

Flipped Classroom Teaching Model: It's Effect on Students English Achievement and Engagement

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ABSTRACT

There has been lot of studies that already investigated the application of flipped classroom teaching model on students' achievement of several subjects. However, not many were trying to identify its effect on achievement and engagement at the same time. This study was aimed at identifying the effect of flipped classroom model both on achievement and engagement. This research involved two groups of students of a Junior High School, one for the experimental class and the other for control class. The student achievement was analyzed by doing pretest and posttest, examined using t-test and students' engagement was examined using an instrument of Classroom Engagement Inventory. Finally, it was found that Flipped Classroom model has significant effect on students' achievement and Students' Engagement.

Keywords: Flipped classroom, Students' English Achievement, Students' Engagement

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INTRODUCTION

There have been many studies discussing flipped classrooms. Several discussed the effect of Flipped Classrooms on students' achievement, the study about the application of Flipped classroom teaching model with a scientific approach in Mathematic (Usmadi &Ergusni,2019 as cited in (Juliana & Syah, 2021)), The result of the research is the Mathematic learning outcomes of students who apply to learn with the flipped classroom are better than those who do not. The motivation and interest of students towards learning by applying the flipped classroom strategy are high. The flipped classroom, which is used to create an effective teaching environment at school, is the best model for using technology in education (Hamdan, Mc Knight &Arifstorm, 201 3), In English learning, there was research on using Flipped classroom model done by Arash, Ehsan, Sajad, 2018, "The effect of Implementing Flipped classroom on Iranian Junior High School Student's Reading Comprehension, they found the result of paired independent sample t-tests indicated there was a significant difference between the post-test of the experimental and

the control group. They also found that the flipped class can be more interactive than the traditional lecture; it can encourage contacts between students and teachers; it can develop reciprocity and cooperation among students, and it can emphasize time on task. They observed, in the flipped classroom, during class time, students engaged in discussions, activities, problem solving, and group work. Since students had prior knowledge, they could learn the lesson more easily.

The flipped classroom was introduced by Jonathan Bergmann and Aaron Sams for students who had missed class; they used live video recordings and screen casting software to record lectures, demonstrations, and slide presentations with annotations and posted them for the students to watch and read (Hamdan, McKnight, McKnight, & Arisstorm, 2013). The flipped classroom is where the responsibility for the teaching process in a way transferred to that of the students who have direct access to the contents of the lesson before going to school. In other word, flipped classroom is a reversal of conventional learning procedures , where what is usually done in the classroom is done at home or homework is done in class (Prabaharan,2014) .

Several research studies have focused on the impacts of FC learning environments on students' academic achievements, one of which was conducted by Zengin (2017).(Talan et al., n.d.)(Munir & Rahmat, 2017) and dealing with Flipped classroom effect on students engagement (education & 2014, 2014)(Ayçiçek & Yelken, 2018). Meanwhile there is no research yet which discuss the effect of flipped classroom model and on students' engagement

Student engagement is the frequency of students taking part in a learning program. They showed this in their engagement and interactions inside the class and outside the classroom. (education & 2014, 2014)Thus, student engagement is the willingness to perform all routine school activities with behavioral, emotional, and cognitive indicators in carrying out all learning tasks provided. Student engagement is also student participation in learning activities as part of the school program (Grant-Smith et al., 2019). Student engagement comprises three elements, behavioral engagement, emotional engagement, and cognitive engagement. Behavioral engagement is persistence, concentration, attention, asking questions, and contributing to their knowledge in class. Students with positive behavioral engagement showed their obedience to class rules and norms well and not causing problems. Emotional engagement is a student's reaction, interest, boredom, joy, sadness, and anxiety. Measurement of emotional engagement is to measure students' emotions towards teachers and schools. Emotional engagement focuses on the extent to which students have positive and negative reactions to teachers, peers, and

academics. This engagement includes a sense of belonging and pride in the school. They go to school every day as well as appreciate the success of academic results. Cognitive engagement is the student's investment in performing the struggle required to understand complex ideas. Cognitive engagement occurs when individuals have strategies and can regulate themselves (self-regulating). Students with high cognitive engagement will get chief desires to master knowledge better (Fredricks & Mccolskey, 2012).

