The Flipped Classroom: A Story from an EFL Classroom in Indonesia[1]

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Abstract

In recent years, the flipped classroom instructional model has been the subject of interest of many researchers and practitioners in various fields, notably for its potential to improve learning outcomes, promote active learning, and enhance student engagement. However, a fairly extensive literature shows that with these advantages come challenges. This study was conducted to examine how a teacher and students perceived these advantages and challenges. Their experience of implementing a flipped classroom was documented through written narratives and interviews, from which we concluded that the flipped classroom provided a good platform for active learning as the role of students shifted from passive classroom attendees to active participants. However, successful implementation of a flipped classroom required students' learning autonomy and technological aptitude in addition to a reliable internet service.

Resumen

En los últimos años, el modelo de instrucción de aula invertida ha sido objeto de interés de muchos investigadores y profesionales en diversos campos, en particular por su potencial para mejorar los resultados del aprendizaje, promover el aprendizaje activo y mejorar la participación de los estudiantes. Sin embargo, una literatura bastante extensa muestra que estas ventajas vienen acompañadas de desafíos. Este estudio se realizó para examinar cómo un maestro y los estudiantes percibían estas ventajas y desafíos. Su experiencia de implementar un aula invertida se documentó a través de narraciones escritas y entrevistas, de las cuales concluimos que el aula invertida proporcionó una buena plataforma para el aprendizaje activo a medida que el papel de los estudiantes cambió de asistentes pasivos al aula a participantes activos. Sin embargo, la implementación exitosa de un aula invertida requería autonomía de aprendizaje y aptitud tecnológica de los estudiantes, además de un servicio de Internet confiable.

Introduction

Advancements in the internet and online technologies have changed the way we do things including teaching and learning in educational contexts. One of the emerging innovative instructional models is the flipped classroom. Touted for its effectiveness in promoting active learning, the flipped classroom has drawn a great deal of attention from scholars in various disciplines and has been implemented at different educational levels (Hao, 2016; Davies et al., 2013).

As the term suggests, the flipped classroom can conceptually be construed as the instructional activities that would traditionally take place in the classroom are now done at home, and the learning activities that students would normally do as homework are now completed in the classroom (Bergmann & Sams, 2012; Lage et al., 2000). In this instructional model, the course materials are normally presented online in the form of videos or teacher handouts for students to study at home before attending the class period. In-class time is subsequently devoted to promoting student engagement through discussion and problem-solving activities (Baker, 2000; Brame, 2013).

The flipped classroom has been reported to improve learning achievement and satisfaction (Bösner et al., 2015; González-Gómez et al., 2016), student engagement (Amiryousefi, 2017; Khanova et al., 2015), time efficiency (Davies et al., 2013; Moraros et al., 2015), and improvement in the interactions between teacher and students also between students and students (Ryan & Reid, 2015; Chen et al., 2014; Galway et al., 2014). Moreover, it is deemed more cost-effective than traditional instructions (O'Flaherty & Phillips, 2015).

Despite seemingly positive responses to flipped classroom instruction, the debate is whether the flipped classroom is as effective as what has been widely hyped. Some studies (e.g., McClelland, 2013; Velegol et al., 2015) found that students in the traditional lecture-based classroom outperformed those in the flipped classroom. Other studies reported that a great number of students still preferred traditional lecture-based instruction particularly because in the flipped classroom students were not ready to learn on their own (Hao, 2016; Wilson, 2013) and could not obtain immediate direct help from both their teacher and fellow students during pre-class activities (Schultz et al., 2014). In addition, most flipped classroom designs require students to be equipped with technological aptitude. Forsey et al. (2013) noted a student's frustration and anxiety

[1] This article is refereed. Received: 16 August, 2021. Accepted: 26 May, 2022. Published: 28 April, 2023.
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about the flipped classroom due to her limited technological aptitude. Some students also complained that the flipped classroom was time-consuming (Wanner & Palmer, 2015).

