



Comparison of distance and blended learning models on UIN Saizu Purwokerto students' learning outcomes

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Abstract: The case of the Covid-19 pandemic led to a government policy to enforce online learning with distance learning and blended learning models. Lecturers are required to present learning innovations using these two models to continue to achieve maximum learning outcomes and student learning outcomes. It is through the implementation of distance learning that students can study anywhere. The blended learning model is innovative and collaborates offline/face-to-face lectures with online lectures. With the implementation of this online learning system, both distance learning and blended learning have differences in student learning outcomes. This study aims to determine the differences in student learning outcomes using distance learning and blended learning models regarding cognitive, affective, and psychomotor aspects. The research method used in this study is quantitative, with a research design using a comparative test to compare learning outcomes between two groups with different treatments. One group uses distance learning, and one group uses blended learning. The data analysis technique used to answer the hypothesis of this research is a statistic with different/comparative test, the t-test with statistical test Kolmogorov Test and Shapiro-Wilks Test to determine normality test and homogeneity test, and a nonparametric test using the Mann-Whitney test. The results showed no significant difference in cognitive, affective (activeness), and psychomotor learning achievement between students who learned to use the distance learning and blended learning models. Significant differences in learning achievement only occur in the affective aspect, particularly in student discipline in learning. Students who learn to use blended learning have better discipline than those who use distance learning.

Keywords: blended learning; distance learning; effectiveness; learning outcomes.

A. Introduction

The Covid-19 outbreak was officially declared a pandemic on March 11, 2020, by the World Health Organization (Ducharme, 2020). Statement from WHO regarding Covid-19 impacts a country's health, economic, social, cultural, and defense sectors and the education sector.

Based on the letter of the Minister of Education and Culture of the Republic of Indonesia Number 4 of 2020 concerning the Education Implementation Policy during the emergency period of coronavirus disease (Covid-19), one of the points is about implementing the learning and teaching process from home to replace the face-to-face learning process to prevent the spread covid-19 in schools and colleges (Pengelola web Kemendikbud, 2020). This policy certainly demands that every educational unit, especially schools and universities, as implementers of educational process activities, change the technical implementation of the teaching and learning process to online in a relatively short time. This situation requires higher education institutions to carry out online learning activities by utilizing technology in the term e-learning to make learning implementation more effective (Puspitorini, 2020). Educators can use many media in online learning through social media networks such as WhatsApp groups, Zoom Cloud Meetings, Google Meet, etc. (Gunawan & Amaludin, 2021). It is based on research (Anshori & Syam, 2019), which shows that students learning using e-learning get much better than students who study conventionally, although the comparison is insignificant. It is also supported by research conducted by Kuntarto, which stated that the use of learning via social media was evaluated as increasing students' level of understanding.

However, the reality of distance learning has impacted teaching staff, students, and their parents. The impact for educators is that online learning requires educators to master technology, developing rapidly in creating learning media for students. Not a few older educators experience difficulties with online learning. Most Indonesian university teachers make little use of virtual technology in the classroom. Although these teachers are familiar with common web tools, especially email and social networking systems, they are not familiar with content management systems (Yusny & Yasa, 2019).

So, this requires them to receive broader technical guidance compared to educators who are still of productive age. According to Ahmad, students from underprivileged

families tend to find it difficult because they don't have devices supporting online learning. As for the impact on parents, online learning causes they increased expenses due to the need to purchase internet quota to support the learning process undertaken by their children (Taufik & Fitriyani, 2020). It is also supported by the results of Risky Setiawan's research, which suggests that there are still weaknesses in implementing e-learning-based lectures, namely that learning activity is still not optimal. It is because there is still an adaptation process between lecturers and students. After all, this has never been done before (Setiawan et al., 2019).

There has been a decline in cases of Covid-19 due to the policy of implementing restrictions on community activities (PPKM), which has come into effect since July 2021 (Sepfiatin & Mahendra, 2022), so the government has started implementing face-to-face learning (PTM) with 50% of the usual number of students. Learning was initially carried out online (on the network) due to emergency conditions, and then combined two learning methods: online (on the network) and face-to-face. Combining two learning methods like this is known as blended learning. Blended learning is an innovative model combining offline/face-to-face and online lectures (Setiawan et al., 2019). The learning process that combines conventional learning with ICT (information communication and technology) learning processes is called learning mix or blended learning (Rahmadani et al., 2022).

Learning using the blended learning method in universities has been used long before the Covid-19 pandemic. However, at that time, the learning process was dominated by face-to-face learning, and the blended learning method was used as a learning support method. Meanwhile, during the Covid-19 pandemic, e-learning was used optimally, considering the government's 50% face-to-face learning policy and combining it with learning through e-learning media.

