

The Effect of Flipped Classroom Model on ELE Students' Reading Comprehension and Their Perception towards Flipping

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ABSTRACT

Abstract: This quasi-experimental study aimed to find out the effect of the implementation of flipped classroom on ELE students' reading comprehension and also observe their perception towards flipping. The findings of this study revealed that the difference in reading comprehension between students taught by using flipped classroom and those taught by using traditional classroom was significant. It was also found that the students in the experimental group have positive perception toward the use of flipped classroom teaching model. This implied that this technique could be applied effectively to teach reading comprehension for ELE students.

INTRODUCTION

For the majority of EFL learners who are already literate in a previous language, L1, reading is an important skill to develop in order to develop appropriate efficient comprehension phases (Brown, 2001). In addition, in any language class, including English, reading is the most important skill (McDonough et al., 2013; Patel & Jain, 2008). It is known as the main movement because of its purpose which widens the thoughts and the understanding of the foreign culture. Horowitz (2006, cited in Herlindayana et al., 2017) stated that reading is regarded as a difficult skill to teach and learn in order to build students' understanding. In accordance to the statements above, English Language Education (ELE), reading is regarded as a crucial skill especially in a non-English speaking country, in this case as in Indonesia. In developing EFL learners' reading comprehension, the researcher utilized flipped classroom.

Some academics have suggested that students use reading comprehension levels to determine how well they understand the content of a text. According to Burns, Roe and Rose (1984, cited in Ifianti, 2018), the four levels of comprehension are literal comprehension, interpretive comprehension, critical reading comprehension, and creative comprehension. A literal skill is the ability to determine the cause and effect relationship in a reading text. The words that denote time-order can be used to identify a sequence (the order of events) are also involved in literal skill. The next level of reading comprehension is interpretive reading, which involves constructing inferences, perceiving mood, determining the writing goals of author, and representing conclusions are all part of this level. It entails inferring the passage's implicit main idea, as well as any unstated causes and effects. The next level of reading comprehension is critical reading, which involves evaluating written material. Literal and interpretive comprehensions are the foundations of critical reading comprehension. Creative reading comprehension, similar to critical comprehension, requires readers to think while reading. Creative readers must be able to predict outcomes, visualize, solve problems, and improve the structure's presentation.

Moreover, the students' learning techniques and abilities will naturally synchronize; as a result, there is a lack of comprehension of the material. This could be interpreted as the traditional classroom failing to encourage students to use their minds to learn. According to Akyüz & Samsa (2009), one of the main goals of higher education is to allow students to think critically and challenge the ideas of others. Presidential Regulation No. 8 of 2012 defines the quality of human resources and education in Indonesia (*Peraturan Presiden Republik Indonesia Nomor 8, 2012*). The National Standard for Higher Education was established by the Minister of Research, Technology, and Higher Education (NSHE). It is stated in that regulation that the undergraduate students must learn how to apply science and technology, review it, create a design, and use it. ICT - based materials might be used to teach students at the tertiary level (*Peraturan Menteri Riset, Teknologi, Dan Pendidikan Tinggi Republik Indonesia Nomor 44, 2015*).

Keser & Semerci (2019) affirmed that students have become active producers of information in the industrial era 4.0., inquiring about the source of information and taking responsibility for their own learning. In the twenty-first century, technology integration in the classroom is seen as essential to effective teaching. Universities are expected to use blended learning, which is a

learning method that combines traditional classroom learning with online learning via technology. Bergmann & Sams (2012) stated that the flipped classroom, which is a type of blended learning, is a teaching strategy that reverses the traditional teaching method on its head. In a flipped classroom, students watch lecture videos at home before practicing their skills in class. In addition, the students use e-communication tools to actively participate in peer discussions and receive feedback from their classmates as well as instructor (Han, 2015; Hsieh et al., 2017). Therefore, the students have more exercise and engagement with their peers as well as teachers inside the classroom, and they work outside of class (Huang & Hong, 2016; Hwang et al., 2019; Sage & Sele, 2015).

(Bergmann & Sams, 2012, 2014) found that a traditional classroom could be improved by using a flipped classroom model, in which the activity that was previously completed in class is now completed at home. This teaching method is different from the traditional classes which are typically quiet, with all students listening intently to their lecturer's explanations of the material. This method has been deemed ineffective, inadequate, and inefficient for twenty-first-century students. Students in a flipped classroom watch video lectures and study other materials outside of class before engaging in active learning in the classroom (Arnold-Garza, 2014; Herreid & Schiller, 2013; Snowden, 2012). Therefore, teachers can save time in class by reviewing what students learned at home rather than having to re-explain the entire material (Sohrabi & Iraj, 2016). As a brand-new approach to education, the flipped classroom has piqued the interest of lecturers all over the world because it represents a breakthrough in reversing classroom activity. Hence, the lecturers can make video content that they can share with their students to aid independent learning. By chance, students' attitudes are influenced by online resources and materials that are freely available and accessible (Ishikawa et al., 2015; Obari & Lambacher, 2015). Another reason is confirming the students that they have capability in learning anything with the right support from lecturers.

