

The Effectiveness of Blended Synchronous and Asynchronous Learning for Teaching Reading Comprehension

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ABSTRACT

Some studies investigated the use of synchronous and asynchronous learning in EFL classrooms. However, the investigation of blended synchronous and asynchronous learning use in the reading comprehension class was scarce. Therefore, the researchers in this present study focused on investigating the effectiveness of the blended synchronous and asynchronous learning implementation for teaching reading comprehension. This study aimed to know whether or not there was a significant difference in the students' reading comprehension ability before and after the blended synchronous and asynchronous learning implementation. This was a pre-experimental study with a one-group pretest-posttest design. Meanwhile, the population in this study were three classes of the third-semester students of non-English departments of a university in Jombang. One class consisting of twenty-five students was taken as the sample using purposive sampling. The experimental students were given a pretest of reading comprehension before getting the six-meeting treatment of blended synchronous and asynchronous learning. After the treatment finished, they did the reading comprehension posttest. After all the reading scores were collected, the descriptive statistics, normality test, and paired sample t-test were applied using SPSS. The t-test result showed that the obtained t-count (11.616) was higher than the t-table (2.063). That result revealed that the students' reading comprehension ability was significantly different before and after the blended synchronous and asynchronous learning application. Thus, blended synchronous and asynchronous learning was effective for teaching reading comprehension. Then, it is highly recommended for EFL lecturers to combine synchronous and asynchronous learning in their remote English classes.

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1. INTRODUCTION

COVID-19 pandemic causes the shift of teaching and learning of all subjects, including English, from face-to-face meetings to fully online learning. This online learning is a must to protect people from the danger of COVID-19. This situation demands the English teachers to be familiar with the technology and use it to deliver the English materials to the students. Dealing with this, Hossain (2021) states that the EFL/ESL teachers' online knowledge needs to be sharpened and improved so that the success of English teaching and learning can be reached in this COVID-19 crisis. Both the English teachers and learners have to use some applications and platforms to still go on their English learning. All English teachers and lecturers have to manage their classes as well as possible to achieve their teaching and learning goals even though their classes are remotely conducted. Rifiyanti (2020) supports this by stating that what the teachers should do in this online learning is implementing several strategies and selecting the appropriate platforms for their online classes in order that their online teaching can engage their students.

In Indonesia, the English teachers and lecturers used various applications and platforms to run their EFL distance learning during this COVID-19 pandemic. WhatsApp was the most frequently used and preferred application in this online EFL learning (Nuraeni & Nurmalia, 2020; Suryana et al., 2021). Other commonly used applications for teaching English online were Google Classroom, Zoom, WhatsApp, Google Meet and Google Form (Atmojo & Nugroho, 2020; Fitria, 2020; Yulitriana et al., 2020). Then, the teachers had considered that the online learning platforms that they used suited the English skills to be taught.

One of the English skills to be taught in this remote teaching is reading comprehension. Reading comprehension is a kind of reading activity in which the readers understand the meaning and the content of the reading text that they are reading. According to Dewi et al. (2020), reading comprehension is when the readers find the meaning and the message of the text being read. Furthermore, Elleman & Oslund (2019) argue that reading comprehension is known as the most complex cognitive activities because there are an interaction and an involvement between the readers and the text in the process of comprehending the text meaning. In addition, there are four levels of reading comprehension, namely literal, inferential, critical, and creative reading comprehension that the readers should undergo when comprehending the content of the reading text (Duncan et al., 2016). The students should experience all four processes so that they can exactly know the content and the meaning of the reading text they read. Then, they are called to have good reading comprehension ability.

The students need to master their reading comprehension ability. Scott & Saaiman (2016) argue that good students need to have good reading ability because they must be able to read and understand what they read when they are learning. Thus, it is said that reading comprehension ability has a close relationship with the students' academic performance. The better the students' reading comprehension ability is, the better their academic performance is (Jarah & Ismail, 2020). Furthermore, Dewi et al. (2020) state that with their good reading comprehension ability, the students easily understand the meaning contained in every learning subject. The students who have good ability of reading comprehension can understand the reading text implicitly and explicitly. Their ability on comprehending the reading text will contribute to their success in their learning.

