

Instructors' Perceptions of Using Videos in Flipped Learning: A Reflective Study on Online Discussion Classes

Posheng Vincent Chien¹, Inna Dzabelova², Charu Gupta³, and Zi Ning Wee⁴

¹Lecturer in English Education, Rikkyo University, Japan, vincent.chien@rikkyo.ac.jp

²Lecturer in English Education, Rikkyo University, Japan, inna.dzabelova@rikkyo.ac.jp

³Lecturer in English Education, Rikkyo University, Japan, charug@rikkyo.ac.jp

⁴Lecturer in English Education, Rikkyo University, Japan, wee.zining@rikkyo.ac.jp

Abstract

Since most of the university courses in Tokyo shifted to online mode, instructors were forced to adapt to different teaching approaches and maintain quality education. This reflective paper investigates perceptions of instructors in using videos in flipped learning in online discussion classes. To maximize student speaking time and practice opportunities, they decided to implement flipped learning by creating videos explaining the target discussion skills for each lesson and posting them in an online learning management system (LMS). The students were required to complete their pre-learning in preparation for classroom activities with their instructors or their peers. Pre-learning involved having the students watch the video at any time in the week before the lesson and completing a connected task. When the students come to class, they could start to apply, analyze, evaluate, and produce meaningful, interactive, and rich discussions. After implementing flipped learning and pre-lesson tasks for one semester, the instructors reflect on and discuss their experiences and observations. This study analyzed and discussed the advantages and disadvantages of flipped learning. On one hand, it helped save time spent on online instruction, offered learners a chance to control their learnings, and helped students at different levels. On the other hand, learners and instructors also faced some challenges, such as time consumption and low motivation. The paper concluded with the study limitations and suggestions for future implementation in online, face-to-face, and hybrid settings.

Keywords: flipped learning, online teaching, reflection, university education

Introduction

English Discussion Class (EDC) is a mandatory class for all first-year students at Rikkyo University in Japan. The students in EDC classes are sorted into four levels based on their Test of English for International Communication (TOEIC) scores as shown in Table 1, with Level I students having the highest proficiency level in English, and Level IV having the lowest proficiency.

Table 1

TOEIC Scores and CEFR for all Four Levels

Level	TOEIC Scores	CEFR
I	680 and above	B1 – C2
II	480 - 679	B1
III	280 - 479	A2 – B1
IV	below 279	A1 – A2

Typically, an EDC lesson is structured in such a way that functional language, or a discussion skill (such as giving opinions or joining a discussion), is first introduced to the students. Instructors

are able to present these discussion skills in a method that they so choose, with most instructors utilizing less teacher-fronted methods such as the Deep-End method (Johnson, 1982), which encourages students to use the target language without prior instruction, thus allowing the instructor to use the students' successes and errors as examples while presenting the skill, to encourage more peer-learning. This presentation stage is then followed by practice, then two discussions. The expectation is that by the second discussion, students would be able to fluently engage in a discussion on the given topic in English only, using the functional language taught to them. To facilitate this, at each stage of the lesson, instructors also give feedback to students to encourage them to analyze their own output so that they can have more fluent discussions (Hurling, 2012).

To accommodate the sudden shift to online learning in April 2020 due to the COVID-19 pandemic, four instructors, the authors of this paper, decided to incorporate flipped learning into their classes. Drawing on their experience in flipped learning, both as learners and instructors in a physical classroom context, they adapted the EDC curriculum to fit an online learning context, particularly for the presentation stage of the lesson. This was to accommodate the loss of time and face-to-face interaction due to the online medium.

Additionally, most instructors split their classes into two sessions, with shorter in-class time, in order to help the students adjust better to the online learning environment. Assignments had to be given in place of the remaining time which was originally allocated to them. Flipped learning in the form of assignments was how EDC instructors accounted for this additional time.

This paper discusses and analyzes the methods of implementation, benefits, and challenges instructors faced in applying flipped learning in the context of EDC classes in an online setting, as well as proposed changes and improvements for future lessons.

