FLIPPED CLASSROOM APPLIED IN ENGLISH LANGUAGE TEACHING

Andhi Dwi Nugroho
andhidn@ustjogja.ac.id
Pendidikan Bahasa Inggris, Fakultas Keguruan dan Ilmu Pendidikan
Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia

ABSTRACT

The paper explored the flipped classroom model applied in English Language Teaching, including its applications, components, benefits, and challenges likely to be experienced in the model application process. The data were national and international journal articles reporting flipped classroom model. The study applied content analysis to investigate the area of studies, online platforms or technology tools, and impacts on students learning. The results of the analysis were interpreted using descriptive analysis. It was found that the flipped classroom model was in various teaching fields, and some technology tools were used as the online platforms for teaching practices. The analysis of flipped classroom model impacts covered students' learning achievement, engagement, and interaction. The challenges in applying flipped classroom models were expected to be considered by future researchers. To sum up, the study provided implications for education stakeholders or policymakers to determine the flipped classroom model application in the future.

Keywords: *Bloom's taxonomy, flipped classroom, online platforms*

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INTRODUCTION

Information and communication technology (ICT) has rapidly developed and influenced society and individuals in a wide range of living areas. In the field of education, ICT not only provides more opportunities in teaching, learning, resources, and media but also increases the demand for the globally integrated learning environment (Usman, 2016). Computers, phones, internet services, applications, and other devices enable the students to go for rich learning resources, work on groups or pairs remotely, and continue their education lives independently out of class time. While contributing to their individual development, the use of technology saves extra time in class.

Recently, worldwide interest has been brought to the flipped learning paradigm of teaching. The flipped learning methodology modifies the concept of homework and classroom activities by involving student in pre-class assignments for knowledge acquisition, including watching educational videos or other related requirements which is often participating in exercising learned knowledge or skills in classroom discussions or project work in-class activities (Chen Hsieh, Huang, & Wu, 2017).

The core concept of the flipped model, according to Hamdan et al. (2013) is the meaning behind the word 'flip' which involves four elements being a flexible

environment that gives a space for students to learn whenever and wherever they are, applying a learning culture which is a learner or student-centered with intentional contents, and professional educator is reflective in their practice. Additionally, flipped learning approach involves student to get prepared by watching instructional videos before the physical class session, allowing students to apply the knowledge in the classroom, thereby encouraging students to be actively engaged, productive and having a collaboration with their classmates such a way to move forward of the conventional learning (Chi, 2009).

FLIPPED CLASSROOM

Regarding flipped classroom model has become popular in teaching and learning fields, numerous studies of the application of flipped classroom model have been conducted worldwide. As one of the blended learning models, it involves information and communication technologies and traditional learning styles. Flipped classroom model attempts to combine the benefits of distance learning and traditional one. It alters the presentation of content in a traditional classroom environment into an online platform that transfers learning activities carried out by students at home. The learning activities are carried out and enriched under the guidance of the teacher. The flipped classroom consists of theories and methods, including constructivism, active learning, and peer-assisted learning focusing on student-centered learning (Bishop & Verleger, 2013). Sohrabi & Iraj (2016) pointed out flipped classroom requires active learning and peer instruction as foundations of teaching and learning.

Bloom's revised taxonomy

Originated from the theory of Bloom's revised taxonomy of cognitive domain, flipped classrooms studies are conducted widely and simultaneously. The taxonomy provides six learning stages from the bottom to the top. The elaboration of each stage is presented below Krathwohl & Anderson (2010) and Zainuddin & Halili (2016):

1. Remembering: the students observe, recognize, and memorize information they need. In this stage, they are expected to recall the basic concepts and principles of the learning contents.
2. Understanding: the students explain their understanding of the concept, interpret the information, and summarize the learning activities. The understanding level consists of skills have the students construct meaning using a variety of methods.
3. Applying: the students put the knowledge into performance or apply what they have learned. At this level, they are provided with actual or certain circumstances to demonstrate their skills.
4. Analyzing: the students think critically to solve the problem based on the given situation, debate using logical arguments, compare answers of certain exercises with peers, and make an inference of audios or visuals. The students have opportunities to obtain new knowledge, receive ideas, and sharpen their productive skills after finishing exercises with critical thinking or working in pair/group activities.
5. Evaluating: the students evaluate or make a judgment on how far they successfully learned from the activities through pair-checked, peer-review, and

assessment. They can also measure how deep they understand the learning concepts. In this level, they confirm their own learning content accuracy and reliability while creative thinking is relatively produced.