Based on the researcher before, the writer considered that studying about students engagement using flipped classroom model will be very important for the good engagement will lead to better Students English Achievement. Students engagement should be develop in learning process and they are likely to lose interest in what they are taught. Although maintaining student enthusiasm in their learning time has been a puzzle that many education professionals have not yet solved but it doesn't mean unsolved. Fletcher (2007) points out that student engagement is the result of successful classroom teaching and school development activities and that it is an increasingly important concept on that sense. Conversely, student engagement refers to students' active participation in academic, co-curricular, and school-related activities, as well as to their commitment to educational goals and learning (Christenson et al., [2012](#)). The questions of this research are: Does Flipped classroom gives effect to students' English achievement? and does Flipped Classroom give effect to students' engagement?

METHOD

In doing this research, the writer did some procedures as follows. Firstly, The writer choose the class to be researched based on their achievement before. One class will be taught traditional model and the other class used flipped classroom model. In the classroom, the writer stated that the way of studying for two weeks which is called Flipped classroom model. The student way of studying will be handled with the flipped classroom teaching model in which the students are given some task to do at home, they are watching a video, and find the text read the text. The students are asked to analyze or answers some questions based on the video that they are going to watch. Meanwhile, the control class only get the material in the classroom without doing any activities at home.

The next step is pre-test, the students of both classes will be given a pre-test which aimed to know their knowledge about the topic. After that, in learning process, students do some activities in the classroom in the classroom. As Arash, Sajad and Ihsan, 2018 stated that he flipped class

can be more interactive than the traditional lecture; it can encourage contacts between students and teachers; it can develop reciprocity and cooperation among students, and it can emphasize time on task. They observed, in the flipped classroom, during class time, students engaged in discussions, activities, problem solving, and group work. Since students had prior knowledge, they could learn the lesson more easily. For those students with no phone cellular, they did the activities on the worksheet by reading the material only. In the event a student was still unable to view the content at home, then arrangements were made for that student to view the media pieces.

Next, after one topic has been finished, the students will be given a post-test. The excel data analysis using t-test will describe the result in tables below. This is the way to know Students' achievement. As an achievement tests measure acquired knowledge or skills. Achievement tests may be diagnostic, formative, or summative. Diagnostic assessments are pretests given prior to a learning segment to determine what students already known.

Table 1

Design of the Study

		Pretest	Treatment (3 weeks)	Posttest
Experimental	R	Achievement test	XFC	Achievement test
Control	R	Achievement test	XTL	Achievement test

Note. R = Unbiased Assignment; XFC = Flipped Classroom; XTL = Traditional Learning.

Dealing with the effect of Flipped classroom teaching model for the students engagement, the writer will use an instrument of Classroom Engagement Inventory by Wang Wang, Z., Bergin, C., & Bergin, D. A. (2014). Measuring engagement in fourth to twelfth grade classrooms: The Classroom Engagement Inventory. *School Psychology Quarterly*, 29(4), 517. 24 Items 4 Dimension. Students indicated their level of agreement with each questionnaire item on a scale that ranged from 4= Strongly Agree (SA) to 1= Strongly Disagree (SD).The data was percentage and described.

FINDINGS

In this part of the research question, whether Flipped classroom gives effect to students English achievement is answered based on the table belows

Table 2

The result of the Unrelated T-test According to the Pre-test scores of the group

Measurement						
(Group)	N	M	SD	SE	t-test	P
Experimental	32	3,48	1,106	60	0,7	0 ,48
Control	31	3,1700	1,112			

Note. P <0,5. N, the number of students; M, arithmetic average; SD, standard deviations; SE, standard error.