Objectives of the Study

The purpose of the reflective study is to provide a better understanding of instructors' perceptions of implementing flipped learning in online discussion classes in Tokyo, Japan, based on the researchers' actual experience. The paper also aims to explore the benefits and drawbacks of this teaching approach from the perspective of instructors. In addition, it also offers suggestions for the instructors who wish to experiment with this approach in the future.

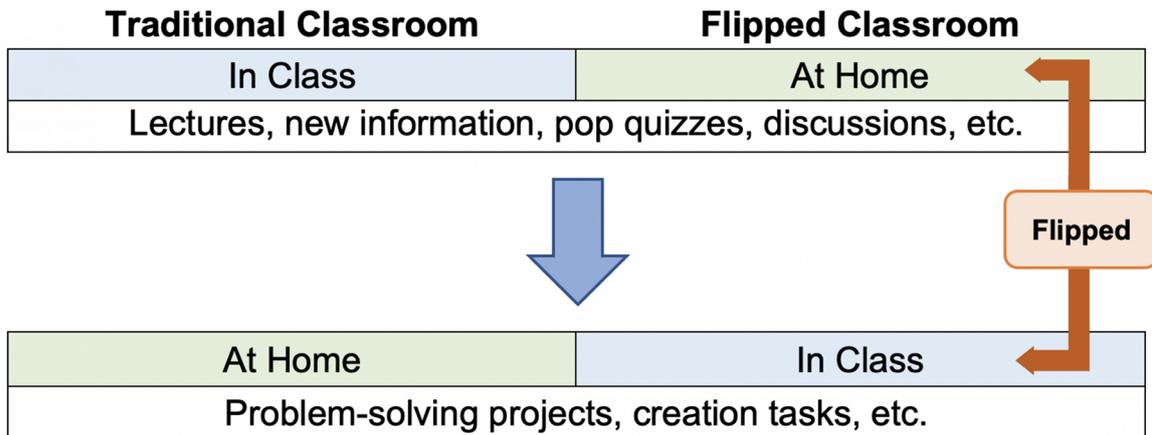
Literature Review

Flipped learning

Flipped learning (FL), which is also known as the flipped classroom, has been a research phenomenon in the past decade. FL is a methodology that revolutionizes the roles of class assignments and activities (Chen Hsieh et al., 2016). It flips the traditional way of teaching, in which students learn new information from lectures in class, to problem-solving and doing creation tasks at home, as shown in Figure 1 (Bates et al., 2017). It moves the teacher-fronted instructions from classroom settings to individual learning space and utilizes the class time for student-centered and interactive learning activities (Abeysekera & Dawson, 2014; Flipped Learning Network [FLN], 2014). This pedagogical approach has been experimented with and developed in different studies and the outcome and perceptions of the approach have been reported in a positive light (e.g. Blair et al., 2015; Lee & Wallace, 2017).

Figure 1

Comparison of Learning Tasks in Traditional versus Flipped Classrooms



The simplest and most common way to implement FL is to have learners watch videos as pre-lesson tasks to acquire new information and then conduct interactive learning activities in the class, where instructors can observe and provide feedback (Bergmann & Sams, 2012; Chen Hsieh et al., 2016). Anderson et. al (2001) cited the revised Bloom’s Taxonomy which illustrates six major categories of the learning process as shown in Figure 2. The pre-lesson tasks can include videos, worksheets, pop quizzes, or online discussions (González-Gómez et al., 2016) and aim to achieve the base dimensions such as remembering, understanding, and applying prior to the class time (Chen Hsieh et al., 2016; Lee & Wallace, 2017). The class time in FL is completely restructured compared with the traditional teacher-fronted classrooms as shown in Table 2 below (Bergmann & Sams, 2012). FL allows maximized class time for student-centered activities and for achieving high-order skills such as analyzing, evaluating, and creating (Clark & Besterfield-Sacre, 2017; Davis, 2016).