Likewise with Islamic State University of Profesor Kiai Haji Saifuddin Zuhri Purwokerto (UIN Saizu). Based on a letter from UIN Saizu starting in March 2020, it implemented an online/full online learning system. A letter in November 2021 implemented lectures using a blended learning system where the face-to-face learning lecture policy was limited to 50% odd-even system. Based on the results of the initial survey by conducting interviews with several of Faculty of Education and Teaching Training (FTIK) lecturers, it was found that the majority of FTIK lecturers at UIN Saizu

were more effective in carrying out learning using a blended learning system rather than fully online (online), this was based on several reasons related to the use of distance learning which was often hampered by connections / poor network in several places when using several video conference platforms such as Zoom, Google Meet so that the material is not delivered optimally, and also related to student activity which is felt to be very lacking and when implementing distance learning, when using platforms, especially Google Meet, students are online sometimes the attitude/attitude is lacking, such as there are still many students who close the video when using video conferencing, and students are in a situation that is not/not ready to learn, and seen from the students' skills such as practical courses or studies related to numeracy, almost all lecturers assuming that students lack skills in the distance learning system.

It was also found that several lecturers, especially lecturers over the age of 55 years who implemented a full online learning system, stated that the odd-even blended learning system applied compared to distance learning was more effective because using a distance learning system lecturers must be able to master technology, such as using video conferencing, Quizizz, Google Classroom, Google Slides, Camtasia, OBS Video, Screen Cast, and others. While the use of an odd-even blended learning system, there are still weaknesses in this model; not only do lecturers lack mastery of existing platforms, and when lecturers present material on the blackboard, it is less clear for students who take part online, so learning is more focused on students who take it offline.

Therefore, educators continue to look for a pattern with which the hope is that learning outcomes will remain as good as before or even better before Covid-19. Thus, in this research, the researcher wants to determine whether there is a difference between the distance learning strategy and the blended learning strategy that applies at UIN Saizu. Why is this being researched? Because those two things or learning strategies are the learning policies at UIN Saizu. From these two things, it can be seen which is more or less effective when applied in learning with the hope that learning outcomes will improve. With these two models, it is hoped that student learning outcomes will be better by looking for which side is better, whether later when it is known, it needs to be added or not-modified again in the hope that both are better.

There is some research on blended learning and distance learning. Among them is research conducted by [Maskar et al. \(2020\)](#) who focused their research studies on developing blended learning model tools to increase the effectiveness of implementing distance education. [Fadhilaturrahmi et al. \(2021\)](#) in their research, presented information regarding teachers' perceptions regarding the challenges of implementing distance learning at home due to the impact of the pandemic using WA groups in distance learning with a qualitative descriptive approach. Another research was conducted by [Anisa Ratna Sari \(2013\)](#), who focused on blended learning strategies in increasing learning achievement, level of learning independence, and students' critical thinking abilities.

Dziuban's research focuses on teaching blended learning using modern pedagogical methods, the evolution of which involves modern information technology covering many aspects of the human thought process ([Dziuban et al., 2018](#)). The aim of the current research is oriented toward field findings regarding student learning outcomes between learning using blended learning with an odd-even system and using distance learning, which are then compared.

B. Method

The research uses quantitative methods with a research design using comparative tests to compare cognitive, affective, and psychomotor learning outcomes between two groups with different treatments ([Sugiyono, 2012](#)). One group uses distance learning, and one group uses blended learning. The research population was 6th-semester PAI students taking Multicultural Education courses. The research sample was taken from 2 classes, namely class 6 PAI D (39 students) carrying out distance learning and class 6 PAI E (34 students) carrying out learning using the blended learning model.

The data collection methods used were tests and observation sheets. Tests are used to measure learning achievements in the cognitive domain. Observation sheets measure learning achievements in the affective and psychomotor domains. There are two observation sheets to measure learning achievements in the affective field: one to measure student activity and one to measure student discipline. There are four types of research instruments, which can be seen in the following table.

Table 1. Research instrument

No	Realm of learning outcomes	Instrument	Tujuan
1	Cognitive	Test	Measure concept understanding
2	Affective	Observation sheet	Activeness Discipline
3	Psychomotor	Observation sheet	Presentation

The test takes the form of a description of 5 questions with a maximum score of 20 points for each question. The active observation sheet measures students' activeness in discussion activities in class, including asking and answering, adding answers, and refuting answers. Students who achieve the activeness indicator one time from the total discussion activities carried out get a score of 75. Students who complete the activeness indicator twice from the total discussion activities get an 80. Students who achieved the activeness indicator three times from the total discussion activities scored 75.