What has been described above implies that the flipped classroom comes with both advantages and challenges. This study was conducted to seek further understanding of how the teacher and students perceived these advantages and challenges. We believe that hearing from their experience of implementing a flipped classroom would provide viable information on how we could make the most of the flipped classroom in the future. In addition, while the majority of studies on the flipped classroom took place in developed countries (Al-Zahrani, 2015; Battaglia & Kaya, 2015; Bösner et al., 2015), less attention has been paid to the implementation of the flipped classroom in rural areas where internet connections are not as good as those in developed countries. This study fills this void.

Literature Review

The flipped classroom, also known as the inverted classroom (Lage et al., 2000), is usually attributed to Bergmann and Sams, two high school chemistry teachers who in 2007 prerecorded their lecturers to help absent students to keep up with their classmates. They then realized that their physical presence was no longer necessary for content delivery; rather they were most physically needed when their students worked out problems and struggled with exercises, so they decided to flip their teaching (Bergmann & Sams, 2008; 2012). As the flipped teaching model became increasingly popular, it managed to make its way to higher education. It has been reported to be implemented in different university courses such as medical and health education (Bösner et al., 2015; Galway et al., 2014), electrical engineering (Battaglia & Kaya, 2015), computer network and the internet (Chen et al., 2014), performing arts (Danker, 2015), sociology (Forsey et al., 2013), general science (González-Gómez et al., 2016), pharmacy (McLaughlin, et al., 2013), calculus (Jungić et al., 2014), economics (Lage et al., 2000) engineering (Mason et al., 2013), and epidemiology (Moraros et al., 2015).

In the field of English language teaching and learning, in particular, studies have reported sizeable benefits of the flipped classroom. For example, the results of experimental studies showed that students from flipped classroom outperformed those from non-flipped classroom in terms of their learning achievement (Ekmekci, 2017; Boyraz & Ocak, 2017; Köroğlu & Çakır, 2017, Webb & Doman, 2016). Hung (21015) who recorded students' experience during the implementation of flipped classroom through questionnaires, interviews, and collection of lesson study logs concluded that the flipped classroom approach helped promote better learning attitudes and active learning. It was also reported that flipped classroom interventions resulted in better student engagement (Alsowat, 2016; Amiryousefi, 2017; Jamaludin & Osman, 2014; Hsieh et al., 2016). According to survey data collected by Zainuddin and Perera (2019), interactions among students in the flipped classroom were better than those in the non-flipped classroom. Furthermore, Choe and Seong (2016) reported that their questionnaire data showed the flipped classroom helped students better prepare for in-class activities. Many of these findings, however, relied much more on the statistical computation of experimental and questionnaire data. We believe that it also is necessary to listen to verbal accounts firsthand from the teacher and students to better understand their experience in implementing the flipped classroom.

Despite the aforementioned benefits, studies also reported some challenges in the implementation of flipped instruction in English language classrooms. One notable concern in implementing the flipped classroom is the heavy workload (Yang, 2017). The teachers need to prepare the lessons far before the in-class activities, and students always have to study these prepared lessons even before coming to class. Because of this higher workload, it came as no surprise that in Wanner and Palmer's (2015) study students felt that flipped learning is time-consuming. Furthermore, previous studies did not specify the geographical contexts in which the flipped classrooms were implemented. In this study, most students lived in rural areas where internet connections were sometimes unstable. This, we believe, to some extent affected students' experience in implementing the flipped classroom.

Methods

The flipped classroom design

In the context of this study, the flipped classroom was designed by a teacher (in the present study a lecturer is defined as a class teacher or instructor at the university level) who hereafter will be referred to as Budi, a pseudonym and implemented in an English morphology course for undergraduate students at a university in Indonesia. The flipped classroom activities were realized by combining online learning sessions and in-

person classroom meetings. The online sessions were entirely asynchronous, using a web-based learning management system (LMS), namely Moodle. The LMS provided the students with online teacher-made course readings, discussion forums, and warm-up quizzes.