Table 2 displays that there were no statistically significant differences between the mean scores of the students ($t(57)=0.70$, $p>0.05$). Based on this finding, it can be stated that both groups can participate in the experimental process

Table 3

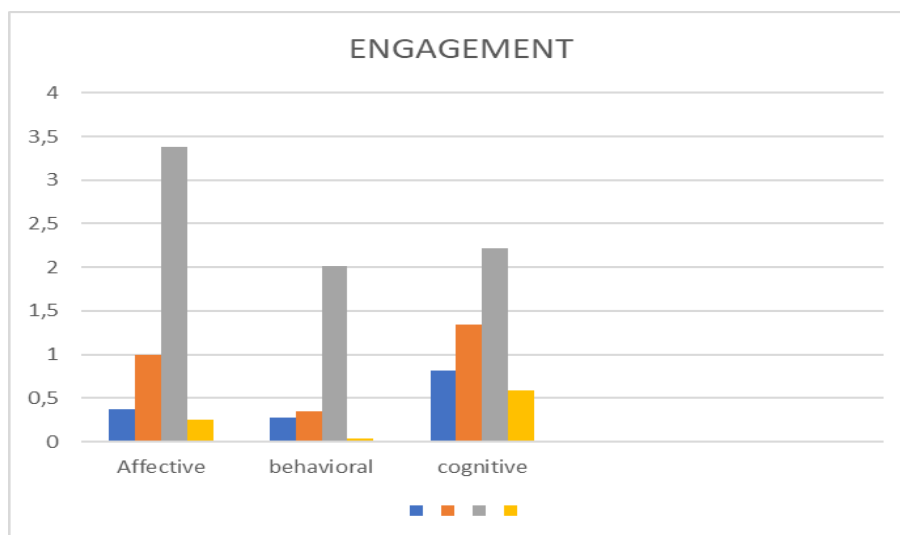
Achievement Test Scores of the Experimental and Control Groups

Groups	Pre-test		Post-test	
	M	SD	M	SD
Experimental	56,23	17,54	58,37	15,35
Control	54,65	17,03	55, 22	13,67

Note. SD, standard deviations; M, arithmetic average.

As observed in Table 3, while the pre- and post-test mean scores of the experimental group increased (from 56,23 to 58.37), the mean scores of the control group increased (from 54.65 to 55.22). It means that students who were taught using the Flipped classroom model scored significantly higher than before .

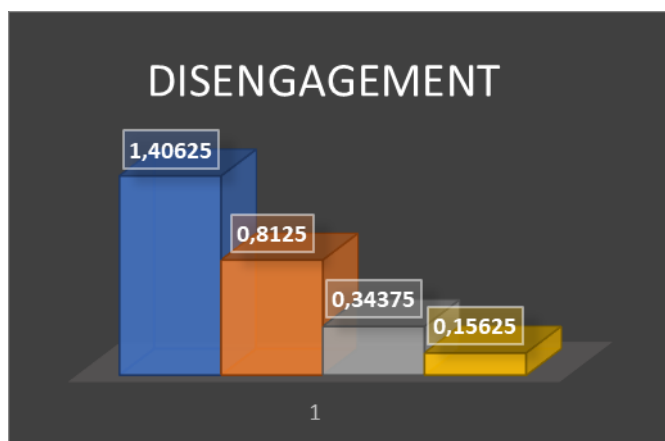
In the part of the research question whether Flipped classroom gives effect to students' classroom engagement. By using Classroom Engagement Inventory by Wang Wang, Z., Bergin, C, & Bergin, D. A. (2014). Engagement inventory Measuring engagement in fourth to twelfth grade classrooms School Psychology Quarterly, 29(4), 517 The Likert-type questionnaire focuses on a comprehensive assessment of the construct of student engagement. Students respond according to a Likert-type scale of 1- (e.g., one = disagree, 4 = agree strongly), and. For this study, the items taken indicators of behavioral, emotional (affective), and cognitive engagement. Behavioral and compare them with disengagement. The researcher found the result on the below chart.