Figure 2

Anderson et. al’s (2001) Revision of Bloom’s Taxonomy (Armstrong, 2010)

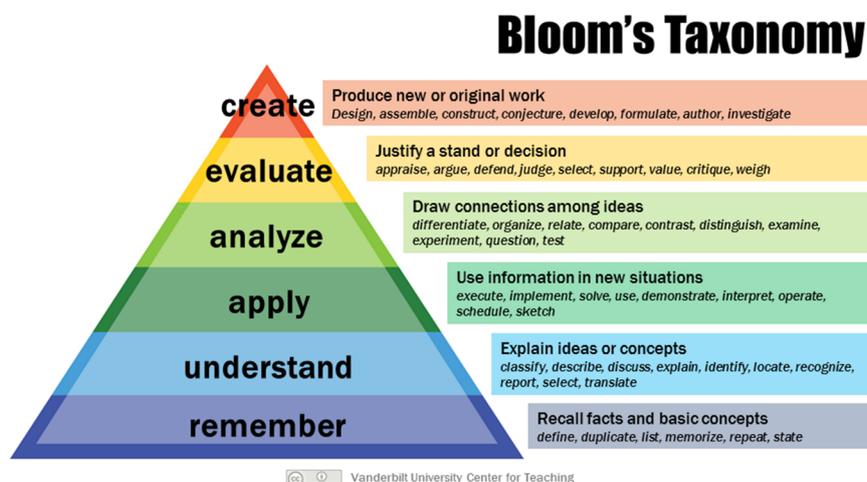


Table 2

Comparison of Class Time in Traditional versus Flipped Classrooms (Bergmann & Sams, 2012, p.15)

Traditional Classroom		Flipped Classroom	
Activity	Time	Activity	Time
Warm-up activity	5 min	Warm-up activity	5 min
Go over previous lesson's homework	20 min	Q&A time on video	10 min
Lecture new content	30-45 min	Guided and independent practice	75 min
Guided and independent practice	20-35 min		

Previous studies have suggested several advantages of FL. First, FL offers learners more exposure to the target language inside and outside the classroom and more opportunities to use the target language (Bergmann & Sams, 2012; Lee & Wallace, 2017). Bergmann & Sams (2012) reported cases in which videos saved the instructors a lot of time and allowed instructors to have more conversations and activities with the students in the target language. Second, it was shown that learners could control their own learning. For example, they could replay, fast-forward, or playback the videos at different speeds according to their own pace and abilities (Bergmann & Sams, 2012; Chen Hsieh et al., 2016). Third, in 2014, Abeysekera & Dawson (year) proposed that FL could increase the learners' motivation, and studies have validated the theory, revealing that FL does indeed help improve learners' confidence and motivation (Chen Hsieh et al., 2016; Wright et al., 2017). Another advantage is that FL offers more student-instructor interaction and instructors could understand their students better (Bergmann & Sams, 2012). Overall, FL definitely provides benefits to both students and instructors.

However, the shift from conventional teaching style to FL also creates some doubts as to its benefits. First, FL could be stressful. Reidsema et al. (2017) reported that this sudden transition could add more pressure on students as FL contradicts the traditional conceptions of teacher-centered lectures. Second, although studies showed that students' engagement increased, FL could be too demanding. For instance, in Chen Hsieh et al.'s (2016) study, participants complained that they had to devote more time to the course, and it took away their private time. Additionally, the content of FL also affects the outcome. Making videos can be extremely time-consuming for instructors (Bergmann & Sams, 2012), but this time could potentially be wasted if the videos and content are too monotonous, as such content could result in learners losing motivation (Reddan et al., 2016). Overcoming these difficulties and finding a balance between the pros and cons will be the biggest challenge.

Instructors' Perceptions of Flipped Learning

FL offers instructors a new way to conduct a lesson, and one of the biggest differences is the role of the instructors (Bergmann & Sams, 2012). In the traditional classroom setting, teachers are the authority and the person who conveys new knowledge. However, in FL, instructors' roles have been shifted. One of the new roles is that of a professional educator and a learning facilitator because FL instructors need to observe learners, give feedback, and perform formative assessments (FLN, 2014). They also provide different tasks to meet students' needs, according to students' prior knowledge (van Leeuwen, 2018). The role requires more professional knowledge and effort from the instructors. Another new role is as learning coach who is always ready to

support and encourage learners and provide short lectures on misconceptions they may have (Bergmann & Sams, 2012). These roles also strengthen the relationships between learners and instructors.

