

The Effect of Flipped Classroom toward ESP Students Reading Comprehension

Iswatin Hasanah, and Yudhi Arifani

University of Muhammadiyah Gresik, Sumatera Street 101 GKBt, Gresik, Indonesia.

Keywords: ESP, Reading Comprehension, Flipped Classroom

Abstract: Flipped classroom can be one of alternatives for teaching reading in ESP class. This study was aimed to know the effect of flipped classroom using video linked in telegram toward ESP students reading comprehension. 49 ESP students of Accounting class in D1 Equivalent English program was engaged in treatment group while 37 students of informatics engineering class received only traditional teaching. Quasi-experimental was implemented as the design then analysed in Mann Whitney test and Wilcoxon signed-rank test. The post-test scores of both two groups in Mann Whitney test showed significant difference improvement ($p = 0,004$) confirmed by a paired-non parametric Wilcoxon signed-rank test showed statistics value of the treatment group ($W=5,720$) having a significantly higher value than control group ($W4,225$). Means flipped classroom was significantly effective for enhancing ESP students reading comprehension. As the conclusion, applying flipped classroom is helpful for students as autonomous learners to master the ESP reading materials. However, this study found some factors need to be considered for the success of flipped classroom implementation such as students' motivation, readiness, responsibilities and technical problems. So, it is suggested for the next researchers aware of those factors.

1 INTRODUCTION

Along with the development and existence of technology, Flipped Classroom gains popularity among researchers and educators in the world (Yilmaz, R., 2017, Du, S. C., Fu, Z. T., & Wang, Y., 2014, Webb, M., & Doman, E., 2016, Evseeva, A. M., & Solozhenko, A., 2015). The terminology is switched or flipped from which the traditionally learning done inside the classroom and do homework outside. In the flipped classroom, students view online videos, read material on books, modules, website, blog and other sources at home. As policy, students have to understand the important concept of knowledge before coming to the class engaging in active learning activities such as group discussing, do certain exercises, debates, quiz, project, summarize etc. (Gilboy, M. B., Heinerichs, S., & Pazzaglia, G., 2015, sung 2015, Evseeva, A. M., & Solozhenko, A., 2015). Flipped classroom as part of blended learning which combine e-learning or web based lecture and face-to-face classroom session technique. Students did not listen the teachers delivered in the class but outside. They first prepare for the classes by watching online videos'

lecturer instead of a passive-style lecture, receive individual instruction, workshops and several activities conducted the classroom learning process. (Halili, S. H., & Zainuddin, Z., 2015, Nishigawa, K., Omoto, K., Hayama, R., Okura, K., Tajima, T., Suzuki, Y & Matsuka, Y., 2017, Thai, N. T. T., De Wever, B., & Valcke, M., 2017). According to Wang, (2016) flipped classroom has a positive learning impact on the students' learning performance and technology usage facilitates in the flipped classrooms' implementation.

In Indonesian context, the flipped classroom still considered as new teaching model influenced the change of the students attitudes and affected their willingness (Afrilyasanti, R., Cahyono, B. Y., & Astuti, U. P., 2016, 2017). Previous studies revealing about its effectiveness where students learn materials (e.g., by watching lectures through video or online video) at home attained a positive learning result that students learn what is pertinent to them based on their learning needs actively, ready and independently for receiving the lessons (Afrilyasanti, R., Cahyono, B. Y., & Astuti, U. P., 2016, 2017, Azizah, D., & Fitri, A. 2017, McDonald, K., & Smith, C. M., 2013). Flipped

classroom trained students attitudes as the autonomous learning involve their learning motivation. It also gave chance for the teachers to improve students learning outcome. (Qiang, 2018). Flipped Classroom helps students for learning the content independently and increased their self-efficacy (Enfield, 2013, Latif, S. W. A., Matzin, R., Jawawi, R., Mahadi, M. A., Jaidin, J. H., Mundia, L., & Shahrill, M., 2017).

The flipped classroom identified as innovative and effective instructional approach which totally bring down the traditional instruction by switching class instruction at home. This teaching model commonly asked students watching video at home and use the class time for discussing, solving complex concepts and answering questions where students are being encouraged to learn actively. The teacher's role is for guiding and facilitating them for discussing and giving professional feedback as good self-learning. (Hwang, G. J., Lai, C. L., & Wang, S. Y. (2015). In a flipped classroom, students watch video lectures at home through screen casts then class time is spent for engaging students through a variety of several learning activities (Schultz, D., Duffield, S., Rasmussen, S. C., & Wageman, J, 2014). The flipped classroom delivers lecture contented to students at home through electronic device via teacher-created videos or online video linked as interactive lessons and they use class time for practical application activities (Arnold-Garza, 2014, Clark, 2015). According to Mehring (2016) kinds of tools are able to use for creating the student-centered in the flipped classroom. They are:

1) *Videos*; The biggest notice for the teachers is determining if students are doing the pre-class assignments or not (e.g., watching the videos at home). Being able for assessing the students' understanding can be possible by instruct them from many free programs available on the internet now days , It possible for the teacher to embed questions and links to the web sites and pictures to stop the video play and to collect the students' data as students watch. Free programs such as Edpuzzle at www.edpuzzle.com, Zaption at www.zaption.com and eduCanon at www.educanon.com, www.youtube.com or several paid programs such as HapYak at www.corp.hapyak.com etc. are just a few choice that allow teachers to create interactive flipped videos. There are many several video channel that everyone can access online by searching the keywords related to the video's title or by linked. In the flipped classroom, Video becomes the media for the students. They learn and try to understand the

material as kind of input for getting information replaced the teacher's explanation in the traditional teaching method.