A flipped reading classroom is preferable to a traditional one. This teaching model can improve students' English learning and encourage them to be more active and read more authentic English online materials through the video, so that they understand the material better for the next day's in-class activities (Herlindayana et al., 2017; Syafitri, 2014). According to Oktiyani (2019), teaching reading comprehension through a flipped classroom motivates students. She also discovered that flipped learning was a method for students to assess their own concerns and prior knowledge, as well as to improve their understanding of the topic before reading the selection text. Furthermore, according to a study conducted by Huang & Hong (2016), the flipped English classroom intervention could be an effective teaching strategy. The lecturer-student interaction activities in the flipped classroom were effective in improving students' ICT skills, allowing them to complete complex assignments. Additionally, flipped classrooms could help students become more self-sufficient and learn how to study outside of class (Hashemifardnia et al., 2018). Flipped learning, according to Abaeian & Samadi (2016), is a teaching strategy that is used to improve learning outcomes in technology integration courses. It was similar to a study from Ramirez (2018), students' reading comprehension improved as a result of the scanning and skimming reading techniques used in flipped learning.

The studies above provided conclusive evidence that teaching reading in a flipped classroom model improves students' comprehension. There are still a few areas of research that need to be looked into further. Nonetheless, in Indonesia, studies on the impact of the flipped classroom model on students' reading comprehension were relatively rare. The studies mentioned above were mostly done in contexts where English was the first or second language, and the use of English was fluent and sufficient. As a result, the findings of those studies cannot be carried out easily because previous researchers might focus on different levels of student reading ability. In fact, students in Indonesia, particularly at the university level, keep struggling with reading skills. The evidence is provided in the study of Kurniawan & Wulandari (2018) that the average student achievement on reading ability was less than 70.

Although Herlindayana et al. (2017) conducted a study to see how effective flipped classrooms are at improving Indonesian students' reading comprehension and perception, the study only focused on secondary level students. One of the problems revealed in this study was that when students were at home watching a lesson video, they were unable to ask a question right away. Furthermore, it was stated in this study that students required improvements such as an Indonesia subtitled video and a more appealing video, additional material or articles related to the video, and more various in-class activities rather than just finishing homework. In contrast to Herlindayana et al. study's, the present study is conducted at Universitas Islam Nahdlatul Ulama (UNISNU) Jepara, which provided students with current technological support and prompt Internet connection access to encourage the use of flipped classrooms. Furthermore, the present study involves tertiary level students, who, in comparison to secondary level students, are more self-sufficient in acquiring new information and knowledge.

The students at UNISNU have the option of enrolling in one of four reading classes: intensive reading, literal reading, interpretive reading, or critical reading. The researcher chose interpretive reading class based on information provided by a university reading lecturer. She stated that most students were still having difficulty identifying the main idea, finding detailed information, identifying pronouns, adverbs, and omitted words, and drawing conclusions, particularly in recount and news item texts. In this way, the students found it difficult to comprehend their reading ability, resulting in unsatisfying grades in this reading course. As a result, the present study is carried out in order to make a significant contribution to EFL students' reading comprehension in interpretive reading classes.

Since the termination of educational institutions due to preventive procedures against the spread of COVID-19 which has changed the educational systems in the world, the education practitioners need to find new replacements for academic delivery. In this study, the researcher uses flipped classroom because it is thought to be effective at providing flexible, appropriate, and regular learning. In this pandemic era, as a flipped classroom combines two instructional components (face-to-face and online components) into one, students and lecturers are inevitably moved to the online (out of face-to-face sessions) component by overlooking the face-to-face component. In this study, with an e-flipped classroom model during pandemic, the face-to-face component will be wisely converted into a distance teaching section using Google meet Application. The researcher wants to see how effective it is at teaching reading since students can be more independent during the process of teaching and learning in a flipped classroom. Thus, the present study aims to discover: (1) Is there a significant difference between students taught in a flipped classroom and those taught in a traditional classroom in terms of reading comprehension achievement? (2) Do the students in classroom instruction have a positive perception toward the flipped classroom learning activity?

METHOD

In this study, to see how the flipped classroom model affects ELE students' reading comprehension, the researcher used a quasi-experimental design. The treatment and measurement of the dependent variable can be controlled in a quasi-experimental design, but the assignment of the subjects cannot be treated (Ary et al., 2010). For this study, the researcher chose two accessible classes. The experimental group received the first class, while the control group received the second. Before the intervention, both groups were given a reading comprehension pretest to assess their reading comprehension. At the conclusion of the study, the same test was given to both groups as a post-test to measure the differences between them. Their reading comprehension was used to confirm or refute the research hypothesis, which stated that students who received reading comprehension instruction in a flipped classroom outperformed their peers.

The study was conducted at the English Language Education Study Program at Universitas Islam Nahdlatul Ulama Jepara. This study program was chosen specifically because it dealt with teaching students English using a flipped classroom model. The lecturer praised the benefits of the new teaching method, which had previously been viewed as ineffective and disorganized. Two classes with similar reading abilities were used by the researcher at Universitas Islam Nahdlatul Ulama. Although the students were expected to build a vocabulary up to 7500 words as mentioned in the course objective, their mutual reading ability did not guarantee that they would understand recount and news item texts in interpretive reading class. The researcher used the available classes, the experimental group was Class A2, and the control group was Class A1. Class A2 had 4 male students and 20 female students, while Class A1 had 6 male students and 23 female students. Additionally, the students were in third semester.

The university was deemed to meet the criteria for implementing a flipped classroom to teach reading comprehension and being accessible to the researcher. The university provides a Learning Management System (LMS), Wi-Fi access, a language lab, LCD projectors, and other ICT facilities for the purpose of teaching and learning. Aside from the university's facilities, students could use their own hardware, which was a mobile phone, to access the online learning platform from anywhere. Furthermore, some of them have a laptop that they can use at home.