The general response to FL from instructors has been positive. Concerns and benefits have both been reported in many studies. Some of the benefits were mentioned in previous paragraphs, such as instructors having more opportunities and time to work with learners (Blair et al., 2015) and students being able to control their learning (Bergmann & Sams, 2012). However, one factor that might push instructors away from FL is that it demands a great amount of effort and time (Wanner & Palmer, 2015). Also, in Lee & Martin's (2020) report, the participants were concerned about a) the amount of work, b) ambiguous learning responsibilities, and c) lack of professionalism. Learners are the center of FL and although they are responsible for their own learning, it is also the instructors' responsibility to make sure students follow the necessary steps. If students do not watch the videos before joining classes, they will not be able to participate in the in-class activities. Moreover, FL increases the pressure on teachers to offer immediate feedback during class.

With both pros and cons in mind, what influences instructors' decision to implement FL? Long et al. (2018) suggested that the two key factors would be "performance expectancy" and "technology self-efficacy." In other words, if FL can help learners, and if instructors can implement FL with different types of technology in blended learning or distance learning, instructors are more likely to join FL.

Methodology

Participants

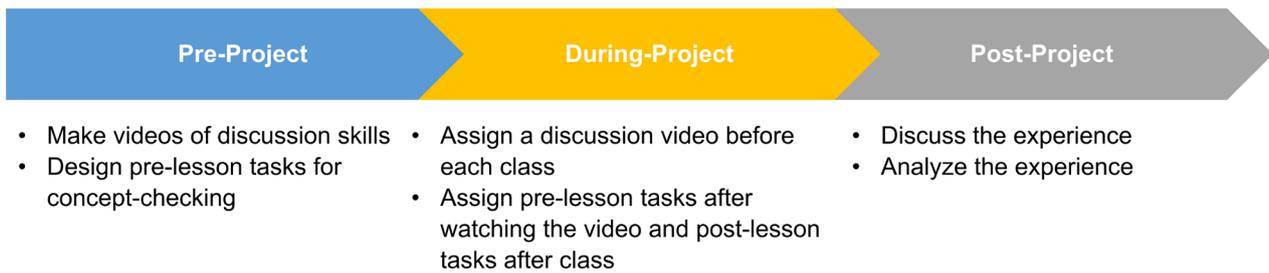
The participants (n=4) in this reflective study are instructors in English education at a private university in Tokyo, Japan, and the researchers of the paper. All the participants have a master's degree in English Language Teaching or a certificate in teaching English to speakers of other languages (CELTA) and 7-13 years of teaching experience combined. All instructors have heard of FL, three of them have experienced FL as students, and only one has implemented FL in the classroom.

Research Design

This study was conducted over one semester in three stages as presented in Figure 3. The pre-project stage was the preparation phase. The researchers made videos for each discussion skill. Bergmann & Sams (2012) suggested that a) the videos should be short and on topic, b) instructors should work together, and c) callouts should be added to attract attention or to offer more explanation. In the current study, researcher A created the pilot video and the templates, and the other researchers made videos for all the discussion skills. Each video was about five minutes long. Then researcher A completed the post-production edits. All of the researchers also created pre-lesson tasks such as concept-checking pop quizzes and topics for online forum discussions for each video.

Figure 3

Research Design



In the second stage of the research process, the students were required to watch a video and complete pre-lesson tasks each week before joining the online lessons. During the lessons, the researchers conducted student-centered discussions and activities and maximized the student practice time. The students were encouraged to revisit the videos when needed or before midterm and final exams.

