A Study on College Students' Learning Attitude During Synchronous and Asynchronous Video-Based Group Activities for English Presentation — A Secondary Publication

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Abstract: The purpose of the study is to explore college students' perceptions/attitudes during synchronous and asynchronous group activities. The survey comprised a 10-item, 5-point Likert-type questionnaire and open-ended questions. In the study, two groups, a synchronous group and an asynchronous group, participated in four activities during one semester. For the data collection, the researcher surveyed 116 students who are in their 1st year of college and collected their final tests, an oral presentation. The findings are as follows. Firstly, between the two groups, the synchronous group showed higher mean scores for online group participation. Secondly, the synchronous group also indicated higher mean scores for English learning, speaking confidence, and interest in learning English. Lastly, both groups mentioned communication with team members, improvement in English speaking and pronunciation, increased self-confidence, and other elements as advantages of group work. In contrast, disadvantages included technology problems, decreased self-confidence, inconveniences when meeting with team members online, and others. The implications for the study are: firstly, online group activity can reduce isolation and increase interaction; secondly, the online video-based platform, Flipgrid, can help students improve English speaking skills by observing their own or peers' videos; lastly, instructors can selectively use the synchronous and asynchronous group activities to suit their educational needs.

Keywords: Synchronous group activity; Asynchronous group activity; Flipgrid; Video-based discussion; Online class

1. Introduction

The ongoing coronavirus pandemic has ushered in a new era of digital models in education, with full or partial online classes starting in accordance with ministry policies. This has created many challenges and opportunities for institutions to strengthen their technical knowledge and systems for online learning. Instructors are utilizing various applications such as YouTube, Zoom, Google Meet, Facebook, Naver Café, or the school's learning management system to communicate with students, including giving online lectures or assignments to students.

Muilenburg and Berge [1] identify four important barriers for students to overcome in online learning: social interaction, administrative/instructor issues, learner motivation, and study time and support. Among these, the issue of interaction in online learning has long been recognized [2]. It has been said that the success of online learning begins and ends with online interaction [3]. Currently, various studies are underway to enhance interaction between learners and between teachers and learners in online classrooms. In a synchronous online education environment with immediate feedback, graduate students had positive perceptions of having the opportunity to interact with their teachers and peers [4]. Furthermore, even if high social presence is not reflected in the frequency of learning participation, interactions among learners in online environments serve to create a sense of community [5]. Presence refers to the feeling of being somewhere [6].

Recently, there has been a growing body of research on the use of traditional text-based discussion platforms [7,8] or video-based discussion platforms [9,10] as a means of online communication. Asynchronous text-based discussions are one of the important methods for interaction between students and between teachers and students in online classes [11,12]. Video-based discussions can not only reduce the isolation that learners often feel online but can also decrease the distance between learners and make them feel more connected [13]. Students' satisfaction with the use of Flipgrid, a video-based platform, has been shown to have a positive impact on their language learning and their social and cognitive engagement in class [10].

The use of video technology in the English language classroom can improve students' presentation skills and maximize students' speaking skills as they are encouraged to express their opinions and have more opportunities to speak [14]. For those who need to invest a lot of effort and time in speaking or presenting English, video technology-based activities can give them the opportunity to observe and correct themselves. In addition, video-based activities for foreign language teaching in online education can help to increase student-teacher interaction and improve student communication. To date, there are not many studies comparing synchronous and asynchronous video-based activities, and particularly video-based activities for English language learning are scarce, and Korean studies are not yet active. Therefore, it is necessary to examine the attitudes and perceptions of students participating in synchronous or asynchronous video-based group activities in terms of group task performance. The purpose of this study is to investigate the learning attitudes and behaviors of students participating in synchronous or asynchronous video-based group activities for English language learning in online classes and to discuss the implications.

2. Theoretical background

2.1. Video-based interactions

Teachers, educators, and learners in the field have reported a number of challenges with online learning. The disadvantages of online learning include lack of interaction between individuals, low learning effectiveness, poor communication skills development, difficulty in controlling cheating, and difficulty in controlling and supervising the effective utilization of e-learning [15]. In particular, interaction in online courses has been shown to influence student satisfaction [16]. Moore [2] noted that in distance learning, interactions between learners and content, teachers and learners, and learners and learners are important factors that help learners learn. Among these, interactions between learners, which will be the focus of this study, are defined by Moore [2] as interactions between one learner and other learners, either alone or in a group, with or without the real-time presence of a teacher.