2) *Programs for English Foreign Language reading*; Almost in EFL reading classes are tried to build the vocabulary, reading speed and fluency. Students come to class to practice reading drills by getting the teacher's or lecturer's feedback, but there is only few interactions among classmates and the teacher. Then students back to their home and try to comprehend the reading text and accomplish the assignment of reading tasks before the next meeting. It can be an alternative way to thrift the time in the classroom, so the students are able to do several activities in the class; such as answer questions, group discussion, do the worksheet etc.

3) *Clickers or student response systems*; During in the class, it is possible for using some clickers or student response systems. Clickers mean an interactive technology system that possible for instructors to compose and propose or provide questions to students and collect it immediately. We can also view overall students response such as Kahoot at www.kahoot.it, Socrative at www.socrative.com and Pear Deck at www.peardeck.com. They are example of several free programs which allow teachers to assess students face-to-face. Here, the teacher can conduct quiz related the questions from the reading text.

Regard to those effectiveness, there are also numbers of critiques which found in some other previous studies. It possible to make mistakes. Effective "flipping" needs careful and well preparation to get ready of the lessons which needs time and effort of both the teachers and students for conducting to the success of flipped classroom itself so it is important to increase the interaction between them (Roehl et al., 2013, Mortensen, C. J., & Nicholson, A. M. 2015, Chilingaryan, K., & Zvereva, E. 2017). The students were not fully prepared before entering the class, as they did not watch the video lecture at home yet or did not do the lecture's instruction yet. (Strayer, 2007).

From those Previous studies the researcher wants to investigate the effectiveness of the flipped classroom toward ESP students reading comprehension. Moreover, teaching ESP (English for Specific Purpose) has become challenging for the because the learning materials content having more difficult level than EAP (English for Academic Purpose). The material discussions are more complex related to each major, include in teaching reading. "In comparison with teaching EGP (English for general purpose), teaching ESP usually faces a

lot more challenges. Focusing on the specific needs of the learners based on the need analysis, concentrating more on language in context and on the students' need to acquire a set of professional skills and particular job-related to each function, ESP remains a major testing experience for every teacher in charge of it." (Falaus, 2017). The barrier is not only come from how the English teachers can mastered the ESP materials well but also how to make the students understand the ESP materials well, especially in teaching reading toward ESP. Students do not use English as daily communication but if students are required to read textbooks in English, there is a need for reading comprehension courses in ESP which its tasks related academic content that need high-level linguistic proficiency and background knowledge. (Alemi, M., & Ebadi, S., 2010). The important thing is how to make students comprehend the ESP reading materials itself, considered that it isn't easy so particular teaching strategies are necessary such as Flipped classroom teaching model. "The benefits often mentioned for flip teaching is that students are given more opportunities to develop higher order thinking under teacher guidance" (Hung, 2014). This study focus to the effectiveness of flipped classroom towards ESP students reading comprehension at D1 equivalent English program at university of Muhammadiyah Gresik. Because its really necessary to be studied regarding it can be one of consideration as the teaching model for teaching ESP reading comprehension or for any case which have the same problem. Students score improvement for achieving learning outcome is very important, so it is hoped that students are able to graduate with satisfied score. This study is expected to give contribution for the teachers to solve the teaching problem and become reference for the next researcher who wants to conduct research study about flipped classroom.

2 METHOD

2.1 Research Design

This study used quantitative quasi-experimental design in order to investigate the comparison between the treatment and control group for knowing their differences. The reason why did this study conduct the quasi experimental research because it was related to the university policy did not possible randomize the groups. Quasi experimental methods involved creating and comparing the group which are rather frequently

used when it is not possible to randomize the individuals for both groups. (White & Sabrwal, 2014). Quasi-experiments is where the condition of lack randomize, self-selection situation, where the units choose treatment by themselves and it can be chosen by teachers, administrator selection or others for deciding which persons should get in the treatment group. (William 2002). According to Jannah, (2017) stated that This design involved an independent variable manipulation but control and experimental group cannot be taken randomly.

2.2 Participants

The population of this study were the students of D1 Equivalent English program at University of Muhammadiyah Gresik in academic year 2017/2018. The sample were students in class B and class L. They were divided into two groups. The treatment group treated with video-aided Flipped classroom to understand their ESP reading materials which consist of 49 students of B class major in accounting. The control group refers to the students who learned ESP reading text by using traditional model which consist of 37 students of L class major in informatics engineering.

2.3 Instrument

Reading test was the instrument of this study. In order to get the data, this study adopted pre-existing condition from the students reading final scores in the first semester then conducted post test-only.

2.3.1 The Validity of the Test

An instrument can be mention valid when measure what should suppose to be measured, when an instrument accurately measures of any decided variable it is considered as valid instrument (Muijs, 2011). There are five main types of test validity among them are; face validity, content validity, construct validity, criterion validity and reliability. (Taherdoost, 2016). The instrument items of this study conducted the content of validity. The judgemental approach for deciding the content validity involves literature reviews and continue with the evaluation by the expert judges, the procedure of its judgemental approach requires researchers with experts in order to facilitate validation. (Taherdoost, 2016). Before the instrument was tested, validity test was done by two experts validation who applied technology into their collage teaching and composed ESP book proofed

by ISBN. The instrument then revised based on their suggestion. The process continued for the validity test items analysed by using SPSS 15.0 in Correlate – Bivariate which showed significant score $< 0,05$.