6. Creating: Students generate ideas and reorganize acquired learning contents. This level provides them with opportunities to modify, construct/reconstruct, and even make a new product based on their learning experience (Bloom, 1969).

In flipped classroom model, remembering and understanding are considered the two lowest cognitive domain levels known as LOTS or low-order thinking skills. The learning activities to achieve or develop these skills are conducted outside the class hour (Yang, 2017). While the classroom activities, the students focus on the higher forms of cognitive work, including applying, analyzing, evaluating, and creating, known as HOTS. Figure 1 below illustrates the students' cognitive domains according to Bloom's revised taxonomy in the flipped classroom model.

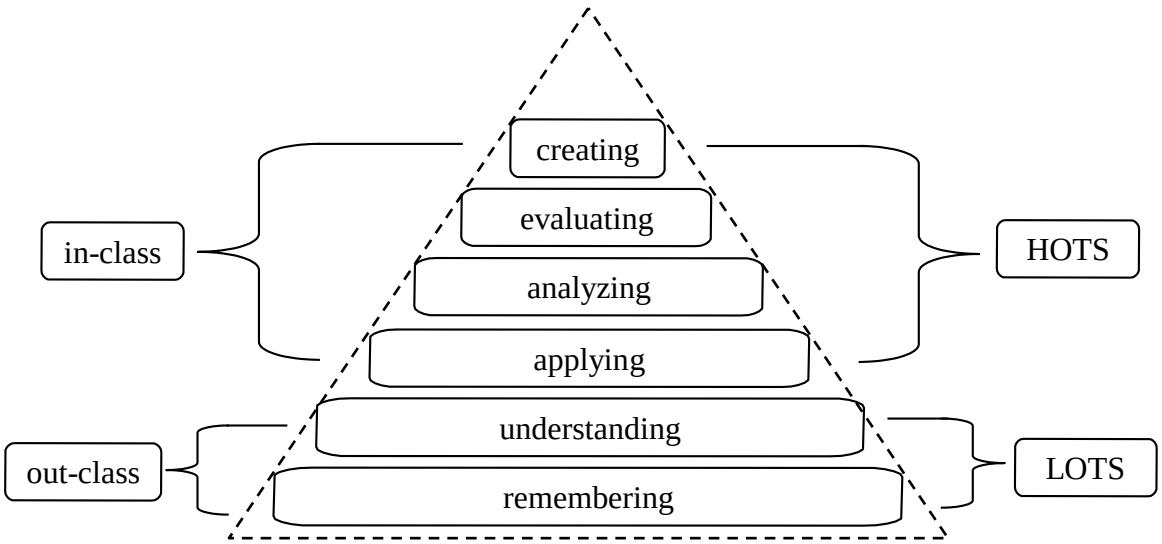

Figure 1. Bloom Revised Taxonomy in Flipped Classroom

The activities of flipped classrooms are divided into two: in-class and out-class activities. There are two stages of skill to achieve, namely LOTS and HOTS. LOTS are accomplished outside the classroom, including remembering and understanding; while HOTS are accomplished in class, including applying, analyzing, evaluating, and creating. Thus, the process of learning starts from remembering (the lowest level) to creating (the highest level). In remembering stage students can recover, recollecting, and knowing applicable existing knowledge. This stage includes choosing, defining, finding, matching, and showing certain things. The next stage is understanding which means revealing comprehension through one or more outlines of explanation. The activities included in the understanding stage are classifying, explaining, summarizing, presenting, translating, inferring something, etc. Next, applying means that students utilize their previous knowledge in new conditions to acquire results. This stage includes these kinds of activities: building, developing, selecting, solving a problem, modeling, planning something, and so on. The next stage is analyzing, which means breaking

information into well-structured components. The activities of assuming, discovering, dividing, comparing, and or categorizing something is included in the analyzing stage. Afterward, evaluating means validating the value of the materials based on the standards. The activities which are included in evaluating stages such as giving opinion and proving. The last is creating which means setting the parts together to form a new entity or altering existing parts to restructure it into a new form. The activities which are included in this stage are combining, developing, designing, etc.