However, the document of reading comprehension scores of the third-semester students of non-English departments of education faculty in a university located in Jombang, Indonesia, showed that the students' reading comprehension average score was only 65. Most of them got low scores on their reading comprehension test. These students took an intensive English course. During this remote learning, they seemed to ignore the importance of their reading ability for the success of their learning. This condition demanded that the lecturers use teaching techniques that could attract and motivate them to study reading comprehension virtually. In line with this, Zuhriyah & Fajarina (2021) argue that EFL lecturers' creativity is needed to handle their virtual classes in this COVID-19 pandemic. Because online learning can be done synchronously or asynchronously, blended synchronous and asynchronous learning can be the alternative for the reading comprehension lecturers for their reading classes. This blended synchronous and asynchronous learning combined the strengths of these two online learning modes (Cahyani et al., 2021). In addition, Yamagata-Lynch, (2014) explains that blended synchronous and asynchronous learning is asynchronous learning which is complemented by synchronous learning. Furthermore, Moorhouse &

Wong (2022) state that blended synchronous and asynchronous learning is the integration of both synchronous and asynchronous learning modes.

Some former researchers have conducted some studies related to synchronous and asynchronous learning in EFL classrooms. Perveen (2016), in his study, found that asynchronous e-language learning was considered to be more advantageous than synchronous for Pakistani ESL learners. Then, another study by Lotfi & Pozveh (2019) showed that the students in the synchronous class possessed better vocabulary mastery than those in the asynchronous class. Meanwhile, Riwayatiningasih & Sulistyani (2020) explained that the students gave positive responses to the implementation of the blended synchronous and asynchronous learning for their creative writing class because it helped them to have better writing ability. Additionally, Nurwahyuni (2020) explained that the students' anxiety in a synchronous speaking class was higher than those in an asynchronous class because they felt that their vocabulary was less and they had less confidence to speak directly in front of their lecturer and friends.

To sum up, those four previous studies have proven that virtual EFL learning can be well implemented through synchronous and asynchronous learning. Unfortunately, there is still scarce study investigating the implementation of blended synchronous and asynchronous learning in the reading comprehension class. Therefore, this present study focused on exploring the effectiveness of blended synchronous and asynchronous learning for teaching reading comprehension. Next, this study aimed to find out whether or not there was a significant difference in the students' reading comprehension ability before and after being taught using blended synchronous and asynchronous learning. Afterwards, the researchers need to conduct this research in order to provide an alternative EFL teaching strategy in a remote reading comprehension class by implementing blended synchronous and asynchronous learning. It is hoped that the students become motivated to join their virtual reading comprehension class.

2. METHODS

This study was a pre-experimental research that employed one-group pretest-posttest design to determine the significant difference between the students' ability to reading comprehension before and after learning reading comprehension using blended synchronous and asynchronous learning. Then, three classes of the third-semester students of non-English departments of education faculty in a private university located in Jombang became the research population. The researchers used purposive sampling to decide on one class as the sample. This experimental class consisted of twenty-five students. The instruments used for this study were the reading comprehension pretest and posttest, which those two kinds of tests had the same questions. This reading comprehension pretest and posttest comprised of twenty questions which were in the form of multiple choices. Those tests were done online through a google form. Before being tested in the pretest and posttest, these reading comprehension questions had already been analyzed for their validity and reliability.

Three stages should be conducted in a one-group pretest-posttest design of the pre-experimental research, such as pretest, treatment, and post-test (Gall et al., 2003). Therefore, the students were given the pretest of reading comprehension before implementing the blended learning of synchronous and asynchronous learning in this reading comprehension class. In the next meetings after this pretest, the students were taught reading comprehension both synchronously and asynchronously. The synchronous and the asynchronous learnings were interchangeable in every other meeting. For instance, the students were in the asynchronous meeting via Google Classroom after the pretest was held. Afterwards, the following meeting was implemented synchronously on Google Meet. In the asynchronous meeting through Google Classroom, the lecturer posted the reading texts followed by ten reading comprehension questions, especially in the classwork room. The students were instructed to understand the reading texts and do the questions for a week. Meanwhile, in the synchronous meeting at Google Meet, the students were invited to discuss their answers when having an asynchronous meeting. After that, they were given time to ask questions to their lecturer about what they had not known and understood yet from the reading materials they had learnt. This kind of teaching and learning was continuously applied until there were three asynchronous meetings and three synchronous meetings. Then, the students got the posttest on reading comprehension. The next step after collecting the students' reading comprehension scores from the pretest and the posttest was for the researchers calculated the descriptive statistics of those scores. It was followed by the calculation of the normality test of the data. When the data was in the normal distribution, the researchers continued to analyze the data using a t-test (paired sample test).