2.3.2 The Reliability of the Test

Reliability defined as ‘the level of test scores are free from error’s measurement (Muijs, 2011). The higher correlation value indicated instrument is more reliable. (Gazali, 2016). According to Creswell (2002) there are various types of reliability, they are test-retest reliability, alternate forms reliability, alternate forms and test-retest reliability, internal consistency reliability and inter-rater reliability. The estimating of reliability should show consistency (Rosaroso, 2015). Reliability could be identified the testing methods for stability and consistency. (Muhammad, Sulaiman, Sern, Salleh, 2015). The reliability of this instrument analysis was carried out, Cronbach's Alpha showed 0,831 (N: 86) acceptable for implementing.

2.4 Procedures

The procedures for this study conducted in seven weeks and divided into three major phases, including (1) a preparation phase (2) implementation phase (3) an evaluation phase for the assessment. In the preparation phase the researcher prepared everything include checked the curriculum of the course, checked the reading topics and materials, prepare the test item. Next, is the implementation phase and it covered one topic choice of ESP reading materials only based on this course curriculum, they are; the reading materials in chapter 6 for the treatment group while for control group is focused on reading materials on chapter 4. Both groups are from different majors which having different learning materials too, but the researcher found there was a similar topic discussed in those two groups reading materials (the topic about “E-commerce in chapter 6 for Accounting B class and in chapter 4 in informatics engineering L class). Based on the curriculum of P2B (Language Center) of the university of Muhammadiyah Gresik that D1 Equivalent English Program, especially in ESP course for the second semester, the 4 skills (Reading, Listening, Speaking and Writing) percentage for the contents of every major are different related to the result of the need analysis for each department learning outcome. The reading itself is having the largest percentage of the weight that contributed in ESP materials than other skills

percentages. The reading percentage of those two groups are 35% which as illustrated in table 1 below:

Table 1: ESP reading topic based on the course curriculum of P2B (Language Center) UMG (University of Muhammadiyah Gresik).

Group	ESP-Reading Learning Outcome	Weight	ESP-reading Topics
Treatment group	Students are able to identify, analyze, synthesize stated and unstated information from the text related to ‘Introduction To Business Business Ethics’, ‘Introduction To Accounting’, ‘How To Do Monthly Budget, ‘Getting Ready To Invest’ and ‘E-Commerce’.	35%	Chapter 6: E-commerce → (e-commerce, 4key components to e-commerce success, the dangers of e-commerce, government regulations for e-commerce).
Control group	Students are able to identify, analyze, and synthesize stated and unstated information from the text related to ‘Introduction to IT Career’, IT Knowledge (Basic Mathematics, Computer Language, Artificial Intelligence), ‘Computer Essentials (Hardware and Software)’, ‘Future Career in IT (electronic commerce), Doing a Business’ including meeting.	35%	Chapter 4: Future career → (what is a startup and sustainable growth?, E-commerce {electronic commerce or EC}, government regulations for e-commerce and the dangers of e-commerce).

It were evenly distributed over seven-weeks period. They were six weeks implementing and one week evaluation. During six weeks implementation, the students were asked to read for understanding the reading material on module or any reading text that they can access online related to the topic and asked them to watch videos in their home from the links given via telegram application. The aim of giving these video linked was expected to help the students for comprehending the reading material which in traditionally teacher explained about the text in the classroom but here students could learn the explanation from the lecturing video or even online video in their home as the supporting information or input related to the text that they had to read and learn. Additional video clips can be optional study that cover topics which can be prepared to fulfil the learners who want to explore beyond the syllabus (kurihara, 2016). Among those links of videos are as below:

1. (what is E-commerce)
<https://www.youtube.com/watch?v=nxSDHBdsWqA>
2. (Start An Online Business)
https://www.youtube.com/watch?v=siqjv_kC1CA
3. (major type of E-commerce)
https://www.youtube.com/watch?v=FAyit_s9eY0
4. (What is E-Commerce and difference between B2C, B2B & C2C?)
<https://www.youtube.com/watch?v=GiTY8QPnqOI>
5. (What is B2B, B2C, C2B, C2C ?)
<https://www.youtube.com/watch?v=e-7hreexEFs>
6. (What is Online Branding?)
<https://www.youtube.com/watch?v=x3VcarDmycI>
7. (What is fulfillment by Amazon)
https://www.youtube.com/watch?v=IAi4fPb_kp4
8. (what is shipping?)
<https://www.youtube.com/watch?v=ACAhWi3RekA>
9. (E-business Risk 1)
<https://www.youtube.com/watch?v=6Xuu2vIDWNM>
10. (Advantages and Disadvantages of Electronic Commerce)
https://www.youtube.com/watch?v=VV4kABhX_Yc
11. (International Laws Regulating E Commerce)
<https://www.youtube.com/watch?v=mAi4IIX0jsU>
12. (E-commerce Law)
<https://www.youtube.com/watch?v=xCmOiAlBC-s>

After that they did certain activities in the class such as group discussing, quiz, presentation and doing several exercises in worksheet provided by lecturer. While there was no treatment for control group, they only learned the reading material on module in the classroom as traditional way. Then in the week-7, both groups were given post-test as the evaluation phase.