The application of flipped classroom

Flipped classroom model puts the lower levels (LOTS) presented before class through audio or/and video recordings. Reading materials, simulations, and presentations as foundational support for learning are provided out-class time. In-class time, students spend their efforts working on higher levels of learning from implementation to evaluation. In flipped classroom, students start learning activities from the lowest level (remembering) to achieve the highest level (creating) (Coley, Hantla, & Cobb, 2013). Lee (2017) pointed out flipped classroom focuses on optimizing the students to achieve a higher level of the taxonomy domains. Furthermore, Nederveld & Berge (2015) emphasized that in flipped learning activities, the class time is spent on higher levels of learning rather than listening to lectures, observing examples, memorizing information, and other low-level thinking tasks. Figure 1 shows that applying flipped classrooms allows the students to spend more time working on higher-level learning tasks, such as peer/group projects. In contrast, lower-level thinking tasks such as information and comprehension are conducted out-class time independently.

The application of flipped classroom via Learning Management System (LMS)

Literature shows that the design behind flipped classroom is straightforward. Activities requiring cognitive work such as pair discussion, group discussion, writing, and problem solving are undertaken in-class with classmates' support and teacher guidance (Enfield, 2013). On the contrary, the activities in which students receive the material from textbooks or videos are conducted out-class (Herreid & Schiller, 2013). In consequence, flipped classrooms create an active atmosphere in class.

The use of technology is essential to support the activities outside the classroom mentioned in advance. According to Rajesh (2015), this learning environment has been accepted in the educational field. A learning management system concerns a virtual learning environment, course management system, and learning platforms. It creates a universal locution related to a computer system to manage the online course involving the students and teachers along the process (Chao, Chen, & Chuang, 2015).

Nair & Patil (2012) explained that LMS offers a supporting tool in the form of software tool and web-based technology, enabling the users to scheme, perform, convey, record, and manage the online learning and training and evaluate a particular learning process. Besides, LMS has an alternative way to organize training records and includes certain flexible software that spreads the internet courses (Hasanudin, Supriyanto, & Pristiwati, 2020). LMS enables teachers to share the material effortlessly through the online features and get feedback from the

students wherever they are. Although this approach allows students to learn at their convenience, it still fulfills the set educational objectives. LMS, moreover, provides opportunities for teachers to follow students' participation in the process of learning, and assess students' performance.

There are various LMS or platforms to support the process of learning. Paulsen (2003) and Usman (2016) mentioned several LMS such as eCollege, Donkeos, METU Online, Its Learning, Moodle, Learning Space, Schoology, Google Classroom, ClassDojo, Edmodo, etc. In one study conducted by Khalil (2018), the implementation of flipped classrooms was done by giving material to several students related to grammar rules and concepts via Google Classroom for out-class activities and asking them to use Google Docs for submitting the tasks and exercises. As a result, the use of Google Docs and Google Classroom can provide a way for students to improve their grammar skills. Similarly, they can share their passive knowledge in in-class activities. Consequently, it can be simply interpreted that the use of technology in flipped classrooms makes the activities in-class and out-class effortless.

To support the experiential learning and facilitate an active knowledge, the instructional design using technology needs to be planned cautiously. Mukherjee & Bleakney (2017) stated that there are many elements which include an incomprehensive instructional model such as direct instructions, inquiries, practices, formative and summative assessments, and so forth. It is designed to build up the atmosphere of student-centered classrooms. The students can be actively engaged with the course material and, ultimately, establish knowledge through their comprehension.

Flipped classroom compared to traditional models

Adjusting traditional classrooms to a flipped classroom model means reforming the process of learning by taking place the activities in traditional classroom into the outside classroom, and vice versa (Johnson, 2013). Flipped classroom models enable teachers to give students learning options and let them have presentations and discussions with their classmates. Also, teachers can deliver this instruction by recording and narrating screencasts of work they do on their computers, creating videos of themselves teaching, or curating video lessons from trusted Internet sites (Hamdan et al., 2013 and Melzer, 2019). Specifically, teachers provide audiovisual materials and students are asked to be prepared before attending the class. This model grasps the real world to the classroom which triggers students to be attractive and motivative.

The activities in-class and out-class may vary. Based on Kim et al. (2014), out-class activities can be done through multiple tools such as presentations, material videos, learning management systems, note-taking, making a list of questions regarding the materials they do not understand. Thus, those activities support students to comprehend the materials before the course started. Besides, Strayer (2012) declared that in-class activities, the students can find the answers of previous questions, work in a group, solve the problems, discuss the materials, and put together the conclusion.

In the process of flipping a classroom, teachers support students' learning activities in out-class by creating a short video or text regarding the material given in the classroom. A study of Houston & Lin (2012) revealed the flipped classroom

implementation could be successful by asking students to watch the learning video, reviewing the subject content in essence before starting the main activities to make sure that students comprehend the lessons. Besides, in the learning process the students are given an occasion to discuss the subjects with their teacher or classmates.