In language education, learning communicative competence for interaction has been taught in a variety of ways. Traditionally, text-based online bulletin boards as a method of asynchronous communication have been frequently used as a learning tool to improve reading and writing skills [7]. Lowenthal and Moore [13]

noted that although the development of learning management systems, various instructional technologies, and approaches to online course design have evolved and matured in many ways, today's typical online course is still centered around text-based instruction, such as discussion boards, which have been in use for the past 30 years. Asynchronous text-based activities can be very versatile and effective for teaching and learning in an online learning environment. Goda and Yamada [17] noted that the social presence of online asynchronous bulletin board activities can produce more language in EFL (English as a Foreign Language) classes. However, Lowenthal [18] pointed out that asynchronous text-based communication has been criticized as impersonal and antisocial and can only show filtered good task-oriented results. Furthermore, there has been a demand for communication that is less text-based and more based on speaking and listening. To compensate for these shortcomings, the use of video-based online discussion boards can fill in the gaps left by traditional text-based activities. Compared to text-based online discussion boards, video-based online discussion boards are notable in that they can increase the perception of real interaction by enhancing student bonding and providing important social cues such as emotions through facial expressions and voice [19]. Video-based discussions also develop group cohesion and a sense of belonging, making students feel like they are part of the group, which increases engagement and participation in activities [20].

As shown in **Figure 1**, Manstead *et al.* [21] noted that video-mediated communication is a tool that provides learners with a platform to communicate through a combination of video, voice, and text, which can provide nonverbal signals to be transmitted to others.
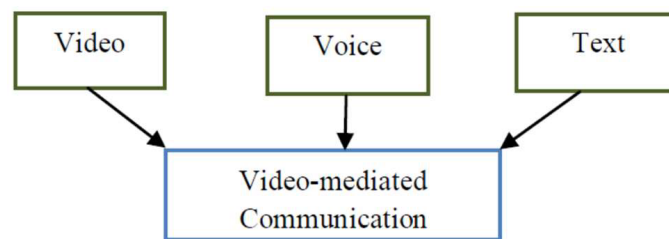

Figure 1. Video-mediated communication

2.2. Asynchronous video-based tools: Flipgrid

Various online tools such as VoiceThread, Flipgrid, EdConnect, and MarcoPolo have been introduced as software for asynchronous video-based discussion boards. Among these, Flipgrid has recently been widely used and studied in language education [9,13,22].

Flipgrid is a video-based discussion platform that is particularly suitable for language learning and can be used in a variety of educational levels and settings. Flipgrid can be accessed through a website or an application, and can be easily incorporated into language classes to improve students' communication skills, both individually and in groups. Flipgrid is designed to allow students to practice speaking in an online context, record and upload their speech without the anxiety of speaking a foreign language in a real classroom situation. Students can repeat the video recording as many times as they want before uploading the final file, reducing the pressure of answering questions under pressure that can come with presenting in an offline classroom. In an educational setting, students, teachers, and schools alike can utilize Flipgrid and its various grids (Flipgrid's community, i.e. a group of learners) to foster collaboration among groups and share videos with other groups. It is free for anyone to use with no restrictions and requires a Google or Microsoft account [23]. Users can record and upload an unlimited number of videos from 15 seconds up to 10 minutes. The great thing about Flipgrid is that it can be used as a very useful tool to help students interact with their peers in online classes [9].

Figure 2 explains how instructors can utilize Flipgrid. Firstly, each grid represents a class or course.

