Video Lectures in Online EFL Flipped-Classroom: Effectiveness, Students' Evaluation and Experiences

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Abstract: The online flipped classroom has become increasingly applied to provide students with active learning. This search aimed to investigate the effectiveness of video lectures in an online flipped learning on students' learning outcomes, students' video evaluation, and their experience in an online flipped classroom. This study employed mixed-method research implementing a quasi-experimental design using quantitative and qualitative data collection: pre-test and post-test, a questionnaire and interview. The participants were 78 Indonesian undergraduate students taking English as a foreign language (EFL) content course at one of the universities in Indonesia. The findings revealed that the students' learning outcomes in the flipped classroom outperformed those in the control group. The students' evaluation of the video lectures was high, and their evaluation was consistent with how they positively perceived the video lectures in the flipped classroom. This investigation showed the roles of video lectures on the students' participation and active learning in the flipped classroom during Coronavirus disease (COVID-19) pandemic time.

Keywords: *COVID-19, EFL, flipped classroom, students' experience, video lecture.*

Introduction

Schools and universities have been experiencing significant disruptions because of Coronavirus disease (COVID-19) pandemic. All face-to-face in-person learning was suspended and immediately switch to completely online learning. Educators, lecturers, teachers have to manage and find quick solution for their online learning (Hodges et al., 2020). In Indonesia, prior to COVID-19 pandemic, online learning was not common. Most educators at higher degree education know blended learning, but not many of them employed it in teaching. The effect of COVID-19 global pandemic forces them to make online learning work. Thus, the online learning is run with challenging condition such as lecturers' limited digital or technological knowledge and the availability of materials provided for students. However, online learning has to be run and lecturers have to quickly decide which online learning model to use and create accessible online materials for the students. To this end, students experience the most facilitated, effective, and efficient online learning that can facilitate students to achieve the fundamental competencies in the twenty-first century: communicative, work in a team, problem-solving, creative and critical thinking (Chan et al., 2017).

Among the online learning models, the flipped classroom has become known as one of the innovations of effective teaching (Hessler, 2016) that highlights student-centered teaching (Gilboy et al., 2015). Flipped classroom refers to a learning situation in which the direct lecture in the classroom shifts to outside classroom teaching done online. The students were provided with the direct lecture in a form of a video lecture (Missildine et al., 2013). This flipped learning has an arrangement of working on the content beyond class setting, and using in-class period for problem-solving, active learning which deals with participation and practicality (Mengual-Andrés et al., 2020). Nerantzi (2020) stated that flipped learning is an approach relevant to an active learning context which is fully online or blended learning.

Stöhr et al. (2020) stated that the online flipped learning is not different from the ordinary flipped one in which some activities such as viewing video lectures should be done before having a meeting in class. However, in contrast to the conventional flipped one, in the online flipped learning the learners do not have to meet in person, but virtual meeting. Students have to learn the provided materials outside the class in a pre-class session of flipped classroom (Ng, 2018).

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Tang et al. (2017) claim that a flipped classroom incorporates students' noteworthy preparation in pre-class such as viewing posted online video lectures before the class, with activities that are student-centered learning such as discussing, problem-solving or inquiry-oriented strategies in class time. Flipped learning promotes student participation leading to better learning outcomes (Gilboy et al., 2015). Moreover, students experiencing flipped classroom have better outcomes than those in conventional classrooms (He et al., 2016).

A video lecture is one of the learning resources suggested to enhance online learning to be more effective (Naffi et al., 2020) such as the flipped classroom. The video lecture is considered capable of involving the learners in self-learning (Hwang et al., 2015). Even though it is challenging and time-consuming to create a video lecture, the effort is worth it as students give an account that video lectures are helpful to prepare well for the class and facilitate learning in flipped learning (Roehling, 2018). The video is one of the online resources most used in the flipped classroom (Xiu et al., 2019). Roehling (2018) claims that video is a powerful instrument that educators should make the most of its potency.

The flipped classroom is popular not only for its reversed nature but also for its content design. The content is commonly in a video format design (Zainuddin, 2018). However, Flipped Learning Network maintains that one of the most unobserved elements of flipped learning is the Intentional Content (Flipped Learning Network, 2014). The intentional content, the video lecture, is not merely an add-on in the flipped classroom. It is the main element by which the content is introduced to the students through direct learning (Sams & Bergmann, 2012). There has been limited research on video lectures and flipped learning in EFL contexts in Indonesia. To fill in the gap, this present study explores the effectiveness of video lectures in the online flipped classroom in an EFL content course, Semantics, at one of the universities in Indonesia amidst COVID-19 pandemic time. Besides, this study also investigated students' evaluation on the video lectures and experiences in online the flipped classroom via interview. The current study was intended to address the subsequent research queries:

1) Is there any significant difference between the students' learning outcomes in non-flipped and flipped classroom?