2.5 Procedures

2.5.1 Treatment Group

Week-1 to 2 → The lecturer divided the students into several groups then instructed them to read and learn the text on module about E-commerce and watched the videos about “E-commerce and types of E-commerce” linked via telegram at their home before attending the class. While, in the classroom they were guiding for group discussion and wrote their discussion result about E-commerce, B2B, B2C, C2C and C2B with each example. They had to write and draw it in a cardboard paper then they had to present it in front of the class. Because the time was limited, so the lecturer continued the group presentation for the next meeting in week-2. Then the lecturer gave the feedback.

Week-3 → The lecturer discussed the exercises on module related E-commerce after that conducted “the top rank game” which students should listen to lecturer’s questions related to E-commerce and types of E-commerce that they had learned before. The students’ answer should be written in a piece of paper, and they should show it up with their hands when lecturer gave the instruction. If the students could answer correctly they could continue to join this game to next questions, but if the students answer were incorrect, so they should stop and couldn’t join the next level. The game continued until found the winner. Then the lecturer gave the reward to the winner.

Week- 4 → The lecturer instructed the students to read and learn the text on module about 4 Key Components to E-Commerce Success and watched the videos about “online branding, fulfillment and shipping cost” linked via telegram at their home before attending the class. Then during in the classroom, the lecturer conducted a quiz, which the lecturer dictated some questions related to the materials and asked the students to write their answer in a paper individually. After that the lecturer collected all students answer then exchange to other students and corrected the answer together. In the end, the lecturer reviewed material.

Week – 5 → students were instructed to read the text about “The Dangers of E-Commerce” and watched videos about “ E-business Risk 1 and Advantages & Disadvantages of Electronic Commerce” linked via telegram at their home before attending the class. Then in the class students invited to join the reading quiz by using KAHOOT student response systems application related to the reading material about “ The danger, advantage and

disadvantage of E-commerce". Kahoot could be used for creating interactive classroom activities through question-and-answer exchanges, with real-time histogram results of student responses (Hung, 2017).

Here the students should access kahoot.it on their each mobile phone or their each device. The students then entered their nick name and joining it. Here, they had to answer the questions provided by lecturer which displayed on the projector's screen, so everyone could see and read the questions. The students should answer by clicking and responding from the system. The quiz conducted with two types which was divided into two sessions. The first session was the multiple choice type and then the second session was jumbled type. The lecturer gave the reward for the winners and finally lecturer gave the feedback by reviewing the material.

Week – 6 → students were asked to read the text about "government regulations for e-commerce" from the internet and access videos about "International Laws Regulating E Commerce and E-commerce Law" linked via telegram at their home before attending the class. They were asked to make small group and discussed answering several exercises in the module after that asked each group's representation to write the answer on the white board then corrected together. Finally, in the seventh week, the lecturer provided the post-test quiz as the part of assessment.

2.5.2 Control Group

Week – 1 to 2 → The lecturer explain about E-commerce then divided the students into several groups then instructed the students to read, learn and discuss the text on module about E-commerce and watched the videos about "E-commerce and types of E-commerce. Continued to make presentation slide as group homework then conducted group presentation in the week-2.

Week – 3 → The lecturer reviewed the last reading material then explained about what is a start-up (starting for the E-commerce) and sustainable growth. The lecturer ased students to read and learn the texts after that asked them to exercises on module then chose them randomly to write the answer on the whiteboard to discuss the correct answer together.

Week -4 → The lecturer asked students to read the text about "Government regulations for E-commerce" a loud together, then asked the students to learn the text and did the exercises about the text on module. The teacher asked the students to exchange their answer with their friend then discussed the correct answer together.

Week-5 to 6 → Teacher explained about some problems reagard to the danger that may appear in E-commerce. Students were divided into small groups and instructed to read, learn and discuss the text about "The Dangers of E-Commerce" then asked each group to prepare the presentation as homework, after that contied to group presentation in week 6.

2.5 Data Collection and Analysis

The data collection of this study is taken from students' scores of reading test, while the technique to collect the data was conducting the reading post-test for both treatment and control group as the evaluation phase. The data result analyzed and tabulated through SPSS by using Mann Whitney test to compare the post test scores of both treatment and control groups then interpreted the data results.

3 FINDING AND DISCUSSION

Before doing further statistical analysis, it is important to evaluate the normality and homogeneity of variance assumption. The results of normality tests on reading comprehension data was displayed in table 2. Among three data, only the control group post-test data violates normality assumption as measured either by Kolmogorov-Smirnov ($p = 0,003$). Therefore, a non-parametric tests that are less restrictive about distributional assumption were used for all data analysis. Furthermore, the Levene's Test on table 3. showed that the assumption of homogeneity of variance was met. This finding was then confirmed by non-parametric Mann Whitney test for two independent samples. Both groups indicated no statistically difference on the pre-existing conditions of reading comprehension ($p = 0,179$) as displayed in table 4.

Table 2: Results of the test of normality

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Pre_Cond_Treatment	,097	37	,200*
Post_Test_Treatment	,122	37	,179
Pre_Cond_Control	,113	37	,200*
Post_Test_Control	,183	37	,003

Table 3: Results of Levene's Test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1099,299	1	1099,299	3,210	,077
Within Groups	28768,794	84	342,486		
Total	29868,093	85			

Table 4: Results of Mann-Whitney's Test of Pre Condition Data

	Pre_Cond_All
Mann-Whitney U	753,000
Z	-1,342
Asymp. Sig. (2-tailed)	,179*

The reesearch Question of this study ;

Is Flipped classroom effective for enhancing the ESP students reading comprehension?