During the post-project stage, to explore instructors’ perceptions of using videos in FL, the researchers generated the discussion topics (Appendix A) for this FL implementation experience a week prior to the discussion. The researchers were encouraged to reflect on their journey and experience and express their thoughts organically during the meeting. The meeting was recorded for the analysis. After the meeting recording was shared, the researchers first listened to the recording individually and took notes. Then the researchers shared and coded the notes and searched for the themes that stood out. The themes were developed and interpreted later in this reflective paper.

Ethical Considerations

The research project has been approved by the research committee at the target university. All of the participants, who are also the authors of the paper, were above 18 years old and agreed to take part in the experiment. The communication between the participants before, during, and after the experiment has been transparent. All of the collected research data has been securely stored, and only the authors of this paper have access to it.

Discussions

Themes

Table 3 below shows the five themes that were most mentioned in the post-project discussion based on this FL experience. The themes can be categorized into benefits and challenges which will be discussed in the following sections.

Table 3

Five Most Mentioned Themes from the Recording

Benefits	Challenges
Saving time for more practice	Maintaining students’ motivation
Allowing student-centered learning	Learners’ having little experience with active learning

Benefits	Challenges
Adjusting to students' learning pace	Time-consuming preparation
Knowing learners' weak points	Adding extra workload to learners
Familiarizing with the content	Appropriate timing to release learning videos

Benefits of implementing FL

As with previous studies on FL, instructors also found a number of benefits to FL in our context. Namely, time saved, student autonomy, the flexibility of implementation, and greater specificity in giving feedback and teaching.

At the beginning of the semester, instructors faced many technical challenges as students were new to using Zoom, an online video conferencing software for classes, and needed time over the semester to adjust. At the same time, with students situated in different cities, even countries, connections were not always stable. That, together with the time needed to organize students for practice and discussions online, meant that much time was lost on organization and logistical matters. As such, having the students watch videos and familiarize themselves with the target language before class was a good way to cut down on time used on the presentation stage of the lesson, which was mostly teacher oriented. The in-class time could then be maximized for parts of the lesson which needed student-student interaction, such as practice and discussion.

At the same time, FL allows for student-centered learning (Davis, 2016). This is especially important because such a method of learning is a key aspect of EDC classes. Students were expected to watch the lesson video and complete an assignment, which they had to do in their own time. They thus had the freedom to watch the videos and check their assignment answers as many times as they needed to familiarize themselves with the target language. Also, some instructors gave assignments that had an element of peer learning. For example, in one assignment students had to ask for different points of view on their class's online discussion board. In asking and responding to the questions, students had time to test their understanding of the target language, even before class.

Indeed, the instructors felt that they had a good amount of freedom to incorporate flipped learning which best met the needs of our students. The lesson video was particularly useful for students with lower proficiency in English, as they had the freedom to replay the video or slow it down if they needed to. This is in line with the benefits of flipped learning espoused in previous studies (e.g. Bergmann & Sams, 2012; Chen Hsieh et al., 2016). Simpler assignments, such as gap-fills, also helped to solidify their understanding in a way that would not be too much of a burden on them. The production of language could then take place more smoothly during class time. As for the students with higher proficiency levels, assignments that required them to use the language, such as responses to each other on the discussion board, ensured that they had some amount of challenge. This is especially true since some of them were already familiar with the target language and did not feel the need to watch the lesson video. As stated by Bergmann & Sams (2015), "flipped learning is key to differentiation" wherein students get "what they need, when they need it, and at an appropriate depth" (p.45-46). Instructors found this to be particularly true in the online EDC context, especially with regards to depth of learning.

Such a pairing of a lesson video with an assignment was also useful from an instructors' perspective. Again, instructors could tell from the assignments whether the students had difficulties with

particular phrases or concepts. Targeted feedback could thus be given, and lessons prepared more effectively. For example, in one assignment, students were confused about the phrases used for turn-taking, often using the phrase “Can I start?” in the middle of a discussion rather than “Can I say something?” Knowing that, instructors could target this issue and help to explain it during class time. More time could also be allocated to the presentation or practice stages of the lesson if students needed it.