2) How do the students evaluate the video lectures used in a flipped learning?

3) How do the students perceive their experiences in a flipped classroom?

Literature Review

Flipped Classroom

Flipped learning is a teaching approach that implements a student-centered approach. Teachers and lecturers rearrange their learning environment by providing learners with the course content before the meeting in class and employ class meeting by providing students with active learning experiences (Bond, 2020; Sams & Bergmann, 2012). Investigation on the flipped classroom has developed and been popular as innovative learning practices (Öztürk & Çakıroğlu, 2021) and innovative active learning methods (Birgili et al., 2021) in a different learning context and focus. Some studies of flipped learning focus on the effectiveness (Awidi & Paynter, 2019; Choi & Lee, 2018; Chyr et al., 2017; Gómez-Tejedor et al., 2020), students' engagement (Busebaia & John, 2020; Walsh et al., 2021; Wang, 2017; Wang & Zhu, 2019), video used (Brame, 2016; Obradovich et al., 2015), reviewing flipped learning research (Birgili et al., 2021; Julia et al., 2020; Turan & Akdag-Cimen, 2020; Zainuddin & Halili, 2016), higher-order thinking (Lee & Lai, 2017), students' experiences (Nes et al., 2021), and students' performance (Cho et al., 2021).

Scholars have also focused their investigations on flipped learning in ESL/EFL contexts. Some scholars concentrate on language skills (Amiryousefi, 2019; Hsieh et al., 2017; Huang & Hong, 2016; Reflianto et al., 2021; Wu et al., 2020; Zou & Xie, 2019), EFL content courses (Sung, 2015; Tsai, 2019), outcomes and perception in EFL classroom (Bicen & Beheshti, 2019; Chivatá & Oviedo, 2018; G. Lee & Wallace, 2018; Tsai, 2019), self-regulated learning for language skill development (Çakıroğlu & Öztürk, 2017), metacognitive strategies (Shih & Huang, 2020), and anxiety (Gok et al., 2021). Besides, some scholars also focus on speech acts (Haghighi et al., 2019). McNally et al. (2017) stated that English as an additional language (EAL) students really favored flipped classroom for some reasons: the videos' circumstances and self-learning, re-watch the lecture, and peers explained the material differently.

Flipped learning investigation has disclosed that studies of the effectiveness of flipped classroom commonly produced results directed to the advantages of flipped learning (Turan & Akdag-Cimen, 2020). Students in flipped learning outperformed those in conventional one in terms of skills in writing, motivation, and tendency in thinking critically (Zou & Xie, 2019). Flipped learning improved students' performance. It positively affects students' cognitive, affective, and soft skills (Birgili et al., 2021). Students also get the benefits from pre-week online lectures (Cho et al., 2021). The implementation of flipped learning also resulted in superior learning outcomes, increased knowledge retention and critical thinking (Busebaia & John, 2020). Besides, the students were more engaged with course content and performed better in the flipped group (Haghighi et al., 2019). Learners' behavior, cognitive, engagement develops through the flipped classroom (Ho, 2020). Moreover, students perceived that they were more engaged. They had a positive perception of collaborative work as well (Chivatá & Oviedo, 2018).

Video Lecture in Flipped Classroom

Studies have revealed that videos facilitate learners to get a fundamental point of view. Videos also enhance their ability to transmit the knowledge acquired to different areas and their engagement to the class (Birgili et al., 2021). Therefore, instructors can provide the students with video materials as well as other supplementary resources for learning. Thus, students can explore the resources in their ideal time to increase face-to-face interaction (Onojah et al., 2019). Videos are given a very positive evaluation by learners who exhibit that they have well preparation for activities in class (Porcaro et al., 2016). Furthermore, students can watch the video more than one time, make a pause and wind back, understand the subject matter, specifically those who had a problem with the language (Sams & Bergmann, 2013).

Flipped classroom has been known as an instructional approach that incorporates video lectures to be self-learned by the students outside of class. Students watch and review the content of the video or assignments in pre-class before the class (DeLozier & Rhodes, 2017). Researches have shown that video provides positive effects on learning (Gligora Marković et al., 2014). Besides, video lectures can let students have self-paced learning and portray effective overviews or illustrations that showcase varied circumstances and cases (Breivik, 2015). As the students can utilize the video at their self-paced learning and favored time, the video lectures in a flipped learning is potential for fulfilling the students' need for autonomy and capability (Cho et al., 2021). Besides, the content of the video imparts knowledge that is a strong foundation for class activities where the learners utilize and synthesize the information (Seaboyer, 2013). Thus, watching video lectures makes it possible for the students to build knowledge, to get a better comprehension of curricular concepts or add to their understanding of the circumstances surrounding the instructional topics (Bull & Bell, 2010).

