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Flipped Classroom Implementation in Rural Areas

Danang Esha Maulana[1], Basikin[2]. Dian Islamiaty[3]

[1,2,3]Universitas Negeri Yogyakarta
Jl. Colombo Yogyakarta No.1, Karang Malang, Caturtunggal, Kec. Depok,

Abstract: This study explored the challenges in implementing flipped classrooms learning in English language teaching and learning activity in Banjar Agung. An English language teacher and two seventh graders are interviewed in this study. Data were gathered by utilized interviews and observation. Data were analyzed by triangulation. This study revealed that the main challenges in implementing flipped classrooms are limited or out of quota cellular and internet signals that might be lost during pre-class activity. The study also revealed that the English language teacher was seldom to send or provide pre-class learning materials to their students.

Keywords: Flipped classroom, Challenges

1.   Introduction

Due to the COVID-19 outbreak in Wuhan, China at the end of 2019, it spread out into the whole world, and it became a pandemic. This pandemic era made all sectors collapse. Unfortunately, Indonesia is one of the countries that was affected by this pandemic. As well as other countries struggling, many sectors in Indonesia indicated powerlessness including health, economy, and social affairs. Besides, the educational sector was also affected by the pandemic COVID-19.

The effect of the pandemic on educational sectors leads to the closure of schools, campuses, and other educational buildings. Consequently, the teaching and learning process was shifted from face-to-face learning to online teaching and learning. It is in line with the policies released by the Minister of Education and Culture of Indonesia (KEMENDIKBUD), named Circular Letter number 4 Year 2020, which regards conducting teaching and learning processes from a distance or home, in other words, online classroom. Indeed, it needs ICT tools to be applied to assist classroom activity. The sudden situation made most teachers and students not ready to utilize electronic devices caused of several factors.

After approximately two years of struggling with the COVID-19 pandemic, Indonesia is now entering the post-pandemic era. It creates a new normal situation, in which educational field schools are allowed to be held in limited face-to-face teaching and learning processes. In the Banjar Agung area, a class is divided into two shifts, the first shift will study at school from Monday to Wednesday, and the second shift will study at school from Thursday to Saturday.

This shifting classroom is identified as a flipped classroom (Kusnandar, 2021). Ideally, when applying flipped classrooms, students learn independently from home or other spaces except the school. The learning materials are already provided by the teachers through various platforms such as WhatsApp, Google Classrooms and other learning management systems. The flipped classroom requires students to learn from their home first, then when they turn to come to school, both teacher and students will do a review or

assignment regarding the materials that are already sent to the learning management systems. (Lee & Wallace, 2018; Hsieh et al., 2016; Bergman & Sams, 2012).

Even though the credit for the flipped classroom term goes to Bergmann and Sams (2012), historically this term was used by Baker in 1998 to describe the pedagogical method. After realizing his vision for flipped classrooms, he decided to use the term "classroom flip" term. Moreover, the Flipped classroom is also known as "the inverted classroom" which was first invented by Lage et al in 2000. The flipped classroom is active learning, which focuses on student-centred and encourages students to engage in more interaction with their teachers, peers, learning materials, and school stakeholders. Fundamentally, the value of flipped classrooms is aligned with the K13 curriculum, in which students are demanded to be more active rather than passive, in other words only wait until the learning materials are provided by their teachers. To implement flipped classrooms effectively, flipped classrooms have three stages that have to be done by teachers and students (Hung, 2018). The first stage is the pre-class. This stage usually consists of a video or text that relates to the learning materials that will be discussed in the classroom. Both teacher and students have to do their role, for instance, the teacher provides pre-class materials, and then students can read or watch and find more examples. The second stage is in class. In this stage, the learning materials that are already given in pre-class will be reviewed and discussed in groups or other activities that relate to the learning materials, for instance, role-play, games and other activities. The third stage is post-class, which focuses on enhancing students' knowledge based on 21st-century skills.

Flipped classrooms reported a positive influence, van Alten et al. in 2019 compared flipped and non-flipped classrooms and found positive learning outcomes in the flipped classroom than in non-flipped classrooms. Moreover, Tang et al. 2020 found that there is an improvement in students' learning, attention, and evaluation in using flipped classrooms. Similarly, in the Korean context (Lee, 2020), flipped classrooms increased the students' engagement in the learning process.

Besides flipped classrooms are recognized widely to have a positive influence on promoting and increasing motivation, but they also have challenges in implementation. Zou et al in 2020 conducted an experimental study with sixty-nine participants from a local university in Hong Kong. The result of this study shows that teachers face challenges in implementing flipped classrooms, such as it takes time to design and develop learning materials, and teachers are demanded to have technological literacy. Moreover, preparing flipped classroom learning materials can be six times harder than in conventional classrooms (Wanner & Palmer, 2015). Similarly, Akçayır and Akçayır in 2018 reported that teachers have to do more consideration about the quality of pre-class learning materials and learning management systems that can be run by their students. Furthermore, a study that was conducted by Ożadowicz in 2020 showed that higher education students are becoming passive during a pandemic shift to online learning.

