certain considerations. The reason for applying the purposive sampling technique in this study is because it requires a





homogeneous class in terms of their ability to represent the characteristics of the population. The selected sample is 30 students.

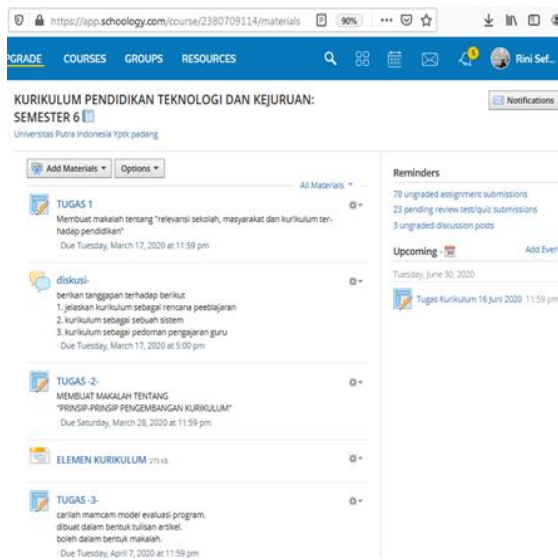


Figure 1. Display of the Schoology

This study uses instruments in the form of blended learning tools with schoology applications, namely in the form of blended learning tools in the form of semester lesson plans, student worksheets on exercises, quizzes, handouts and online learning classes. The data collection technique used in this study is the application of learning to the pretest and posttest. The pretest is used to measure students' initial abilities before learning begins and the posttest is used to measure students' abilities after learning to use blended learning with the schoology application. The pretest and posttest were given to the control class and the experimental class. Then a test of the mean difference in the initial achievement of each experimental group was carried out. This test was carried out aiming to find out

whether there is a difference in the average score for the initial achievement of the two groups. The test used is independent sample t-test with a significance level of 0.05 alpha.

## RESULT

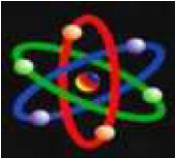
The results of the analysis in this study are to reveal how to increase student learning outcomes by implementing blended learning using an online learning platform in the form of a schoology application for Informatics Engineering Education students during the COVID-19 pandemic, can be seen in the following table:

	Pretest	Posttest
Mean	63.27586207	79.13793103
Standard Error	2.422643872	1.46361801
Median	65	78
Mode	65	78
Standard		
Deviation	13.04633652	7.881824199
Sample Variance	170.2068966	62.12315271

Table 1. Descriptive Data

Based on Table 1, it can be seen that the average score before using blended learning with the schoology application was 63.27 and after applying blended learning with schoology the student scores increased, namely 79.13. Based on these results, it can be seen that there has been an increase in the average score of informatics engineering students in learning technology and vocational education curricula. The average difference before and after implementing blended learning with Edmodo during the -19 co-pandemic period. The following is a figure that compares the average pretest and posttest scores.





	<i>pretest</i>	<i>posttest</i>
Mean	63.43333333	79.4
Variance	165.0816092	62.04137931
Observations	30	30
Pearson Correlation	0.879359142	
Hypothesized Mean Difference	0	

Table 2. Paired Two Sample for Means

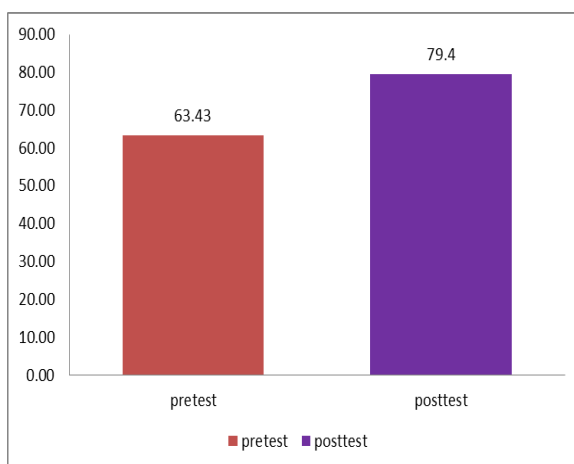


Figure 2. Average pretest and posttest

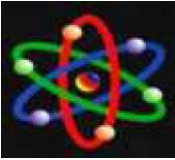
Blended learning is one way that can be used to improve student learning outcomes (Graham, 2006). This is also closely related to what was stated by (Valiathan, 2002) that blended learning which combines learning by using and utilizing the internet has a correlation in improving students' abilities. Meanwhile, research conducted by (Herlambang & Hidayat, 2016) and (Hamka, D., & Effendi, 2019) shows that Edmodo-based blended learning can be used as a learning medium in delivering Basic Physics learning material. This condition is supported by research conducted by (Sefriani et al., 2021) (Masyhudianti et al., 2018) that subject skills in Business Writing can be further improved through LMS Schoology. Overall, the findings suggest that teachers

should utilize LMS Schoology only as a complement to traditional teaching methods to improve students' proficiency in business writing. Based on this description it can be seen that, blended learning can be used as a smart solution in learning. This is closely related to the current conditions in the period during the covid-19 pandemic where online learning is required, with one solution that mixes learning with schoology applications (Junus et al., 2020). (Fitriana, 2019) The results of the study show that students have a positive impression of using Edmodo and feel comfortable interacting online with friends and teachers, so based on previous research, blended learning using Edmodo is a smart solution for learning during the Covid19 pandemic. Opportunities that combine innovation and the benefits of technology in online learning with face-to-face learning interactions and participation. The use of schoology in teaching aid media is effective in increasing students' conceptual understanding and problem solving. Student responses to the product's utility, attractiveness, and convenience as a mixed learning medium were also positive (Suana, W., Maharta, N., Nyeneng, I. D., & Wahyuni, 2017). Not much different from what was conveyed by research conducted (Sumardi & Muamaroh, 2020) Pandangwati, T., Ulfa, S., & Toenlloe, A. J. (2018) that by using the Learning management system schoology in effective learning increases students' interest in learning, while Resty, Z. N., Muhardjito, M., & Mufti, N. (2019) said that schoology can improve students' critical thinking skills.

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## CONCLUSION

The findings in this study indicate that students are very enthusiastic and enjoy learning with blended learning using the schoology application. Because learning materials and assignments are sent via the schoology application, an explanation of the learning materials is also posted on the schoology application which encourages students to continue accessing the schoology application. Setting a time limit for collecting and completing assignments encourages students to also submit assignments on time, because if they are late within seconds, the assignment collection system in the schoology application cannot be accessed anymore, which means assignments cannot be submitted. Blended learning with the schoology application platform is one of the solutions for implementing learning in the conditions of the Covid-19 pandemic because educators and students can still do learning even at home. Learning can be done online from the homes of educators and students without compromising the essence of learning itself. Lecturers, educators, parents and students are



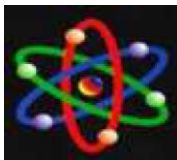


required to be more creative in utilizing learning platforms that are available for free on the internet, so that they will maximize learning activities. The development of knowledge about online-based learning must be increased by teachers and students, so as to minimize the ineffectiveness of online or online learning. It is recommended that human resources provide direction or training to teachers or educators in utilizing online learning platforms.

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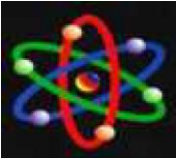




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