For answering that research problem, the detail explanation result for all of the descriptive statistics was displayed in table 5.

Table 5: Descriptive Statistics

	N	Mean	Std. Error	Std. Deviation	Percentage Improvement
Pre_Cond_Treatment	49	64,73	2,390	16,727	10,6 (16.47%)
Post_Test_Treatment	49	75,51	1,598	11,184	
Pre_Cond_Control	37	57,51	3,394	20,642	10,78 (18.4%)
Post_Test_Control	37	68,11	1,757	10,687	

As not expected, an improvement within the control group was found higher (10,6 point or 18,4%) than in the treatment group (10,78 or 16,47%). However, an independent two samples Mann Whitney test was then conducted to evaluate

if the improvement was statistically significant or not. Table 6. showed there is a significant difference improvement on post test of reading comprehension between groups ($p = 0,004$). This outcome was also confirmed by a paired-non parametric Wilcoxon signed-rank test. Although both groups showed significant improvement on reading comprehension ($p < 0,001$) but the absolute value of Wilcoxon statistics of the treatment group ($W=5,720$) showed a higher value than of the control group ($W=4,225$).

Result of this study supports the hypothesis that the intervention has successfully improved reading comprehension on the treatment group. Nevertheless, it is interesting fact that the control group also showed significant improvement although the students did not get any special treatment. Regarding this fact, the researcher presumed that the intervention was not effective enough. But even the result of control group post test in the descriptive statistic showed higher significant improvement, but the difference scale of both groups were not having far differences (that is only 1, 93%). Moreover, it could be seen in table 7. as had explained before which from the Result of Wilcoxon signed-rank test showed that the treatment group is 5,720 while the control group is 4,225. It showed that treatment group having significantly higher value than the control group.

Table 6: Result of Mann Whitney Test of Post Test Data

	Post_Test_All
Mann-Whitney U	579,000
Asymp. Sig. (2-tailed)	,004

Table 7: Result of Wilcoxon signed-rank test

	Post_Test_Treatment - Pre_Cond_Treatment	Post_Test_Control - Pre_Cond_Control
Z	-5,720 ^a	-4,225 ^a
Asymp. Sig. (2-tailed)	,000	,000

From the result finding above that between pre-existed condition and post-test of the treatment group having improvement. As described in table 5. The mean scores of the pre-existed condition of the treatment group is $64,73 < 75,51$ (from the mean of post -test of treatment group) also supported in table 7. Wilcoxon statistics of the treatment group

($W=5,720$) showed a higher value than of the control group ($W4,225$). It can be stated for answering the research problem that the flipped classroom has significantly effective for enhancing ESP students reading comprehension. As supported by other previous studies, such as conducted by Hashemifardnia, Namaziandost and Shafiee (2018), which in that study the researcher used paired samples t-test and independent samples t-test for analysing the effectiveness of flipped classrooms on the students' reading comprehension and the findings showed that the students who received instruction through flipped classrooms had better performance compared to traditional classrooms. The results statistically revealed that experimental group significantly did better than the control group ($p < .05$). Lee and wallace (2017) also stated that the students in flipped classroom performed better in their final grades than the non-flipped classroom. The flipped classroom teaching model was effective in language learning. Students are given the chance to review and having idea of the content from the lesson outside the class, they also spend the time to learn and take their notes regard to the lesson. (Alsowat, 2016).

This study found the potential that could be discussed related other factors which might influence the implementation of flipped classroom. Such as students' readiness, responsibility, motivation and technical problems. It was found that some students in the treatment group were not ready enough for flipped classroom, some of them did not watch the video at home and did not read or learn the reading material which was instructed to be learned at home. They did not have the reading habits, consequently not all students of the treatment group who engaging pure-flipped classroom. This fact was interested to be discussed regarding how important of the roles of both teacher and students who should having the readiness to conduct the flipped classroom.

Regarding the students' readiness and responsibilities toward the adaptation process of flipped classroom model. The researcher found that in the previous three weeks conducting this flipped classroom implementation, some students seem were not ready yet with this teaching model. Eventhough for about 75% students in the treatment group were ready for adapting in flipped classroom but others around 25% students were not. They confessed having not enough time to watch the video or even read the text at their home. Siegle (2014) also stated students are not completing for learning contents succesfully for watching videos outside the class.

Conducting from that appearance problem, the gave the assignments to the students in treatment group in week- 4 to 6, they should submit it in the beginning of the class. They had to summarize the reading material which they had read outside the class and also took note the important point of the videos that they had learned outside the class too. It was hoped as the controlling to make sure that all of the students were really engaging in this flipped classroom.

Technical problem such as heavily-loaded of the network connection and out of the internet data connection. Of course it influenced the successful of this flipped classroom itself. Means some of them were not ready and did not prepare well before joining the classroom activities. As stated by Chen, 2017 beside most of the students have not enought time for watching the video outside the class, they also sighed heavily-loaded requirements. Regarding this problem, according to khoiriyah & Aji (2016) that the teacher must prepare tool of learning so that the learners can access the content easily.

Motivation was becoming other factors outside the researcher's reach that also been found. The students considered that flipped classroom model as the new teaching model for them, because in Indonesia itself, the students do not having usual autonomous learner environment before, and of course it also influenced the students motivation during the implementation of flipped classroom. As stated in Yılmaz (2017) that students' motivation problems probably from the low readiness level for e-learning. According to Smallhorn (2017), stated that attending flipped classes is strongly linked to learning outcomes and that students who are poorly engaged are more likely to fail the topic. So, that's why build the students' motivation and eager for engaging the flipped classroom is really important.

