

# Analysis Trends of Flipped Classroom Research in Education

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**Abstract**—The current learning system requires education to change the learning approach that is centered on educators into a learner-centered learning approach. One of the students-oriented approaches is Flipped classroom. Flipped classroom is a new pedagogical approach in which students develop a basic understanding of subject matter before class, and use time in class for student-centered activities, such as group discussions and presentations. This article aims to analyze the implementation of Flipped class in promoting learning based on the latest articles that report the practice of Flipped classroom lessons from 2015-2018. The methodology in this study is descriptive qualitative, using the method of collecting documents. The results of the analysis of this study show that flipped classroom has a positive impact on student learning activities such as achievement, motivation, involvement, and interaction. The practice of Flipped classroom helps students to develop skills in problem solving, creative thinking and teamwork. Several problems in this discussion have implications that can be considered for future research. Some of the challenges found in implementing Flipped classroom are needed to be handled by researchers in the future, such as the compatibility of classrooms that are reversed. This study also has implications for the government or policy makers to determine Flipped class as an approach that will be applied in teaching and learning activities for different levels of education

**Keywords**—*flipped classroom, trend, research, education*

## I. INTRODUCTION

Learning in the 21st century is learning that is characterized by a very strong stream of globalization. Where in the learning process not only oriented to educators but learning can also be centered on students. The purpose of learning that is to be achieved is not just the results of learning, but in the learning process experienced by students. This is certainly not an easy challenge for students, they will encounter many difficulties in the learning process. One of the difficulties often experienced by students in the learning process is the difficulty in completing Homework (PR) given by educators. Therefore a new approach is needed in the learning process. student-oriented approach one of which is Flipped classroom. Flipped classroom is a learning strategy and type of mixed learning that reverses

traditional learning environments by providing more online learning content outside the classroom [3].

Flipped classroom is one of the learning strategies that create learning through technology, especially online video media, which helps reduce learning time and adds time to classroom activities where students can learn cooperatively through practice [3]. Flipped classroom combines asynchronous online lectures learned by each student outside the classroom with face-to-face classroom learning activities in which students interact with peers and instructors [7]. So far, flipped classroom has received a lot of attention in the academic world. Many experts carry out various studies relating to flipped classroom learning. Some studies have found that flipped classroom will lead to better learning effectiveness [12]. A group of studies (Bransford, Brown, & Cocking, 2000) reveal the success of flipped classroom which is a key element is technology [1].

Halili and Zainuddin state that flipped classroom is an integrated learning element, integrating face-to-face learning in the classroom through group discussion and distance learning outside the classroom with asynchronous learning and online collaboration [14]. In flipped classroom, teachers become trainers, more focused on becoming facilitators than teaching [9]. A model of flipped classroom can be like a teacher who gives students some reading in a training session and asks them to read at home. Then, they discuss ideas in class, so that they save time because students already have an idea what will be taught in the next session [11]. The flipped classroom learning model, bringing the spirit of student-centered pedagogy, has gained increasing attention at all levels of academics [13].

Most studies confirm that flipped classroom helps teachers to spend more time in class for centric student approaches, for example, encouraging student involvement through group discussions, and providing individual assistance to students [10]. In simple terms, flipped classroom allows students to use their online lecture time to prepare learning activities that will occur during class time scheduled during meetings [5]. Flipped classroom offers students to take flexibility in their learning process and fully incorporate new skills and information into their knowledge [8]. Flipped classroom is a form of integrated learning, emerging

learning strategies that reverse the traditional lecture-based teaching model to improve the quality and efficiency of the teaching and learning process [6]. In flipped classroom, students can do collaborative learning with their classmates and teachers with knowledge learning after face-to-face learning [4]. One of the main objectives of applying flipped classroom is to provide students with the ability to study learning material anytime and anywhere [2]. When students come to class, they can solve problems using knowledge gained from video lessons and online reading material. When a student masters the material, he can move on to the next topic. If students do it and do not master the material, students can see the learning given once more so that all students will be able to master the material without wasting time in the classroom.

## II. METHOD

The method in this article uses a qualitative study approach to literature, by reviewing various literary sources of articles and journals that are about flipped classrooms from 2015-2018. In analyzing using research meta-analysis using source triangulation.

## III. RESULT AND DISCUSSION

Responding to the challenges of education in the 21st century, where the flow of globalization in the world of education is very fast. Education is no longer oriented to teachers or educators, at present education can be oriented towards students. Therefore a new approach is needed in the world of education. Where this new method approach can help students to learn anywhere and anytime and help foster interest and motivation of students to learn. There is a learning model approach that is oriented to students, one of them is the flipped classroom model.

Flipped classroom learning model is an inverted learning model wherein the learning process is usually in the traditional classroom more time is used in class to explain and understand learning material. If the classroom is flipped in this classroom, it is time to understand more learning material outside the classroom. So that time in class can be more effective. Furthermore, based on several previous studies on Flipped Classroom, it can be seen that from 2015 to 2018 it always increases in the amount of research. The improvement in this research can be seen as the figure 1.

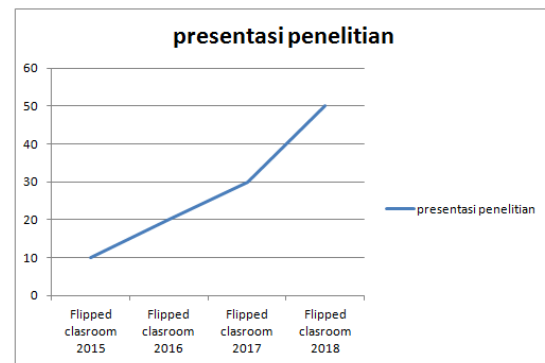


Figure 1. Research Presentation

Based on several analyzes of classroom classroom research found that various fields were practiced in a classroom classroom approach, and several technological tools were used as online platforms for practice. Impact analysis shows that flipped classrooms have a positive impact on student learning activities such as achievement, motivation, involvement, and interaction. The practice of flipped classroom helps students to develop skills in problem solving, creative thinking and teamwork. Several problems in this discussion have implications that can be considered for future research. Some of the challenges found in implementing flipping classes are needed to be handled by researchers in the future, such as the compatibility of the inverse classrooms. This study also has implications for the government or policy makers to determine reverse classrooms as an approach that will be applied in teaching and learning activities for different levels of education.

## IV. CONCLUSION

Flipped classroom is a new pedagogical approach in which students develop a basic understanding of subject matter before entering class, and use time in class for student-centered activities, such as group discussions and presentations. This analysis found that various fields were practiced in the classroom classroom approach, and several technological tools were used as online platforms for practice. Analysis shows that flipped classrooms have a positive impact on student learning activities such as achievement, motivation, involvement, and interaction. The practice of flipped classroom helps students to develop skills in problem solving, creative thinking and teamwork. Several problems in this discussion have implications that can be considered for future research. Some of the challenges found in applying flipped classrooms are needed to be handled by researchers in the future, such as the suitability of inverse classrooms.

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