Video lectures provided by educators are to promote students' engagement in the classroom. Research has revealed that videos have the potency to be a highly effective educational device to support students' engagement (Brame, 2016). A meta-analysis of videos shows that videos are effective instructional instruments at universities. The results demonstrate that when the video lectures completely substitute other approaches such as teaching directly, videos slightly affect students' learning. However, when videos are supplemented with teaching in person, students encounter even higher learning improvements (Noetel et al., 2021). It does not mean that videos do not have any drawbacks, when they are compared to other methods learning through videos was a bit superior (Barbaro, 2021). By watching video lectures, students are involved in cognitive activities to process the information in the video; they also have to control their learning. In this case, they are engaged in active learning. Processing the content of the video is an active learning as it "requires a problem-solving orientation, a critical approach and evaluation of knowledge" (Niemi, 2002, p. 764). Active learning is primarily a student-centered situation involving interactivity. In active learning, class time should be optimized with opportunities for asking for information, discussing and constructing feedback (Breivik, 2015; Sams & Bergmann, 2013).

Methodology

Research Design

This research was carried out employing an explanatory sequential design mixed method that consists of two phases of collecting data: quantitative and qualitative. For the quantitative phase, this study employed a quasi-experimental design with experimental and control groups in which the experimental one was given pre-test, experimental intervention, and post-test while the other group was only given pre-test and post-test in the implementation phase (Leavy, 2017). The research design was applied, as the participants of this study could not be randomly selected.

Participants

The participants were 78 Indonesian EFL undergraduate students consisting of 63 females and 15 males. Their ages ranged from 18 to 20. They were in their fourth semester at the English Study Program and for the first time experienced in a flipped learning. They were not selected randomly, but chosen for their availability in the semester when they took the subject under investigation. Naturally, these participants belong to three groups in the English study program. Off the three groups, two classes were chosen randomly: one experimental class (n=37) and one control class (n=41) respectively.

Data Gathering

This study gathered the data using three instruments. The first one was a questionnaire for video evaluation adopted from Robles (2016, as cited in Robles & Acedo, 2019). The questionnaire consisted of four elements with five items in each of them. The questionnaire was used to measure the acceptability, relevance, usability, and appropriateness of the video lectures. The responses for these items built on a Likert-type scale consisting of five points (5 = Strongly agree; 1 = strongly disagree). The questionnaire's reliability was Cronbach's alpha 0.96. Experts' evaluation of the video lectures was conducted before the implementation phase. The videos got Very High level in terms of their validity and applicability.

The second one was a test that was made by the lecturers. The test reliability was Kuder-Richardson 20 (KR20) value of 0.88. The difficulty index of the test items was acceptable (p value 30-70%). Discrimination index of 19 (63%) items was excellent (D >0.4), 11 (37%) items were good (D>0.3-0.39). The next one was an interview using focus group discussion (FGD) that was conducted after the students experienced flipped learning. There were 4 groups of which each of which consisted of 5 students. The interview was based on the interview guide focusing on the students' experience of the flipped classroom with video lectures. The interview started with a probing question such as 'How was your learning experience through video lecture in the flipped classroom?' A follow-up question such as 'what did you do while watching the video lecture?' came after the probing question if the information provided was insufficient. However, if the participants provided sufficient information, the investigator(s) gave another probing question. The FGD was conducted using Google Meet and lasted in a range of 60 -75 minutes. The meeting was recorded and transcribed verbatim.

Procedures

This investigation was completed in seven weeks involving one week for pre-test, five weeks for the experiment, and another one for the post-test plus interview. The experiment group was taught using video lectures in the online flipped classroom, whereas the control one was instructed utilizing the online non-flipped-classroom approach. The instruction in the experiment phase involved four topics: Semantic Relations, Speech acts 1, Speech acts 2, and Implicature. Each meeting took up 100 minutes per week. The students were required to do the quiz after they watched each video in pre-class. Five video lectures specifically developed for the class and related reading materials were uploaded in Google classroom before conducting the implementation. Thus, students could access the video lectures any time they want. A quiz in Google form was provided for each video. At the end of the quiz form, a space was provided for the students to state the items that need to be clarified in class.

