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THE EFFECT OF BLENDED LEARNING ON EFL STUDENTS' ACHIEVEMENT

Syifa Najihah Shofi[1], Feny Martina[2], Zelvia Liska Afriani [3]

[1,2,3,] Universitas Islam Negeri Fatmawati Sukarno Bengkulu, Indonesia

Co Email : syifa.girl0308@gmail.com

ABSTRACT

The objective of this study was intended to find out the significant effect of blended learning with enriched virtual model on EFL students' achievement. This study used a time-series design method. The sample in this research was 29 students in class IX C taken by performed a test to the population to determine their achievement in learning English. The researcher has given achievement tests to students and identified class who need treatment used blended learning with enriched virtual model to increase English learning achievement. The researcher was given the treatment used enriched virtual model in class. Pre-test were given before giving treatment. The result showed as follows: First, the pre-test score showed the average score is 61.72. After being given treatment, a post-test is given. The post-test result show the average value is 77.41 in this case the increase is 15.69. Second, the score of the independent t-test shows the significant value (2-tailed) is 0,000 < 0,05. In other words, H0 was rejected and Ha was accepted. It can be concluded that blended learning with enriched virtual model has a significant effect on the third grade of MTsN 2 Mukomuko in the academic year 2021/2022.

Keywords : Blended Learning, EFL Students, Achievement

INTRODUCTION

The worldwide COVID-19 pandemic has caused people to face challenges in adjusting and inventing, notably in the educational field. In this situation, a situation that inhibits direct interactions between teachers and students eventually leads to the education system adapting so that it can respond to students' needs to continue learning. Traditional learning, which relies on face-to-face interactions with teachers, cannot be pressed during this pandemic in order to prevent the spread of COVID-19, because social separation is required. As a result, there is a critical need for computer-based and internet-based (e-learning) learning to bridge the gap between teachers and students.

During these unfamiliar times, teachers attempt to adjust to new teaching and learning conditions in order to better support their students. E-learning, according to (Aerodynamics et al., 2019) has emerged as a crucial solution to the educational process in order to allow the best use of technology in this era. E-Learning is a concept that includes the areas of online learning, web-based training, and technology-assisted teaching. It is divided into two types: synchronous and asynchronous e-learning, both of which provide a spatial separation between the teacher and the learner on one side, and the learners from one another on the other.

A suitable learning model is required and during a pandemic blended learning is considered to be successful, particularly in the new normal era where face-to-face learning can be conducted even though it is still within strict health protocols. According to (Zainuddin & Keumala, 2018) blended learning is an alternative form of teaching that aims to merge traditional learning method based in the classroom with technology based learning or e-learning. Blended learning method is a choice based on a learning paradigm to prepare students who are prepared to meet the trends and challenges of

the moment, who are autonomous, analytical, highly initiative-oriented, innovative and willing to solve problems. The versatility of e-learning allows students to learn independently by having independent control over time, place, learning sequence and learning speed from different sources facilitated by teachers.

(Dziuban et al., 2018) stated that Blended learning has evolved into a new normal. Blended learning has the ability to improve teaching and learning methods in a more sensitive educational setting to the needs of students. Meanwhile, (Volchenkova, 2018) state that technological innovation extends the range of solutions for learning to build more productive learning experiences, increase access and flexibility, or reduce learning costs. Blended learning method can allow blending face-to-face and computer-based in learning.

Blended learning method can also promote students' diverse learning styles, where each student has a different style of learning. Blended learning based on the dimensions of face-to-face and technology-mediated teaching does not provide an adequate theoretical basis (Cronje, 2020). The style of learning is a variation of how information is consumed and then structured and processed. Students who need more time to process content will relearn data offline or online with blended learning method. The ability to present teaching in the form of text or photographs (still or motion) that can sometimes not be applied face-to-face would make it easier to better understand the content through offline or online techniques. The intrinsic and extrinsic factors must, of course, be considered to improve the motivation of students. One of extrinsic factors that promote the emergence of students' motivation is the adoption of the blended learning approach, as it can increase students' attractiveness to learning. While the intrinsic factors, one of which is the incentive for learning needs, comes from inside students.