The researcher used a flipped classroom, in which students completed exercises and projects in class while watching online video lectures at home. The experimental group received lessons in a flipped classroom, while the control group received the same lessons in a traditional classroom. The experimental class required an enriched learning at home and classrooms with active learning. The procedures for implementing both the flipped and traditional classrooms are described in Table 1. The students in the class were given a lecture series, video lectures, and online resources. A class captain was assigned to make sure they received the materials, watched video lectures via the SEVIMA EdLink, and practiced at home. Some students were able to access the materials even if they did not have access to the Internet, allowing them to obtain information without having to use the Internet.

In this study, the data was collected using a reading comprehension test and an online questionnaire. The reading comprehension test was established using a flipped classroom to elicit the students' reading achievements. With a time limit of 90 minutes, there were 7 texts and multiple choice items on the test. Each text had 4 to 8 questions in it. The researcher constructed the test using the topics covered in the students' textbook during the semester. The texts were chosen to meet the curriculum's requirements for third-semester undergraduate students in Curriculum 2017. The Flesch-Kincaid Formula was used to determine the test texts' readability. Because it is one of the most commonly used formulas for determining readability, it has been chosen. On a scale of 0 to 100, the Flesch-Kincaid Reading Ease scale measures how difficult it is to read a text. The longer the words and sentences are, the more difficult the passage is to read (Rudolph Flescht, 1948, cited in Yulianto, 2019). In this study, the researcher used a Flesch-Kincaid Reading Index of 50.0-30.0 for university level. All of the texts used in this study were graded as fairly difficult, difficult, or extremely difficult to read.

Table 1. The Instructions in Flipped Classroom and Traditional Classroom

Instructional Stages	Activities in Experimental Group (Flipped Classroom)	Activities in Control Group (Traditional Classroom)
Home Activities		
Pre-Class Activities	<ul style="list-style-type: none"> - Students access SEVIMA EdLink, sign up for Interpretive Reading class - Students download on lecture video and materials - Students are given a model of text and are shown how to analyze and understand text well. 	
Class Activities		
Pre-Reading	<ul style="list-style-type: none"> - Lecturer greets students - Lecturer and students pray together - Lecturer affirms the today's topic - Lecturer does brainstorming 	<ul style="list-style-type: none"> - Lecturer greets students - Lecturer and student pray together - Lecturer affirms the today's topic - Lecturer does brainstorming
While-Reading	<ul style="list-style-type: none"> - Lecturer reviews the students' understanding about lecture video and materials shared in pre-class activities - Guided by the lecturer, students build questions about what they want to know related to the materials. - Lecturer delivers the reading activity materials. - Students do online practice, exercise, and project related to reading activities individually, in pairs or group. - Students discuss it among friends and to raise any questions to lecturers while doing the exercise. - Students are invited to check and discuss the answer with friends. - Lecturer offers suggestion and feedback related the exercise. - Students present their works and invite other students to respond. 	<ul style="list-style-type: none"> - Lecturer displays the materials related to main idea, organizational pattern, summarizing and also how to analyze the text sample. - Guided by the lecturer, students build questions about what they want to know related to the materials. - Lecturer delivers the reading activity materials. - Students read a text silently and answer question. - Students are invited to check and discuss the answer with friends. - Lecturer offers suggestion and feedback related modelling text. - Students submit the work.
Post-Reading	<ul style="list-style-type: none"> - Lecturer and students summarize about what they have learned. - Lecturer assigns students to download video lectures and materials of next meeting and learn them all. - Lecturer closes the lesson 	<ul style="list-style-type: none"> - Lecturer and students summarize about what they have learned. - Lecturer assigns students to do the homework. - Lecturer closes the lesson.
Home Activities		
Post-Class Activities	<ul style="list-style-type: none"> - Lecturer gives enrichment only if it is necessary. - Lecturer assigns the students to learn the video lecture and materials for the next meeting. 	<ul style="list-style-type: none"> - Students do homework (exercise, practice, or project) assigned by the lecturer independently.

The next instrument was an online questionnaire, was used to know the students' thought about the flipped classroom teaching model in interpretive reading class. A Likert scale was used to gauge students' reactions to the flipped classroom. The researcher modified 18 questionnaire items from (Ahmed, 2016)'s previous questionnaire. The questionnaire of students' perception indicates a positive perception toward the flipped classroom. Negative perception was interpreted as Disagree and Strongly Disagree, while positive perception was interpreted as Strongly Agree and Agree.

The list of instruments used in this study includes grammar tests, speaking tests, speaking scoring rubrics, and questionnaires of SILL. The scores were analyzed using SPSS 22. To determine the significance of the correlation, this study sets two-tailed hypotheses, in which the correlation can be accepted if the risk of being mistaken (level of significance) is smaller than 0.05. Besides, the R-value must be at least 0.361 for the two-tailed hypothesis for the number of 30 participants (Latief, 2013). Lower than that critical value, the null hypothesis should be accepted and the correlation must be ignored because it is not significant enough. Besides, the study used the independent-samples T-test of SPSS to seek which group of cognitive learning styles achieve better in grammar and speaking tests, and which SILL categories are used by higher and lower achievers in speaking and grammar tests.

