

# **Blended learning strategy for engineering students in EFL class: Adoption of varied ranges of delivery procedures**

**Norita Prasetya Wardhani**

*Institut Teknologi Adhi Tama Surabaya (ITATS)*

*Corresponding author:*

*Email: noritanonoy@itats.ac.id*

## **Abstract**

*COVID-19 Pandemic compels the teaching-learning strategy using remote learning to make the process of studying run well, including in Institut Teknologi Adhi Tama Surabaya, ITATS. A blended learning process could be applied to help the teaching-learning process. Before Covid-19 Pandemic spread in Surabaya, the students experienced fully face-to-face interaction in class. After COVID-19 existed in Surabaya, the students use the online learning process in the same semester. The highlight of this research is the case of the study which was related to the students in the teaching-learning process using blended learning in EFL class and explaining the ways how to teach and learn engineering students using blended learning. Descriptive quantitative was used to analyze the data. The data took from students' test and survey. Many students were getting difficulty in the implementation of blended learning using face-to-face strategy and google classroom. The students were allowed to access information from YouTube to make them easier to understand the materials. The lecturer was also explaining using google meet to have direct communication with the students was able to boost students' knowledge of English materials. Adopting varied ranges of delivery procedures such as discussing was effectively boost the students' experiences and participation. Yet, those varied strategies are still ineffective rather than applying face-to-face class.*

**Keywords:** *Blended-learning; online learning; learning strategies*

## **INTRODUCTION**

COVID-19 pandemic forces most institutions to do their activities in online way including the education field. It has been stated by the government that there was no teaching-learning process in the offline class to reduce the spread of the COVID-19 virus. It also happened in ITATS, especially in the English course. This situation compelled the teachers and students to apply blended learning. We have applied face-to-face or we can call it traditional learning for around six weeks and we must continue it using online learning. The beginning of the Covid-19 pandemic was influencing the readiness of educational institutions and it happened out of campus. Many lecturers were confused to apply technology in their teaching process. One of the cases is in English class. The

teacher and students were used to face-to-face learning. To face this situation, the teaching learning process migrated to the remote learning process. So, at the beginning of the COVID-19 pandemic, they applied blended learning.

This era pushed many of us to increase our ability in education moreover in digital era. People must deal with shifting environments in order to bridge the gap between their school and home environments. There are many factors which will influence to develop the education, among of them is technology development used in teaching learning process to make interesting learning. They can use appropriate platform to support teaching learning process to run well. In online learning, the teacher is not only the center. The students must be embroiled in this teaching learning process in the online learning. It will stimulate students to be active and they have motivation to learn English although they learn in online learning. The students can find other sources from internet. It is different with convention class or face-to-face learning. The teacher is at the core of the learning process in traditional learning or traditional class, while the pupils are generally passive learners. As a result, the teacher just taught what was in the text, and the pupils only had to listen and pay attention in class (Mohammed et al., 2018).

Different with face-to face learning, online learning can be delivered by several models; including instructor-deliver content, e-learning, webinars, live or online sessions with instructors, conference calls, or other media and events like Facebook, Instagram, e-mail, chatrooms, blogs, podcasting, twitter, YouTube, skype, and web boards (Banditvilai, 2016). The students can watch the materials from YouTube. It will help them to understand the materials. They can also download the video. The teacher could give any information in google classroom including share YouTube link, video, data, sound recording, or attach the task or materials in google classroom. Directly communication in online learning was also important to build proximity between the students and instructor. It means that, the students must open their camera and mic when the students want to speak up. We can use zoom, google meet, and skype.

This study would combine between traditional and online learning which can be called with blended learning. The integration of ICT tools into academic courses in a systematic and planned way brings a new way of approaching instructional goals (Delialioğlu & Yildirim, 2017). The name of instructional methods was blended learning, mediated learning, hybrid instruction, web-assisted instruction or web-enhanced instruction. It is in a line with what (Driscoll, 2002) stated that blended learning is defined as a combination of teaching modalities. The foremost goal of blended learning was the students were able to understand the instruction and materials which were not delivered by face to face. Blended learning hold some either weakness or advantages. Students and lecturer must be familiar with online learning and they must able to reduce the errors like internet connection. It will help them to reduce the weaknesses of e-learning.

The researcher wanted to apply blended learning for engineering students. She wanted to prove to what others researchers have been studied in the previous research. There were two research questions in this study wanted to know.