All the data calculations in this study were done by using SPSS.

3. FINDINGS

After the data was collected, the calculation of descriptive statistics was applied using SPSS. The results are presented in table 1.

Table 1. Results of descriptive statistics

		Statistic	Std. Error
Pretest	Mean	66.6	1.28
	Median	65	
	Std. Deviation	6.4	
	Minimum	50	
	Maximum	80	
	Range	30	
	Interquartile Range	7.5	
Posttest	Mean	79.2	1.14
	Median	80	
	Std. Deviation	5.71	
	Minimum	70	
	Maximum	90	
	Range	20	
	Interquartile Range	10	

Table 1 shows that the mean score of students' reading comprehension in pretest was 66.6. Meanwhile, the mean score of posttest was 79.2. It can be said that the students' reading comprehension improved after implementing the blended synchronous and asynchronous learning.

After calculating the descriptive statistics of the data, the researchers conducted the normality test as the prerequisite to applying t-test calculation (paired sample test). This calculation was also done with the help of SPSS. The results of the normality test can be seen in table 2.

Table 2. Normality test results

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Pretest	0.161	25	0.092	0.938	25	0.134
Posttest	0.169	25	0.064	0.924	25	0.063

It can be seen from table 2 that the scores of sig. of both Kolmogorov-Smirnov and Shapiro-Wilk tests were higher than 0.05. It means that the data distribution was normal.

After knowing that the data was in the normal distribution, the researchers applied a paired sample test to determine the significant difference between the students' reading comprehension in the pretest and post-test. The researchers also used SPSS for this calculation. The following table presents the result of paired sample test.

Table 3. Results of paired sample test

Paired Differences		t	df	Sig. (2-tailed)		
Mean	Std. Deviation	Std. Error Mean				
Pair 1 Pretest-Posttest	-12.6	5.424	1.085	-11.616	24	0.000

Table 3 shows that sig. (2-tailed) was 0.000. It was lower than 0.05. Then, the obtained t-count (11.616) was higher than t-table (2.063). The calculation results had the meaning that the difference between the students' ability in reading comprehension before and after the implementation of blended

synchronous and asynchronous learning in their reading class was significant. Because their reading ability was significantly different, it can be said that blended synchronous and asynchronous learning was effective to teach reading comprehension.

4. DISCUSSION

Meanwhile, the researchers conducted blended synchronous and asynchronous learning in the reading comprehension class in this study. In the odd meetings, the reading comprehension class exactly during three meetings used asynchronous learning through Google Classroom. Next, in the even meetings, which were also three meetings, the students learnt reading comprehension through synchronous learning via Google Meeting. In other words, it can be said that at every other meeting, the asynchronous learning interchanged with the synchronous learning. These teaching procedures were adapted from what Moallem (2015) presented in module three. This module talked about combining synchronous and asynchronous learning for teaching reading.

In this blended synchronous and asynchronous learning, the lecturer first invited the students to discuss the reading materials asynchronously through Google Classroom exactly in the room of classwork. The students got more time to understand their reading texts in this asynchronous learning. They got time for about a week through Google Classroom to complete their reading assignments. Moallem (2015) adapted it to conduct asynchronous learning by providing a week-assignment completion. Furthermore, the students could comprehend their reading texts more deeply when getting more time. The students could answer the various questions related to their reading materials. When trying to answer the questions given in the reading lecture, the students evaluated and analyzed the reading texts. Finally, they created the right sentences or the right phrases to be the answers to those questions. The students could answer the questions ordered from simple to more complicated questions by their lecturer. Samelian (2017) states that higher-order questions can improve students' understanding and strengthen reading comprehension.