Discipline observation sheets include measuring students' average accuracy level in submitting assignments via the Google Classroom application and student attendance. Students who submit assignments on time out of the total available assignments five times will get 80 points. Students who submit assignments on time four times will get 70 points. Students who submit assignments on time three times will get 60 points.

The presentation skills assessment sheet is measured by indicators of speaking fluency, content mastery, and facial expressions/mimics when delivering. Students who can meet each achievement indicator criterion will get points with a score of 90 if the number of activities is 4, a score of 85 if the number of activities is 3, a score of 80 if the number of activities is 2, and a score of 75 if the number of activities is 1.

The instruments used to conduct research will be previously tested for validity. Researchers on all research instruments carried out validity tests. The validity used is content validity and construct validation resulting from expert judgment through group discussion forums (FGD). In this case, experts are lecturers with expertise in the research problem. The validation test results are various suggestions expert lecturers gave regarding the quality of the research instruments to be used. After the instrument has been improved based on expert advice, the instrument is declared to meet valid aspects.

Data analysis was conducted to determine whether there were differences in students' learning outcomes who implemented distance learning and blended learning. The test carried out is a different test, in this case, the t-test using SPSS software version

25.00. Two groups are said to have significant differences if the significance value is less than 0.05. The normality of data distribution uses the Kolmogorov Test statistical test (Sumandya et al., 2021). Data is said to be normally distributed if the resulting significance is more significant than 0.05 using SPSS version 25.00. The homogeneity test tests whether the research data comes from a homogeneous population. This test uses Levene's test of Equality of Error Variance (Sumandya et al., 2021). Data is considered homogeneous if the significance figure is more significant than 0.05 using SPSS version 25.00.

C. Result and Discussion

This research aims to find out whether there are differences in the learning outcomes of UIN Saizu students who carry out learning using distance learning and blended learning systems. UIN Saizu, in its implementation of blended learning, uses a 50/50 system, in line with Walid Abdullah's research, stating that the composition often used in blended learning is 50/50, which means 50% online learning and 50% online learning. There is also 75/25 where 75% face-to-face and 25% online learning is carried out. There is also 25/75, with 25% face-to-face learning and 75% online learning. When using a combination, it is adjusted to the analysis required, the characteristics of the students, as well as the abilities and resources available (Abdullah, 2018). This research uses two classes as research samples. One class learns using distance learning, and the other uses blended learning.

As stated in the National Education System Law, the three domains (cognitive, affective, and psychomotor) cannot be separated to achieve success. Students have the right to acquire adequate knowledge, behavior, morals, and skills (Hamzah, 2012).

Learning outcomes in this research concern learning achievements from 3 domains: cognitive, affective, and psychomotor. The cognitive aspect is taken from the test scores for 2021/2022, the even mid-semester exam. The affective aspect is taken from the values of activeness and discipline. Learning activity is measured by asking, answering, adding to the speaker's answers, and refuting answers in discussion activities. Discipline is measured through accuracy in completing assignments and attendance. The psychomotor

aspect can be seen in student presentation activities. The following is the overall research data obtained.

Table 2. Research result

Learning Aspect	N	Minimum	Maximum	Mean	Std. Deviation
distance learning _mid term test	39	70.00	90.00	82.3590	4.04896
blended learning _mid term test	34	80.00	90.00	86.3824	3.01526
distance learning _discipline	39	60.00	85.00	79.8718	6.63793
blended learning _discipline	34	70.00	85.00	84.2647	2.78860
distance learning _active	39	60.00	90.00	77.0513	4.69013
blended learning _active	34	75.00	90.00	79.1176	5.43147
distance learning _presentation	39	60.00	90.00	77.5641	5.72067
blended learning _presentation	34	75.00	90.00	79.1176	5.43147

Table 2 shows that the minimum mid-term test scores, activeness, discipline and presentation in the blended learning class are all higher than in the distance learning class. The same thing happens to the average value. However, this situation does not apply to the maximum value where there is almost no difference between distance learning and blended learning classes. Looking at the overall research data obtained, it can be stated that there are differences in learning outcomes in all domains, where students who take blended learning are better than those who take distance learning. To find out whether these differences meet the significance aspect or not? Below, we will explain the results for each aspect.

1. Cognitive aspect

Before carrying out the difference test, it is necessary to conduct analysis prerequisite tests, namely the normality and homogeneity tests. The normality test results for cognitive aspect learning achievements can be seen in Table 3. The normality test results for cognitive aspect learning achievements can be seen in Table 3.