FINDINGS

Two types of assumptions are used to determine which statistical tools will be used to analyze the data: normality and homogeneity tests. The researcher looked at the normality of the data to see if it was normally distributed. The data are normally distributed if the significant value of the normality test is greater than the level of significance = .05. Kolmogorov – Smirnov and Shapiro-Wilk tests were used in this study. The result of testing normality is shown in Table 2.

Table 2. The Result of Normality Test

Variable	Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pretest	Experimental	.244	24	.001	.896	24	.018
Pretest	Control	.246	29	.000	.837	29	.000
Posttest	Experimental	.112	24	.200*	.963	24	.505
Posttest	Control	.181	29	.016	.903	29	.012

The result of Kolmogorov-Smirnov test and Shapiro-Wilk clarifies test in table 3 revealed that the data distribution of the posttest reading score in the experimental group were normally distributed since the significant values (.200 and .505) was higher than .05 level of significance. Meanwhile, the significant level from the experimental group's pre-test, control group's pretest, and the control group's posttest was lower than level of significance (.05). This indicates that the reading scores of the students in those data were not normally distributed. As a consequence, non- parametric computation was used to analyse the data from the pre-test and post-test. The normality assumption was upheld since most the data was not all normally distributed.

The Levene test is used in homogeneity testing to determine whether or not the subjects are equal and homogeneous in both groups. To put it another way, this is important to see if both groups' reading comprehension are equivalent and consistent. The variance between student groups is homogeneous if the test's significance value, or p-value, is greater than 5% (p-value > sig. .05). Table 3 shows the final result.

Table 3. The Result of Homogeneity Test

	Levene Statistic	Sig.	Note
The Result of Pretest	4.219	.045	Not Homogeneous
The Result of Post-test	.050	.824	Homogeneous

In pretest, the significant value for homogeneity testing was .045 while .824 in the posttest, as shown in the table above. The significant value of pretest was lower than significant level .05. As a result, it can be concluded that the experimental and control groups' pre-test data were not homogeneous, whereas the post-test results were. In a word, the data variances were not fulfilled. After analysing the fulfilment of statistical assumptions, it determined that the data from the reading comprehension test were not homogeneous and not normal.

The Result of Students' Reading Comprehension Tests

To test the study's hypothesis, the experimental and control groups' pretest and posttest results were analyzed using descriptive statistics in SPSS 25 to test the study's hypothesis. Descriptive statistical analysis was required to determine the minimum, maximum, mean, and standard deviation.

There experimental group consisted of 24 students, with a pretest mean score of 65.833 and a mean score of post-test was 70.521. There were 29 students in the control group who mean scored 58.707 on the pretest and 56.638 on the post-test. The experimental class gained a score range of 25 with a minimum of 57.5 and a maximum of 82.5 in posttest. In the posttest, it was differ from the control group; the range of score was 32.5 with a minimum score 42.5 and the maximum score was 75. Only the experimental group improved over time, as evidenced by higher post-test scores. Standard deviations in the experimental class were 10.1795 in the pretest and 7.3344 in the post-test, compared to 7.4588 in the pretest and 7.2665 in the post-test for the control group. On average, the experimental students outperformed the control students. Figure 1 depicts the mean difference between the experimental and control groups in the posttest. The average reading score of the experimental group was 13.883 points higher than the control group. Teaching reading in a flipped classroom model was more efficient than teaching reading in a traditional model, according to the post-test analysis.

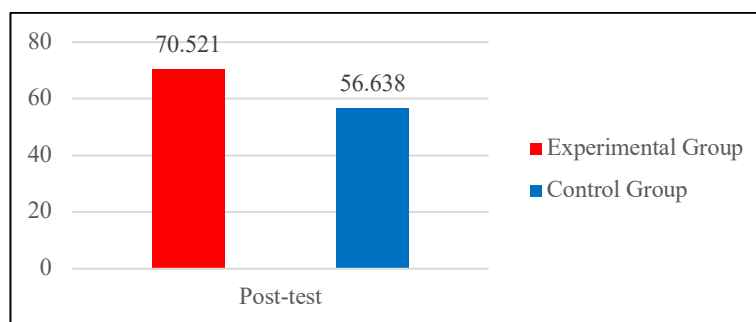


Figure 1. The Mean Difference of Reading Comprehension Post-Test between Experimental and Control Groups

The Result of Data Analysis

To compare the reading scores of students in both groups, data from reading comprehension tests were collected. After the statistical assumptions were tested, the next step was to test hypotheses. A reading comprehension test produced non-homogeneous and non-normal results. Because the statistical assumptions in both groups' pretest and posttest results were rejected, the Mann-Whitney formula was used for a non-parametric measurement. The experimental and control groups' post-test scores were compared using the Mann-Whitney test. The detailed results of the reading comprehension study are presented in Table 4.

Table 4. Mann-Whitney Test of Reading Comprehension Post-Test Score

	Group	Sig. (2-tailed)	Remark
The Result of Post-test	Control	.000	Significant
	Experimental		

Based on the result of the computation shown in Table 3, the Sig. (2-tailed) statistic at the table was lower than .05. It indicates that the experimental and control groups ad a significant difference in post-test results. In other words, the students in the experimental group who were taught using flipped classroom model outperformed those taught traditional model. As a result, the null hypothesis (H_0) was rejected; stating that "there is no significant difference in reading comprehension achievement of students taught by using flipped classroom and those taught by using traditional classroom".