1. How could the lecturer implement blended learning in English course with various engineering students?
2. How could the lecturer find appropriate varied ranges of online learning and how did the lecturer deliver it?

Face-to-Face learning is a traditional method which often use by teachers or tutors and E-learning is new technology novelty which is increasingly practiced in education field. Several studies have combined traditional and E-learning in the teaching learning process. There were several library researches which was found few differences result of using blended learning. The teacher must learn the students to apply E-learning because it affected to the teaching curriculum and the method used. It is also enhanced the students to improve and motivate the students more freely in academic and work setting (Banditvilai, 2016) and it was supported by (Dawley, 2011) that e-learning encourage the pupils to find, evaluate, share, collaborate and transform the information into their knowledge. It could be continued in the face-to-face learning to clear the information up.

Students responded favorably to the adoption of blended learning using the "E-Learning" (Moodle based Application), Google Classroom, and Zoom Meeting, according to this study. There were only a few empirical studies in the literature that show blended learning has no effect on students' academic performance. The outcomes of a blended learning technique that has been proposed at Arabian Gulf University, and investigated students' views about the English language (Alshwiah, 2010). The participants were placed into two groups: control and experimental. There was no significant difference in achievement or attitude toward English Language between the two groups, based on the results. Another result showed that the proposed blended learning technique did not improve the pupils' vocabulary achievement. Students were content with the proposed blended learning technique for teaching vocabulary and preferred it to traditional classroom-based learning. The students were unwilling to spend time outside of the classroom studying new vocabulary items due to a lack of motivation. Because the students in this study are lack of self-discipline to make e-learning a powerful choice that allows them to work autonomously at their own pace, it is highly advised that various forms of online tools elicit curiosity and authenticity (Tosun, 2015).

Soliman, (2014) found different result. He stated in his paper that e-learning developed EFL students' language skills and they were more active independent learning and it was essential tool which should be used to support face-to-face learning in the classroom. The students improved their language proficiency and promote their independent learning. It was supported by (Jacob et al., 2012) that blended learning; online and face-to-face learning improve students' productivity and they worked more autonomously. Besides they were more focus and responsible to the materials.

Face-to-face learning and CALL mode (online learning in the computer laboratory and homework) learning could be successful integrated into both methods and it could be applied in ESL listening and speaking skills in an intensive English program. They hold

blended learning by turns (Grgurović & ., 2011). It means first and second meeting, they met in face-to-face learning. Third and fourth meeting, they took online learning and back again like first and second meetings. The method applied by (Grgurović & ., 2011) was different with in this paper. This paper applied six meetings in the beginning was face-to-face learning and seventh to sixteenth meeting were online learning. The online learning was done out of campus. It did not use computer laboratory to apply online learning.

## **METHOD**

The method of this study was descriptive quantitative research. The subjects of this study were new students in ITATS. The students were from several majors in Engineering like system information, mechanical engineering, electrical engineering, and architecture. The students were able to choose their schedule which was not clash with other schedules on campus, so that is why a class consisted of several majors. The subject of this study were 45 students. They took English courses to support their English subject, to improve their ability in English, and to feel the requirement before they joined TOEFL like in ITATS. The meeting of the English course was 90 minutes for each meeting. They had 16 meetings for this course. At the beginning of the course, the students got a pretest. It was used to measure their English ability before they had the course. In the 16th meeting, they had a posttest and it was used to measure students' ability after the students got the course. In this course, the students learned reading skills, writing skills, and grammar. The instructor for their class was the same, which means there was no team teaching.

There were two data types used in this study. The instruments were survey and the students' score of pretest and posttest. The researcher would describe the survey result and present the result of pretest and posttest. The survey was making into google form and it was shared to the students. The survey was given after the students finished their post-test. The students must answer several questions relating to this research. The result of the survey would be explained in the next part and we would know how students' response to face-to-face and e-learning which have been applied by the lecture and the appropriate varied of platforms which were used by the lecturer while online teaching. The writer analyzed students' answer of the survey given. The students shared their feeling and opinion during they implemented blended learning; face-to-face and online learning.

The score of tests showed how many students who passed the test. The minimum score for the students to pass the test was 60. The data of test would be shared in the discussion part to know the different before and after they got course using blended learning. The data would be drawn using diagram and it explained under the diagram.