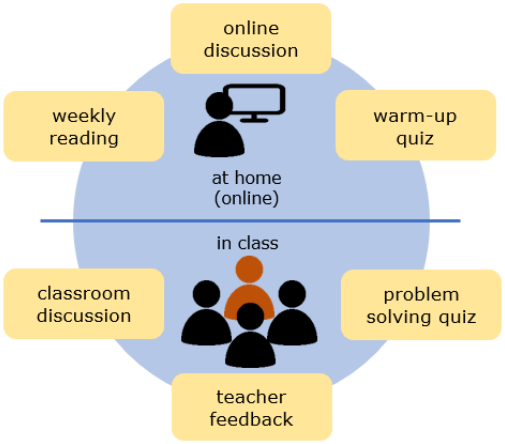

Figure 1: Flipped classroom design

The weekly readings were presented in the form of SCORM (Shareable Content Object Reference Model) files, and the students were given a week to access and review these readings before every classroom meeting. The student use of the SCORM files on Moodle would provide the teacher with reading completion reports. The discussion forums were provided for students to ask questions and initiate discussions regarding the reading materials before taking up the warm-up quizzes.

In the evening just before the classroom meeting, the students were presented with a warm-up quiz that they had to complete in one hour. A warm-up quiz was normally a simple reading exercise and would be active from 7 to 12 PM. The students could start the quiz anytime between that period. For example, if Student A decided to start the quiz at 8 PM, the quiz would end at 9 PM. The purpose of this quiz, as the name suggests, was only to get the students warmed up to the lesson prior to the in-person classroom meeting and at the same time to ensure that the students completed the assigned readings. In addition, the questions that constituted the quiz embodied some important points of the materials students needed to focus on.

In-class activities usually began with a discussion wherein students brought their problems and confusion into the classroom that were related to the reading materials and warm-up quizzes. One student might ask a question about some parts of the reading materials they found difficult to understand; for example, how to tell inflection apart from derivation. In that case, the teacher would let his fellow students respond to the question. In case no students can help solve the problem, the teacher would come up with his own solution. Once the discussion ended, the teacher would present a problem-solving quiz to the students. The purpose of giving this quiz was to assess students' critical understanding of the instructional materials. As the last part of in-class activities, the teacher would provide feedback on students' responses to the problem-solving quiz.

Budi did not include any videos in his flipped instruction as other flipped classrooms would because he wanted to alter his students' reading habits. To make sure that the students would read the material, Budi informed them in the first meeting that some of the course grade would be based on the warm-up quizzes.

Research design

The purpose of this study was to examine the advantages and challenges of the flipped classroom instructional model as perceived by Budi and his students. To this end, a qualitative approach was chosen because it enabled an in-depth and detailed examination of their perceptions of the flipped classroom instruction after they had experienced one. Data were obtained by collecting students' written narratives and by conducting semi-structured interviews between Budi and his students after they consented to participate in the study. The consent form was written and orally explained to the research informants in their native language. This form essentially describes the purpose of the study, the roles of both researchers and informants in the study, and how the informants' identities would be protected. Before the informants

agreed and signed the written consent form, they were allotted the opportunity to ask questions about our research project and their participation in the project.

Budi and his students were selected for this study primarily because they had implemented flipped teaching and learning, which happened to be the first case in the research site. Enrolled in the course were 87 students, most of whom were females, aged between 19 and 21, and lived in rural areas.

Prior to the interviews, the students were asked to write their perceptions of how the implementation of the flipped classroom affected their learning. Their narratives were written in their native language. The purpose of using the native language was to obtain rich data because English could possibly prevent them from writing what they wanted to if they had low English writing proficiency. These students' narratives were particularly useful in that they could help us construct the interview questions. Furthermore, students' narratives offered another advantage in such a way that they provided the data that students had given attention to.