Table 3. Results of the homogeneity test of learning achievement in cognitive aspects

		Levene Statistic	df1	df2	Sig.
Mid-term	Based on Mean	30.030	1	71	.000
	Based on Median	9.916	1	71	.002
Exam	Based on Median and with adjusted df	9.916	1	49.478	.003
	Based on trimmed mean	23.895	1	71	.000

Table 3 shows that the significance value in the Levene test for all values is less than 0.05, namely 0.000 (based on mean); 0.02 (based on Median); 0.03 (based on Median and

with adjustment); and 0.00 (based on trimmed mean). It shows that the research data does not meet a homogeneous distribution.

Table 4. Learning achievement normality test results

Class	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Distance learning	.373	39	.000
Blended learning	.407	34	.000

Table 4 shows that the significance value in the Kolmogorov-Smirnov test for distance learning and blended learning classes is less than 0.05, 0.000, and 0.000. The same thing happens in the Shapiro-Wilk test. It shows that the research data for both classes is not normally distributed.

Based on the analysis of prerequisite tests, it is known that all prerequisite tests are not met. Therefore, a nonparametric statistical test is the appropriate statistic to continue testing the differences between the two groups. Based on the distribution of research data that does not have the same number of members and the characteristics of the data are ordinal, the Mann-Whitney test is the choice for analyzing the differences between the two groups.

Table 5. Mann-Whitney Test Results Learning Achievement Data

Mid-term exam	
Mann-Whitney U	623.000
Wilcoxon W	1403.000
Z	-.509
Asymp. Sig. (2-tailed)	.611

a. Grouping Variable: Kelas

Based on Table 5, it can be seen that the significance value is more significant than 0.05, namely 0.611. It shows that there is no difference in cognitive learning outcomes between distance learning classes and blended learning classes. Thus, it can be concluded that the learning outcomes for the cognitive aspects of blended learning and distance learning classes are relatively the same.

2. Affective aspect

The affective aspect is divided into two, namely discipline and activeness. The analysis prerequisite tests for discipline scores are shown in Table 5 and Table 6.

Table 6. Normality test results of discipline data

Class	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Distance learning	.277	39	.000

Blended learning	.516	34	.000
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Table 7. Homogeneity test results of discipline data

	Levene Statistic	df1	df2	Sig.
Based on Mean	20.658	1	71	.000
Based on Median	24.520	1	71	.000
Based on Median and with adjusted df	24.520	1	61.457	.000
Based on trimmed mean	22.956	1	71	.000

Table 7 shows that the significance value of the Kolmogorov-Smirnov and Shapiro-Wilk test results is less than 0.05, namely 0.000. It applies to both distance learning and blended learning classes. These results indicate that the research data from the distance learning and blended learning classes is not normally distributed. Table 6 shows the results of the homogeneity test using the Lavene test. The significance value based on mean, Median, based on Median and adjusted df, and trimmed mean shows a value of less than 0.05, namely 0.000. It shows that the research data on the disciplinary aspect is not homogeneous.

The two prerequisite tests for the difference test analysis did not meet all of them, so nonparametric statistical analysis was chosen. The Mann-Whitney Test was selected based on the nature and characteristics of the data and the purpose of the analysis. The results can be seen in Table 8.

Table 8. Mann-Whitney test results for discipline aspects

	Disiplin
Mann-Whitney U	377.500
Wilcoxon W	1157.500
Z	-3.854
Asymp. Sig. (2-tailed)	.000

Based on Table 8, it can be seen that the significance value is less than 0.05, namely 0.000. It shows differences in the discipline of students using the distance learning and BL systems. To see the differences more clearly, you can see from Table 1 the distribution of distance learning and blended learning class data. Table 1 shows that the data score indicates that the average discipline of students who carry out BL learning (84.2647) is higher than those who carry out distance learning (79.2647). Not only that, the minimum score for the blended learning class (70) is also higher than the distance learning class (60). Thus, it can be concluded that the blended learning class is more disciplined than the

distance learning class. Analysis prerequisite tests on activeness values are shown in Table 9 and Table 10.

Table 9. Student activity normality test results

Class	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Distance learning	.310	39	.000
Blended learning	.305	34	.000

Table 9 shows that the significance value in both classes is good, as seen from the Kolmogorov-Smirnova test results, which offer a value of less than 0.05, namely 0.000. It indicates that the distribution of activity data in the distance learning and blended learning classes is not normally distributed.

Table 10. Student activeness normality test results

Activeness	Levene Statistic	df1	df2	Sig.
Based on Mean	1.671	1	71	.200
Based on Median	1.305	1	71	.257
Based on Median and with adjusted df	1.305	1	67.083	.257
Based on trimmed mean	1.603	1	71	.210

Based on Table 10, it is known that the homogeneity test results using the Lavene test formula show different significance values, namely Based on Mean (0.200), Based on Median (0.257), Based on Median and with adjusted df (0.257), and based on trimmed mean (0.210). These results are similar: the significance value is more significant than 0.05. This shows that the distribution of student activity data in distance learning and blended learning classes comes from a population with a homogeneous distribution.