In in-class phase, the participants mostly learned in small groups to solve problems. The in-class session was divided into three sub-sessions: class discussion, small group discussion, and another class discussion. The first-class discussion session was directed to discuss the content of the video in which the students still did not understand or had a question about it. In this phase, if a student asked a question, other students would answer or explain. The lecturer would provide facilitation where it was necessary. In the small group discussion, the participants did and discussed the tasks associated with the topics. The second-class discussion session was directed to discuss the students' work that they still could not solve. The implementation was conducted fully online using Google Meet and Zoom and recorded. The researchers administered a post-test one week after the implementation. The learners were also requested to fill out a questionnaire for video evaluation. After the evaluation, the students were requested to join an interview to gather their perspectives on experiencing the online flipped classroom.

Data Analysis

This research used descriptive and inferential statistics to analyze the quantitative data. SPSS version 25 was employed for data analysis. The results of the pre-test and post-test were analyzed using independent samples t-test. Table 1 presents the descriptive statistics of pre-test and post-test of the two groups.

Table 1. Descriptive Statistics

	Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Experiment				
Pre-test	53.97	37	8.39	1.38
Post-test	78.30	37	7.67	1.26
Control				
Pre-test	54.12	41	7.29	1.10
Post-test	72.54	41	7.88	1.23

The students' scores in the pre-test and post-test were both in normal distribution where pre-test Sig. 0.062 and post-test Sig. 0.084 were > 0.05. Similarly, the scores in the control group were normally distributed. Sig. 0.116 for pre-test and Sig. .200 for post-test were > 0.05.

Table 2. Tests of Normality

	Kolmogorov-Smirnova Statistics	**df**	**Sig**	**Shapiro-Wilk Statistics Experiment**	**df**	**Sig.**
Pre-test	0.141	37	0.062	0.977	37	0.635
Post-test	0.136	37	0.084	0.976	37	0.609
Control						
Pre-test	0.124	41	0.116	0.975	41	0.482
Post-test	0.111	41	.200*	0.975	41	0.496

For the qualitative data, content analysis was used to construct relevant codes and themes. Two of the researchers did the coding and constructed a theme for similar codes.

Findings / Results

This section presents the results relevant to the implementation of video lectures in the online flipped classroom. The presentation focuses on the effectiveness, students' evaluation on the videos used, and their perspectives on experiencing the online flipped classroom in an EFL content course, Semantics.

Effectiveness

An experiment with a control group was conducted to response the first research query of whether video lectures in the online flipped classroom were effective on students' learning outcomes. The average scores of the tests before and after the experiment both in the flipped and non-flipped classes were compared (See Table 1). It revealed that the post-test average scores for the flipped class (M=78.30) and the non-flipped one (M=72.54) was higher than that of the pre-test for the flipped class (M=53.97) and the non-flipped one (M=54.12). These scores were analyzed for examining their normal distribution. The results showed that the scores were both in a normal distribution.

An independent samples t-test was conducted to both the pre-test and post-test average scores of the two groups to investigate whether the average scores were statistically different. The results of the independent samples t-test for the mean pre-test scores were not different, $t(76) = 0.085$, p=0.933. If Sig. (2-tailed) or p-value > 0.05, it can be concluded that the mean pre-test scores in the flipped class and that of the non-flipped one were equal before the intervention. Thus, the mean pre-test scores of the two groups were not significantly different. Table 3 presents the result of independent samples t-test for the mean pre-test scores.

Table 3. Independent Samples t-Test of Pre-test Scores

	Levene's Test for Equality of Variance		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variance assumed	0.928	0.339	-0.085	76	0.933	-0.149	1.755	-3.644	3.346
Equal variances not assumed			-0.084	70.876	0.933	-0.149	1.770	-3678	3.380

The results of independent samples t-test of post-test scores (See Table 4) display that the mean post-test scores of the two groups differ, $t(76) = 3.263$, p = 0.002. If sig. (2-tailed) or p-value < 0.05 with an effect size of d = 0.730. It can be concluded that the post-test mean scores in the flipped class and that of the non-flipped one were not equal. In other words, the average score of the flipped class differed significantly from that of the non-flipped one. The results showed that the two instructional approaches enhanced the students' learning outcomes in Semantics. However, applying video lectures in the flipped classroom increased the students' learning outcomes better. Thus, video lectures in the flipped group seem to be more effective for learning the topics in Semantic class.

Table 4. Independent Samples t-Test of Post-test Scores

	Levene's Test for Equality of Variance		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variance assumed	0.079	0.779	3.263	76	0.002	5.761	1.765	2.245	9.277
Equal variances not assumed			3.268	75.562	0.002	5.761	1.763	2.250	9.272

Students' Evaluation of the Video Lectures

The second research question was intended to explore the students' evaluation of video lectures used in the flipped classroom involving the videos' acceptability, relevance, usability and appropriateness. Table 5 shows the evaluation results of video lectures from the students.