Learning practices must be in line with their behaviors in order to encourage students learning well. Each instructor can teach in a number of different ways or teach in ways that are different way of absorbing and learning knowledge. It certainly allows students to grasp the knowledge or subject matter provided in various teaching styles, so that this approach can promote students' achievement and attitudes in learning. In addition, by increasing international vocabulary learned in studying, increasing trust in communication using English and demonstrating it in everyday conversations, it can also enhance the English of students.

Many schools in Indonesia, especially in Bengkulu province, have adopted the blended learning method because it has many benefits for students and can be used effectively during pandemic. The school has started a face-to-face learning method that is divided into two groups after the issuance of a circular from the mayor of Bengkulu No: 338/07/B.Kesbagpol regarding teaching and learning activities at schools during the pandemic with many requirements including the number of students in the classroom not exceeding 50% of the total number of students. Students take turns studying face-to-face with the teachers at school and the separation is achieved with an odd even amount of student absences.

The researcher has conducted a pre-observation in May 31 2021 at MTsN 2 Mukomuko. This school has chosen because it is one of the schools that apply a blended learning system. Students are classified into groups with odd absent numbers and groups with even absent numbers in these classes. At school, face-to-face schedules are followed by alternating days between groups. It was founded the average score of English final exam in class VII was 80, the average score in class VIII was 75, and the average score in class IX was 65. Class IX C has the lowest score in class IX, the average score in this class was 55. This is because students are afraid to make mistakes when working on questions and practice in English. One of them is caused by the factor of students who have difficulty understanding the meaning in English where English is not their first language. So they slowly have to understand the meaning. In English practice, pupils have trouble speaking and expressing them. Students in the new online learning system face a number of issues, one of which is a lack of space for conversation with the teacher.

Many students are still getting used to the mixed learning approach with the enhanced virtual model. This is because students are accustomed to studying in a specific manner, such as using face-

to-face learning methods in class prior to the epidemic and then using online learning methods following the pandemic. Blended learning, on the other hand, is a type of learning that blends face-to-face and online instruction. While it came to teachers, they discovered students who were inactive in reacting to problems when communicating with them during the learning process, making it impossible for the teacher to tell whether or not the students had grasped the content.

In this blended learning class, the researcher uses the enriched virtual model. This model was proposed by (Staker & Horn, 2012). This model is suitable for blended learning since it encourages critical thinking, problem solving, and cooperation with other students during the learning process, as well as creativity and student creations both within and outside the classroom. Furthermore, this strategy makes learning more effective by utilizing blended learning, resulting in improved student learning performance. Students are given homework assignments after receiving face-to-face teaching in class, when the instructor serves as moderator. Debate and a variety of viewpoints are encouraged in the classroom.

To help students learn more efficiently, students are offered a range of knowledge in the form of web connections. According to (Alebaikan & Troudi, 2010) with current educational trends, blended learning may be used as the primary method of learning a foreign language. Furthermore, blended learning not only makes it easier to learn a new language, but it also makes it easier to learn a new skill, but it assists EFL educators in achieving multiple pedagogical objectives. As a result, the study concludes that a methodology change in EFL education is a problem that must be addressed using technologically advanced approaches.

Students are encouraged to learn more about the subject and share what they have learned with their peers. Students receive shuttle feedback in order to gauge their progress. The curriculum is delivered through the Google Classroom learning platform. As a result, the researcher wishes to undertake research at MTsN 2 Mukomuko to see how blended learning with an expanded virtual model affects student learning results. The researcher increased pupils' performance in English classes in third grade by applying this strategy.

There was a previous study by (Fakhir & Ibrahim, 2018) that analyzed the effect of blended learning on private school students' achievement in English and their attitudes towards it. It showed that blended learning strategies were effective in learning English and reflected student performance positively in facing learning material. In addition, this method improves student learning competence and develops skills in English. The variables and research methods used in this study are different. In this study, students' achievement and attitudes were variables, while variable in my study is EFL students' achievement. Furthermore, the research methods used are different. This study used a time-series design, while those previous studies used quasi-experimental design.