Out of 87 students enrolled in the course, only 45 were interviewed. This number was determined using data saturation principles; i.e., after interviewing 45 students, the research data were saturated so that no more interviews were deemed necessary to be carried out with other informants. The interviews were also conducted in the interviewees' native language, Indonesian, and were videotaped to facilitate the transcription process. Due to differences in the interviewees' availability for the interview schedule, the data collection took about three months.

The collected data were coded to identify the central theme of the information provided by the informants using Auerbach and Silverstein's (2003) qualitative data analysis procedures. Having first read students' narratives and interview transcripts, memos were written and codes were assigned to data chunks. We then grouped several data chunks into two major categories, advantages and challenges. Codes were then revisited to see if any revisions to code labeling were required. To make data more manageable, data chunks that express similar ideas were grouped into a number of themes.

Findings

From students' written narratives and interview data, we identified several advantages and challenges of the flipped classroom as perceived by Budi and the students. These advantages and challenges are summarized in Table 1 and will soon be discussed consecutively one after another.

Advantages	Challenges
engaging and active learning	higher workload
improvement in classroom interactions	online monitoring issue
better preparation for in-class activities	internet problem
deep learning	quiz anxiety
increased learning motivation	on-screen reading problems
cost-effective	asynchrony and absence of direct help
increased interests in the course	boring repeated learning pattern
flexible and autonomous learning	

Table 1: Advantages and challenges of the flipped classroom

Advantages

Engaging and active learning

Budi mentioned that year-in-year-out in his teaching career, he always had to deal with poor student attitudes, that most of his students were not sufficiently engaged in the lesson, that they did not complete the assigned readings prior to the class meetings, nor did they review their self-recorded lecture notes until the mid-term or final test was approaching, that some of them even never took notes during the lecture, and that they always complained that the textbooks he suggested to them to read were too robust in their information content and, to the extent of their English proficiency level, too hard to understand. Therefore, in his flipped classroom design, Budi minimized and simplified the amount of reading material1. As previously mentioned, students were informed that the course grades would be partly based on the warm-up quizzes. This, based on his account, helped ensure that at the very least the students had reviewed the course material prior to in-class time because if they had not, they would not have been able to answer the warm-up quiz questions. However, some students reported that with the absence of direct help from the teacher, they struggled to understand the reading materials. For example, Student 16 wrote the following account:

> *It has been a tradition for years that the teaching practice in Indonesia always begins with teachers explaining the materials, but now we are prompted to study the materials on our own. Sometimes I just cannot understand the reading materials especially when it comes to terminologies and technical words I have never heard before and there is nobody I can ask to help clear up my confusion*. (Student 16, Narrative)

Questioned about this issue, Budi argued during the interview that this was an advantage, rather than a challenge, meaning that the students got warmed up for the lesson. Due to such confusion, students would come to the class with a wide array of questions regarding the materials. They brought these questions to the classroom as the problems to solve in the discussion. In-class time became more efficient because Budi no longer had to spend the whole time talking to deliver the materials; instead, he only needed to focus on several parts of material that the students found difficult to understand.

> *That's the point! I want my students to come to the classroom bringing their confusion and questions about the reading materials. I want the classroom meeting to be lively with lots of discussions about what my students really want to know rather than a full-time teacher-centered lecture. You know, teaching was tough in the past few years because I always needed to talk a lot* [in the classroom] *to deliver the materials, but now I would just let the class discuss these questions right from the time the class begins and provide feedback after my students finish with their discussion* [of a certain topic]. (Budi, Interview)

Based on this account, a notable advantage of this flipped classroom instruction is that there is a shift in students' role; i.e., from passive listeners, a role the students would usually play in a traditional classroom, to active learners engaged in discussion and problem-solving activities. This finding confirms that the flipped classroom could facilitate active learning (Al-Zahrani, 2015; Hung, 2015) before and during the in-class time (Jungić et al., 2014) and promote student engagement (Alsowat, 2016; Amiryousefi, 2017; Jamaludin & Osman, 2014; Hsieh et al., 2016; McLaughlin, et al., 2013).