Students' Perception of Flipped Classroom in Learning Activity

An online questionnaire was used to gather student perceptions in learning activities where the flipped classroom model used. After the treatment, the experimental group was given a questionnaire about their perceptions of flipped classroom. There were 18 statements listed in the questionnaire. The items on the questionnaire were mostly agreed upon by the students. Students' perceptions of flipped classes in language learning are depicted in Figure 2.

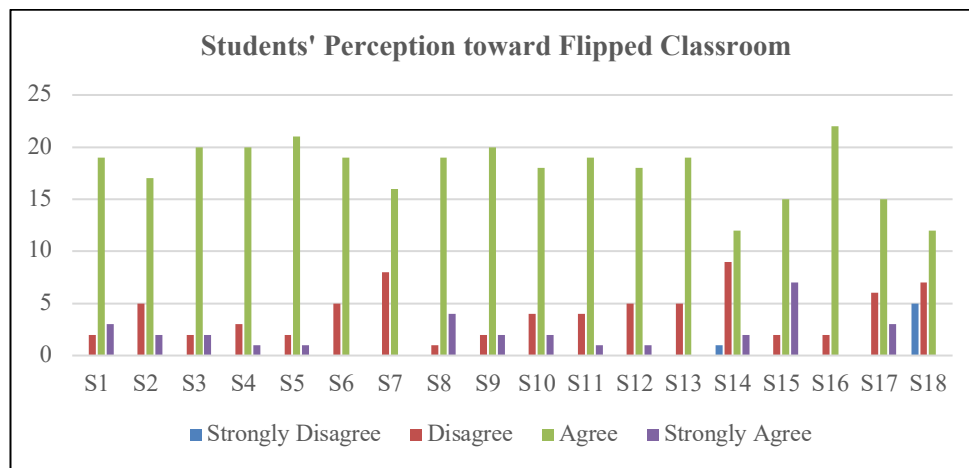


Figure 2. Students' Perception of Flipped Classroom in Learning Activity

Firstly, students agree with statement number 1 that teaching reading in a flipped classroom helped them prepare for their reading class by 79.2%. 8.3% of those polled, on the other hand, disagreed. Secondly, in terms of learning engagement, the majority of students claim, "I felt more engaged in this reading class than in other classes" (79.2%). Then, based on Figure 2, 75% of students agree, with 4.1% strongly agreeing, that they had more opportunities to communicate and/or discuss with other students in the reading classroom, according to the data. Along with that, there were 16.7% of students stated that they were impossible to discuss in reading class. The illustration of the students' responses on the questionnaire based on Figure 2 reveals that students felt more at ease asking questions about the video they watched before class because of the flipped classroom. According to the result of questionnaire, the majority of students (79.2%) agree with statement "after watching the video, I feel more confident in asking for clarification" and also, majority of students (75%) agree with a statement "I am more confident in my learning because of the flipped classroom."

In addition, there were 50% of students agree and 8.3% of students strongly agree that flipped instruction had helped the students but not completely helped them. Despite of most of students agreed result from questionnaire items, there were several students (37.5%) who disagreed and (4.2%) strongly disagreed that they had received no benefit from flipped instruction. The majority students agree (70.8%) and strongly agree (8.3%) that they had sufficient time to learn the sentence structures from the videos. 20.9 % of students, on the other hand, believe they did not have enough time to learn the sentence structures through the video. While five students disagree, the majority agree that watching the video helped them learn the sentence structure. Furthermore, based on Figure 2, the majority of students (79.2%) agree and (16.7%) strongly agree that using technology in reading class helped their learning. It is in line with majority of students agree with statement item number 9 (83.3%) and strongly agree (8.3%) that the online videos or materials used in reading class are helpful. Moreover, 79.2% of students said that they were able to understand reading passages better with the help of the flipped classroom. Nonetheless, 20.8% of students stated that they could understand reading passages without using flipped classroom. As a result, the majority of the students agree that flipped classes have helped them comprehend reading passages.

Henceforth, over half of the students agreed that online materials were good means to learn reading but not the best way. Online resources, however, were rated as the best thing for learning reading in the flipped classroom by 25% of students. According to the findings, 50% of the students choose watching video lesson at home as means to learn reading as means to learn reading. Along with that, there were 29.2% of those polled preferred live lecturer instruction in class, with 20.8 % strongly disagreeing. It means that half of the students preferred to watch video lessons at home while the other half preferred to have a lecturer explain the lesson in class. In addition, the students' performance was better on reading tests since they used the available time in class to practice. Flipped classroom also had improved the quality of students' English communication skills. Those statements are in line with majority of students who agreed (83.3%) and strongly agreed (8.3%) with a statement "my performance on reading tests is better as I have more time to practice in class". Also, they agreed (87.5%) and strongly agreed (4.2%) with a statement "the quality of my communication skills in English has improved."

Furthermore, there were 83.3% of students agreed and 3.9% strongly agreed that the students feel they have more control of their learning through the flipped classroom. It is in line with majority students agree (62.5%) and strongly agree (29.2%) that when the lecturer explains in class, the students could understand more. Henceforth, majority of students agreed (66.7%) that they feel more at ease speaking English in class because of the flipped classroom. However, there were 33.3% of students denied that flipped classroom made them comfortable speaking English during activity in class. Overall, this shows that although there were eight students disagreed on that statement, most of the students accepted that they were feeling comfortable to speak English in class since flipped

classroom was applied. The last result of questionnaire is statement item number 16 that 92.3% of students agree that classroom time is used effectively. Then, 7.7% of students disagree in responding to the statement. Therefore, it can be concluded that most of students used their classroom time effectively in learning activities in a flipped classroom.

