

DOES FLIPPED LEARNING WORK? A CASE FOR PRIVATE UNIVERSITY IN INDONESIA

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Abstract

This study sought to find out the result of implementing Flipped Learning in pre-university English class in one of private universities in Indonesia. The study answers the question on to what extent the flipped learning work or fail when being implemented in the respective class. The data which were the result of pre-test and post-test were collected using quantitative method. To analyse the data, a non-parametric approach was used to analyse the impact of the FL approach on student performance in the EPS program. The difference between the pre- and test- scores was calculated and used in a hypothesis testing method using the Mann-Whitney-Wilcoxon Test. The result indicated that there is no significance difference between the treatment group and the control group. Some possible reasons why the insignificance happen are presented as well as some recommendations towards future studies in FL context.

Keywords: Flipped Learning, English Language Teaching

INTRODUCTION

The emerging of technology and its rapid growth allows a room for improvement in terms of teaching and learning process. The traditional method, or referred as to brick and mortar classroom, is no longer the only place for students to study since technology now has made it possible to occur at anywhere and any place. As the teaching and learning processes can happen inside and outside the classroom, students can then become independent learners in which they are welcome to dig in more information and knowledge through technology tools around them. In other words, the teaching and learning processes take the advantages of blending the traditional and non-traditional approaches. As a result, the term blended learning becomes one of the prominent of modern teaching approaches. Here, students have the opportunities to study in the classroom, engage with their teachers and peers, and learn outside the classroom through online media. Among types of blended learning, flipped learning is one of teaching deliveries that educators use (Capone, De Caterina, & Mazza, 2017). Stated in other way, the technology has helped to transform the

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teaching and learning process from teacher centered to student centered in which the learning process focuses on students as the center of learning.

Flipped Learning (FL) is one among many student-centered learning approaches as it involves activities that are engaging, demand students' high involvement as well as responsibility for their learning. To name some, problem-solving, interactive discussions, experiment are some examples of the activities involved in FL. Those activities put a greater emphasize on students leaving the domination of teachers in teaching and learning sessions which is one of the characteristics of a student-centered learning (McCallum, Schultz, Sellke, & Spartz, 2015; Gorzycki n.d).

In this teaching method, students who are used to learn from classroom face-to-face teaching will have to study by themselves outside the classroom. During face-to-face classroom periods, the activities will focus on having exercises, discussions, or other type of activities that are more on the application of what they have learnt. The lecturer series or theories will be minimized or even diminished from classroom periods.

Many studies have revealed the advantages or disadvantages of FL approach in teaching and learning (e.g. Karimi and Hamzavi, 2017; Alsowat, 2016, Ginola & Sidabalok, 2016; Milman, 2012). The quality of the video, the unsupportive learning environment when viewing the video at home, the unprepared students before classroom meeting (Milman 2012) are some fears that might hinder the benefits of FL. On the other hands, the adoption of FL has proven to bring advantages in education field. Among numerous advantages of FL some are the presence of numerous hands-on and engaging activities in the classroom (Milman 2012, Bates, Almekdash, & Gilchrest-Dunnam, 2017), reduce or even diminish the teachers' domination in the class (Lyddon 2015), and supports students' involvement with their peers and their teachers (McCallum et al., 2015). In addition to that, FL allows students to study the learning materials from their teachers at home prior to the face-to-face meeting (Lyddon, 2015; Herreid, & Schiller 2013). In foreign language class, the application of FL is well-received and seen positively (Ginola & Sidabalok 2016, Alsowat 2016, Karimi & Hamzavi 2017, Basal 2015). Seeing the values and benefits of FL, this study will investigate the use of flipped learning in teaching pre-university English class at one of private universities in Indonesia. To be specific, this study would answer the question on to what extend the flipped learning work or fail when being implemented in pre-university English class in Indonesia.

The Flipped Learning

Baker (2000) believes that the idea of FL is shifting the lecturers-time which typically be given in class is now be outside the classroom. It reverses between homework and lecturer time (Alsowat 2016). In other words, any educational material or content lecturer serves as homework (Roehl, Reddy, & Shannon, 2013). Teachers provide materials that are accessible to students prior to the class meetings. The role of teachers which often be the center in teaching and learning decreases. During the classroom periods, teachers create activities that are engaging and allow students to actively involve. Those classroom activities are supposed to be in form of hands-on activities, collaborative works, problem-based oriented (Kim, Park, Jang, & Nam, 2017) and support in acquiring more advance order of thinking skills rather than lower level of thinking (Abdelshaheed, 2017). Therefore, the classroom activities are directed to be meaningful to support knowledge retention.