## **RESULT AND DISCUSSION**

### **The implementation of blended learning process**

The students who joined English courses were senior high school fresh graduates or in their first year became university students. The students were from the various major

in ITATS. English course is one of the requirements before the students have English class 1, English class 2, and join TOEFL like. English course in ITATS has 16 meetings; the first meeting for pre-test, the second to fifteenth for the course, and the last meeting for post-test. The pre-test is used to determine students' ability the students join the course. In the sixteenth meeting, the students get the post-test to know their progress after they joined the course. But there is a requirement to do the post-test. The students must finish their pretest and fourteen meetings for English courses. If they don't meet the requirement, they cannot get their posttest and they must continue their course in the next semester. Pretest and posttest were important because they determined learning outcomes before and after the lecturer conduct the teaching-learning process (Puspaningtyas & Ulfa, 2020).

The teaching-learning process in this course was applying blended learning. Blended learning which was applied in this course was conducted accidentally. The course has been applied using face-to-face learning from the beginning to the sixth meeting and from the seventh to the sixteenth meeting, the course has been conducted using online learning. In English language teaching, blended learning is most commonly used to mention two combinations of face-to-face teaching and computer technology or we can call it online and offline activities or materials (Hockly, 2018). This situation happened because COVID-19 Pandemic attacked our country, Indonesia. The teacher must make sure the students were able to operate their tools when they applied e-learning. The teacher became a coach, facilitator, and planner of learning activities in the teaching-learning process especially in the e-learning method (Etom et al., 2021) because they were in a different place, situation, and condition. Etom et al., (2021) said that schools, policies, facilities, and teachers are not ready yet to adopt online learning in their learning method. The teacher and pupils must adapt to the two different conditions and environments. Campus and home conditions were very different conditions and situations. In online teaching, they must have other support tools, like a laptop or mobile phone and an internet connection. It could not work if there was no one of the tools. The students got pretest and it was conducted in traditional learning or we can call it with face-to face learning in the first meeting. The students worked by themselves and there was no cheating because the lecturer oversaw the students directly and they did not know each other because they were from different major and faculty. So, the students worked the test by themselves. In this pretest, the lecture just wanted to know their score before they got course. Many students got bad score. The second until the sixth meetings, the students looked very enthusiastic in the class. Interaction between teacher and students made the class enjoy. Games were given by the lecturer to make the students know each other although they were from different majors and faculties. The teacher asked the students to read the text one by one. The students must pay attention to their friend who read the text. If the lecturer called them to continue read the text and the students did not know where they should read, they would get punishment. The instructor was teaching not only reading but also structure. The teacher explained clearly using white board and power point for teaching learning process. The teacher was also involving the students in the

explanation and making the students understand. The teacher always gave the students questions one by one to know their understanding. There was no different treatment from the teacher to the students even though the students were from different field of the studies. Face-to-face learning is a traditional learning and it becomes obsolete method (Etom et al., 2021). Traditional learning or offline learning was easy to apply because we were used to do that.

Creating good atmosphere in the class is the best way to help the students interest to the materials because many of the students had lack of motivation in learning English (Wardhani & Zuana, 2020). The way to create good atmosphere; the lecturer gave simple games or breakdown to motivate the students and to make the students know closer. The students were more discipline than in online learning. In traditional learning, the students always come in and on time because the lecturer would not absent if the students came late or sometimes, the lecturer would lock the door. The researcher delivered survey to the students, the reason of why the students never came late. From the survey, the researcher knew that only 20% percent students were afraid to come late because the lecturer will not absent them and 80% percent students said that they enjoyed the class because the lecture could give good situation and she could change the student' opinion if English is not as difficult as they thought. The lecturer always gave some tips and easy formula to help the students easy to understand the materials.

In the seventh meeting, they started to use online learning. It was not easy to find appropriate way to make the students understand to the materials because the facilities and the audiences did not ready yet. The biggest challenge was how users could use the technology successfully and make sure the participants encounter the technology and materials (Kintu et al., 2017). Applying appropriate way in online class could create good situation and it made the students comfortable to receive the materials but the lecture applied same method like in face-to-face learning because the lecture was still confusing to online class. In online class, the teacher asked the students to read the text, answer the questions, and the students were asking the materials. But the teacher did not give the students games to relax their mind. If they felt bore, they only made relax conversation and it must out of the material, like the situation in students' cities, family, and their department. The weakness of online teaching was the students often came late because they have problems. One of the problems was bad connection for the internet. So, the teacher could not give punishment for the late students. Bad signal of internet connecting was being their reason. Another problem was the lecturer asked the students to be active but the students did not want to open their microphone and camera. They were shame and they did other activities while teaching learning process were going on. It was done by almost of the students from all field of the studies.