After analysing data in questionnaire of students' perceptions toward flipped classroom, overall, 17.9% of students had negative perception toward flipped classroom implementation. However, 82.91% of students said they had positive perception toward flipped classroom. In a nutshell, most of students (20 students) were comfortable to join flipped classroom. Then, the other students (4 students) stated that they were not feeling good learning English in flipped classroom. From those data, it could be inferred that the statistical computation is in line with the questionnaire result. The flipped classroom is very good to employ in reading class since it is helpful, flexible, and interactive learning for the students. Furthermore, after implementing flipped classroom well, both lecturer and students are actively involved in class interaction.

DISCUSSION

Reading Comprehension of the Students Taught by Using Flipped Classroom and Traditional Classroom

The study's findings revealed a significant difference in reading comprehension in the experimental group after treatment. It indicates that the students who were taught interpretive reading as part of a flipped classroom model had better reading comprehension than those who were not. This study's findings confirmed and widened on previous research about technology's impact on English classrooms, particularly flipped classrooms, on students' reading comprehension. This finding is similar to the result of previous studies by Obari & Lambacher (2015) and Syafitri (2014) that effectively using technology to outperform students' reading comprehension by accessing multiple and comprehensible sources from their devices. They employed flipped classroom teaching model by bringing the technology in learning activity. By implementing flipped classroom as the teaching technique, the students had improved their capability on ICT use and effectively and quickly enhanced their English reading comprehension abilities.

Moreover, Fahmi et al. (2020) discovered that in teaching reading narrative text using Whatsapp in their research to share online materials with students outside of the classroom, which is one of the latest findings related to the implementation of flipped classroom. Whatsapp's group feature is designed for educational purposes, with users accessing shared materials via a learning management system on their computer or smartphone. From the previous result, it gave enough evidence that implementation of technology like Whatsapp in a flipped classroom model of instruction could support students improve their reading comprehension.

As part of the present study, students were also required to read the shared text and watch the videos at home as part of this study. Those materials were carried out at the Sevima Edlink to ensure that the students did the learning individually. It is in line with Karimi & Hamzavi (2017) who claimed that students' participation in flipped classroom was required, and it was necessary to trust students to watch lectures at home. It was confirmed that the findings of this study were in line with previous research and knowledge dealing with the impact of flipped classroom implementation on students' reading comprehension, following the interpretation of the study's data analysis and hypothesis. Students' reading comprehension improved after using ICT media as tools for sharing material via Sevima Edlink and WhatsApp. It means that the experimental and control groups had a significant difference in reading comprehension. Accordingly, flipped classroom students had better reading comprehension than students in traditional classrooms.

Students' Perception of Flipped Classroom in Reading Class

The second research question showed that students in a flipped classroom who were taught reading comprehension had a positive perception toward the class. The majority of students agreed that using a flipped classroom teaching model improved their understanding of English. A flipped classroom, according to the majority of students, can help them prepare for reading class, allow them to communicate or discuss, and increase their confidence in asking questions during class about shared materials and videos. Besides, through the flipped classroom, they felt more engaged in the class. Huang & Hong (2016) stated that flipped classroom played a crucial role in increasing the students' intrinsic and extrinsic motivation by providing flexible access, allowing an individual to pace their own learning, and facilitating English learning.

On top of that, Maharsi et al. (2021) discovered that the students could prepare the lessons before classes and had opportunity to become independent students and active students through flipped classroom. Quite similar with this present study, it was also found that students in experimental group who were taught using the flipped classroom outperformed those in control group who were taught using traditional model not only in reading skills, but other knowledge accompanying the reading knowledge such as using a Learning Management System, independent learning experiences, and online interaction.

Additionally, 78.55 % agreed that using technology to learn with videos and shared material improved their motivation. Before coming to class, they could learn and watch the lesson video at home. Through the lesson video, they could learn sentence

structures, understand the reading passage and help them in reading class. According to Oktiyani (2019) and Herlindayana et al. (2017), a flipped classroom with technology, particularly video, allows students to share and communicate with one another, build a foundation for deep understanding of material to study, and motivate them to learn reading. Because they preferred class lectures, some students were opposed to watching lesson videos at home.

In this present study, controlling their learning through the flipped classroom, improving their communication skills, feeling confident enough to speak English in class, and understanding lecturer explanations are all kinds of self-directed learning which provided by flipped classroom. According to Karimi & Hamzavi (2017), because of the videos, students have more time to learn sentence structures and perform better on class reading tests. As a result of the flipped teaching model of instruction, a majority of students felt more confident and independent. Students discovered that watching videos outside of class improves reading comprehension and encourages self-study. Students gained a better understanding of the material and self-efficacy with it by watching videos in the flipped classroom (Khonamri et al., 2020).

According to the results of the questionnaire, the flipped classroom has both benefits and drawbacks for students. The majority of students uttered that using technology in a flipped classroom helped them learn in class. According to Bataineh & Al-Sakal (2021), students' comprehension of the reading passage was assisted by the use of videos, other resources, and explicit activities (inside and outside the classroom). Hence, students could gain prior knowledge and perform better on reading tests in a flipped classroom. On the other side, though this present study found evidence that implementing a flipped classroom effectively improved students' reading comprehension, it does not mean that this technique had no weaknesses in the application. In this study, it was found that four students could not sign up the Sevima Edlink in their smartphone or laptop. It was also found that not all students had fast and unlimited internet access due to financial problem so that they found it hard to download video or other materials and join Zoom meeting as class session. Fortunately, the students had access to free Wi-Fi, which allowed them to download videos and other materials as well as participate in Zoom meetings as class sessions on their phones.