Compared to the brick and mortar traditional classroom like, FL has changed the role of teachers from lecturers who dominate the class to become a facilitator and a guide during the classroom face-to-face sessions (Milman 2012). Therefore, FL is also known as socratic method since teachers responsibilities are deemed to be an observer and advisor during the teaching and learning processes (Bates et al., 2017). Hence, it supports the interactions among students and teachers or instructors as well as among students.

Roehl, Reddy, and Shannon (2013) also have the same idea in defining flipped learning. This approach gives students a bigger responsibility to study teachers' materials at home. Prior coming to the class, they have 'homework' which is viewing and understanding the materials or topic shared by the teachers (Roehl et al., 2013). Students independently have to access the materials at their own pace and at any time. Students do reading activities of the materials, presentational slides or lecturer notes as well as viewing non-written materials such as audio, video, or other forms of materials over and over without worrying the time limit. Students also have the obligations to take notes of any question whenever they are lost in understanding the materials from the lecturers. During the face-to-face meeting, they can inquire the teachers the questions they have in mind. However, the presence of Internet allows students to independently search for any question they have in mind related to the lessons as well as depend their knowledge of the same topic. Therefore, when the classroom sessions come, students can escape from lecturers' series since they have had that outside the class. They are ready to dedicate themselves in more engaging work activities (Milman, 2012). In this way, students can ascend their theory understanding

since they face more practical task or activities (Bates et al., 2017), problem solving tasks or activities that requires higher order of thinking skills (Schmidt & Ralph, 2016).

In terms of the materials and media for teaching and learning, FL allows students to access any materials provided by the teachers or instructors outside the classroom period. The forms of the material also vary. However, this approach is not that rigid in regards to the materials studied outside the class. The materials are not necessarily online since printed version of the materials can also be an option. Therefore, videos are not compulsory materials that the presence of videos in the instructions are not an indicator that a certain class is a flipped-class (Alsowat, 2016). Nonetheless, the emergence of technology and the Internet enable teachers and instructors to make use of online resources. One of them is the use of video which diverse materials used in the classroom as well as the presence of innovation to old-fashion teaching style (Basal, 2015).

Flipped learning in language teaching

The implementation of flipped learning are popular in non-language teaching. To name some, this approach was implemented in algebra class (e.g. Jaster, 2017; Love, Hodge, Grandgenett, & Swift, 2014), chemistry class (Seery, 2015), history class (Gaughan, 2014), and physical education class (Østerlie, 2016). Those prove that this approach is welcome and can be an alternative of traditional method of teaching strategy or even can be a good combination of traditional classroom teaching. In fact, combining more than one strategies in teaching and learning activities will boost the result of teaching and learning (Sangoleye & Kolawole, 2016). Therefore, language teaching also perceives the flipped classroom as one of the promising approaches in teaching the field. For instance, Basal (2015) who studied pre-service English teachers perceptions towards flipped learning found out that those future be English teachers were favorable towards this teaching approach.

Using this FL in teaching both language skills and language components is not something new. Karimi and Hamzavi (2017) conducted a study to reveal the effects of flipped model of instruction in the area of English as a Foreign Language (EFL) in terms students' ability in reading skills as well as their attitude towards this type of instruction. Involving 60 English learners, this study found out that there is a positive correlation between flipped model of instruction and students' reading performance (Karimi & Hamzavi, 2017). In addition, the flipped model of instruction seems to increase students' interest in mastering reading skills as well as motivate students to actively engage in reading class. Even, FL helps students to attain their higher order of thinking skills in foreign language skills (Alsowat, 2016). In fact, these skills are necessary for students to master a

language since they allow students to have go beyond memorization of a language but more in applying the skills into a real practice or situation (Collins, 2014).

Flipped learning has also been implemented in English speaking class. Ginola and Sidabalok, (2016) conducted a research involving 26 participants of an English speaking class to unveil the relationship between students' achievement in speaking skill and the implementation of flipped learning. The study found out that the implementation of flipped learning has proven effective in boosting students' speaking skills. Not only that, the method improves students' motivation and activeness in speaking class (Ginola & Sidabalok, 2016).