From all the prerequisite test results in the activity data distribution, it can be concluded as follows. The data distribution does not meet a normal distribution but a homogeneous one. This situation requires nonparametric statistics to measure differences in activity between distance learning and blended learning. Based on the nature and characteristics of the data and the purpose of the analysis, the Mann-Whitney Test was chosen, which can be seen in Table 11.

Table 11. Results of the Mann-Whitney test for aspects of activeness

	Activeness
Mann-Whitney U	556.500
Wilcoxon W	1336.500
Z	-1.324
Asymp. Sig. (2-tailed)	.185

Based on [Table 11](#), it is known that the significance value is more significant than 0.05, namely 0.000, namely 0.185. It shows no difference in students' activity using the distance learning and blended learning systems. Thus, it can be said that the difference in learning systems, namely distance learning and blended learning, does not make a difference in student activity in learning during the Covid-19 pandemic.

3. Psychomotor Aspects

Psychomotor aspect learning achievements are seen based on presentation activities carried out by students. The data was then analyzed to determine whether there were differences between students who implemented distance learning and blended learning. The prerequisite test results for psychomotor aspect analysis are shown in [Table 12](#) and [Table 13](#).

Table 12. Test results for homogeneity of learning outcomes in psychomotor aspects

		Levene Statistic	df1	df2	Sig.
Presentation	Based on Mean	.043	1	71	.836
	Based on Median	.389	1	71	.535
	Based on Median and with adjusted df	.389	1	70.956	.535
	Based on trimmed mean	.051	1	71	.822

Based on [Table 12](#), it is known that the Lavene test results show a significance value greater than 0.05, namely based on the mean (0.836) on the Median (0.535) based on the Median and with adjusted df (0.535), and based on the trimmed mean (0.822). This shows that the distribution of learning achievement data on psychomotor aspects of students in PJJ and BL classes comes from a population with a homogeneous distribution.

Table 13. Normality test results for psychomotor aspect learning achievements

Kelas		Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
Presentation	Distance learning	.340	39	.000
	Blended learning	.305	34	.000

[Table 13](#) shows that the significance value in both classes is good, as seen from the Kolmogorov-Smirnova test results, which offer a value of less than 0.05, namely 0.000. This shows that the distribution of learning achievement data on psychomotor aspects in distance learning and blended learning classes is not normally distributed.

Based on the results of the prerequisite tests on the distribution of psychomotor aspect learning achievement data, it can be concluded that the data analysis does not meet

the requirements for nonparametric statistical tests. Based on the nature and characteristics of the data and the purpose of the analysis, the Mann-Whitney Test was chosen, which can be seen in [Table 14](#).

Table 14. Results of the Mann-Whitney test for psychomotor aspect learning achievements

Presentation	
Mann-Whitney U	564.500
Wilcoxon W	1344.500
Z	-1.231
Asymp. Sig. (2-tailed)	.218

Based on the results of the Mann-Whitney U test, it is known that the significance of the data is more significant than 0.05, namely 0.218. It means rejecting the hypothesis H₀. Thus, it can be stated that there is no difference in the achievement of psychomotor aspect skills through the presentation activities of students studying distance learning and blended learning.

The research results show no difference between students who carry out distance learning and blended learning in cognitive, affective (activeness), and psychomotor aspects. The only difference is in the affective aspect in the form of discipline. The research results show that students who study using the blended learning model are more disciplined than those who use distance learning. In line with the results of Risky Setiawan's research that the use of blended learning is more effective in higher education, which is active learning based learning with the main criteria that must be implemented, namely the readiness of system facilities and careful planning, development of complete and interesting content; and regular monitoring and evaluation of the learning process ([Setiawan et al., 2019](#)).