Table 1. Comparison of Activities Between Traditional and Flipped Classroom

Traditional classroom model	**Level of learning**	Flipped classroom model
face-to-face	**Remembering**	recorded, presentation/material reading material video of practices/lectures
question and answer	**Understanding**	reflection, peer-to-peer discussion, collaboration
homework	**Analyzing**	pair discussion, group discussion
homework	**Applying, Evaluating, Creating**	projects, presentations, peer evaluation, and instructor evaluation

Benefits of Flipped Classroom

Flipped classroom emphasizes on discussions among students in class after pre-activities such as reading texts and watching material videos. The atmosphere of the class changes into more interactive in which the students are discovering the lesson individually or in a group. They are also given a chance to develop their skills by making a video with their peer/group. In this kind of atmosphere, the students are free lead and control their own learning (Fulton, 2012). In other words, students have an opportunity to learn with various hands on activities, nurturing meaningful learning (Rajesh, 2015).

The activities of flipped classroom are designed to support students in building their personal knowledge and acquiring their cognitive skills consist of analyzing, applying, evaluating, and creating (Hwang, Lai, & Wang, 2015) or known as high order thinking skill (Coley, Hantla, & Cobb, 2013). Nevertheless, the implementation of interactive learning methods should be different in each class. Therefore, it should be set up and modified progressively even in a huge class to develop HOTS to allow students to become active learners. In related study, flipped classrooms encourage students to be active in the learning process. Students can talk, listen, read, and reflect the ideas or contents. Students also have an occasion to learn the material repeatedly to get better comprehension. In other words, students are involved in giving an idea, receiving feedback, and developing HOTS. Accordingly, they need to control and take responsibility for their own learning process. The students learn at their own pace, associate a new concept to their previous knowledge, and apply the knowledge in their daily lives.

In addition, Chen Hsieh, Huang, & Wu (2017) explained that flipped classrooms are encouraging. The study showed that the design of learning is to deliver course material and come up with better support for student projects. Strayer

(2012) added flipped classroom optimizes students' participation in the learning process. This class encourages students to do a group collaboration. The engagement of students in the classroom is higher than conventional classrooms. Essentially, when the students engage in an online class, they learn autonomously to have a better comprehension through learning videos, recorded presentations, readings, quizzes, assignments. They figure out their comprehension of the course material, make connections between their new and pre-existing knowledge, and give a question to it using their own words (Enfield, 2013).

Challenges of Flipped Classroom

Besides its benefit, the application of flipped classroom brings certain challenges. A successful flipped classroom needs to be prepared effectively and it bears on the amount of time and effort the teacher needs to fulfill. The preparation teacher is to make video learning which is time-consuming. A video-making might take time for about an hour or more, including the video-editing. Hence, the teacher should spend more time in preparing the out-class activities. Meanwhile, when it comes to in-class activities, the teacher controls the students or helps them when needed.

According to Bergmann & Sams (2012), students' participation needs more attention as it affects their learning process in-class activities. Moreover, the students might have lack of motivation when they do not get adequate support in the learning process (Kim et al., 2014). Thus, the teacher needs to ensure that students are involved in out-class activities, so that the in-class activities become efficient. To trigger students' engagement, mini-lectures, group discussions, or student questioning can be options for the teacher (Ogden & Shambaugh, 2016).

In conducting flipped class, teacher and technology are inseparable. Along with that, Bergmann & Sams (2014) and Morgan (2014) stated that it requires skills for the teacher on technology. Thus, it gives an extra burden on the teacher, even more when the teacher lacks interest, motivation, and desire in using the technology to build up flipped classroom. Some teachers agreed that preparation of flipped classroom needs more complicated preparation than that of conventional classroom. In short, the major challenge of the model comes from teachers, especially when they are preparing flipped learning contents.

CONCLUSION AND IMPLICATION

The flipped classroom model exploits active learning for students in both out-class and in-class. Flipped classroom improves the affiliation between the teacher and students, as well as students and other students. It (1) leads the teacher to provide active learning (2) enables the teacher to develop students' skills on HOTS, and (3) facilitates the teacher to imbue an independent learning. The model requires great efforts of the teacher in conducting the class. Therefore, it needs further research of flipped classrooms dealing with its suitability, sustainability, applicability, and/or effectiveness in English language teaching.

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