CONCLUSION

The present study analyzed the flipped classroom implementation on students' reading comprehension and their perceptions of flipped classroom integration in reading class. According to the findings of this study, there was a significant difference in reading comprehension between students who were taught in a flipped classroom and those who were taught in a traditional classroom. The flipped classroom treatment improved students' reading comprehension by confirming that students in the experimental group performed better on the reading post-test than students in the control group. In addition, reading activities provided by flipped classroom teaching models were appeared effective and flexible to help the students enhance their reading comprehension.

Moreover, the study also showed that the experimental group's students have good perception of flipped classroom teaching model. The students accepted that flipped classroom is helpful and flexible for reading class. They also considered that flipped classroom made classroom interactive and allowed them to be more independent. For example, by watching online videos and reading lesson materials at home the students were self-directed and were able to discuss and review their learning since they have effective time in class session to present their note from their independent learning, e.g. find the main ideas, paraphrase, find cause and effect relationship, and draw conclusion. Thus, implementing flipped classroom could enhance students' reading comprehension.

REFERENCES

- Abacian, H., & Samadi, L. (2016). The Effect of Flipped Classroom on Iranian EFL Learners' L2 Reading Comprehension: Focusing on Different Proficiency Levels. *Journal of Applied Linguistics and Language Research*, 3(6), 10.
- Ahmed, M. A. E. A. S. (2016). The Effect of a Flipping Classroom on Writing Skill in English as a Foreign Language and Students' Attitude Towards Flipping. *US-China Foreign Language*, 14(2). <https://doi.org/10.17265/1539-8080/2016.02.003>
- Akyüz, H. İ., & Samsa, S. (2009). The effects of blended learning environment on the critical thinking skills of students. *Procedia - Social and Behavioral Sciences*, 1(1), 1744–1748. <https://doi.org/10.1016/j.sbspro.2009.01.308>
- Arnold-Garza, S. (2014). The Flipped Classroom Teaching Model and Its Use for Information Literacy Instruction. *CommInfoLit*, 8(1), 7. <https://doi.org/10.15760/comminfolit.2014.8.1.161>
- Ary, D., Jacobs, L. C., Sorensen, C., & Razavieh, A. (2010). *Introduction to Reseach in Education* (Eighth). Cengage Learning.
- Bataineh, R. F., & Al-Sakal, R. M. I. (2021). To flip or not to flip: Potential effects on EFL reading comprehension. *International Journal of Curriculum and Instruction*, 13(2), 18.
- Bergmann, J., & Sams, A. (2012). *Flip Your Classroom: Reach Every Student in Every Class Every Day*. International Society for Technology in Education.
- Bergmann, J., & Sams, A. (2014). *Flipped Learning: Gateway to Student Engagement*. (First). International Society for Technology in Education. [https://books.google.co.id/books?hl=en&lr=&id=r4OZCgAAQBAJ&oi=fnd&pg=PR9&dq=Bergmann,+J.,+%26+Sams,+A.+\(2014\).+Flipped+learn+ng:+Gateway+to+student+engagement.+Arlington,+VA:+International+Society+for+Technology+in+Education.&ots=ZtIdYn0wQ8&sig=Ixjm6jxoOaIDwJ_OpGrhSn2Hx5k&redir_esc=y#v=onepage&q&f=false](https://books.google.co.id/books?hl=en&lr=&id=r4OZCgAAQBAJ&oi=fnd&pg=PR9&dq=Bergmann,+J.,+%26+Sams,+A.+(2014).+Flipped+learn+ng:+Gateway+to+student+engagement.+Arlington,+VA:+International+Society+for+Technology+in+Education.&ots=ZtIdYn0wQ8&sig=Ixjm6jxoOaIDwJ_OpGrhSn2Hx5k&redir_esc=y#v=onepage&q&f=false)
- Brown, H. D. (2001). *Teaching by Principles: An Alternative Approach to Language Pedagogy* (Second). A Pearson Education Company.
- Han, Y. J. (2015). *Successfully Flipping the ESL Classroom for Learner Autonomy*. 2(1), 12.