Improvement in classroom interactions

Effective teaching and learning require interactive lessons and good relationships between teachers and students (Suparman et al., 2019; Sztejnberg et al., 2004). However, the majority of instruction in common traditional classrooms is teacher-centered. With the flipped classroom, confirming a previous study (Ryan & Reid, 2015; Zainuddin & Perera, 2019), our interview data indicated that there was a greater opportunity for the interactions between Budi and the students to increase during in-class activities. What happened in the classroom was no longer a one-way interaction as the students actively participated in the discussion.

> *…perhaps because we came to the class with our initial understanding* [of the course materials], *we might become inquisitive and started throwing questions and having a lot of peer discussions.* (Student 2, Interview)

Since the students faced the same difficulties, they tended to ask their friends and discuss them inside and outside of the classroom. For the interaction outside of the classroom, the students often contacted their peers or even worked together during the pre-class activity, where they reviewed the online materials before coming to the classroom.

> *We exchanged WhatsApp messages to discuss our readings because we couldn't get immediate replies when posting* [on the forum]. *…we often faced the same difficulties, sometimes, we even did the online reading together not at home but at the campus after the class*. (Student 24, Interview)

We consider this high degree of interaction between Budi and the students and among the students as one of the benefits of the flipped classroom instruction as such interactions, according to Galway et al. (2014), may contribute to a positive learning experience.

Better preparation for in-class activities

Based on the students' accounts, the flipped classroom instruction managed to alter their study habits. They felt that they were always encouraged to do the weekly readings because if they did not, they would not get a good score on the warm-up quizzes. They said that getting used to this new schedule (i.e., preparing for the warm-up quiz) made them value their time better and that their reading interests started to grow ever since. At this stage, it seems that Budi's decision to only include reading materials in his flipped classroom design had just paid off, but most importantly the flipped classroom had trained students to manage their time for better preparation before the classroom meetings. This result seems to concur with the findings of some previous studies (e.g., Choe & Seong, 2016; Sahin et al., 2015) that flipped classroom instruction resulted in students' better preparation habits before attending the class.

Deep learning

Most of the students stated that the flipped classroom instruction helped them think critically. Since the pre-class sessions required them to review and understand the materials on their own most of the time, some of them would definitely face certain problems since they were unable to get direct help particularly in understanding the difficult concepts. In such circumstances, they always looked for the answer and another explanation on several websites or asked their friends through another platform to help them understand better. Some students claimed that even when they had already found what they were looking for, they did not stop. Instead, they dug further to seek a deeper understanding of the materials that they were curious about, which oftentimes did not appear in their assigned reading materials. In this respect, the students tried to connect the information they got from their course readings and other information they found from other sources on the internet. During such activities, Danker (2015) suggests that students developed deep learning.

Increased learning motivation

Since the students were informed that some of the course grades would be based on the warm-up quizzes, they reported that they were motivated to read and understand the materials so as to be able to get a good score on the warm-up quiz. If they happened to get a low score, they got motivated to do better in the next quiz. When they got a high score, they were also motivated to maintain their scores. Moreover, the students also stated that they always felt satisfied when their score was above average as they believed that they had accomplished the mission to understand the materials in the pre-class session. This seems to justify the finding of some previous studies (e.g., Bhagat et al., 2016; Huang, 2015) that flipped classroom instruction in some way has the potential to increase learning motivation.

Cost-effective

In implementing the flipped classroom, the students believed that all kinds of printed sources were no longer necessary since almost all the materials were available online. In consequence, the students were not obligated to purchase any printed books for this particular course. Instead, the students had to spend some of their money on buying internet plans. In terms of expenses, the students stated that this had reduced their study cost because the internet service they bought could be used for other needs as well. This result confirms O'Flaherty and Phillips's (2015) suggestion that the flipped classroom approach is a cost-effective model.