However, based on the researcher's preliminary study, in the shifting classroom or flipped classroom, when the students are off from school, the English language teacher seldom gives learning materials to them as pre-learning before coming to school. Therefore, this study will explore: 1) What are the challenges in implementing flipped classrooms in SMPN 1 Banjar Agung (rural area)? 2) How is the process of implementing flipped classrooms in SMPN 1 Banjar Agung (rural area)?

2. Literature Review

Flipped classroom is one model or learning method that minimizes direct teaching from the teacher, where in the learning process students learn the subject matter first at home, while teaching and learning activities in class are only in the form of doing assignments, discussing material or problems that have not been understood while studying at home. The concept of the flipped classroom learning model is basically what is done in the classroom on conventional learning done at home,

The flipped classroom learning model was first introduced by J. Wesley Baker in 2000, in his article entitled The Classroom Flip: Using Web Course Management Tools to Become the Guide by the Side. In the same year, Lage, Platt and Treglia also conducted a study using almost the same term, inverted classroom. Some other terms used in various studies that show flipped classroom learning is just-in-time teaching by Nova.

The flipped classroom learning model combines learning in the classroom with learning outside the classroom to maximize learning activities. Learning activities that are usually carried out in class become carried out at home. Instead, learning activities that are usually carried out at home become carried out in class.

Teachers as facilitators package learning materials in digital form in the form of videos for students to learn at home.

The following is the definition and understanding of the flipped classroom learning model from several book sources:

a. According to Yulietri et al (2015), the flipped classroom is a model where the teaching and learning process is not like in general, namely in the learning process students learn subject matter at home before class starts and teaching and learning activities in class in the form of doing assignments, discussing material or problems that students do not understand.

b. According to Milman (2012), the flipped classroom is a learning concept on the basis that what is done in class in conventional learning becomes done at home, while homework in conventional learning is done in the classroom.

c. According to Bergmann and Sams (2012), the flipped classroom is what was traditionally done in the classroom and is now done at home, while what was traditionally done as homework is now completed in class.

d. According to Johnson (2013), the flipped classroom is a learning model that minimizes direct teaching from teachers but maximizes indirect teaching with material support that can be accessed online by students.

2.1. Characteristics of Flipped Classroom

The learning model using the flipped classroom method is implemented by minimizing the number of direct instructions by teachers to their students in teaching material and maximizing time to interact with each other in discussing related problems. Flipped classroom learning emphasizes more on the use of time inside and outside the classroom so that learning is more quality so that it can increase students' understanding of the material.

According to Abeysekera and Dawson (2015), the characteristics of the flipped classroom learning model that distinguish it from ordinary learning models are:

a. Changes in the use of class time.
b. Changes in the use of time outside of class.
c. Perform activities traditionally considered homework in class.
d. Perform activities traditionally considered inside the classroom, and outside the classroom.
e. Classroom activities emphasize active learning, peer learning and problem-solving.
f. Pre and post-class activities.

Use of technology, especially video. Meanwhile, according to Muir and Geiger (2015), the characteristics of learning with the flipped classroom method are:

a. Means to increase interaction and time of personal contact between students and teachers.
b. Give students space to take responsibility for their learning. 3. Classrooms where the teacher is not called a wise man on stage but rather gives guidance on the student's side.
c. Mixing hands-on instruction with constructivist learning.
d. Classes where absent students, will not miss lessons.
e. Classes where content is permanently archived for review and correction.
f. A classroom where all students are involved in their learning.

2.2. Types of Flipped Classrooms

According to Utami (2017), the flipped classroom learning model has several types, which are as follows:

a. Traditional flipped
   Traditional Flipped is the simplest flipped classroom learning model. The learning step is for students to watch learning videos at home, then when in class do activities and do assignments given in groups. Then at the end of the lesson, quizzes are carried out individually or in pairs.

b. Mastery flipped
   Mastery Flipped is a development of Traditional Flipped. The learning stages are almost similar to Traditional Flipped, it's just that at the beginning of the learning is given a repetition of the material at the previous meeting.

c. Peer Instruction flipped

Peer Instruction Flipped is a learning model where students learn basic material before starting class through videos. When in class, students answer conceptual questions individually and students are allowed to argue with each other about the questions given to convince their friends. At the end of the lesson, an individual comprehension test is given.

d. Problem-based learning flipped

Problem-Based Learning Flipped is a learning model where students are given videos that provide instructions to solve problems that will arise when in class. In this model, students work with the help of the teacher. When in class, students conduct experimentation and evaluation.