Secondly, they create topics and post assignments to assign work to students in a particular class. The third is a collection of videos that students have uploaded to the topics created. Lastly, instructors provide a link or QR code to share the grid with the students.
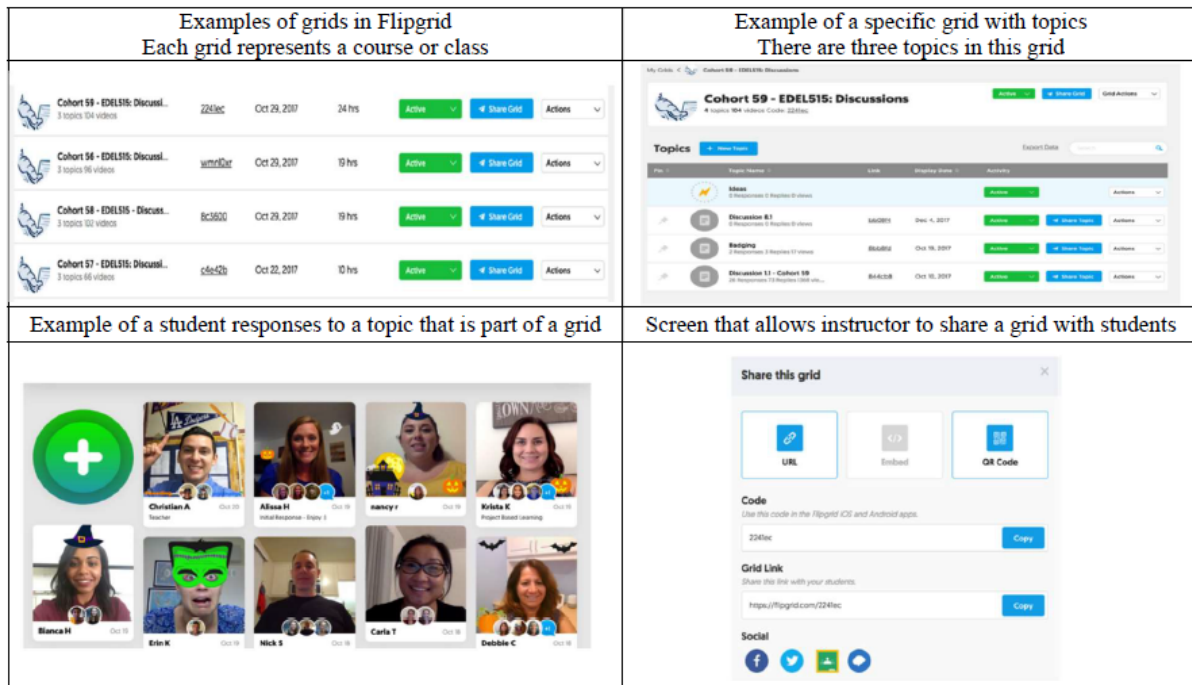

Figure 2. How to Use Flipgrid [24]

2.3. Prior research

The previous studies utilizing Flipgrid, a video-based platform, are as follows. Clark *et al.* [19] compared non-live text-based and video-based discussions in an online teacher education course and found that video-based discussions were more effective than text-based discussions in creating a classroom environment that connected instructor and learner relationships. Students noted that video conferencing made it easier and more productive to collaborate because they could see each other's strengths and weaknesses. They believed that the nature of video allowed them to see members' verbal and non-verbal social cues, which created a sense of trust within the group. Flipgrid can support this limited text-based activity. A cross-sectional survey was conducted with 79 students regarding their perspectives on the use of Flipgrid as a non-live video-based discussion tool in a fully online class. Participants were highly satisfied with the use of Flipgrid and found it to be easy to use and could help enhance social presence [13].

Studying the benefits of Flipgrid, Keiper *et al.* [22] surveyed a total of 163 students in a hybrid flexible learning environment and found that the majority of students found Flipgrid to be a useful and beneficial tool. Petersen *et al.* [25] conducted a study to evaluate the effectiveness of Flipgrid, a social media application that allows recording on personal computers and mobile devices, in an English communication class. The study was conducted on first-year students at a Japanese national university and the results suggested that Flipgrid could be an innovative way to improve participation in English communication. The results also showed that Flipgrid can be used by teachers to design learning activities that aim to engage students in communicating with each other both inside and outside the classroom.

Edwards and Lane [9] introduced Flipgrid as an online video-based discussion platform to 189 first-year students at a Japanese university and conducted a study on students' perceptions of Flipgrid and its role in

facilitating interaction in English communicative classes. The results showed that although some students were hesitant to use Flipgrid, it has the potential to provide an effective platform for interaction and communication in online classes. Mango [10] conducted a study on the perceptions of learning effectiveness and the advantages and disadvantages of Flipgrid through the learning experiences of Arab students in language learning. A total of 30 students participated in the survey. The results showed that students were initially skeptical about using Flipgrid, but by the end of the semester, their attitudes had changed to a positive one. They mentioned that Flipgrid helps them gain more confidence in their listening and speaking skills, and while tracking their progress, it provides them with a safe and low-stress platform for language practice. On the downside, 27% of participants noted a lack of immediate feedback on their videos on Flipgrid.

In recent years, there has been a lot of research on video-based activities using Flipgrid in online classes in language education. They show that video-based activities can increase communication and interaction between learners and between instructors and learners.

3. Research methods

3.1. Analysis target

This study was conducted on 116 first-year students taking a liberal arts core English course at A University in Chungnam, South Korea. The participants in this study were students who scored between 450 and 600 on the diagnostic test taken before entering the university and the online mock TOEIC test, and were enrolled in the intermediate-level college English 1 class. Students with intermediate scores were randomly assigned to intermediate classes at each college. The purpose of this course is to develop oral presentation skills so that students can improve their speaking skills through learning to read English. The participating students belonged to the College of Foreign Languages, the College of Public Health, and the College of Science and Technology, and the total number of students who participated in the class was 116 out of 149.