Second, (Albiladi & Alshareef, 2019) conducted a study about blended learning in English teaching and learning, revealed that blended learning is effective in developing language skills, increasing learning motivation and student learning environment. The difference of this study is uses blended learning in English teaching and learning activity, while my study focuses on EFL students' achievement.

Third, (AlKhaleel, 2019) analyzed the advantages of using blended learning in studying English as a foreign language at the University of Tabuk. It shows that the use of blended learning when learning English for EFL students is very beneficial. This is proven by data 84% of respondents who stated that they had an increase in learning English compared to using conventional learning methods. The difference in this study lies in the research objectives. The goal of this study is to find profit in the use of blended learning, whereas my research focuses on the impact of blended learning on EFL students' achievement.

Based on previous studies, it can be inferred that using blended learning in the classroom to learn English is successful in enhancing student learning outcomes. This is because students have the freedom to improve skills, interact with teachers, and re-learn subject matter at home in order to raise

learning motivation in the classroom. As a result, it can be inferred that the use of blended learning has multiple advantages for students EFL.

The researcher finds low EFL students' achievement in English lessons, so that the researcher was improve EFL students' achievement by implementing a blended learning strategy with enriched virtual model. This research is to find out the effect of blended learning on EFL students' achievement at MTsN 2 Mukomuko in the academic year 2021/2022.

METHOD

The researcher used time-series design which is intended to find out the effectiveness of use blended learning with enriched virtual model in improving English students' achievement. The researcher may see the influence of a variable after a certain occurrence in this form of analysis, which is also defined as post-hoc research (Aerodynamics et al., 2019). Supported by (Creswell, 2015), when a researcher studies one group over time with multiple pretest and posttest measurements or observations, this is known as a time-series design. One class is used as a representative sample in this study. The population of this study is all students of third grade at MTsN 2 Mukomuko in academic year 2021/2022. The researcher gave achievement tests to students and identified groups of students who need treatment used blended learning with enriched virtual model to increase English learning achievement. In compared to other classes, the achievement test was results show that class IX C has a low learning achievement. As a result, in this study researcher only used C class in the third grade students at MTsN 2 Mukomuko in the academic year 2021/2022 as a sample.

The researcher gave students the test. The used test in this study because it can provide an image of what happened based on the responses from the respondents and has a benefit in its use. The purpose is to find out the effect of blended learning method to enhance students' achievement in English. The questions on the students' achievement instruments consist of listening, reading, writing and speaking test. The text of test was focused is about hope, wish and congratulations because the text is in syllabus of class IX so students was learn it. The procedures of collecting data were the researcher gave an achievement test assessed four English skills: listening, reading, writing, and speaking to the research sample which was class IXC at MTsN 2 Mukomuko. To see whether there is a better significant effect of blended learning with enriched virtual model on EFL students' achievement. Before distributing test questions to the research sample, the questions were tested for validity using SPSS software. Which the validity test was done at MTsN 2 Mukomuko, was given to 20 students. The number of questions is 5 multiple choice question and than 2 essay question. The validity test aims to measure the extent to which the instrument is suitable for testing what would be tested. In addition, the normality and homogeneity question test was done to measure whether the test is suitable for distribution. The data of this research were analyzed quantitatively by using computer software or SPSS. All the calculation such as normality test, mean score, t-test and other calculations were through SPSS. This computer software use made easy researchers calculate the significance..

RESULT AND DISCUSSION

In analyzing the normality of pre-test score data, Kolmogorov-Smirnov test sample was use. The normality of pre-test score can be seen in table 1.