### **The way to deliver appropriate varied ranges of online learning process**

COVID-19 Pandemic attacked our country. Almost all of sectors used e-learning, especially ITATS was conducted online learning because of COVID-19 Pandemic. The

lecturer and the students were accustomed to use offline learning and that time; they must adapt to apply online learning. In the beginning using online learning, the lecture was only sharing the material using *pdf file* and she wrote the summaries of the lesson in the dashboard in *Google Classroom*. She asked the students to understand the material for several minutes. Then, they discussed in the Google Classroom and the result, they failed with this way. Most of the students did not understand with the materials and several students could not come in the class because they did not have internet.

For the next meeting, the instructor was not sharing not only pdf file but also video from *YouTube*. Sharing materials using YouTube was helping the students to understanding the materials. The weaknesses of this blended learning showed that the students had limited internet quota and they had lack of motivation to watch the video because the students could not directly ask if they did not understand the materials. To know students' understanding, the lecturer asked the students to do exercise after they watched the video and they must write their reason for the answers. Teaching learning techniques which were only used google classroom and videos were not really effective and efficient. They must use another platform to help them using oral communication.

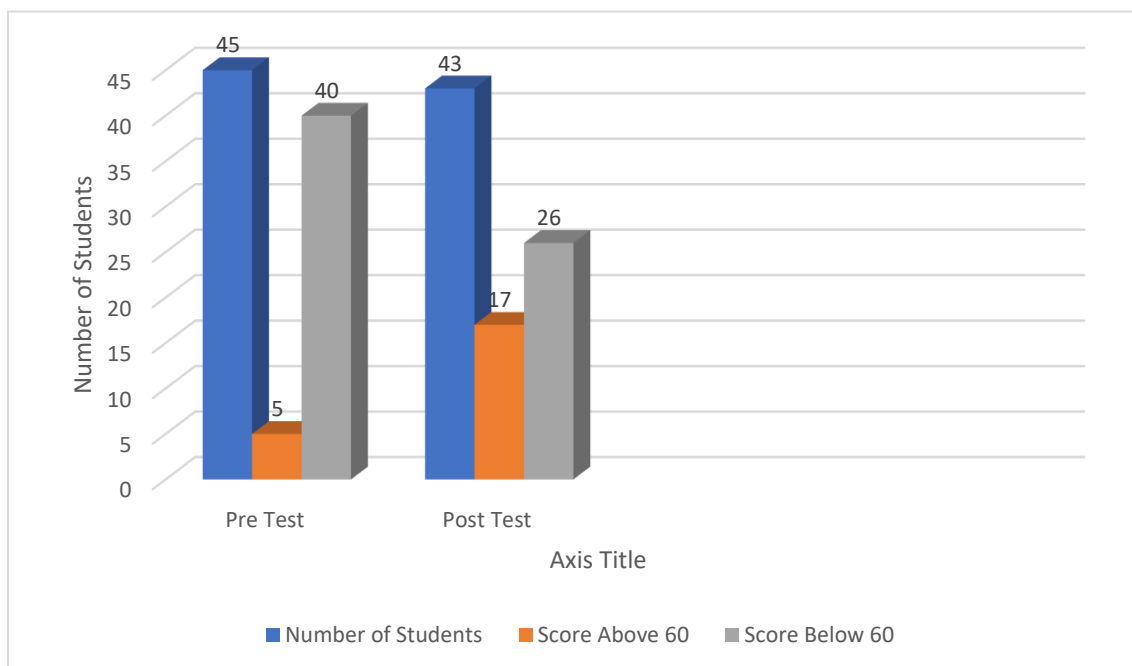
Thirteenth to fifteenth meetings, the teacher applied one more platform; google meet. There were found several weaknesses applying google meet. The students only had low connection internet and it made the students hard to join google meet and for the students who stay in the village, they could not join google meet because they did not have internet connection. To save students' internet connection, the lecturer asked the students to turn off their camera. In Indonesia, internet connection did not provide by the government, so, each person must buy internet connection. But there were also found few advantages. The students and lecture had communication. The students could ask the materials which the lecturer explained if they did not understand. They could see their face expression. The teacher knew students' ability when the teacher asked some questions. Sometimes, the instructor found someone whispering the students for the answer.