Table 5. Students' Evaluation of Video Lectures in Flipped Classroom

	N Statistics	Minimum Statistics	Maximum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic
Applicability	37	3	5	Nis.32	0.099	0.602
Relevance	37	3	5	Nis.22	0.104	0.636
Usability	37	3	5	Nis.27	0.114	0.696
Appropriateness	37	3	5	Nis.16	0.103	0.626
Valid N (listwise)	37					

Of the acceptability indicators, 'the suitability of the videos' content for their systematic explanation' got the highest mean of 4.46. The lowest mean score was 4.19 (High) that was on "the video portrays the main objective and acceptable to students' learning style". All indicators of acceptability were evaluated 'High' with an overall mean of 4.32 (High).

Regarding the relevance of video lectures, indicator 1 "the contents are essential and provide relevant discussion" got the highest mean of 4.35 (High). Indicator 4 "the video provides a substantial and explicit explanation" got the lowest mean score of 4.08 (High). The overall mean of the relevance of the video lectures was 4.22 (High). The overall mean of both acceptability and relevance of the video lectures was 4.27 (High).

The applicability of the video is evaluated in terms of usability and appropriateness. The evaluation on the usability of the video lectures revealed that indicator 3 "the content helps students understand concepts worth remember" got the highest mean of 4.49 (High). Indicator 5 "the video is suitable for students' learning styles and preferences" got the lowest mean score of 4.08 (High). The overall mean of the usability of the video lectures was 4.27 (High).

The evaluation of video lectures' appropriateness showed that indicator 5 "As a whole, the video is considered valid, effective, relevant, and useful" got the highest mean of 4.30 (High). Indicator 2 "the video is appropriate that aids the students in developing their critical thinking skills" got the lowest mean score of 4.08 (High). The overall mean of video lectures' appropriateness was 4.16 (High). The overall mean score of the usability and appropriateness of the video lectures was 4.21 (High).

Overall the video lectures in the flipped classroom had high applicability, relevance, usability, and appropriateness for the students to learn. The overall mean for all those components was 4.24 (High).

Students' Experience in Flipped Classroom

Students expressed their experience in the online flipped classroom involving what they did in in-class and pre-class periods in the interview. This involved repetition strategy, taking-note strategy and screenshot, usefulness, well prepared for class activities, confident, active/engaged, comfortable, the role of lecturer, and expectation.

Repetition for Comprehension

Repetition for comprehension was one of the points mentioned by the participants when they talked about what they did with the videos in pre-class. They watched the videos and made repetition in watching the videos for their understanding of the content. Besides, they also repeated watching the videos for preparation to face the examination (See S5). The students also expressed that they watched the video again when they forgot the material. The followings are some of the students' expressions during the interview.

> I think I watch the video I take a screenshot and then I write it in my book. I watch the video twice if I still don't understand the material I watch again and again. (S6)

> However, the day before the exam started, I watched the video again. (S5)

> The video was given 6 days before our class start. I look at the video first I watch the video and re-watch again until I really understand that video. This is the kind of thing that I love I can watch it again and again. Next I did the quiz it's about that video. (S16)

Taking Notes and Screenshot

The interview revealed that the students applied note-taking and took a screenshot while watching the videos in pre-class. They took note of the components that they could not understand. Besides taking notes, they took a screenshot of the video that they considered it's important. Taking a screenshot of the video appears to be a strategy to help them remember the essential point of the video. The participants also utilized both note-taking and a screenshot to help them comprehend the content. Furthermore, the students did not use the notes only in pre-class activities, but they also employed them when they discussed in their group (See S7). Some of the students' expressions regarding note-taking and screenshots are in the following.

I watch the video two or three times and then I write in my book and then I do the exercise and looking at my writing so I more understand about it. (S9)

Before the class I watch the video I usually took a screenshot and write it in my book, so I can also use that for class discussion. (S7)

In this flipped class we can screenshot while watching the video, I mean I often screenshot the material or the video, the slide of video, and also I can re-watch again if I don't understand the material. I can re-watch the video again and I can take a note while watching the video I often did it. (S14)

Usefulness

Usefulness was one of the points that the students shared regarding the videos. They perceived that the videos were beneficial. They perceived the videos as useful and helpful as the videos helped the students to comprehend the topic, provided the students with the knowledge. Besides, the students also shared that the videos could be re-watched if they did not understand or forgot something. The participants also conveyed that the videos were very helpful for them to understand the materials.