3.2. Class structure

In this study, the students were given a group activity as an after-class assignment. The class was fully online and the first hour was a live orientation. In the first hour, students were assigned groups of four or five for group activities and given time to introduce themselves to each other and to exchange phone numbers or contact each other through the LMS or Microsoft Teams, which they were required to sign up for before the class started. Microsoft Teams was used to post group or individual assignments and for group activities. In the synchronous groups, we mainly used Zoom software, but sometimes we used Microsoft Teams when it was not working, and in the asynchronous groups, we used Flipgrid connected to Microsoft Teams.

In this study, the group activities were divided into two groups, Group A and Group B. Group A was a synchronous group activity and Group B was an asynchronous group activity. As shown in **Table 1**, learners in the synchronous group, Group A, met with members in real time using various platforms such as Zoom and Microsoft Teams to conduct group activities when given a group task. Based on the given topic, the presenter gave a presentation and the members took turns to ask questions or give feedback to the presenter, and all activities were recorded from start to finish and uploaded to the LMS assignment room. In addition, members of Group B, the asynchronous group, were asked to record their own presentations based on the topic and the allotted presentation time, upload them to Flipgrid by a given date, and then view the presentations uploaded by other members by the assignment due date and leave video or text feedback. For all group assignments, the presentation time was set at about one to two minutes, and for asynchronous groups, the type of feedback could be either text or video, and this group assignment was worth 20% of the overall assessment. In this study, the

group activity was conducted four times during the semester. As shown in **Table 2**, the topics for the group activities were selected from the content of *Keynote 2* [26], the textbook for this university English 1 course, and the questions were assigned to each group. The assignment was explained in detail at the end of the online course content, and the students were given about two weeks to complete the assignment. In particular, Group B was given one week to upload their videos and the remaining one week to give feedback to group members. The topics of the group activities included introducing yourself in the first round, describing your favorite book in the second round, describing someone who inspired you in the third round, and introducing the most livable city in the world in the fourth round.

Table 1. Synchronous group activity and asynchronous group activity procedures

	Group A: Synchronous group	Group B: Asynchronous group
Platform used	Zoom, Teams, Gom player	Flipgrid
Procedure	1) Practice their own presentation	1) Practice their own presentations
	2) Set the date and time for group meetings	2) Record their own speeches on Flipgrid by a certain date
	3) Present their own presentation and give feedback to each other in online meeting	3) Watch team members' video and give (text/video) feedback

Table 2. Topic and contents for group activities

	Topic	Description
1st	Introduce yourself!	Introduce yourself in a group.
2nd	What is your favorite book?	Explain your favorite book using these four elements: characters, setting, theme, plot.
3rd	Who is your inspirational person?	Introduce the person who have been inspired you in your life.
4th	What is the best city in the world to live in?	Think and describe the best city that you want to live in.

Figure 3 shows a sample of the students' synchronous and asynchronous group activities. Group A is a synchronous group activity, with five people working on the task simultaneously via Zoom and rotating presentations in a team-determined order. After the presenter finishes, the other four members ask questions or make comments, and the presenter answers them before moving on to the next presenter. Group B is an asynchronous group activity where members upload their own recorded videos via Flipgrid connected to Microsoft Teams using their mobile or personal computer, and when all members have uploaded their individual presentations by a certain time, they watch each other's videos and leave text or video feedback.

FIGURE 3
Pictures of Synchronous Group Activity and Asynchronous Group Activity
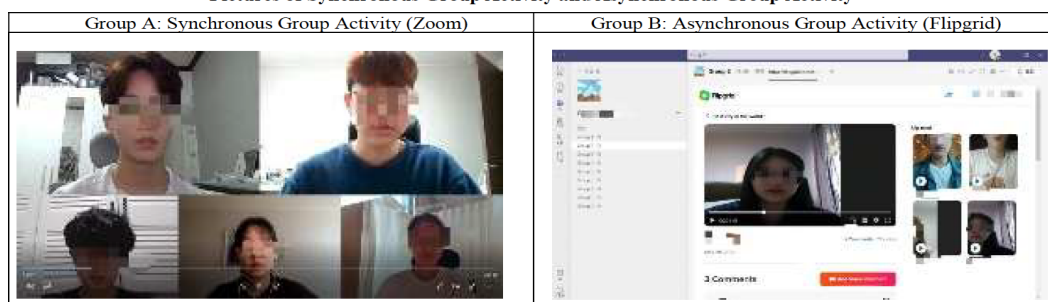