Increased interests in the course

Interview data and students' narratives indicated that most students were fascinated by this method. Their interest thus started to grow into the course as well. Although few students claimed that the inclusion of an online feature in education was not something new for them, the flipped classroom instruction offered something that they had never experienced before. In their prior experience, they only used an online feature to undertake the quiz most of the time, while the materials were still delivered inside the class. On the other hand, with the implementation of the flipped classroom, since the materials were on the same website as the quiz, they were able to review the materials all over again right before they started undertaking the quiz. Meanwhile, those who experienced this method for the first time stated that this was an interesting and enjoyable experience. In agreement with this finding, Leo and Puzio (2016) also suggested that the flipped classroom could help grow learning interest in the course in which the flipped classroom was applied.

> *What I loved about it* [the teaching approach] *was that the materials were always available and accessible anytime and anywhere. I always spent approximately an hour reading. I mean I read the materials more than once so that I could get a better understanding* (Student 14, Narrative)

> *From the first time I logged into the e-learning [platform], I learned that this course was very well-prepared.* [The materials] *were well-structured.* [It felt] *like I had a study guide. I think the way this course was delivered was really interesting, and the quiz… I think the quiz was challenging. Overall, I really enjoyed studying morphology. It [*the teaching approach] *was unique and new to me.* (Student 23, Interview)

Flexible and autonomous learning

The students reported that the flipped classroom also enabled them to learn the materials according to their own ability and learning pace. They could take a break and multitask anytime while they were studying online lectures. Also, they indicated that getting used to the online learning environment encouraged them to be independent learners. Whenever they felt that the assigned readings could not satisfactorily feed their

curiosity, they always looked for some additional information from other sources on the internet because in an online learning environment they did not have immediate access to Budi or their fellow students.

> *… when I don't understand the materials, I browse [through the internet] to look for other sources* [of information] … (Student 5, Interview)

> *I first browse through the internet, and if I fail to find the solution, I jot down and bring the question to the class meeting* (Student 1, Interview)

> *Often, I failed to understand the whole material. I would just stop reading, do some other things, and revisit the online class later. The reading materials are easier to understand after the second and the third read.* (Student 28, Interview)

In other words, they started to develop learning autonomy by controlling various aspects of learning such as the time and the pace and taking responsibility for evaluating their own learning whether to stop or continue digging to develop a better understanding of the learning materials. This finding seems to concur with Collins (2008) that there may be connections between learning autonomy and online learning.

In addition, the fact that the course materials were accessible anytime offered another advantage. One of the students said that although she was absent from a scheduled classroom meeting, she could still keep up with her classmates. These findings are very much consistent with those of Sulaiman's (2018) survey study.

Challenges

Higher workload

The flipped classroom instruction may provide class time efficiency because the materials are delivered before the class begins. However, this entails a higher workload outside of the classroom for both Budi and the students. This finding confirms Yang's (2017) suggestion that one of the notable challenges in implementing the flipped classroom is that it gives an extra workload for both teachers and students.

Budi admitted that he had to prepare the reading materials, and this preparation was not as simple as summarizing the materials from existing literature, but he had to pick and choose what is assumed appropriate to students' needs. To this end, as reported during the interview, Budi had to read lots of materials from various reference books and modify them into weekly student study guides. In consequence, the preparation took a certain amount of time. Budi even claimed that he arranged this preparation stage for approximately two years before he could finally implement the flipped classroom in this course. This seems to coincide with the finding of Wanner and Palmer's (2015) study that the time used for preparing a flipped classroom could take up to six times greater than a traditional lecture-based classroom.

Similarly, for students, having to study for the weekly quiz and attend the class every week means that they had to double up their efforts. In this respect, some students complained the course workload overwhelmed them.