In this, the instructors found that while flipped learning needed some amount of preparation, it led to efficient use of in-class time, without sacrificing the quality of the lessons, as well as the amount of independent learning that could take place.

Challenges faced in implementing FL

FL, while an excellent resource in the communicative and student-centered classroom, is not without its challenges. The instructors who participated in this study benefited from implementing the flipped classroom, particularly in an online setting where teaching time was extremely limited. However, they were faced with several hurdles along the way and found that sometimes using the flipped approach was not as beneficial as they had hoped.

The very first challenge was motivating students to watch the videos before they came to class. In the first few weeks, many students were still waiting for their textbooks to arrive and the videos were a great resource for them to be prepared for the class without having to read an online document written almost entirely in English. However, as the semester progressed, some students stopped watching the videos and did not complete the related assignments. Additionally, since the videos were released a week in advance, there were many students who watched them right after class and completed the assignments. That usually resulted in them forgetting the content of the video before they came to the lesson the following week.

However, different approaches could have been taken to prevent the problems mentioned above. First, the videos should have been released only up to three days before the lesson so that the content would still be fresh in their minds. Second, the video and assignments could have been put together in a Google Form so that students only had to open one assignment where they watched the video and completed the assignment below. Another solution would have been to include some questions in the assignment that could only be answered from the video and not just the textbook. Additionally, emphasizing that watching the video was just as important as completing the assignments would have been helpful. The lessons could have been structured so that students would have to complete an assignment at the beginning of each class pertaining to the video, thus encouraging them to watch the video in order to complete a graded test.

A related problem was that of additional workload (Lee & Martin, 2020; Warner & Palmer, 2015). Once all the classes moved online, students found themselves dealing with far more assignments and reading requirements than they would have on-campus. Instructors were required to assign extra work equivalent to the time that they were not teaching in class. Since most instructors had split their classes in half to provide more attention and speaking opportunities to students, they were asked to give students enough work to compensate for the remaining half of the lesson. Most other classes students were taking also had a high workload since instructors were not able to evaluate the students’ performance in class or in some cases, group assignments were made into individual assignments to prevent students from meeting with each other. It is possible that this pressure of having to complete multiple assignments every day further demotivated students

and made them choose between the assignments they thought were absolutely necessary and the ones they could skip without failing or struggling too much in their lessons.

Another issue was that students were not familiar with or were not open to the idea of active learning (Brown & Muller, 2014). Most students came from teacher-centered high school classrooms where the focus was on preparing students for entrance exams to join a good university. It was thus understandable that entering a new environment, being asked to speak in English, and having to do their classes entirely online for the first time in their lives were all added pressures to the students (Reidsema et al., 2017). Furthermore, the students were expected to watch videos in English, understand a discussion skill, and be prepared to use it with other students with whom they had never actually met face-to-face. Thus, given their prior experience with mostly passive learning, most students expected that aside from the videos, the skills would be taught again in class. This meant that even if students watched the video, it was difficult for them to dive straight into the practice where they had to use the target language before the teacher review it in class. All of the instructors found themselves repeating most of what was covered in the video before conducting practices in class. Perhaps, setting some expectations beforehand and modelling what was expected from the students after viewing the videos, would have facilitated a much smoother experience. Additionally, the instructors were also teaching online for the first time, thus feeling the added pressure of providing extra scaffolding and support to the students so that they wouldn't feel overwhelmed or completely lost, which resulted in the loss of time that could have been spent on them speaking to each other using the target language.

Since the students were used to teacher-centered classrooms, we found it difficult to receive input from them on what they liked or disliked about the videos as well as what they were hoping to get out of the flipped learning approach. There was a definite language barrier, as well as the difficulty of negotiating a clear conversation online, and finally, the idea that the "teacher knows best" and a student just follows the instructions. If we could have gotten some student feedback and expectations, we might have been able to provide them with the videos and assignments which would have actually made our flipped classroom significantly more successful than it had been.