Blue : Disagree, Orange : Half Agree, Gray : Agree Yellow : Agree strongly

The percentage of students engagement in Affective dimension is really higher . It's 3,3 % students stated the agreement that flipped classroom interest, amuse and make them happy. For the behavioral dimension with the question whether the students listen, do the task and others about behavior 2% agree about it and only 0,03% . Next in Cognitive dimension 2,2% agree that flipped classroom make them think deeply in quiz, realize their mistakes and so on.

Then, dealing with the students' disengagement, the chart below shows that 1,4% percent students stated disagreement for the statement “zoned out” for doing classwork, for pretending like “working”. Only 0,15% agreed about these.



Blue : Disagree, Orange : Half Agree, Gray : Agree Yellow : Agree strongl

DISCUSSION

The result reveals that Flipped classroom teaching model gives effect on Students Achievement. Comparing the post- test result, whether it's not so high difference, only 2,1 point, but it shows that one model to get higher achievement, Flipped Classroom is one good choice. For the control class, there is an increasing result also whether it's only 1,2 it also shows that by studying and doing teachers instruction , students can reach the good achievement. Comparing it with the control class or traditional one.

Flipped classroom model will create the students be more interactive than the traditional lecture; it can encourage contacts between students and teachers; it can develop reciprocity and cooperation among students, and it can emphasize time on task. Student engagement is multidimensional. While all these dimensions cannot be separated; behavioral and cognitive engagement and students' emotional engagement. (Mango, 2015). As mentioned earlier, students indicated their level of agreement with each questionnaire item on a scale that ranged from 4= Strongly Agree (SA) to 1= Strongly Disagree (SD). Three items on the questionnaire were related to the second research question. The means of the students' responses to these items in terms of students' perceptions of their engagement and involvement with classroom activities, collaboration with others, as well as their enjoyment learning in flipped classroom model classroom.

Firstly, about Affective dimension. Most of the students stated their agreement tha Flipped Classroom teaching Model make them fun, happy and ssatisfying. Although there are some students stated disagreement, it's only 0,3 % of 32 students and only 1% stated half agree. It means that this teaching model effect students Affective dimension. Creating the fun, satisfying and happiness feeling to the students' heart is one way to engage them in the topic disused.

Secondly, dealing with behavioral. These dimension was divided into two parts : Behavioral Engagement–Compliance and Behavioral Engagement–Effortful Class Participation There are some question stated in the first parts are “I listen very carefully, .I pay attention to the things I am supposed to remember, I complete my assignments

Behavioral Engagement–Effortful Class Participation I get really involved in class activities, I form new questions in my mind as I join in class activities, I do not want to stop working at the end of class, I actively participate in class discussions, I work with other students and we learn from each other” , the students stated their agreement for these are 0,81 percent for disagreement, means most of them agree that the flipped classroom effect their behavioral engagement.

Meanwhile, the percentage of student stating the disengagement is significantly lower than the agreement. Students really agree about the question that in doing the classwork they were just pretend working and out of the classroom zone. It means that this model can be suggested for achieving students' engagement.

CONCLUSION

In a short, flipped classroom give effects on students' achievement and engagement students of Junior High Scholl. By learning the material at home before the students come in to the classroom, will affect their learning achievement. Beside, Flipped classroom also gives effect on students' . Supported by the note from Chen Hsieh et al. (2017) reported that student engagement could increase students' confidence in exploring their English skills through distance learning influenced by operating digital learning media tools.

Theory and practice in language studies The major difference between flipped and traditional classrooms is the timing of content learning; students in a flipped classroom learn the content before class in their own private time and space and at their own pace, while in traditional classroom students learn the lesson in class in a way and at a pace that are determined by the instructor. Therefore, the rich cognitive activity (e.g., in-depth information processing and higher-order thinking processes) observed in this study may have been due to the fact that the students had more time to think about the content and activate relevant prior knowledge related to the content (Hashemifardnia et al., 2018). In a short, this model can be suggested for achieving students' achievement and engagement.

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