For those factors discussed, it is important for the next researcher aware of factors that probably can appear It is also needed for providing the assignment to control students learning readiness.

4 CONCLUSION

In addition, from this quantitative study findings revealed that from the flipped classroom was able to enhance the ESP students reading scores. So, applying flipped classroom is helpful for students as autonomous learners to master the ESP reading materials. They were stimulated to become more active in learning due to flip teaching. During the activities in the classroom, they become attractive

for joining the teaching and learning process such as group discussion, group presentation, joining question and answer quiz or doing exercises from the lecturer or from their ESP module itself. But there were also some students who were not ready for the class, some of them didn't watch the video link and read for learning the reading material at home. It is because the students are not familiar enough with autonomous learning. The other barrier is because there is no reading habit too. Regarding the problems, the next researcher need to provide the assignment to control students learning readiness or for encouraging them to read and learn also watch the video links given for supporting them to comprehend those ESP reading materials in their home. It is suggested for the next researcher who conduct blend learning to be aware of those factors that might be influenced the flipped classroom process.

REFERENCES

- Evseeva, A., & Solozhenko, A. (2015). Use of Flipped Classroom Technology in Language Learning. *Procedia-Social and Behavioral Sciences*, 206, 205-209. <https://doi.org/10.1016/j.sbspro.2015.10.006>
- Sung, K. (2015). A Case Study on a Flipped Classroom in an EFL Content Course. *Multimedia-Assisted Learning*, 18(2), 159-187. doi:10.15702/mall.2015.18.2.159
- Gilboy, M. B., Heinerichs, S., & Pazzaglia, G. (2015). Enhancing Student Engagement Using the Flipped Classroom. *Journal of Nutrition Education and behavior*, 47(1), 109-114. <https://doi.org/10.1016/j.jneb.2014.08.008>
- Webb, M., & Doman, E. (2016). Does the Flipped Classroom Lead to Increased Gains on Learning Outcomes in ESL/EFL Contexts?. *CATESOL Journal*, 28(1), 39-67. <https://eric.ed.gov/?id=EJ1111606>
- Wang, Y. H. (2016). Could a Mobile-Assisted Learning System Support Flipped Classrooms for Classical Chinese Learning?. *Journal of Computer Assisted Learning*, 32(5), 391-415. <https://doi.org/10.1111/jcal.12141>
- Thai, N. T. T., De Wever, B., & Valcke, M. (2017). The Impact of a Flipped cClassroom Design on Learning Performance in Higher Education: Looking for the Best "Blend" of Lectures and Guiding Questions with Feedback. *Computers & Education*, 107, 113-126. <https://doi.org/10.1016/j.compedu.2017.01.003>
- Nishigawa, K., Omoto, K., Hayama, R., Okura, K., Tajima, T., Suzuki, Y., ... & Matsuka, Y. (2017). Comparison Between Flipped Classroom and Team-Based Learning in Fixed Prosthodontic Education. *Journal of prosthodontic research*, 61(2), 217-222. <https://doi.org/10.1016/j.jpor.2016.04.003>
- Yilmaz, R. (2017). Exploring the Role of E-learning Readiness on Student Satisfaction and Motivation in Flipped Classroom. *Computers in Human Behavior*, 70, 251-260. <https://doi.org/10.1016/j.chb.2016.12.085>
- Halili, S. H., & Zainuddin, Z. (2015). Flipping the Classroom: What We Know and What We Don't. *The Online Journal of Distance Education and e-Learning*, 3(1), 28-35.
- Chilingaryan, K., & Zvereva, E. (2017). Methodology of Flipped Classroom as a Learning Technology in Foreign Language Teaching. *Procedia-Social and Behavioral Sciences*, 237(21), 1500-1504.
- McDonald, K., & Smith, C. M. (2013). The Flipped Classroom for Professional Development: part I. Benefits and Strategies. *The Journal of Continuing Education in Nursing*, 44(10), 437-438. <https://doi.org/10.3928/00220124-20130925-19>
- Mortensen, C. J., & Nicholson, A. M. (2015). The Flipped Classroom Stimulates Greater Learning and is a Modern 21st Century Approach to Teaching Today's Undergraduates. *Journal of animal science*, 93(7), 3722-3731. <https://doi.org/10.2527/jas.2015-9087>
- Afrilyasanti, R., Cahyono, B. Y., & Astuti, U. P. (2017). Indonesian Efl Students' Perceptions On The Implementation Of Flipped Classroom Model. *Journal of Language Teaching and Research*, 8(3), 476-484. <http://www.academypublication.com/ojs/index.php/jltr/article/view/jltr0803476484>
- Afrilyasanti, R., Cahyono, B. Y., & Astuti, U. P. (2016). Effect Of Flipped Classroom Model On Indonesian Efl Students' Writing Ability Across And Individual Differences In Learning. *International Journal of English Language and Linguistics Research*, 4(5), 65-81.
- Evseeva, A., & Solozhenko, A. (2015). Use of Flipped Classroom Technology in Language Learning. *Procedia-Social and Behavioral Sciences*, 206, 205-209. <https://doi.org/10.1016/j.sbspro.2015.10.006>
- Murtiyasa, W., Esti, F., & Ulfa, N. F. (2015). Implementation Of Flipped Classroom Strategy In Mathematics Learning To Students' Cognitive Skill. In *Proceeding of International Conference on Research, Implementation and Education of Mathematics And Sciences*.
- Azizah, D., & Fitri, A. (2017, November). The Influence Of Video-Aided Flipped Classroommodel On Students'reasoning Skills Mathematic In Smp N 6 Pekalongan. In *international conference on education* (Vol.1, No.01). <http://eproceedings.umpwr.ac.id/index.php/ice/article/view/68>
- Chen, H. Y. L., & Chen, N. S. (2014, July). Design And Evaluation Of A Flipped Course Adopting The Holistic Flipped Classroom Approach. In *Advanced Learning Technologies (ICALT), 2014 IEEE 14th International Conference On* (pp. 627-631). IEEE. <https://doi.org/10.1109/ICALT.2014.183>
- Fălăuș, A. (2017, May). The Current Challenges Of Teaching Esp. In *IOP Conference Series: Materials Science and Engineering* (Vol. 200, No. 1, p. 012059). IOP Publishing.