Nonetheless, as mentioned above, students did face challenges, but the instructors also found that creating materials for a flipped classroom could also be extremely time-consuming (Wanner & Palmer, 2015). Making videos for target skills nearly every week, creating assignments for each of the videos, and making sure all the content was clear, concise, easy to understand, and accessible to all was a challenge. As a group of four, it was much easier to divide the work among, but if done all alone, it would have taken far too much time and effort in exchange for very little return.

Conclusion

Summary

Overall, by reflecting on the entire research process at the end of the semester, the instructors found multiple benefits to implementing FL in the classroom. It allowed them to use the time that would have been spent on teaching the skills, to give students more speaking and practice opportunities. FL also helped increase student autonomy in the classroom by making them responsible for their learning and by letting them choose how they would implement the skills in class. Additionally, the instructors found that they had more flexibility in planning their lessons and choosing when FL would be most effective. Another notable benefit was the greater specificity in

teaching the target language and providing relevant feedback.

Nonetheless, the flipped classroom was not without its challenges. One significant issue was the added workload for instructors and students alike. On the instructor's end, there was a lot of preparation involved in setting up the flipped classroom and grading the related assignments throughout the semester. Of course, if shared with other instructors and reused in the following academic years, the initial work would be a very useful investment indeed. On the student's side, however, they will continue to have extra work to complete before they come to class, which can often lead to low motivation and lack of participation. In the context discussed in this paper, another challenge was helping the students adapt to the flipped classroom which required active learning, unlike their teacher-centered classrooms in high school. This became particularly difficult in the online classroom which was new to both the students and instructors.

In the end, as long as the preparation to set up the FL lessons is not too overwhelming, the flipped classroom could be largely beneficial from the instructor's point of view, especially in the online context where time is at a premium and students need multiple opportunities to view and review the content.

Limitation

There are some limitations to this study which should be considered. The limitations of this study are four-fold. Firstly, this research was conducted in a limited context at one university, with only four instructors teaching one type of course (English Discussion). To ascertain the applicability of this method in wider contexts, more research will have to be done in a wider range of courses and with larger sample sizes.

As this is a reflective paper, it is primarily based on the instructors' in-class observations. Further quantifying methods of determining the benefits or challenges of the FL method and materials used can be taken. This would be including, but not limited to, student surveys.

Next, not only was this the first time the instructors were teaching this course online, but this was also the first attempt at using FL in the classroom with videos created exclusively with the online context in mind. As such, some challenges observed may be due more to the shift to teaching online, rather than using FL online. A follow-up study with the same instructors, using the same method and materials will give a clearer picture of what challenges are exclusive to using FL.

On a related note, this was also the first time the students in the university were taking online courses and they were overwhelmed by this sudden change and added workload from all their university courses. Some of these limitations have created more challenges in the implementation of FL, which could potentially be avoided in the future.

Future Implications

This study on FL has shown that there are various opportunities and possibilities to create a flipped classroom. To begin, there are multiple variations of FL that can be implemented. While this study focuses on using videos, reading materials, and discussion boards could be just as effective. Additionally, flipped content could also be reviewed in class by the instructors, or in an effort to increase student engagement, they could attempt to teach the target language or skills in the classroom. The use of FL in the online classroom is likely to increase given that it allows students to move at their own pace and allows for more discursive live lessons. Finally, this could

be extremely beneficial in face-to-face classes as well, particularly in mixed-ability classrooms or when presenting more advanced or difficult material. FL is a significant step forward in making the classroom more student-centered and creating more independent learners.