The survey stated that teaching learning process used google meet was better than just sharing video and type the material in the google classroom. The students were more conceive the materials using google meet. The lecturer knew active and passive students in e-learning. For the passive students, the lecturer always gave them questions to stimulate them. Sometime, the lecturer found noisy situation in students' place and it made the audiences could not hear her/his voice and the students could not concentrate. The lecture had prepared all of the materials and videos. The students have enjoyed the materials given. It was different like what the previous studies stated that the students could explore and find the materials by themselves (Banditvilai, 2016) (Dawley, 2011)

The last meeting was post-test. The post-test was using google form. It was done in online test. The students must answer 50 questions and the time was 60 minutes. There were few weaknesses if the test used google form. First, the students could cheat because there was no lecturer who oversaw them although the questions have been scrambled.

Second, if the students submitted the test more than 60 minutes, the score would be zero. The participant did not press “Submit”; the data would not record by the system. The system was created by Google Form. So, the participants must pay attention for the time. The advantage, the lecture did not need to correct the answer because the questions were multiple choice and it is automatically checked by Google. After the students had joined post-test, the student would get certificate if they got minimum score, 60.

Table 1: Students’ score for Pretest (face-to-face learning) and Posttest (online learning)



From the data, it was known that there was increasing between students’ score for pretest and post-test. The increasing of those scores were 55.6%. This increase was significant. But if we saw from the minimal score, 60, the increasing was only 26.6%. It means that, for pretest score, it was only 5 students and for post-test, there were 17 students who got 60 and more. There were 26 students who got score below 60 and it means they did not get certificate. From 20 students, there were only 13 students who got increasing score but the scores were still below 60.

After the students had done their post-test, they were given the survey paper. First question asked students’ opinion about the course. They said that this course was really helping them to improve their English especially in face-to-face learning and when the teacher used google meet to teach. They got positive energy in face-to-face learning but sometimes, they got bad mood in online class because they had low internet connection and hard to understand the materials.

Second question asked about the materials given. The materials given was basic English and the students have been studied most of the materials in senior high school but they hard to understand when they were in senior high school. In the university, they were more understand in traditional technique to teach and it was very different in online



learning teaching learning process. They said that they got nothing in online learning if the teacher only used google classroom. The students could reply the video if they were not still getting the point the materials but it spent much internet connection.

The last question was honesty test. The question was about online post-test. The students said that several students asked their smart students to do the test and few students opened their books or google to find the answer. Many students felt disappointed because their score was 0 (zero). They were late to submit their test. From this fact, we knew that online test using google form was very prone in cheating especially the test type was multiple choice.

This study showed that applying blended learning in English teaching was not only giving advantages but also weaknesses. In the previous research has been stated that the researcher conducted traditional and online learning consecutively but, in this study, the researcher conducted six meetings in the beginning were traditional learning and 10 meetings were online learning. It showed that blended learning must better do consecutively because the students can ask to the lecturer if they don't understand to the materials which they learn in online learning.

## CONCLUSION

Face-to-face learning was easy to practice because it was obsolete method. The students could enjoy the class and the lecture could create good situation in teaching learning process although the students were from different faculties. There were found many difficulties while the lecturer applied e-learning; internet connection, tools, students' behavior, and teacher's knowledge to make good atmosphere in the e-learning class. The teacher found difficulties in the beginning when she applied online learning. Several ways she has tried but she failed in the beginning. The ways did not support students' curiosity to study and it did not give any motivation. The lecturer was only sending PDF and asking the students to watch the video. Then, they discussed the materials in google classroom. They were only several students being active in the google classroom. It was different when the lecturer used google meet. The students were more active but it was still found several problems, such as bad signal, limited internet connection, and bad situation and condition in students' place. The conclusion was face-to-face learning was more appropriate to apply than blended learning. There were several weaknesses when the teacher and students applied online learning because they were still less experienced in online learning. Teacher's knowledge and ability in online learning were needed to make the students enjoy to study.

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