- <http://iopscience.iop.org/article/10.1088/1757-899X/200/1/012059/meta>
- Strayer, J. (2007). The Effects Of The Classroom Flip On The Learning Environment: A Comparison Of Learning Activity In A Traditional Classroom And A Flip Classroom That Used An Intelligent Tutoring System. The Ohio State-University.
- http://rave.ohiolink.edu/etdc/view?acc_num=osu1189523914
- Vitanofa, A., & Anwar, K. (2018). The Effect Of Flipped Learning Through Graphic Organizers Toward Writing Skill At Man 2 Gresik. *Journal of English Teaching, Literature, and Applied Linguistics*, 1(2), 37-49.
- <http://journal.umg.ac.id/index.php/jetlal/article/view/318>
- Kuswanto, W., & Anwar, K. (2017). Teacher Position For Promoting Autonomous Learners In Teaching Speaking English. *Didaktika: Jurnal Pemikiran Pendidikan*, 21(2), 198-212.
- <http://journal.umg.ac.id/index.php/didaktika/article/view/124>
- Erwin, H., Sri, W., & Syaichul, M. (2017). Development Of Flipped Classroom Strategy In Teaching Reading. atlantis press. *International conference on English* <http://dx.doi.org/10.2991/iconelt-17.2018.25>
- Indrasari, N. (2016). English For Specific Purposes: A Need Analysis At The Second Semester Of Physics Education Students Of Iain Raden Intan Lampung In The Academic Year Of 2015/2016. *English Education: Jurnal Tadris Bahasa Inggris IAIN Raden Intan*, 9(1), 161-172.
- Clark, K. R. (2015). The Effects Of The Flipped Model Of Instruction On Student Engagement And Performance In The Secondary Mathematics Classroom. *Journal of EducatorsOnline*, 12(1), 91-115.
- <https://eric.ed.gov/?id=EJ1051042>
- Latif, A., Waznah, S., Matzin, R., Jawawi, R., Mahadi, M. A., Jaidin, J. H., ... & Shahrill, M. (2017). Implementing The Flipped Classroom Model In The Teaching Of History. *Journal of Education and Learning*, 11(4), 374-381.
- Wulandari, M. (2017). Fostering Learning Autonomy Through The Implementation Of Flipped Learning In Language Teaching Media Course. *International Journal of Indonesian Education and Teaching (IJJET)*, 1(2), 194-205. <http://ejournal.usd.ac.id/index.php/IJJET/article/view/63>
- Xiao, R., Mustofa, A., Zhang, F., & Su, X. (2018, January). The Implementation Of Flipped Classroom Model In Cie In The Environment Of Non-Target Language. In *IOP Conference Series: Materials Science and Engineering* (Vol. 296, No. 1, p. 012033). IOP-Publishing.
- <http://iopscience.iop.org/article/10.1088/1757-899X/296/1/012033/meta>
- Vaughan, M. (2014). Flipping The Learning: An Investigation Into The Use Of The Flipped Classroom Model In An Introductory Teaching Course. *Education Research and Perspectives*, 41, 25.
- <https://search.informit.com.au/documentSummary;dn=135571943100260;res=IELHSS>
- Suardika, I. K., Wiramihardja, E., & Momo, A. H. Flipped Classroom In The Realm Of Higher Education: *Potential and Challenges*. <http://www.iaras.org/iaras/filedownloads/ijels/2016/002-0021.pdf>
- Roehl, A., Reddy, S. L., & Shannon, G. J. (2013). The Flipped Classroom: An Opportunity To Engage Millennial Students Through Active Learning Strategies. *Journal of Family & Consumer Sciences*, 105(2), 44-49.
- <https://pdfs.semanticscholar.org/daa3/b94cdc7b52b3381a7c7e21022a7a8c005f84.pdf>
- Hwang, G. J., Lai, C. L., & Wang, S. Y. (2015). Seamless Flipped Learning: A Mobile Technology-Enhanced Flipped Classroom With Effective Learning Strategies. *Journal of Computers in Education*, 2(4), 449-473.
- <https://link.springer.com/article/10.1007/s40692-015-0043-0>
- Cook, T. D., Campbell, D. T., & Shadish, W. (2002). Experimental And Quasi-Experimental Designs For Generalized Causal Inference. Boston: *Houghton Mifflin*.
- <https://www.alnap.org/system/files/content/resource/files/main/147.pdf>
- White, H., & Sabarwal, S. (2014). Quasi-Experimental Design And Methods: *Methodological Briefs-Impact Evaluation* No. 8.
- <https://ideas.repec.org/p/ucf/metbri/innpub753.html>
- Schultz, D., Duffield, S., Rasmussen, S. C., & Wageman, J. (2014). Effects Of The Flipped Classroom Model On Student Performance For Advanced Placement High School Chemistry Students. *Journal Of Chemical Education*, 91(9), 1334-1339.
- <https://pubs.acs.org/doi/abs/10.1021/ed400868x>
- Arnold-Garza, S. (2014). The Flipped Classroom Teaching Model And Its Use For Information Literacy Instruction. *Communications in Information Literacy*, 8(1), 9.
- <https://doi.org/10.15760/comminfolit.2014.8.1.161>
- Clark, K. R. (2015). The Effects Of The Flipped Model Of Instruction On Student Engagement And Performance In The Secondary Mathematics Classroom. *Journal of Educators Online*, 12(1), 91-115.
- <https://eric.ed.gov/?id=EJ1051042>
- Hung, H. T. (2015). Flipping The Classroom For English Language Learners To Foster Active Learning. *Computer Assisted Language Learning*, 28(1), 81-96.
- Mehring, J. (2016). Present Research On The Flipped Classroom And Potential Tools For The Efl Classroom. *Computers in the Schools*, 33(1), 1-10.
- <https://doi.org/10.1080/07380569.2016.113991>
- Creswell, Jhon.w. 2014 (copyright). Research Design. SAGE Publications Ltd.
- Alemi, M., & Ebadi, S. (2010). The Effects of Pre-reading Activities on ESP Reading Comprehension. *Journal of Language Teaching & Research*, 1(5).
- Jannah, A. M. (2017). The Effectiveness Of Flipped Classroom To Improve Students' reading