Figure 3. Pictures of synchronous group activity and asynchronous group activity

3.3. Data collection and analysis

In order to examine the attitudes and perceptions of learners who participated in synchronous and asynchronous group activities, a survey was conducted for each group activity at the end of the semester after all activities were completed, and the results of the participants' final exams were analyzed. The questionnaire of this study was adapted from Yu's [27] questionnaire with modifications and supplements. A total of 116 copies of the questionnaire were collected and analyzed, and the open-ended questions were answered using a 5-point scale ranging from 1 for strongly disagree to 5 for strongly agree. The questionnaire consisted of 10 questions, with multiple-choice questions about learners' participation in group activities, the impact of group activities on learners' English learning, and their preferences for presentation time and feedback, and open-ended questions to describe the advantages and disadvantages of each group activity. Participants' performance on the final exam was also analyzed. The final exam was worth 30 points out of the total grade and was assessed by submitting a video and script of an English presentation. The topic of the final exam was chosen from one of the four group projects. The final examination was evaluated on accuracy, which was divided into presentation format (10 points), English grammar and expression (5 points), and fluency, which was evaluated on delivery (10 points), pronunciation, and naturalness of intonation (10 points). The survey data of this study was analyzed using descriptive statistics and qualitative methods. The open-ended questions were analyzed by coding the keywords in the participants' answers, and the results were divided into communication with group members, English proficiency, and definitional aspects in synchronous and asynchronous group activities.

4. Research findings

4.1. Participation in group activities

To examine the participation of students in synchronous and asynchronous group activities in this study, we examined their responses to the survey question, "I have been actively involved in group activities this semester." **Table 3** shows that the mean for the synchronous group was 4.7 with a standard deviation (SD) of 0.6 and the mean for the asynchronous group was 4.6 with a standard deviation of 0.7. We can see that the average engagement rate for synchronous group activities is slightly higher than the average engagement rate for asynchronous group activities.

Table 3. Result of participating in online group activities

I actively participated in online group activities this semester.	N	Minimum	Maximum	Mean	SD
Synchronous group	63	2.0	5.0	4.7	0.6
Asynchronous group	53	2.0	5.0	4.6	0.7

During the group activity, members were asked to provide comments or feedback to the presenter after the presenter had finished speaking, and the presenter was asked to respond. The results of this part of the question, "I actively tried to give feedback to the presenter in the group activity." are shown in **Table 4**. The synchronous group had a mean of 4.6 with a standard deviation of 0.7, while the asynchronous group had a mean of 4.3 with a standard deviation of 1.0. We can see that the synchronous group participants had a slightly higher mean.

Table 4. Result of giving feedback to the presenter's speech

I tried to actively give feedback to the presenter's speech.	N	Minimum	Maximum	Mean	SD
Synchronous group	63	2.0	5.0	4.6	0.7
Asynchronous group	53	1.0	5.0	4.3	1.0

We looked at the results of the "I tried to respond back to feedback from other members in the group activity" survey question, which asked whether the presenter responded or tried to respond to feedback from members. **Table 5** shows that the synchronous group had a mean of 4.7 with a standard deviation of 0.6, while the asynchronous group had a mean of 3.4 with a standard deviation of 1.2. We can see that there is a rather large difference in the mean between the two groups. This is due to the fact that the synchronous and asynchronous group activities were similar in terms of giving feedback, but while the synchronous group could ask and answer questions on the spot, the presenters in the asynchronous group activity had to take time out of their day to read the comments or videos and replay them.

Table 5. Result of answering the feedback from other team members

I tried to respond to the feedback (questions) from other team members' questions or comments.	N	Minimum	Maximum	Mean	SD
Synchronous group	63	2.0	5.0	4.7	0.6
Asynchronous group	53	1.0	5.0	3.4	1.2

4.2. English learning progress

A survey was conducted to find out whether synchronous and asynchronous group activities improved English learning. The participants were asked to answer the question, "The group activities helped me learn English." The mean of the synchronous group was 4.2 with a standard deviation of 0.9, while the mean of the asynchronous group was 3.8 with a standard deviation of 1.0. It can be seen that the mean of the synchronous group is slightly higher than the mean of the asynchronous group (**Table 6**).

Table 6. Result of English learning

Online group activities helped my English learning.	N	Minimum	Maximum	Mean	SD
Synchronous group	63	2.0	5.0	4.2	0.9
Asynchronous group	53	1.0	5.0	3.8	1.0

We also examined the impact of synchronous and asynchronous group activities on speaking by asking "Group activities helped me improve my confidence in speaking English." The results in **Table 7** show that the mean of the synchronous group was 4.2 with a standard deviation of 0.9, and the mean of the asynchronous group was 4.0 with a standard deviation of 1.1. The mean for synchronous group activity is slightly higher.