> *… the weekly reading, the quiz, you just can't escape them!* (Student 17, Interview)

> *The lesson itself now became the homework, and then online quiz, and another quiz during the class… It's just beyond me*. (Student 42, Interview)

> *I am just not used to this work rhythm, and if for some personal reason I could not complete a weekly reading, I could not follow the class.* (Student 31, Narrative)

It is very critical that students review the materials before attending the class. In the flipped classroom, reviewing materials at home is analogous to attending a lecture in a traditional classroom. At this point, as suggested by Sayeski et al. (2015), the potential advantage of the flipped classroom could fail to materialize because the students did not do the assigned readings. Student 31's narrative seems to justify it.

Online monitoring issue

Moodle provided a report about which students accessed the SCORM file, the reading materials, making it easy for Budi to check how many students completed the assigned readings. However, monitoring quizzes is a real challenge. Although Budi shuffled the order of the questions and the choices (in the case of a multiple-choice quiz), he and the students agreed that that could not prevent students from cheating. Some students said that they could still work together in completing the online quiz for example by discussing it on WhatsApp. A student even confessed that he gave his username and password to his friend and let her do the quiz for him.

Internet problem

As Hamdan et al. (2013) suggested, the implementation of the flipped classroom was to some extent hampered by internet-related problems. In the context of this study, most students lived in rural areas where internet access was not as fast as it was in urban areas. Moreover, due to their financial conditions, students could only afford to buy cheap internet plans whose service was not available or poor in certain areas. Consequently, they sometimes struggled to access online materials. A few students said that they often reviewed the online materials at the campus where free Wi-Fi service was available or at an internet café because the internet connections in their residential area were poor. However, when it came to the quiz, they had no option but to do it at home because the quiz was set to be active at night when they were usually at home. With such poor internet connections, they often felt worried that they could not complete the quiz.

Quiz anxiety

As discussed earlier, the warm-up quiz had a predetermined time limit of one hour. Whilst some students felt motivated by this time limit; on the contrary, some others suffered from quiz anxiety and hence tended to rush in completing the questions. Such anxiety is associated with unpleasant feelings like worry and self-doubt that may impair students' performance (Hembree, 1988; Sarason, 1984; Chapell, et al., 2005). Questioned about this, Budi argued that the provision of a quiz time has gone through several considerations and claimed one hour was more than enough to complete warm-up quizzes since they normally consisted of no more than ten questions, whose answers were actually embedded in the previously given materials. He also explained that he chose to activate the quiz between 7 and 12 PM because at a certain hour between that period the students were usually available and free from other activities, assuming that they were at home already. However, this could not prevent some students from feeling anxious during the online quizzes, especially those who had learning difficulties without direct help from the teacher and their peers.

On-screen reading problem

In the flipped classroom, since the reading material is delivered online, students who are accustomed to reading texts on paper may need to adapt to new reading habits; i.e., on-screen reading. This, as Thurstun (2006) suggested, may pose another problem such as perceptual difficulties particularly due to limited screen space and font style and colors. On-screen reading is also potentially slower than print-reading. In this study, some students claimed that they felt uncomfortable with reading on their cellphone screens because they had problems with vision. However, some other students who accessed the reading materials using desktops or laptop PCs said that they did not experience any reading difficulties.

Asynchrony and absence of direct help

When implementing a flipped classroom, a teacher may choose between synchronous and asynchronous practices. The first requires all students to access the online learning material at the same specified time, and the latter offered flexibility in that the students can log in to the online classroom anytime they want. For that reason, Budi chose to make the virtual classroom in his flipped classroom design asynchronous. However, this led to another problem for students who had difficulties in understanding the material since they had no direct help from Budi or their peers. To overcome this, Budi provided an online discussion forum in the LMS so that the students could share their concerns. However, it turned out that the discussion forum was not effectively used due to the lack of participation from students. The students said that they found it hard to carry out online discussions because when they posted a question to initiate a discussion, they could not obtain immediate responses from other class members. Therefore, they preferred having discussions with their friends on other digital platforms like *WhatsApp*.