In this asynchronous learning, the students also did not feel shy to give their answers in this asynchronous learning. They could directly publish their answers in the Google Classroom comment columns without interacting with the reading lecturer or their friends directly. They could post their answers whenever they got the answers. The students' confidence was raised in delivering their answers because of not meet their lecturer and friends directly. This confidence contributed to their success in their reading comprehension learning. According to Suryadi (2018), students having confidence can take a risk in what they do and are ready for their mistakes. Besides having confidence, the students also felt free to give reviews to their friends' answers without being bounded by the time in the asynchronous learning. Dealing with this, Nikmah and 'Azimah (2020) explain that asynchronous online learning provides a learning community in which the students can do all the learning activities without being limited by the place, the time, and the classroom.

Additionally, that condition was completed with the advantages getting from synchronous learning. The researchers also implemented synchronous learning in order to make a balance in the teaching and learning of reading. Then, the students got time to study other reading materials synchronously through video conference on Google Meet. When the students met their friends and their reading lecturer synchronously on Google Meet, they could direct ask the difficult words that they did not know to their lecturer. But, at first, the lecturer always asked other students to answer if they knew. Only when the other students could not answer the lecturer answer the questions. Besides that, the students also could directly get feedback of whether their answer was correct or not from their lecturer. One of the advantages of implementing synchronous learning is that the teachers' feedback can be directly delivered to the students (Perveen, 2016; Rinekso & Muslim, 2020; Riwayatningsih & Sulistyani, 2020), stating that This condition could make the students feel that they did the learning situation as they were in an offline classroom.

Besides that, the students are also motivated more in this synchronous learning. According to Perveen (2016), the students in synchronous learning tend to have high motivation and be highly engaged in their online learning. This motivation made the students easy to get more knowledge. Zuhriyah and Fajarina (2021) state that successful learning gets the most influence from the motivation of the students themselves. By having a high spirit, the students would enjoy joining the reading comprehension class. They also made a high effort to comprehend the content of the reading texts that they got in their class. They tried to find out the meaning of the difficult words that they just recognized in their reading texts

not only by asking to their friends and lecturer but also by looking at the dictionary. Finally, they could grasp the whole content of their reading texts.

The blended synchronous and asynchronous learning also could minimize the students' boredom in learning reading comprehension. They were not fed up with the reading comprehension class because the online teaching modes that the lecturer used changed every other meeting. So that they did not feel something monotonous in every meeting. After they did the reading comprehension assignment asynchronously, they could have direct meeting and discussion about other reading comprehension materials on video conference with their friends and their lecturer in the following meeting. This made the class reading comprehension not boring. The feeling not being bored in this reading class caused the students to enjoy learning reading more and more. This enjoyment led the students to have more commitment to the activities of learning that they were doing (Al-Shara, 2015). This high learning commitment brought them to better reading comprehension.

The use of blended synchronous and asynchronous learning in the reading comprehension class effectively increased the students' ability to comprehend the reading texts. Implementing blended synchronous and asynchronous learning to teach reading comprehension could create a different learning atmosphere in the reading class. The students could learn the reading comprehension materials both synchronously and asynchronously. They got the advantages of both online learning modes in their virtual reading class. What could not be reached in the asynchronous class could be obtained in the synchronous class and vice versa. They really got the complete packages of remote reading learning methods by applying blended synchronous and asynchronous learning. As a result, their comprehension of the reading texts became better. It is similar to the study result by Riwayatningsih & Sulistyani (2020), revealing that the students' writing ability increased after they were taught creative writing using the combination of synchronous and asynchronous learning.

5. CONCLUSION

The students' reading comprehension ability before they were taught reading comprehension using the blended synchronous and asynchronous learning was significantly different from their reading comprehension ability after the blended synchronous and asynchronous learning was implemented. This gave proof that blended synchronous and asynchronous learning was effective for teaching reading comprehension. This study result implies that EFL teachers and lecturers can use the combination of synchronous and asynchronous learning when conducting their remote teaching.

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