Table 7. Result of English speaking confidence

Online group activities helped to improve English speaking confidence.	N	Minimum	Maximum	Mean	SD
Synchronous group	63	2.0	5.0	4.2	0.9
Asynchronous group	53	1.0	5.0	4.0	1.1

Table 8 shows the effect of group activities on interest in English: "Group activities helped me get interested in learning English." The mean of the synchronous group was 4.0 with a standard deviation of 1.0, and the mean of the asynchronous group was 3.8 with a standard deviation of 1.1. The mean was 0.2 higher for the synchronous group participants.

Table 8. Result of interest in learning English

Online group activities helped me to be interested in learning English.	N	Minimum	Maximum	Mean	SD
Synchronous group	63	2.0	5.0	4.0	1.0
Asynchronous group	53	1.0	5.0	3.8	1.1

Figure 4 compares the mean final exam grades of the two groups. Learners who participated in synchronous group activities had a mean final exam grade of 23.5, while students who participated in asynchronous group activities had a mean final exam grade of 22.7. The difference in mean final exam grades between the synchronous and asynchronous groups is about 0.8 points. Students in the asynchronous group have a slightly lower final exam average than students in the synchronous group.
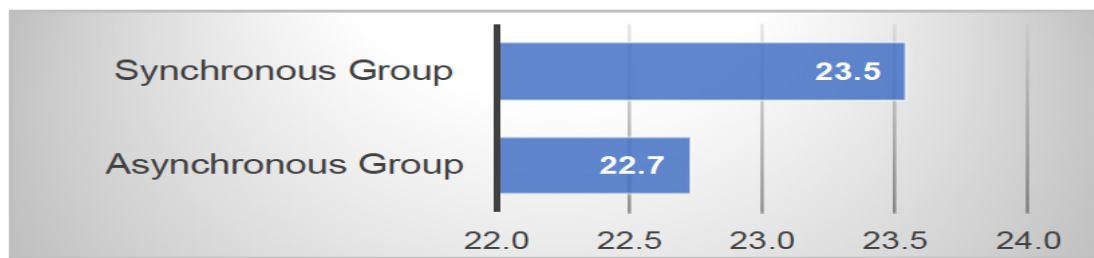

Figure 4. The result of mean of final tests

4.3. Preferences

In addition, we asked the participants what they thought was the most appropriate amount of time for an individual presentation in an online group activity, and both groups agreed that one minute was appropriate. As shown in **Figure 5**, 94% of the synchronous group and 85% of the asynchronous group felt that a one-minute presentation was the most appropriate, with 2% of the synchronous group under one minute, 3% under two minutes, and 2% over two minutes, and 8% of the asynchronous group under one minute and 8% over two minutes. As shown in **Figure 6**, the synchronous groups had simultaneous access to each other for verbal feedback, while the asynchronous groups had both text and video feedback. When participants in the asynchronous group were asked to choose their two favorite types of feedback, 23% chose video feedback and 77% chose text feedback, indicating that they preferred to simply leave written comments or feedback.
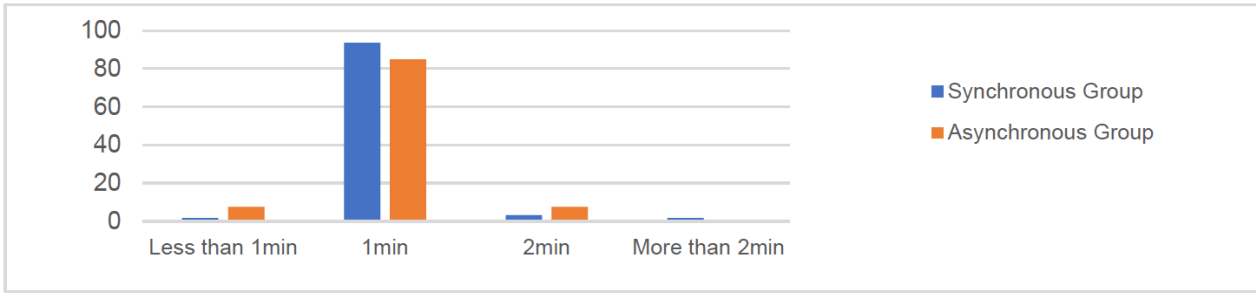
Figure 5. Time for individual presentation