Boring repeated learning pattern

In contrast to findings of previous studies (e.g., Allan, 2007; Al-Zahrani, 2015; Butt, 2014; Davies et al., 2013; Mason et al., 2013) that the flipped classroom could promote student engagement and learning satisfaction, in our study, a few students found the flipped classroom instruction boring. They felt bored with the repeated learning pattern: reviewing the materials, working on the quizzes, and discussing the quizzes and other difficult concepts in the classroom meetings. Therefore, this small number of students preferred the traditional method.

Discussion

This study has found that improvement in student engagement is the most notable benefit of the flipped classroom. In particular, through the provision of weekly quizzes, Budi managed to alter students' reading habits. As students were perceptibly motivated to get good scores on those quizzes, reviewing the assigned readings before in-class meetings became absolutely and indispensably necessary. In addition, since these pre-class session readings required students to grasp the materials on their own without direct help from the teacher, this to some extent fostered learning autonomy as some students tried to look for additional information from other sources on the internet. In doing so, students had total control of their own learning. They themselves decided when to start, stop, or continue digging away at their reading to develop an understanding of the learning materials. Some students would also ask their friends and discuss the reading materials outside the classroom whenever they struggled to understand the reading content. All of these activities can only get students better prepared for the in-class session.

The improvement in student engagement was not only observed outside the classroom. As students tend to face the same difficulty, they would bring their curiosity and confusion to the classroom meeting and continue the discussion. In this case, they were no longer passive learners, but active learners who were engaged in problem-solving activities as the teacher would only step in when the discussion led to a dead-end. As a result, the class time became more efficient.

Albeit class time efficiency improvements, having pre-class and in-class sessions entail a higher workload for both the teacher and students. In this study, it took Budi, the teacher, about two years to prepare and organize reading materials before implementing the flipped classroom. For some students, having to always review the materials and complete the warm-up quiz week in and week out before in-class sessions was overwhelming. Some of them often suffered from quiz anxiety, not to mention the inconvenience of on-screen reading compared to on-paper reading.

The most notable challenge of the flipped classroom was probably the internet connection. As most students lived in villages, internet service in their area was unreliable most of the time. The problem was also amplified by students' financial contexts. Some students could only afford cheap internet plans whose service came with some restrictions.

Furthermore, this study has also found some other problems related to the nature of online activities. As everything was done asynchronously, it was hard to prevent students from cheating despite the fact that Budi had shuffled the question order. On the one hand, the asynchronous practices offered learning flexibility; on the other hand, this left students working on their own without help from the teacher. This seems to be detrimental to students who struggled with the readings. A few students also complained that the class became boring because they repeated the same learning pattern: reviewing the materials, working on the quizzes, and discussing the quizzes and other difficult concepts in the classroom sessions.

Conclusion

This study has identified several advantages and challenges of the flipped classroom as perceived by an EFL teacher and students in Indonesia. The key feature of the flipped classroom is its in-time course material delivery, freeing up in-class time for more active and engaging learning activities. However, it takes students' learning autonomy and sufficient technological supports for the flipped classroom to yield the expected results. It is also worth noting that it is necessary for teachers implementing a flipped classroom in an EFL context to minimize the amount of online reading materials and most importantly, taking into account the disparity in students' reading ability, simplify them to the extent that the language is plain enough for low proficient students to understand. Another factor to consider when delivering online course materials is internet connections. Many students would probably prefer videos to written materials, but in rural areas where internet connections are limited, the story would be different.

The finding of this study is very context-specific, so what we have found in this study might only apply to the contexts with similar characteristics to the present study. Also, the fact that only one teacher was involved in the study limited our understanding of teacher experience in implementing the flipped classroom. Involving more teachers in future studies would be more beneficial.

It is hard to project how the flipped classroom will develop in the coming years, but current trends may tell us that it could bring about a significant change in how education is carried out, especially in the era of Society 5.0 where convergence between cyberspace and physical space takes place.

Acknowledgment

This work was supported by the Ministry of Education, Culture, Research, and Technology (MoECRT) of the Republic of Indonesia through *Penelitian Dosen Pemula* (Junior Lecturer Research) Grant.

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