I watch the video once or twice and then while watching the video I take a note and try to understand the topic. I think it very useful when sometimes feel blank I don't understand the material but by using the video it really help me to understand the topic well. (S8)

I think the video is very useful I watch the video twice if I don't understand something I back to the video. (S6)

Commonly before the class I watch the video again and in group discussion the information from the video is very valuable and helpful, we have got the knowledge from the video… (S11)

Well-prepared for Class Activities

In the interview, the students conveyed that they had more preparation for the class in the flipped classroom. They stated that they had more preparation for group activities in in-class period from the videos provided before the class. The interview also revealed that watching the videos and taking notes made them well prepared. Taking notes made them easily remember the material (See S14).

With flipped-classroom it make it easy to understand the material because the video before the class start and we have more preparation because we take note and if we have questions we can raise it in the group discussion so it make us understand about the materials. (S2)

…in the discussion in flipped-classroom I am also more active in participating in answering or asking questions during the class I am prepared for the class because of the video. (S4)

So when I take when I watched the video and take a note I kinda easily remember the material so if one of my friends in a group ask what they doesn't know I can answer the question based on the video the video because I take a note so I remember. (S14)

Confident in Class

The interview also revealed that the participants felt confident in the flipped classroom. The learners believed that they were well prepared for the class, and they felt confident to express their opinion or ask/answer questions in in-class activities.

In flipped-classroom as I said before I can deliver my opinion my understanding about the material freely and confident to my friends or to the lecturer. I feel confident to deliver my opinion or my answer in front of the class because I have more preparation from the video so I have preparation to the class. (S1)

I feel confident in the group discussion because I have got the material in the video before. (S10)

Then we were form into small group to discuss the material so with that flipped-classroom I became more understanding I became more brave to ask and answer questions and to discuss I think it was the best thing that happen. (S4)

Active/Engaged

In the interview, the students conveyed how they were engaged or got involved in small group discussions during the in-class stage. They said that they were active when they were in a small group discussion. The reasons for being active in small group discussion were: the knowledge that they got from the video; they could watch the video again if they got a problem when in a group discussion; they understood the material more. Here are some of the students' statements in focus group discussions.

The video in flipped- classroom make it easier for me to study, I became more active in group discussion, I can express what I learn from the video. (S6)

I think since we have the video the group become more active. (S3)

We are divided into groups and I didn't expect that they are so active in every group that I join in Zoom or Gmeet. In every meeting I had the active group because when we did the tasks or the questions given to us, if we didn't know the answer we didn't know we ask to each other and find the answer together. (S14)

Most of the students conveyed that they and members of the groups were active in small group discussions. S12 stated that she also imparted her knowledge to the other student in a small group discussion.

Because I have the knowledge about the material so I can slightly teach my friend if they have any questions to me so I can help them to understand the questions that they don't understand that time. (S12)

The Role of the Lecturer

The students also expressed how the lecturer facilitated their learning in-class stage or in a small group discussion. The students stated that they asked the lecturer for help and clarification. They also affirmed that they could verify their understanding of the content from their friends and the lecturer. Furthermore, the student also acknowledged that the lecturer checked the students' understanding.

Also the lecturer join in that split group each group and ask us what questions or what text that we did not understand. When we ask, the lecturer guide us to find the answer. After the group discussion in breakout room, we back to the classroom, Gmeet or zoom … and we discuss it again and at the end of the class the lecturer ask us what the point that we still don't understand. (S14)

…and if we have some difficulties if we found anything that we didn't understand about the material that we watch before in the video we can ask to lecturer because the lecturer comes to the breakout room one by one so when the lecturer comes to our room we can ask directly. (S18)

…and in group we can also verify our understanding from friends and the lecturer. (S8)

Comfortable

The interview revealed that the students felt happy and comfortable in the flipped classroom. Besides, they also enjoyed having a flipped classroom. Some of the students' expressions regarding how comfortable and happy they were in the flipped classroom include:

I am happy with that flipped-classroom. I feel comfortable with that. … before we start our syntax class, are we going to have this strategy? I wanna ask the lecturer … (S1)

I feel flipped-classroom is very comfortable. I feel enjoy when run this method this strategy because I can watch the video every time I want and everywhere I can watch the video … (S9)

I found in this class interesting because they are active in this class they are active …also I have a group, whatssapp group, the members is us without any lecturer and I found that they are so interested and after the class they they tell like this 'oh my God this is so interesting' in *Bahasa* (Indonesian language) often we communication in Indonesian '*sumpah ini kelasnya enjoy banget ini bagus banget dengan metode kayak gini*' (I swear this class is really enjoyable, it's really good to have a class with an approach like this). … (S14)

Expectation

The students in FGDs also shared their expectations for the flipped classroom. They had the opinion that other classes should also employ the flipped classroom. Besides, they had the hope to experience a flipped learning in the future.