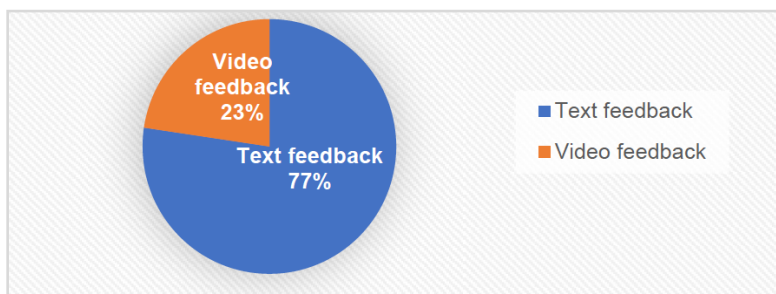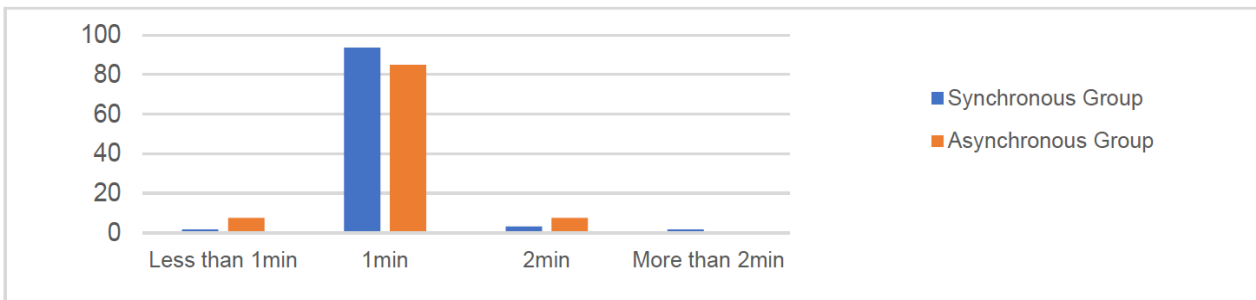**FIGURE 6**

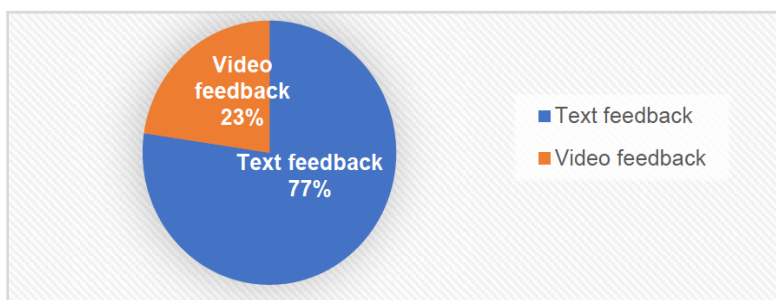**Feedback Preference of Asynchronous Group**

Figure 6. Feedback preference of asynchronous group

4.4. Pros and cons of online group activities

Learners who participated in synchronous or asynchronous group activities were asked about the advantages and disadvantages of the activities. As shown in **Table 9**, learners mentioned the advantages of synchronous group activities as interacting with members, improving their pronunciation and speaking English, increasing their confidence, expanding their opportunities to communicate in English, and increasing their interest in learning English. The disadvantages of synchronous group activities include technical difficulties with online connectivity, cameras and microphones, difficulty in coordinating with members, discomfort with face-to-face communication, and a decrease in confidence.

Table 9. Advantages and disadvantages of synchronous group activity

Advantages	N	Disadvantages	N
Communicating with team members	19	Technology problems (camera, microphone, etc.)	23
Improving English pronunciation and speaking	10	Inconvenience when meeting with team members online	9
Increasing self-confidence	8	Inconvenience when communicating with team members online	5
Expanding communication opportunities in English	6	Decreasing self-confidence	4
Improving of interest in learning English	3		

As shown in **Table 10**, the benefits of asynchronous groups included communication with members, improving English pronunciation and speaking, the opportunity to observe and learn from others' videos, increased confidence, and increased interest in learning English. Other comments included improving English listening skills by listening to group members and improving focus through the presentation preparation process. The disadvantages of asynchronous groups included decreased confidence in pronouncing or speaking English, difficulties in utilizing technology such as online connectivity, uploading, and video recording, time difficulties in giving and receiving feedback within the assignment deadline, and difficulties in understanding the pronunciation or speech of group members. Other comments included that the asynchronous activities were awkward and difficult because they did not build friendships among members, and that it was difficult to communicate only through uploaded videos.