Table 1

The Normality Test of Pre-Test Scores

One-Sample Kolmogorov-Smirnov Test

		Pre-Test Experiment
N		29
Normal Parameters [a,b]	Mean	.0000000
	Std. Deviation	7.48020597
Most Extreme Differences	Absolute	.099
	Positive	.064
	Negative	-.099
Kolmogorov-Smirnov Z		.533
Asymp. Sig. (2-tailed)		.939

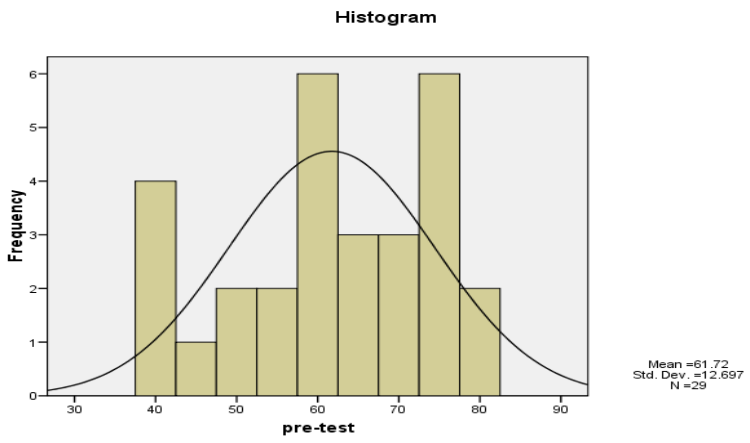
a. Test distribution is Normal.

b. Calculated from data.

From the table above, it can be seen the significance value of the pre-test score is 0,939. Since the significance value (0,939) was higher than 0,05, it can be concluded that the data is normal distributed. Normal histogram data from the pre-test score can be seen below.

Figure 1

The Histogram of Normality Data of Pre-Test



In analyzing the normality of post-test score data, kolomogrov-smirnov test sample was use. The normality of post-test score can be seen in table 2.

Table 2

The normality test of post-test scores

One-Sample Kolmogorov-Smirnov Test

		Post-Test Experiment
N		29
Normal Parameters [a,b]	Mean	.0000000
	Std. Deviation	8.61157118
Most Extreme Differences	Absolute	.070
	Positive	.064
	Negative	-.070
Kolmogorov-Smirnov Z		.375
Asymp. Sig. (2-tailed)		.999

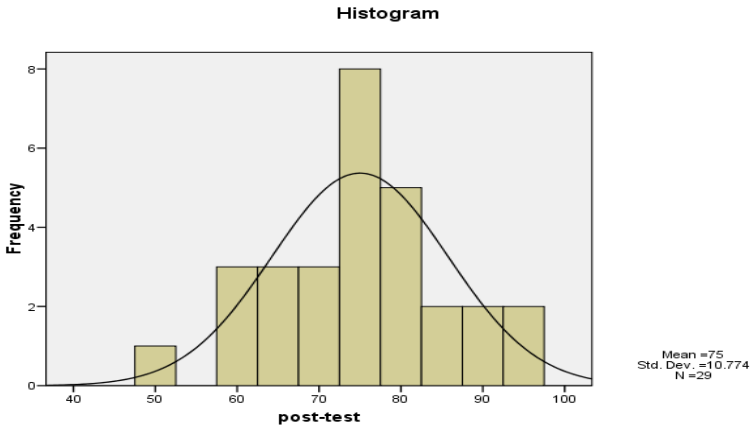
a. Test distribution is Normal.

b. Calculated from data.

From the table above, it can be seen the significance value of the pre-test score is 0,999. Since the significance value (0,999) was higher than 0,05, it can be concluded that the data is normal distributed. Normal histogram data from the pre-test score can be seen in figure 2.

Figure 2

The Histogram of Normality Data of Post-Test



In this research, before conducting implementation, researcher must examine students individually for the purpose of investigating students' achievement. To analyze the homogeneity, the researcher used One-Way ANOVA as technique of analyzing data. The result as follows:

Table 3

Homogeneity

Test of Homogeneity of Variances

achievement test

Levene Statistic	df1	df2	Sig.
1.774	1	56	.188

In test of homogeneity used One-Way ANOVA where if the result of significance probability higher than α (0,05) the data had homogeneity of variance. The homogeneity test of variances showed that the significance was 0,188 it means that the variance of every treatment was homogenous.