The absence of differences in learning outcomes in the cognitive aspects of students who carry out distance learning and blended learning is possible because of the learning process. Students who carry out blended learning divide their classes into 2 (two groups). Each group must participate in classroom learning once every two weeks to break the chain of the spread of Covid-19. So, the two groups will take turns taking part in learning on campus. Other students study on campus when they have their turn to look at home and participate in the lessons via broadcasts on their cellphone screens. The learning media used include Google Meet or Zoom Meet and WA Groups. Of course, educators can use many media in online learning through social media networks such as WhatsApp

groups, Zoom Cloud Meetings, Google Meet, etc. (Gunawan & Amaludin, 2021). Even though lecturers cannot give maximum attention to students studying at home, lecturers try to provide attention and guidance at the next meeting during class meetings. Through this method, even though it is not complete, lecturers can still give a portion to pay attention to students even though they have various limitations. At least the interaction between lecturers and students is still maintained despite being limited. However, face-to-face learning carried out by students makes it difficult for students to participate in learning. A student carries out face-to-face learning in the first week. In the second week, students carry out online learning. It was only the third week that students carried out face-to-face learning again. And so on. This pattern makes it difficult for students to understand the material. The material taught online is not well understood; when taking part in face-to-face learning, the material has been replaced by other material.

Students who carry out distance learning learning will study in their respective residences. They use media to study together at predetermined times. The media used is Google Meet. Even though the existing media provides video facilities that show students' activities while studying, quite a few students turn off videos to save quota or because the internet network is not good. This means that lecturers cannot monitor student activities while studying. When learning takes place, it is common for the lecturer to start learning before all the students are present. It is because many students arrive late. The effect of student delays is that the allocation for delivering learning materials is unmet. Some information also cannot be conveyed clearly, including instructions for completing tasks. As a result, quite a few students are late in submitting assignments due to unclear material and information received. Apart from that, the absence of direct interaction between lecturers and students gives the impression that students do not take the instructions more seriously.

Apart from the distance learning and blended learning learning processes, the assessment of cognitive aspect learning achievements is taken from the mid-term exam (UTS) evaluation at the 8th meeting out of 16 meetings during one semester. The small amount of learning in research means that students are still faced with adaptation to both lecturers and the learning system. The use of UTS scores is also based on the lecture system at UIN Saizu as a place for conducting research that fully implemented distance

learning after UTS activities due to the increasing number of people exposed to Covid-19. These various things make it possible to ensure no difference in the learning outcomes of students' cognitive aspects in distance learning and blended learning classes.

Several studies show that the blended learning learning model has a positive influence on the teaching and learning process (Banggur et al., 2018, Fandianta et al., 2013), learning motivation, and student learning outcomes (Isti'anah, 2017, Khoiroh et al., 2017). The blended learning model is also very suitable when used as a learning model in the 21st century and the future (Hasbullah, 2014; Noviansyah, 2015). The research result of Ramadhani (2020) found that those learning using blended learning better-understood material or concepts than those who did not use blended learning. Learning using blended learning allows more time to study, making it easier to interact and easier for students to get e-book facilities. Suhairi & Santi (2021) through his research, he added that blended learning learning can make learning more efficient because teachers and students can communicate offline and online. However, blended learning also has weaknesses. Students are less active in submitting responses in WhatsApp groups, and plagiarizing online assignments among students is increasingly widespread. The blended learning model is ideally carried out by combining synchronous and asynchronous learning.

Other research results indicate no difference in activity between students who carry out blended learning and distance learning learning. The activity referred to in this research is being active in discussion activities. Students are said to be active in learning if they ask or answer many questions and refute the answers during learning activities.

Compared to blended learning and distance learning learning, students who actively ask, answer, add, and refute answers are generally students in class. Students in their respective residences rarely ask and answer questions. Students gave several reasons, ranging from unclear documentation of lecturer activities during learning to information that could not be captured clearly because there were too many voices in the media.

Meanwhile, in distance learning learning, apart from many students being late for learning, many students turn off the video for various reasons, making it difficult for lecturers to detect student activity in learning, especially when the lecturer asks students to answer several questions. Silence often occurs. The sound is unclear, the material is not understood, and the joining is late. Only a few students responded. Even though the events

were different, if we examine further, the pattern of learning activities carried out by students is not much different. So, it is natural that there is no difference in activity between students who carry out blended learning and distance learning, despite students' varying courage and learning motivation in carrying out learning. The results of this research also provide a lot of information as material for improving learning patterns for both blended learning and distance learning to maximize learning quality.

Different from the affective aspect of learning outcomes, namely discipline. The research results show that the discipline of students who carry out blended learning is better than distance learning. Students who carry out blended learning are much faster and more punctual in submitting assignments than students who carry out distance learning. One of the factors that causes this is that in face-to-face blended learning, lecturers always remind students directly. It differs from distance learning, where the lecturer reminds students of their assignments using Google Meet media when most students turn off their cameras.