2.3.   Flipped Classroom Steps

Flipped classroom learning is first students learn a topic on their own, usually using video lessons created by the teacher or shared by other educators, teachers do not have to create their learning videos. Later in class, students then try to apply the knowledge by solving problems and doing practical work. Flipped classroom learning is not just learning to use learning videos, but emphasizes more about utilizing class time:

a. Preparation

Before face-to-face, the teacher provides material in the form of learning videos

  1) The teacher conveys the learning objectives to be achieved.
  2) The teacher conveys in outline the material to be studied.
  3) Give students assignments to summarize from videos.

b. Classroom activities

  1) The teacher divides students into groups of 4-5 students.
  2) Discuss videos that students have watched with discussion and Q&A.
  3) Through questions and answers with students, the teacher reinforces concepts.
  4) Teachers provide problem-solving exercises through LKS.
  5) Students discuss with their group to solve problems.
  c. The role of the teacher during discussion is to facilitate students to be able to write down their ideas or ideas related to the given problem.

   One group presented the results of the discussion and the other responded to it. The teacher gives a test to find out the level of understanding of students. Provide learning videos for the next meeting.

3.   Method

This study utilized a qualitative case study to deeply explore the phenomenon that was already stated in the introduction (Gay et al., 2012). This study was conducted in a junior high school which is located in a rural area. An English language teacher and two students from seventh grade were involved in this study. Observational field notes and interview guidelines were used as research instruments. Data from this study were gathered by utilizing observation and interviews. The interviews were conducted by using one-on-one interviews. Before data were analyzed, they were transcribed and coded to fulfil the research question. This study analyzed the data using triangulation.

4.   Discussion

What are the challenges in implementing flipped classrooms in SMPN 1 Banjar Agung (rural area)?
For the first research question, both an English language teacher and two students agreed that quota cellular and signal are the biggest problems that they faced in flipped classrooms. It can be confirmed based on an interview with an English language teacher, his statement is as follows:

"The challenges are their mobile phones are not supported (to utilize certain learning management system), the second is their signals are not supported, but the most problems are quota cellular and signal."

In addition, a female student said regarding quota cellular and signal:

"Yes, the first (problem) is when I run out of quota, I cannot study and find learning materials"
"The strength of the signal is dependent on electricity, if the electricity is off, there is no signal, but if it works normally, sometimes the signal is full 4G"
A boy student stated quota cellular and signal, his statement is as follows:
"The quota is sometimes on its limit, sometimes I run out of it, so I cannot study"
"I have the same problem, if the electricity is off, then the signal is lost"

Considering the answers come from an English language teacher and two students, both quota cellular and signal are essential in implementing flipped classrooms. If the students run out of cell quota or the signal is lost, they cannot join the learning activity, so they will be left behind by their friends. In addition, based on the researcher's observation, the teacher had run out of his quota when he had to send learning materials, and then he asked for tethering to his colleagues. Next, will be displayed an English language teacher and two students' answers regarding the process of implementing flipped classrooms on their site.

How is the process of implementing flipped classrooms in SMPN 1 Banjar Agung (rural area)? For the second research question, a statement from an English language teacher about the process of giving pre-class learning materials. The English language teacher's statement is as follows:

"Yes, we sent learning materials for those at home using WhatsApp voice recording, for instance, the theme is a description, then I read the instructions with same theme with the students who attended school"

In contrast, his students said that their teacher seldom sends them pre-class learning materials. Their statements were as follows:

"No, the learning materials are not sent"

In addition, another student gave her statement:

"Sometimes the learning materials are sent, but sometimes are not"

The researcher added another question, what did they do if the teacher did not send the learning materials, the answer was:

"Sometimes I study using (English) books and Youtube sometimes did not study"

Based on the answers from both the teacher and student side, it shows that there are different points regarding giving pre-class learning materials. The teacher said he sent the same learning materials to students who cannot attend school as students who attend school. However, the students' side affirmed that the teacher seldom sends the learning materials, even though the teacher did not send the learning materials. Even though the teacher did not send the learning materials, the students kept learning using YouTube. The teacher might have forgotten to send the learning materials because he took more time to prepare pre-class learning materials for the flipped classrooms than to prepare offline classrooms. It is similar to Wanner and Palmer's (2015) study, that a teacher works harder in preparing learning materials for a flipped classroom, rather than a conventional classroom.

5.   Conclusion

This study explored the challenges in implementing flipped classrooms during covid-19 pandemic. The result showed that the main challenges in implementing flipped classrooms are limited or out-of-quota cellular and internet signals that might be lost during pre-class activity. The study also revealed that the English language teacher was seldom to send or provide pre-class learning materials to their students. This study indicated even

though the teacher did not send the learning materials, students can learn autonomously using a YouTube application. It showed that the motivation of students is quite high, thus the teacher has to support it by providing or sending learning materials to those who cannot attend the offline class.

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