Table 4

Description of Pre-Test and Post-test

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PRETEST	29	40	80	61.72	12.697
POSTTEST	29	50	95	77.41	10.144
Valid N (listwise)	29				

In table 4, describes the test before and after treatment. The pre-test was given to the students before the experimental was conducted and the post-test was given at the end of experiment.

Pre-test scores ranged from 40 to 80. The lowest and highest post-test scores were 50 and 95, respectively. In the minimum and maximum scores of the pre-test and post-test, it can be seen that student scores have increased.

The average score of the pre-test was 61.72, and the average score of the post-test was 77.41, as shown in the description of the pre-test and post-test shown in Table 1. It may be inferred that after using blended learning in accomplishment, students' scores have improved. In addition, the pre-test and post-test minimum scores for pupils were increased from 40 to 50. Figure 3 shows the overall score of students before and after the pre-test and post-test.

Figure 3

Students Pre-Test and Post-Test

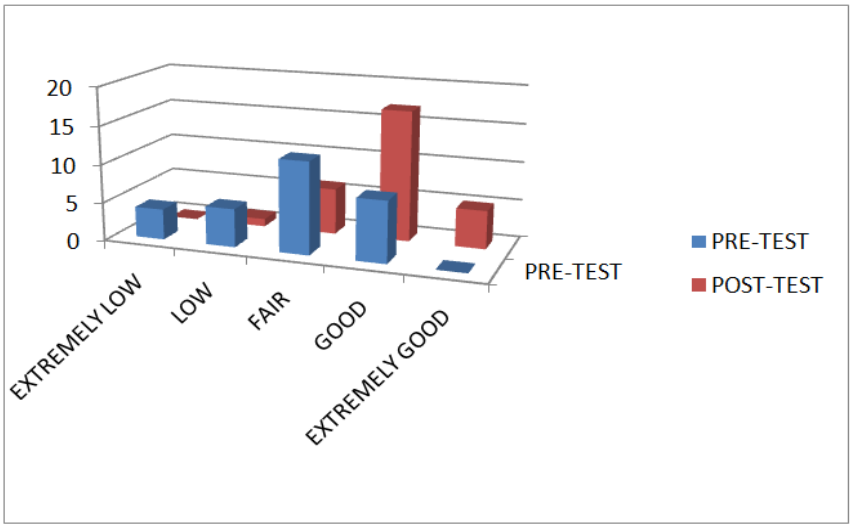


Figure 3 shows that the post-test score was greater than the pre-test score. It suggests that combining blended learning with an expanded virtual model can help EFL students obtain better results.

The percentage of pre-test and post-test scores can be seen in table 5.

Table 5

The score distribution

Score Interval	Category	Pre-test		Post-test	
		Frequency (students)	Percentage (%)	Frequency (students)	Percentage (%)
0-44	Extremely low	4	13,8%	0	0%
45-59	Low	5	17,2%	1	3,4%
60-74	Fair	12	41,4%	9	31%
75-89	Good	8	27,6%	15	51,7%
90-100	Extremely good	0	0%	4	13,8%

The score distribution is represented in table above. During the pre-test, there were 0 (0%) students who were extremely good, 8 (27,6%) students who were in the good category, 12 (41,4%) students who were in the fair category, 5 (17,2%) students who were in the low category, and 4 students who were in the extremely low category (13,8 percent). During the post-test, 4 (13,8%) students were in the extremely good category, 15 (51,7%) students were in the good category, 9 (31%) students were in the fair category, 1 (3,4%) students were in the low category, and 0 (%) students were in the extremely low category.

Data was analyzed to see if there was a significant difference in student accomplishment when blended learning with an enriched virtual model was used. In this study, a t-test was utilized to see if there were any differences between students who were taught utilizing a blended learning with enriched virtual model and those who were not. The SPSS computer software was used to calculate T-tests in this investigation.