The aforementioned studies have incorporated FL in teaching and learning and proven to be positive in the respective field. However, the implementation of this method in teaching foreign languages are still a few (Abdelshaheed, 2017; Egbert, Herman, & Chang, 2014). Therefore, this study aims to describe the implementation of flipped learning method in teaching a pre-university English program. It is attempted to investigate the extent to which the flipped learning work or fail.

RESEARCH METHOD

Sampling

This study was conducted at one of the private universities in Indonesia. To be admitted to this university, a student candidate (SC) must take an English entrance test and pass at least TOEFL® 550 and TWE® 4.0. However, there is also another option that the SC can choose which is showing an official ETS (English Testing Services) institutional TOEFL and TWE or an international TOEFL iBT certificate or an official IELTS certificate with scores at least equivalent to TOEFL 550 and TWE 4.0. For IELTS the overall score is 6.5 with a writing module score of at least 5.5. When fails to perform both options, either passed the entrance test or show an official ETS English certificate, the SC has to take English Plus Stage (EPS) program that runs for six weeks before the first semester starts.

In the EPS program, students will study topics ranges from grammar, vocabulary mastery, to basic writing skills – writing a topic sentence or a thesis statement. These topics are taught to students in order for them to master English for academic purposes, e.g. writing an academic essay. At the start of the EPS program, the SC has to take a pre-test and by the end of the program the SC has to do a post-test, in which both tests are assumed to have the same level of difficulty. Failing to pass the post-test, the SC cannot be admitted to the university.

In 2017, the EPS program was run in 2 modes: (1) using the flipped learning (FL) approach and (2) using traditional teaching approach. Fifty students who had to take the program were divided into two groups: one group for those who would experience the FL approach (i.e. treatment group) and the other group for the rest of the students who would experience traditional teaching (i.e. control group). Due to limited teaching capacity, the treatment group only consisted of 10 randomly allocated students, while the rest joined the control group. There were two students in the control group did not take the pre-test, and thus their scores were excluded from the sample for the data analysis later. Hence, the final sample size is 48 students.

Students in the treatment group had three weeks of five face-to-face sessions each a day with 50 minutes each. They were required to have independent studies outside the class and expected to have learned the materials by themselves before coming to the class. The materials were presentation slides and videos (from public online resources) provided by the lecturer. Those materials were provided under an online learning management system provided by the university, and could all be downloaded. During the face-to-face sessions, the class activities were normally hands-on activities such as developing a composition or completing tasks. In addition, the lecturer also gave a review on the materials that the students had to independently learn prior to the class meeting. Whenever the students had questions regarding the materials, they could contact the lecturer at any time. They were also suggested to take notes of any question during the self-study and ask the lecturers during the face-to-face meetings.

For students in the control group, the EPS program ran for six weeks in which they had five face-to-face sessions with traditional language teaching, each of which also lasted for 50 minutes. Each session was typically a combination of lectures and workshops activities, in which the lecturer spent some sessions to explain the materials to the students, while some sessions were dedicated to do workshop and hands-on class activities. The learning materials were also provided through the online learning management system course.

In order to investigate the impact of the FL approach in the EPS program, all students were pre-tested in the first session and post-tested in the last session using a set of TOEFL-like questions. Both pre-test and post-test questions were alike and assumed to have the same level of difficulty. The test set consisted of 140 multiple-choice items with 50 items on the Listening part, 40 items on the Structure and Written Expression part, and 50 items on

the Reading Comprehension, which had to be done in 115 minutes. Hence, the pre-test and post-test scores of all the 48 students were collected and used in the data analysis.

Data analysis

Due to the nature of sampling and limited sample, a non-parametric approach was used to analyse the impact of the FL approach on student performance in the EPS program. The difference between the pre- and test- scores was calculated and used in a hypothesis testing method using the Mann-Whitney-Wilcoxon Test (Anderson, Sweeney, Williams, Camm, & Cochran, 2014). Table 1 presents the descriptive statistics of the pre- and post-test scores as well as their differences (= post-test score minus pre-test score).