Table 10. Advantages and disadvantages of asynchronous group activity

Advantages	N	Disadvantages	N
Communicating with team members	12	Decreasing self-confidence when speaking	10
Improving English pronunciation and speaking	12	Technology problems (camera, microphone, etc.)	9
Learning by watching other team members	7	Inconvenience when meeting with team members online	7
Increasing self-confidence	6	Difficulty understanding team members' speech and pronunciation	5
Improving of interest in learning English	6		

5. Discussion and conclusion

The purpose of this study is to examine the learning attitudes of learners when participating in synchronous or asynchronous group activities in online classes and to suggest educational implications. A total of 116 participants participated in this study, 63 in the synchronous group and 53 in the asynchronous group. Participants

were surveyed and their final examination grades were collected. The data was collected and analyzed at the end of the semester when all group activities were completed. The results of the study showed that synchronous groups had a slightly higher average in terms of group activity engagement, and when it came to feedback, synchronous groups had a slightly higher average than asynchronous groups when it came to actively providing feedback to the presenter. Synchronous groups also had a slightly higher average when it came to responding back to members' questions or feedback. Overall, engagement in online group activities was slightly higher in synchronous groups. The reason for the lower participation in asynchronous group activities is that unlike synchronous group activities, learners do not enter the platform and perform group tasks at the same time, but rather watch individually uploaded videos of members and leave feedback, which may have caused them to miss or skip some activities. There was no immediate feedback or comments from members at the same time like in synchronous activities, so participation may have somewhat decreased.

In terms of English learning improvement, the synchronous group scored slightly higher on the questions of whether the group activity helped them learn English, enhanced their confidence in speaking English, and increased their interest in learning English. Plus, when looking at the final exam performance of each group, the synchronous group scored slightly higher on the final exam. In terms of English learning effectiveness, it can be said that the students' synchronous group activities were slightly higher than the asynchronous group activities. In addition, when it comes to the length of the video recording of the personal presentation, the learners preferred about one minute for both groups as an appropriate length. It is speculated that the participants, who are still in their first year, were not used to giving oral presentations in English and lacked a good rapport with each other, so it was difficult for them to give presentations longer than one minute. In the asynchronous group, participants preferred video or text feedback. Unlike text feedback, participants may have found it cumbersome to watch the video of the presenter and then post comments or questions on the video again.

As for the advantages of both synchronous and asynchronous group activities, both groups mentioned interacting with members, improving their English pronunciation and speaking, increasing their English confidence, and increasing their interest in learning English, while the asynchronous group mentioned that they were able to learn by watching other members' videos. Common disadvantages for both groups included technical issues with cameras and microphones, difficulty keeping time with members, and a decrease in confidence. The synchronous group mentioned difficulty communicating with members, while the asynchronous group mentioned difficulty understanding members' speech and pronunciation.

Based on the findings of this study, there are several educational implications. Firstly, online group activities can reduce the feeling of isolation online. In online learning, peer-to-peer group activities can be one way to incorporate the meaningful interactive processes of classroom field trips into online classes [28]. In addition, synchronous online group activities have been shown to increase student engagement, confidence, motivation, and social interaction through real-time communication [29,30]. Recent studies have also reported that these asynchronous group activities can help foster trust, teamwork skills, group cohesion, and cognitive processes among learners [31,32].

Secondly, the participants in the asynchronous class had positive attitudes towards the use of Flipgrid. Although they were less active in giving peer feedback in group activities, the non-live Flipgrid platform can provide learners with an opportunity to identify and reflect on the strengths and weaknesses of their own English speech by recording and uploading their own videos. They can also learn from the strengths of their peers by watching their peers' videos repeatedly. In particular, practicing English presentations using video can encourage students to share their ideas on a non-threatening platform [33]. The use of Flipgrid can be used as an online tool for instructors to provide students with opportunities to practice their communication skills and

interact with their peers.

Lastly, instructors should understand the advantages and disadvantages of synchronous and asynchronous video-based group activities when designing lessons with the aim of increasing learners' communication and interaction in online classes, and mix the two appropriately to create a curriculum that meets the learning objectives and students' needs. To reduce learner confusion when utilizing online tools, instructors should provide clear guidelines and allow sufficient time for orientation periods to help students adjust to the use of online tools. This will reduce any technical difficulties or inexperience that students may have in the beginning and encourage all students to be active and self-directed in their work. Engineering students who have experience using Flipgrid, especially in presentation classes, have shown a positive understanding of the tool [33].

Limitations of this study include the following. First of all, although we sent texts and emails to students to encourage them to participate in the survey, the number of students who participated was somewhat low. Moreover, we tried to find volunteers to add data by conducting in-depth interviews, but it was difficult to find them, and some students could not be contacted through online classes. Furthermore, the majors and grades of the students who participated in the survey were somewhat limited as the participants in this study were limited to intermediate-level students, so it is difficult to generalize the results of this study to the perceptions of EFL learners as a whole.

Disclosure statement

The author declares no conflict of interest.

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