References

- Abeysekera, L., & Dawson, P. (2014). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research. *Higher Education Research & Development*, 34(1), 1–14. <https://doi.org/10.1080/07294360.2014.934336>
- Anderson, L. W., Krathwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J., & Wittrock, M. C. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Armstrong, P. (2010, June 10). *Bloom's Taxonomy*. Vanderbilt University. <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>
- Bates, J. E., Almekdash, H., & Gilchrest-Dunnam, M. J. (2017). The flipped classroom: A brief, brief history. In J. R. Banas & R. A. Perkins (Eds.), *The Flipped College Classroom: Conceptualized and Re-conceptualized*. Springer International Publishing.
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society For Technology In Education.
- Bergmann, J., & Sams, A. (2015). *Flipped Learning for Elementary Instruction*. International Society For Technology In Education.
- Brown, P. S., & Muller, T. (2014). Introduction. In T. Muller, J. Adamson, P. S. Brown, & S. Herder (Eds.), *Exploring EFL Fluency in Asia*. Palgrave Macmillan.
- Blair, E., Maharaj, C., & Primus, S. (2015). Performance and perception in the flipped classroom. *Education and Information Technologies*, 21(6), 1465–1482. <https://doi.org/10.1007/s10639-015-9393-5>
- Chen Hsieh, J. S., Wu, W.-C. V., & Marek, M. W. (2016). Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning*, 30(1–2), 1–21. <https://doi.org/10.1080/09588221.2015.1111910>
- Clark, R. M., & Besterfield-Sacre, M. (2017). Assessing flipped classrooms. In C. Reidsema, L. Kavanagh, R. Hadgraft, & N. Smith (Eds.), *The Flipped Classroom: Practice and Practices in Higher Education*. Springer.
- Davis, N. L. (2016). Anatomy of a flipped classroom. *Journal of Teaching in Travel & Tourism*, 16(3), 228–232. <https://doi.org/10.1080/15313220.2015.1136802>
- Flipped Learning Network (FLN). (2014). *The Four Pillars of F-L-I-PTM*. <https://flippedlearning.org/definition-of-flipped-learning/>
- González-Gómez, D., Jeong, J. S., Airado Rodríguez, D., & Cañada-Cañada, F. (2016). Performance and Perception in the Flipped Learning Model: An Initial Approach to Evaluate the

Effectiveness of a New Teaching Methodology in a General Science Classroom. *Journal of Science Education and Technology*, 25(3), 450–459. <https://doi.org/10.1007/s10956-016-9605-9>

Johnson, K. (1982). *The Deep End Strategy in Communicative Language Teaching*. Communicative syllabus design and methodology. Pergamon Press.

Lee, G., & Wallace, A. (2017). Flipped Learning in the English as a Foreign Language Classroom: Outcomes and Perceptions. *TESOL Quarterly*, 52(1), 62–84. <https://doi.org/10.1002/tesq.372>

Lee, Y., & Martin, K. I. (2020). The flipped classroom in ESL teacher education: An example from CALL. *Education and Information Technologies*, 25(4), 2605–2633. <https://doi.org/10.1007/s10639-019-10082-6>

Long, T., Cummins, J., & Waugh, M. (2018). Investigating the factors that influence higher education instructors' decisions to adopt a flipped classroom instructional model. *British Journal of Educational Technology*, 50(4), 2028–2039. <https://doi.org/10.1111/bjet.12703>

Reddan, G., McNally, B., & Chipperfield, J. (2016). Flipping the classroom in an undergraduate sports coaching course. *International Journal of Sports Science & Coaching*, 11(2), 270–278. <https://doi.org/10.1177/1747954116637497>

Reidsema, C., Hadgraft, R., & Kavanagh, L. (2017). Introduction to the flipped classroom. In C. Reidsema, L. Kavanagh, R. Hadgraft, & N. Smith (Eds.), *The Flipped Classroom: Practice and Practices in Higher Education*. Springer.

van Leeuwen, A. (2018). Teachers' perceptions of the usability of learning analytics reports in a flipped university course: when and how does information become actionable knowledge? *Educational Technology Research and Development*, 67(5), 1043–1064. <https://doi.org/10.1007/s11423-018-09639-y>

Wanner, T., & Palmer, E. (2015). Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Computers & Education*, 88, 354–369. <https://doi.org/10.1016/j.compedu.2015.07.008>

Wright, A., Greenfield, G., & Hibbert, P. (2017). Flipped tutorials in business courses. In C. Reidsema, L. Kavanagh, R. Hadgraft, & N. Smith (Eds.), *The Flipped Classroom: Practice and Practices in Higher Education*. Springer.