- Comprehension To The Third Grade Students Of Mts Unggulan Al-Jadid Waru Sidoarjo. UIN Sunan Ampel Surabaya. <http://digilib.uinsby.ac.id/15553/>
- Taherdoost, H. (2016). Validity And Reliability Of The Research Instrument; How To Test The Validation Of A Questionnaire/Survey In A Research. *International Journal of Academic Research in Management*, 5(3), 28-36.
- Cabi, E. (2018). The Impact of the Flipped Classroom Model on Students' Academic Achievement. *The International Review of Research in Open and Distributed Learning*, 19(3). <http://dx.doi.org/10.19173/irrodl.v19i3.3482>
- Siegle, D. (2014). Technology: Differentiating Instruction By Flipping The Classroom. *Gifted Child Today*, 37(1), 51-55. <http://journals.sagepub.com/doi/abs/10.1177/1076217513497579>
- Chen Hsieh, J. S., 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/10.1080/09588221.2015.111191>
- Yilmaz, R. (2017). Exploring The Role Of E-Learning Readiness On Student Satisfaction And Motivation In Flipped Classroom. *Computers in Human Behavior*, 70, 251-260 <https://doi.org/10.1016/j.chb.2016.12.085>
- Tolmie, A., Muijs, D., & McAteer, E. (2011). Quantitative Methods In Educational And Social Research Using Spss. McGraw-Hill Education (UK).
- Creswell, J. W. (2002). Educational Research: Planning, Conducting, And Evaluating Quantitative (pp. 146-166). Upper Saddle River, NJ: Prentice Hall.
- Ghazali, N. H. M. (2016). A Reliability And Validity Of An Instrument To Evaluate The School-Based Assessment System: A Pilot Study. *International Journal of Evaluation and Research in Education (IJERE)*, 5(2), 148-157. <http://doi.org/10.11591/ijere.v5i2.4533>
- Rosaroso, R. C. (2015). Using Reliability Measures In Test Validation. *European Scientific Journal*, ESJ, 11(18).
- Mohamad, M. M., Sulaiman, N. L., Sern, L. C., & Salleh, K. M. (2015). Measuring The Validity And Reliability Of Research Instruments. *Procedia-Social and Behavioral Sciences*, 204, 164-171. <https://doi.org/10.1016/j.sbspro.2015.08.129>
- Aji, M. P. P. (2017). Promoting Flipped Classroom Model In Teaching Writing Of Efl Learners. *KnE Social Sciences*, 1(3), 279-291. DOI: 10.18502/kss.v1i3.748
- Lee, G., & Wallace, A. (2018). Flipped Learning In The English As A Foreign Language Classroom: *Outcomes and perceptions*. *TESOL Quarterly*, 52(1), 62-84.
- 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), 665-673. <http://www.academypublication.com/ojs/index.php/tpls/article/view/tpls0806665673>
- Qiang, J. (2018). Effects of Digital Flipped Classroom Teaching Method Integrated Cooperative Learning Model on Learning Motivation and Outcome. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(6), 2213-2220. <https://doi.org/10.29333/ejmste/86130>
- Kurihara, Y. (2016). Flipped Classroom: Effects on Education for the Case of Economics. *Journal of Education and e-Learning Research*, 3(2), 65-71. <https://eric.ed.gov/?id=EJ1148450>
- Hung, H. T. (2017). Language Teaching And Technology Forum The Integration Of A Student Response System In Flipped Classrooms. *Language Learning & Technology*, 21(1), 16-27.
- Alsowat, H. (2016). An Efl Flipped Classroom Teaching Model: Effects On English Language Higher-Order Thinking Skills, Student Engagement And Satisfaction. *Journal of Education and Practice*, 7(9), 108-121. <https://eric.ed.gov/?id=EJ1095734>