- Hashemifardnia, A., Namaziandost, E., & Shafiee, S. (2018). The Effect of Implementing Flipped Classrooms on Iranian Junior High School Students' Reading Comprehension. *Theory and Practice in Language Studies*, 8(6), 665. <https://doi.org/10.17507/tpls.0806.17>
- Herlindayana, Sahlan, & Alberth. (2017). The Effect of Flipped Classroom on Students' Reading Comprehension. *Journal of Language Education and Educational Technology*, 2. <http://ojs.uho.ac.id/index.php/JLEET/article/download/6699/4931>
- Herreid, C. F., & Schiller, N. A. (2013). Case Studies and the Flipped Classroom. *National Science Teachers Association*, 42(5), 6.
- Hsieh, J. S. C., Wu, W.-C. V., & Marek, M. W. (2017). Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning*, 30(1–2), 1–21. <https://doi.org/10.1080/09588221.2015.1111910>
- Huang, Y.-N., & Hong, Z.-R. (2016). The Effects of a Flipped English Classroom Intervention on Students' Information and Communication Technology and English Reading Comprehension. *Educational Technology Research and Development*, 64(2), 175–193. <https://doi.org/10.1007/s11423-015-9412-7>
- Hwang, G., Chen, M. A., Sung, H., & Lin, M. (2019). Effects of Integrating a Concept Mapping-based Summarization Strategy into Flipped Learning on Students' Reading Performances and Perceptions in Chinese Courses. *British Journal of Educational Technology*, 50(5), 2703–2719. <https://doi.org/10.1111/bjet.12708>
- Ifianti, T. (2018). Enhancing First Grade Students Reading Comprehension Skill of MAN Malang 1 on News Item Text through Skimming Technique. *JOURNEY (Journal of English Language and Pedagogy)*, 1(1), 15–22. <https://doi.org/10.33503/journey.v1i1.92>
- Ishikawa, Y., Akahane-Yamada, R., Smith, C., Kondo, M., Tsubota, Y., & Dantsuji, M. (2015). An EFL flipped learning course design: Utilizing students' mobile online devices. *Critical CALL – Proceedings of the 2015 EUROCALL Conference, Padova, Italy*, 261–267. <https://doi.org/10.14705/rpnet.2015.000343>
- Karimi, M., & Hamzavi, R. (2017). The Effect of Flipped Model of Instruction on EFL Learners' Reading Comprehension: Learners' Attitudes in Focus. *Advances in Language and Literary Studies*, 8(1), 95. <https://doi.org/10.7575/aiaac.all.v.8n.1p.95>
- Keser, H., & Semerci, A. (2019). Technology trends, Education 4.0 and beyond. *Contemporary Educational Researches Journal*, 9(3), 39–49. <https://doi.org/10.18844/cej.v9i3.4269>
- Kurniawan, E. H., & Wulandari, S. (2018). *The Effect of Flipped Classroom toward Students' Achievement in Teaching Reading*. 03(01), 10.
- Maharsi, I., Wijayanti, Y. R., & Astari, T. R. (2021). *EVALUATING FLIPPED CLASSROOM APPROACH IN EFL STUDENTS' READING CLASSES*. 24(1), 11.
- McDonough, J., Shaw, C., & Masuhara, H. (2013). Teaching Language Skills. In *Materials and Methods in ELT: A Teacher's Guide, 3rd Edition* (Third, p. 117). John Wiley & Sons Ltd.
- Obari, H., & Lambacher, S. (2015). Successful EFL teaching using mobile technologies in a flipped classroom. *Critical CALL – Proceedings of the 2015 EUROCALL Conference, Padova, Italy*, 433–438. <https://doi.org/10.14705/rpnet.2015.000371>
- Oktiyani, R. (2019). *The Influence of Using Flipped Classroom towards Students' Reading Comprehension on Narrative Text at the Second Semester of the Eighth Grade at SMPN 1 Marga Sekampung in the Academic Year of 2018/2019* [Universitas Islam Negeri Raden Intan]. <http://repository.radenintan.ac.id/7678/1/SKRIPSILENGKAPPDF.pdf>
- Patel, M. F., & Jain, P. M. (2008). *English language teaching (methods, tools & techniques)*. Sunrise Publishers & Distributors. <http://site.ebrary.com/id/10417558>
- Peraturan Menteri Riset, Teknologi, dan Pendidikan Tinggi Republik Indonesia Nomor 44 TAHUN 2015. (2015). <http://kopertis3.or.id/v2/2016/01/15/permenristedikti-nomor-44-tahun-2015-tentang-standar-nasional-pendidikan-tinggi/>
- Peraturan Presiden Republik Indonesia Nomor 8 TAHUN 2012. (2012). <https://www.kopertis7.go.id/uploadperaturan/6.%20Perpres%208%202012%20KKNI.pdf>
- Ramirez, L. P. R. (2018). *Skimming and Scanning for Reading Comprehension* [Universidad de La Sabana]. <https://intellectum.unisabana.edu.co/bitstream/handle/10818/34193/Lina%20Paola%20Rodriguez%20-%20Final%20Version%20Thesis%20Report%20Revised%20SC.pdf?isAllowed=y&sequence=1>
- Sage, M., & Sele, P. (2015). Reflective Journaling as a Flipped Classroom Technique to Increase Reading and Participation with Social Work Students. *Journal of Social Work Education*, 51(4), 668–681. <https://doi.org/10.1080/10437797.2015.1076274>
- Snowden, K. E. (2012). *Teacher Perceptions of the flipped Classroom: Using Video Lectures Online to Replace Traditional in-Class Lectures*. [University of North Texas]. https://digital.library.unt.edu/ark:/67531/metadc149663/m2/1/high_res_d/thesis.pdf
- Sohrabi, B., & Iraj, H. (2016). Implementing flipped classroom using digital media: A comparison of two demographically different groups perceptions. *Computers in Human Behavior*, 60, 514–524. <https://doi.org/10.1016/j.chb.2016.02.056>
- Syafitri, W. (2014). *The Impact of Flipped Classroom on Reading Comprehension of High School Students with Different Cognitive Learning Styles*. Universitas Negeri Malang.
- Yulianto. (2019). An Analysis on Readability Level of English Reading Texts for Eighth Grade Students. *Journal of English for Academics*, 6, 11. [https://doi.org/10.25299/jshmic.2019.vol6\(1\).2675](https://doi.org/10.25299/jshmic.2019.vol6(1).2675)