Table 6

Pair Checks Technique on Students' Achievement (T-test)

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	pre-test - post-test	-13.276	14.837	2.755	-18.920	-7.632	-4.819	28	.000

To proof this technique was success and gave the significant effect, the researcher use t-test to compare the students who were taught using blended learning with enriched virtual model and those who were not. The table above showed that sig.(2-tailed) = 0,000 < 0,05. This means that there are significant differences in pre-test and post-test. It is can concluded that there is significant effect of blended learning with enriched virtual model on EFL students' achievement.

The findings of research conducted at MTsN 2 Mukomuko, there were 145 students in class IX. This study included a total of 29 samples from class IX C. The goal of this study was to see if there were any differences in student achievement between students who were taught utilizing a blended learning with enriched virtual model and students who were not.

The researcher directs students in this study by providing treatment through blended learning and assisting students in developing ideas and composing student achievement, such as replying, explaining, and comprehending situations. The researcher provides students with a multitude of materials in the form of links, videos, and PowerPoint presentations to help them understand the content.

The researcher has explained and concludes the findings of the data in this part. It all started with the normalcy and homogeneity test findings. The normality data pre-test resulted in a significance probability of 0.939, which is higher than 0.05. Furthermore, the normality data post-test resulted in a significant probability of 0.999, which is higher than 0.05. The data in the pre-test and post-test were normally distributed because the result of all normality data was greater than 0.05. The homogeneity test resulted in a significance probability of 0.188, which was higher than 0,05, indicating that the data possessed homogeneity of variance.

The researcher used the parametric statistic assumptions of normality and homogeneity to examine the influence of blended learning on student achievement. First, the results of the summary pre-test score revealed that the majority of pupils received low and fair scores. In summary, the post-test scores revealed that the majority of pupils scored good or exceptionally good. As a result, the score in the post-test increased and was higher than in the pre-test. The average score in pre-test was 61,72 and the average score of post-test was 77,41. This means that the average value of the initial test and the final test increased by 15,69.

Thus, it can be seen that there is a significant increase in the average score of students' achievement test between before and after being treated. The effect of blended learning with enriched virtual model is to improve students' achievement that can be seen from differences in the average results of students which the pre-test and post-test increased by 15,69.

After that, because the result of student average score was increased, the researcher compares and find out there were any significant differences mean score or not after given treatment used paired sample t-test. Based on paired sample t-test the value of sig.(2-tailed) = 0,000 < 0,05 this means that H_0 is rejected. This means that there are significant differences in pre-test and post-test students' achievement scores. It can be concluded that there was a significant effect of blended learning with enriched virtual model on students' achievement.

Previous research was conducted by (Alsalhi et al., 2019) entitled The Effect of Blended Learning on The Achievement of Ninth Grade Students' in Science and Their Attitudes towards Its Use. In this study, it was discovered that there was a statistically significant difference between the experimental and control groups in favor of the experimental population, as well as that the experimental group's opinions toward the usage of blended learning were more positive. Their activities rewarded pupils who had attained great academic accomplishment in the field of science (Pass). Fourth by (Turpin & Turpin, 2018) about blended learning and its effect on student achievement: an action research study. The findings of this study indicate that using a blended learning approach in a social studies classroom will help students receive higher grades and develop a more positive attitude toward the learning process. In addition, according to (Albiladi & Alshareef, 2019) blended learning improves language skills growth, broadens English language learning contexts, and helps learners to learn the language authentically. This is in line with the goals of this conceptual paper, which are to build critical-thinking skills in EFL students, improve learning and teaching efficiency, and construct a generative learning environment using blended learning methods.

The study's findings revealed that blended learning with an enriched virtual model has been shown to benefit students' achievement. Several factors contribute to the gains, including improved ability to convey ideas, comprehend meaning, arrange writing, communicate effectively in a short amount of time, and improve English practice. The relationship between theory and past investigations, as well as the findings of this study, can be stated to be similar. From the preceding statement, it is apparent that EFL students who learn to use the blended learning with enriched virtual model achieve significantly higher levels than students who do not learn to use the blended learning with enriched virtual model. The rise in average value approval between pre-test and post-test demonstrates the difference. Based on computation above, it can be seen that blended learning with enriched virtual model is effective to teaching English, EFL students' achievement for the third grade students of MTsN 2 Mukomuko in academic year 2021/2022..