The results of other research state that there is no learning achievement in the psychomotor aspect among students who carry out distance learning and blended learning. Psychomotor aspect learning achievements are measured from presentation activities with indicators of speaking clarity, the correctness of the concepts conveyed, and facial expressions when delivering the material. In distance learning, this learning achievement is difficult to see. Apart from using Google Meet media, it was also because some students giving presentations did not turn on the camera for reasons of saving quota and the internet network was not good. It is one of the causes of lack of support in the learning process undertaken by students (Taufik & Fitriyani, 2020). Students who carry out blended learning make presentations in class. However, several students presented at home because the students' learning schedule was online at that time. On average, when students present directly in front of other friends, the results are shown to be less than optimal because they are embarrassed to be seen by many people so that the material being explained cannot be conveyed to other participants; there is a feeling of awkwardness, lack of confidence, and facial expressions. Which looks less soulful; this is a student's weakness when presenting the material. It makes students' psychomotor learning achievements difficult to measure in detail.

D. Conclusion

The research results show no significant difference in cognitive, affective, and psychomotor learning outcomes between students who study using the distance learning and blended learning systems. Significant differences in learning outcomes only occur in the affective aspect, specifically student discipline in carrying out learning. Students who study using blended learning have better discipline than those who use distance learning. Based on the research results, blended learning is much more likely for students to achieve better learning outcomes, especially in discipline, than distance learning.

Then, it is necessary to improve the learning system for lecturers and improve learning media from UIN Saizu, which can facilitate the implementation of blended learning to make it easier for students to develop student activity during learning. Therefore, the role of all parties involved in education and related external parties who care about education, especially in Indonesia, is essential to create a better learning process.

The limitations of this research include the researcher's subjectivity because this research is very dependent on the interpretation of the data sources obtained, which are limited to the aspect of comparing two learning models, and the number of respondents who only reached two classes is certainly still insufficient to describe the actual situation. Therefore, this research's results open space for other researchers to study more comprehensively and in depth regarding the comparison of blended learning and distance learning.

References

- Abdullah, W. (2018). Model Blended Learning dalam Meningkatkan Efektifitas Pembelajaran. *Fikrotuna*, 7(1), 855–866. <https://doi.org/10.32806/jf.v7i1.3169>
- Anshori, F. A, & Syam, S. (2019). Perbandingan Hasil Belajar Mahasiswa Yang Menggunakan E-Learning Berbasis Edmodo Dengan Yang Tidak Menggunakan E-Learning. *Biogenerasi: Jurnal Pendidikan Biologi*, 4(1), 1–5. <https://e-journal.my.id/biogenerasi/article/view/50>
- Banggur, M. D. V, Situmorang, R., & Rusmono, R. (2018). Pengembangan pembelajaran berbasis blended learning pada mata pelajaran etimologi multimedia. *JTP-Jurnal*

- Teknologi*, 20(2), 152–165. <https://doi.org/10.21009/jtp.v20i2.8629>
- Ducharme, J. (2020, March 11). *World Health Organization Declares COVID-19 a 'Pandemic.'* *Here's What That Means*. Time. <https://time.com/5791661/who-coronavirus-pandemic-declaration/>
- Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning: the new normal and emerging technologies. *International Journal of Educational Technology in Higher Education*, 15(30), 1-16. <https://doi.org/10.1186/s41239-017-0087-5>
- Fadhilaturrahmi, F., Ananda, R., & Yolanda, S. (2021). Persepsi Guru Sekolah Dasar terhadap Pembelajaran Jarak Jauh di Masa Pandemi Covid 19. *Jurnal Basicedu*, 5(3), 1683–1688. <https://doi.org/10.31004/basicedu.v5i3.1187>
- Fandiarta, F., Sanjaya, G. Y., & Widyandana, W. (2013). Meningkatkan Pengetahuan Mahasiswa Dengan Memberikan Fleksibilitas Belajar Melalui Metode Blended learning. *Jurnal Pendidikan Kedokteran Indonesia*, 2(2), 1–8. <https://doi.org/10.22146/jpki.25178>
- Gunawan, Y. I. P., & Amaludin, A. (2021). Pemanfaatan Teknologi Pembelajaran Dalam Jaringan Di Masa Pandemi Covid-19. *Jurnal Madaniyah*, 11(2), 133-150. <https://journal.stitpemalang.ac.id/index.php/madaniyah/article/view/195>
- Hamzah, S. H. (2012). Aspek Pengembangan Peserta Didik: Kognitif, Afektif, Psikomotorik. *Dinamika Ilmu*, 12(1), 1–22. <https://doi.org/10.21093/di.v12i1.56>
- Hasbullah, H. (2014). Blended Learning, Trend Strategi Pembelajaran Matematika Masa Depan. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 4(1), 65–70. <http://dx.doi.org/10.30998/formatif.v4i1.140>
- Isti'anah, A. (2017). The Effect of Blended Learning to the Students' Achievement in Grammar Class. *Indonesian Journal of English Education*, 4(1), 16–30. <https://doi.org/10.15408/ijee.v4i1.5697>
- Khoiroh, N. (2017). Pengaruh model pembelajaran blended learning dan motivasi belajar terhadap hasil belajar siswa kelas VIII SMPN 1 Gumukmas. *Jurnal Penelitian Ilmu Pendidikan*, 10(2), 97-110. <http://dx.doi.org/10.21831/jpipfip.v10i2.13986>
- Maskar, S., Dewi, P. S., & Puspaningtyas, N. D. (2020). Online Learning & Blended Learning: Perbandingan Hasil Belajar Metode Daring Penuh dan Terpadu. *Jurnal Prisma*, 9(2), 154-166. <https://doi.org/10.35194/jp.v9i2.1070>
- Noviansyah, N. (2015). Pembelajaran Bauran Blended Learning Terampil Memadukan Keunggulan Pembelajaran Face-to-Face, E-Learning Offline-Online dan Mobil Learning. *At-Turats*, 9(2), 75. <https://doi.org/10.24260/at-turats.v9i2.318>