The Mann-Whitney-Wilcoxon (MNW) test was chosen because no normal distribution of the populations of the test scores differences of both treatment and control group was assumed. It is hypothesized that the scores difference in the treatment group should be higher than that of the control group when the FL approach was effective in improving student learning. Hence, the MNW method was used to examine if the performance of students in the treatment and control groups were different.

Table 1. Descriptive statistics of the pre- and post-test scores and their scores differences

Statistic	Treatment Group	Control Group
Sample size	10	38
Pre-Test Scores		
Mean	473.9	472.18
Standard Error	16.73	7.14
Median	488	475
Mode	N/A	503
Standard Deviation	52.91	44.03
Range	154	207
Minimum	393	373
Maximum	547	580
Post-Test Scores		
Mean	505.2	507.05
Standard Error	15.71	8.54
Median	501.5	507
Mode	N/A	480
Standard Deviation	49.69	52.64
Range	153	223
Minimum	430	380
Maximum	583	603
Scores Difference		
Mean	31	35
Standard Error	17	6

Median	27	37
Mode	27	40
Standard Deviation	53	38
Range	204	231
Minimum	-54	-97
Maximum	150	134

Based on the Table 1, the mean score of the pre-test of the treatment group and control group were almost similar. The mean score of the treatment group for its pre-test was 473.9 while the control group was 472.2. Further, Table 1 shows the mean score of the post-test for both the treatment group and the control group (505.2 and 507.1 respectively). It indicates that there is no significance difference between the treatment and the control group.

FINDINGS AND DISCUSSIONS

This study aims to reveal the use of flipped learning in pre-university English class in Indonesia. To be specific, the this study sought to find out the answer on to the extent of FL works or fails when it is incorporated in the aforementioned type of class. Using a statistical software, i.e. SPSS version 22.0, it is found that there was no sufficient and statistically significant evidence that the performance of students in the treatment and control groups were different (p -value = .537) at 5% level of significance. In other words, the finding suggests that the student performance in both groups was identical. A potential explanation of these findings can be due to different reasons.

One of the possible reasons is the duration of FL. The FL applied in the treatment group was only three weeks compared to six weeks of the control group which used the traditional approach of teaching and learning. It means students had chances only three weeks both independent study at home and face-to-face meeting. In fact, the time at home is the time to study the materials (greater input exposure) while face-to-face meetings are dedicated for more engaging, collaborative, theory applications, and hand-on activities (Lyddon, 2015). It also indicates that students has a limited time for students' involvement with the teachers and their peers for productive activities and to test and apply knowledge and skills they acquired to achieve the goals of learning (McCallum et al., 2015). As a matter of fact, those activities are necessary for knowledge retention and meaningful learning (Correa, 2015).

Another possible reason why there is no significant finding in this study deals with learners characteristics. This study involves Indonesian students who just graduated from their high schools. Based on the study conducted by Marcellino (2008), it can be concluded that Indonesian students tend to be passive and obey teachers' instructions. The sense to challenge or questions teachers' explanations are rare (Marcellino 2018) and tend to rely on teachers as the source of learning. As the result, the teacher-centered classroom environment become the culture of teaching and learning (Mattarima & Hamdan, 2011). Those characteristics that are backlashing line with the nature of FL are brought to the classroom. On the contrary, students are required to be independent and always active in their learning (Correa, 2015) for a successful FL. As a result, the performance of the students in FL class is not significantly difference compared to the traditional classroom students.

CONCLUSION AND RECOMMENDATIONS

This study sought to answer a question on to what extend a pre-university English class fails or success in implementing flipped learning. The result of the study shows that there is no significant difference between the control group in which the traditional teaching and learning occurred, and the treatment group which received FL. The possible reasons why the insignificance of the study occurs are because of the duration that the treatment group had in FL compared to the traditional class is different. In addition to that, the characteristics in which Indonesian have also influence their learning in FL context.

Despite the fact that the result of the study proves no significance of FL in pre-university English class, this study also provides some insights in correlation to the area of FL. First, the equal number of the sample size should be considered since the presence study involve imbalance number of control and treatment group. Then, both control and the treatment group should have the same amount of durations. In addition to that, there has to be a need analysis that the teachers should have by investigating students background before implementing a certain pedagogical approach since the aims will always be the same which is to achieve the goal of teaching and learning-students' success. Therefore, it is hoped that the future studies which wish to investigate the same topic will consider those insight when investigating the use of FL in foreign language teaching.

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