CONCLUSION

Based on statistical analysis, there is significant influence of the blended learning with enriched virtual model on EFL students' achievement of time-series design in third grade students of MTsN 2 Mukomuko academic year 2021/2022. Based on statistically analysis, there is a significant effect of using blended learning with enriched virtual model on EFL students' achievement at the students' third grade of MTsN 2 Mukomuko academic year 2021/2022. The significant effect can be seen at the results of the study. It showed that there was an increase in students' achievement after being treated with blended learning. The average score in pre-test was 61,72 and the average score of post-test was 77,41. This means that the average value of the initial test and the final test increased by 15,69. The final test scores are students' achievement test is then calculated using t-test formula. Because the value of sig.(2-tailed) = 0,000 < 0,05 this means that H0 is rejected. This means that there are significant differences in pre-test and post-test scores. It can be concluded that there is a significant influence on the use of blended learning with enriched virtual model on students' achievement. The treatment as using blended learning with enriched virtual model could be called successful.

REFERENCES

Aerodynamics, F. O. F., Rost, M., Salkind, N. J., Sari, M., Selim, H. M., Saidalvi, A., Assoc, S. C. S., Assoc, A. R., Abdul, A., Assoc, A. R., Nor, F. M., Si, P., Barbour, M. K., Benson, V., Anderson, D., Ooms, A., Campbell, D. T., Stanley, J. C., Lewis, L., … Muhtia, A. (2019). State of the Nation : K-12 Online Learning in Canada State of the Nation : K-12 Online Learning in Canada Written by. 15(June 2009), 171–175. https://doi.org/10.19173/irrodl.v10i3.729

Albiladi, W. S., & Alshareef, K. K. (2019). Blended Learning in English Teaching and Learning : A Review of the Current Literature. 10(2), 232–238.

Alebaikan, R., & Troudi, S. (2010). Blended learning in Saudi universities : challenges and perspectives. 18(1), 49–59. https://doi.org/10.1080/09687761003657614

AlKhaleel, A. (2019). The Advantages of Using Blended Learning in Studying English as a Foreign Language at the University of Tabuk. Modern Journal of Language Teaching Methods (MJLTM), 1–7. www.mjltm.org

Alsalhi, N. R., Eltahir, M. E., & Al-qatawneh, S. S. (2019). The effect of blended learning on the achievement of ninth grade students in science and their attitudes towards its use Heliyon The effect of blended learning on the achievement of ninth grade students in science and their attitudes towards its use. Heliyon, October, e02424. https://doi.org/10.1016/j.heliyon.2019.e02424

Creswell, J. W. (2015). Educational Research - Planning, COnducting, And Evaluating Quantitative and Qualitative Research - Fifth Edition. In AORN Journal (Vol. 62, Issue 1).

Cronje, J. C. (2020). Towards a New Definition of Blended Learning. 18(2), 114–121. https://doi.org/10.34190/EJEL.20.18.2.001

Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning : the new normal and emerging technologies. 1–16. https://doi.org/10.1186/s41239-017-0087-5

Fakhir, Z., & Ibrahim, M. A. (2018). The Effect of Blended Learning on Private School Students ' Achievement in English and Their Attitudes Towards It. 8(2), 39–51. https://doi.org/10.5539/ells.v8n2p39

Staker, B. H., & Horn, M. B. (2012). Classifying K – 12 Blended Learning. May.

Turpin, C. M., & Turpin, C. M. (2018). Blended Learning And Its Effect On Student Achievement : An Action Research Study by.

Volchenkova, K. (2018). BLENDED LEARNING : DEFINITION , MODELS , IMPLICATIONS FOR HIGHER BLENDED LEARNING : DEFINITION , MODELS , IMPLICATIONS FOR HIGHER EDUCATION. August, 23–30. https://doi.org/10.14529/ped160204

Zainuddin, Z., & Keumala, C. M. (2018). Blended Learning Method Within Indonesian Higher Education Institutions. 6(2), 69–77.