Flipped classroom should not be only used in semantic class but other classes also should use this approach (S11).

Using flipped classroom I think it's comfortable to study and I hope we can use it in the future (S13).

… for flipped classroom in my personal experience it works for me but I don't know about the friends I hope it works for them too so I expect this to happen again in the future (S3)

Discussion

The aim of this research was to examine the effectiveness of video lectures in the online flipped classroom on students' learning outcomes, students' evaluation on the videos, and their perspectives on experiencing the online flipped classroom in an EFL content course, Semantics. Regarding research question 1, the findings revealed the students' post-test mean score in the online flipped classroom differed significantly from that of the non-flipped one. Thus, the

students outperformed those in the non-flipped learning. These significant results were possibly explained with regard to, one of them, the activities in pre-class. In the pre-class phase, the learners were requested to watch the video provided for each meeting and did the provided quiz for that video. The lecturer could check the videos watched and the quiz done by the students to control students' activities in pre-class. Students could watch and re-watch the video whenever and wherever they wish. In this case, the students may have good improvement on their capability because of self-learning. The students should direct themselves in learning in the pre-class stage. Besides, the students need to study the video content in pre-class before they get involved in active engagement in in-class activities (Amiryousefi, 2019). When they are well-prepared before coming to class, they will be ready in solving the problem and investigate a solution in in-class activities (Schmidt & Ralph, 2016). The results that the students' learning outcomes in non-flipped and flipped-classroom were significantly different confirm the research findings of Haghighi et al. (2019) and Hung (2017).

The effectiveness of the flipped learning in the context of EFL could be explicated with regards to some pedagogical components of flipped classrooms applied. Besides getting actively involved in pre-class activities, which is self-learning, the flipped students actively participated in small group works (Schmidt & Ralph, 2016) in which they worked together to solve problems. As the students were working, the lecturer went to each breakout room where the group did the discussion to facilitate learning. At this time, the lecturer would check whether the group got a problem that they could not solve together, whether they had something that needed clarifications or explanations. In this case, the lecturer would guide to solve the problem, give clarification, or explain what was requested. Thus, the students got direct feedback from the lecturer if they needed assistance. The lecturer facilitated students' participation in learning and knowledge building. Karabulut-Ilgu et al. (2018) and Hwang et al. (2015) suggest that the instructor in the flipped classroom should play her role as a facilitator of learning. S/he monitors and helps students' needs, provides the students to learn and demonstrate their knowledge in various ways, and provides the students to actively engaged in meaningful learning. According to Hung (2017), a language educator should take hold of the chance to deliver just-in-time teaching by responding more to what is needed by students and facilitating them for participating in in-depth learning activities. For that reason, students' achievement in the flipped learning may outperform those in the non-flipped one. This present study is relevant to the research conducted by Haghighi et al. (2019), Amiryousefi (2019), Hung (2015, 2017), Leis et al. (2015), Alsowat (2016) and Lee and Wallace (2018). These studies corroborate that applying flipped classrooms in EFL contexts is effective to increase students' learning outcomes that outperform those of non-flipped classrooms. The present study supports for the growing need to implement flipped classrooms (e.g., Hung, 2017) in EFL contexts, especially for EFL content courses.

Students' evaluation of the video lectures after learning in the flipped classroom was high. The results disclosed that the videos held high validity and applicability that may enhance the students' engagement and active learning (Robles & Acedo, 2019). The evaluation result was consistent with how they perceived the video lectures applied in the flipped classroom. All the participants always mentioned the video lectures and related their activities in class to video lectures throughout the interview. Two reasons may explain this situation. First, it was the first time for them in the flipped classroom and provided with video lectures. Thus, they were very excited about the class and the video lectures. As a result, they were willing to watch, re-watch, take-note, screenshot, summarize the video lectures for constructing their knowledge of the subject matter in pre-class. This showed that the students took the initiative to engage themselves in their learning. Video lectures as digital learning materials are important for providing the students with the opportunity to learn independently (Hawamdeh & Soykan, 2021). The second, the effect the students felt after watching the video lectures. They perceived that the video lectures were beneficial and made them well prepared, confident and comfortable, and active in in-class activities. They could learn the video lectures at the favorable time and places that meet their learning styles the most. The video lectures seem to be the strength of the online flipped learning in this current investigation. The video lectures in the flipped classroom seem to motivate the students to participate in pre-class and in-class activities. Haghighi et al. (2019) stated that new technologies and learning environments build motivation for the students. Because of video lecture availability and movie clips in their flipped classroom, the students in their study readily involved themselves in the activities both in pre-class and in-class. The present study seems to strengthen Haghighi et al.'s (2019) findings on the role of video lectures on students' engagement and active learning. Besides, Leis et al.'s (2015) study claimed that the explanation provided in the video might be a central source in facilitating the increase of students' proficiency. In their study, Umutlu and Akpinar (2020) maintained that videos used in flipped learning conceivably developed learners' retention and stimulated them to transfer knowledge. Likewise, in their study le Roux and Nagel (2018) concluded that videos enabled the students to comprehend the content better, operationalized through multiple time viewing. Videos helped prepare for assessment as well as personalized, independent study.