- Pengelola Web Kemendikbud. (2020, November 20). *Pemerintah Daerah Diberikan Kewenangan Penuh Tentukan Izin Pembelajaran Tatap Muka*. Kementerian Pendidikan dan Kebudayaan Republik Indonesia. <https://www.kemdikbud.go.id/main/blog/2020/11/pemerintah-daerah-diberikan-kewenangan-penuh-tentukan-izin-pembelajaran-tatap-muka>
- Puspitorini, F. (2020). Strategi pembelajaran di perguruan tinggi pada masa pandemi Covid-19. *Jurnal Kajian Ilmiah*, 1(1), 99–106. <https://doi.org/10.31599/jki.v1i1.274>
- Rahmadani, R., Sari, R. D., Maulana, B., Mendoza, M. D., & Putri, T. T. A. (2022). Penerapan Metode Flex Blended Learning pada SMKS Imelda. *Jurnal Teknologi Pendidikan*, 15(2), 90–94. <https://doi.org/10.24114/jtp.v15i2.39121>
- Ramadhani, S. P. (2020). Pengaruh Blended Learning terhadap Hasil Belajar Matakuliah Bimbingan Konseling Mahasiswa PGSD. *Jurnal Basicedu*, 4(2), 327–336. <https://doi.org/10.31004/basicedu.v4i2.350>
- Sari, A. R. (2013). Strategi Blended Learning Untuk Peningkatan Kemandirian Belajar Dan Kemampuan Critical Thinking Mahasiswa di Era Digital. *Jurnal Pendidikan Akuntansi Indonesia*, 11(2), 32–43. <https://doi.org/10.21831/jpai.v11i2.1689>
- Sepfiatin, N., & Mahendra, G. K. (2022). Evaluasi Kebijakan Ppkm Darurat Covid-19 Dalam Perspektif LHKP PP Muhammadiyah. *TheJournalish: Social and Government*, 3(3), 198–206. <https://doi.org/10.55314/tsg.v3i3.2793>, 198–206
- Setiawan, R., Mardapi, D., Pratama, A., & Ramadan, S. (2019). Efektivitas blended learning dalam inovasi pendidikan era industri 4.0 pada mata kuliah teori tes klasik. *Jurnal Inovasi Teknologi Pendidikan*, 6(2), 148–158. <https://doi.org/10.21831/jitp.v6i2.27259>
- Sugiyono, S. (2012). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R & D)*. Alfabeta.
- Suhairi, S., & Santi, J. (2021). Model Manajemen Pembelajaran Blended Learning pada Masa Pandemi Covid-19. *Syntax Literate: Jurnal Ilmiah Indonesia*, 6(4), 1977–1996. <https://doi.org/10.36418/syntax-literate.v6i4.2472>
- Sumandya, I. W., Candiasa, I. M., Suharta, I. G. P., & Sugiarta, I. M. (2021). Development Of A Vocational Based Mathematics E-Module. *International Journal of Scientific & Technology Research*, 10(6), 303–309.
- Taufik, A., & Fitriyani, F. (2020). Penguatan Pembelajaran Sistem Daring. *EL-Ghiroh*, 18(2), 195–207. <https://doi.org/10.37092/el-ghiroh.v18i2.244>
- Yusny, R., & Yasa, G. I. (2019). Mengembangkan (Pembelajaran) Blended Learning dengan Sistem Lingkungan Pembelajaran Virtual (VLE) di PTKIN. *Jurnal Ilmiah Islam Futura*,

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19(1), 103-127. <http://dx.doi.org/10.22373/jiif.v19i1.3707>