Dealing with research question 3, the interview revealed that the participants were actively engaged in the activities in the online flipped learning. In pre-class, the students were actively engaged with the video lectures. They watched, re-watched, took notes, and made a summary of the video lectures' content. Watching and re-watching the video multiple times enabled the students to comprehend the content (Sams & Bergmann, 2013). These revealed that they actively learned outside the class as they built the foundation of their knowledge. This finding may align with Hung (2015) who found students more engaged with course content in pre-class of the flipped classroom when they were compared to

those of non-flipped students. Students require to actively construct their knowledge in their minds (Olusegun, 2015) by interacting with the content, in this case, the video lectures.

The students also stated that they were also active in-class activities. They were engaged in the activities in small group discussion activities by asking, answering, and explaining. Thus, in a group discussion, they worked together and communicated with each other, and it is a prominent feature of active learning (Chivatá & Oviedo, 2018). This finding supports the study of Lee and Wallace (2018) in which their results revealed that the participants participated more in the activities in the flipped learning than those in the non-flipped one. In Lee and Wallace's research, the participants participated more actively in class due to their preparation and learning the content by themselves. Regarding the participants in the present study, being engaged with the content via videos in pre-class and in-class means that the students were involved in active learning. According to Flipped Learning Network (2014) active learning is the foundation of flipped classroom. Furthermore, the participants of the present study perceived they were more active because of the flipped classroom. The result of the current examination is relevant to the research conducted by Hung (2015), and Chivatá and Oviedo (2018) that the students in their study also perceived that they were more active due to the flipped learning.

Conclusion

The results of this investigation have expanded previous studies by investigating the most under-researched pillar of flipped learning, the intentional content, in the EFL context. The results suggest that, in flipped classrooms, the video lectures were effective to increase students' learning outcomes in the EFL content course, Semantics. The students' learning outcomes in the online flipped classroom differed significantly from those of the non-flipped one. Applying the flipped classroom made the students' learning outcomes surpassed those of the non-flipped one. The description provided in the video might be a central source in facilitating the increase of students' proficiency and activeness in in-class. Students' evaluation of the video lectures after implementing the flipped classroom was high. This evaluation seems consistent with how they perceived the video lectures in the flipped classroom.

Video lectures seem to be the strength of the online flipped learning in the current investigation. How the students were engaged with the intentional content, video lectures, in pre-class seems to affect students' interaction in in-class activities. The students associated their activities in class with what they got from the intentional content, video lectures, in pre-class. They perceived that they were more active because of the videos provided in pre-class. They also felt that the videos were beneficial and made them well prepared, confident and comfortable, and active in in-class activities. The video lectures seem to motivate the students to engage in the activities both in pre-class and in-class. Therefore, the current investigation supports the growing need to implement flipped classrooms in EFL contexts, by considering the effect of video lectures in the flipped classroom, especially for EFL content courses.

Recommendations

This study exhibited that video lectures in online flipped learning can increase students' achievement, engagement and readiness for learning actively in class. This examination suggests that video lectures in flipped learning can also be applied in any EFL skill or content courses and context. For future studies, investigators can implement different pedagogical models in an in-class phase. To get a positive result, investigators need to have good preparations for activities in pre-class and in-class and how to monitor the activities.

Limitations

The flipped learning conducted for this study was fully online. Students' activeness and engagement in a small group discussion in the breakout rooms could not be fully monitored at the same time. Even though all the process was recorded, the lecturer could only observe students' activities in each breakout room when she joined each breakout room. Conducting a similar study that is not fully online may result in a different finding.

Authorship Contribution Statement

Purwanti: Conceptualization and design, conducting the experiment, analyzing the data, writing the draft, review and editing. Suryawati: Critical revision of manuscript, supervision, final approval. Eliwarti: Conceptualization, investigation, data acquisition, statistical analysis, technical or material support, review and editing.

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