

Redesigning Face-to-face into Online Learning for Speaking Competence during COVID-19: ESP for Higher Education in Indonesia

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Abstract

During the time of COVID-19, students should study at home and class is conducted fully online. However, classes in higher education are mostly planned for Face-to-Face (F2F) learning. To deal with the situation, educators seek an alternative learning design to be implemented and it is expected to have either comparable or improved learning outcome. This study describes Online Learning (OL) design which assesses speaking performance in ESP classes. The participants of the study were students year 2019 (N=118) and students year 2020 (N=96) joining English for Electrical Engineering (EEE) which has the same syllabus and learning goal. A proposed Gagne's Nine Events of Instruction is analyzed, planned, implemented, and assessed its effectiveness of speaking activities which were done in the former-year-class (using F2F method) then applied in current class (using OL method). The result of F2F and Online Learning (OL) outcome were compared. To complete the analysis, a sequence of questionnaire was given to the students. The results indicates that using Gagne's Nine Events of Instruction, speaking activity in online learning classroom, achieved satisfactory result. Designing OL both synchronous and asynchronous method for speaking is as effective as F2F. This study may open another research prospect on barriers in OL, how to assess speaking performance via online platform, or others.

Keywords: Face-to-face Learning, Online Learning, Gagne's Nine Events of Instruction

Introduction

Learning environment plays an important role in teaching and learning activity. Interaction between educator and students or among the students their self are significant to achieve better outcome. Positive relationships contribute behavioral and learning outcomes (Claessens et al., 2017). Generally, learning process in classroom is conducted in Face-to-Face (F2F) in which all instructions can be applied completely without time and place barrier. However, using online learning method can be an alternative for creating a new learning environment (Stephenson, 2018).

English for Electrical Engineering (EEE) is an English for Specific Purposes (ESP) which is designed to increase students' language skill in specific field (Engineering). One of the learning outcomes is that students should be able to describe procedure, demonstrate a process in formal presentation. Students are guided to practice speaking gradually from simple to complex ones to support the learning goal. Formerly, speaking practices were done in F2F learning that educators had direct interaction with students in giving instruction, example, practice and feedback. This also reduces Foreign Language Anxiety (FLA) that should be addressed by language teachers

(Bárkányi, 2018).

In the early year of 2020, the emergence of COVID-19 forced classroom learning to be changed into full online learning. It is a challenge for educators to continue the learning process from F2F to OL at once. The concern of this case is how a learning design can be applied and conducted to achieve comparable learning experience and outcome. The use of Learning Media Service (LMS) and virtual meeting application are alternatives to substitute manual delivery in classroom (Kaufmann & Frey, 2017). This study describes how a learning design that formerly applied in F2F learning is changed into full online learning. To enhance the online learning and the principal of pedagogy, Gagne's nine instructions are proposed to maintaining student interaction and learning experience, and learning outcome in the online learning (Wong, 2018). This study aims to answer the following questions:

- (1) How is the new course structure of speaking competence applied and adjusted in the new learning environment (online learning)?
- (2) How is the practical activity of Gagne's Nine Instructions applied and adjusted in the new learning environment (online learning)?
- (3) How is the effectiveness of adjusting new learning environment (online learning) and the students' attitudes toward the new design of speaking competence?

Literature review

F2F vs. OL environment

Today's classroom, traditional educational methods explore student-centered learning in F2F classroom. It provides deeper learning opportunities for students to create experience (Yuan & Wu, 2020). It does not refer to teacher-centered which has instructive, drill, repetition and expository learning. Educators seek promising approach in learning to achieve better learning experience. By this chance, students can take an active role to create integrate, and generalize knowledge. The availability of technology also helps students to increase their phase in learning. Technology gives opportunity to learn beyond classroom walls. A platform used in the OL environment is called Learning Management System (LMS) that enable both instructors and students access sharing materials, announcement, assignment, giving feedback and communicating online (Kaufmann & Frey, 2017). To keep students engaged, educators must design the learning synchronous and asynchronously to maximize the learning process (Watts, L. (2016). However, both learning environments give positive impacts on students learning outcome as long as it provides more spaces on students' learning experience.

The importance of listening comprehension in SLA

Learning outcome

The learning success can be influenced by some factors such as learning instruction, course material, rubric and assessment, students' interaction (teacher-student and peers), and students' learning motivation. Another indication of this success is learning outcome which is assessed from students' performance after instructional process given (You, 2016). The aspects can be categorized into quantitative and qualitative shown in numerical and narrative feedback (Tekian et al., 2017). Formerly, entire learning process breaks down into structural learning stages, from objective, material, task, procedure, and assessment. If the learning outcome is insufficient then teacher should evaluate the whole teaching process.

Gagne's Nine's Events of Instruction

Gagne proposed certain learning condition that should be exist for learning engagement and absorption (Wong, 2018). To gain the cognitive factors in learning process, nine steps that can be categorized into three leveling processes, *before*, *during*, and *after* content contribute to the learning. The first level, *before content*, is important to be carefully delivered to students. It consists of three parts, gaining attention, informing learning objective, and stimulating prior knowledge. These three parts set the learners to be ready with the main learning process. *During content* elicits three steps which teacher presents the material, provides learning guidance, and gives performance opportunity to students. *After content* involves reinforcement to students' performance, assessment, and enhancing knowledge to the real-life situation.

Research method

Research design

This study investigates how an adjustment or a new learning design applied in speaking classroom. Then the students' learning outcomes from F2F to OL learning were compared to assess its effectiveness. To complete the analysis, it investigates the students' attitudes toward the current learning process due to Covid-19 in order to measure the adjustment of new learning environment.

Participants

The participants of this study were students taking English for Electrical Engineering (EEE). This class employs the same syllabus and lesson plan for 2019 class (F2F learning environment) and 2020 class (OL environment). The total students from 2019 were 118 and from 2020 were 96. The range of ages is from 17-18 with no gender issues. They use English in this class as English for Specific Purposes, English for Engineering.

Instruments

The process of measurement was from the whole learning process of speaking activity. First, two similar speaking assessments were given in F2F and OL classroom. Second, students were given a questionnaire using a five-point Likert scale and open-ended questions at the end to add some necessary evidence. A questionnaire was given and analyzed using SPSS software. Likert scale questions consist of five point of agreement SD= strongly disagree; D=disagree; N=normal; A=Agree; SA=Strongly Agree. The analysis also describes Level of Respondents Achievement (LRA) and categorization based on its response. The category of LRA classified as follows 85-100=Very Good; 66-84=Good; 51-65=Average; 36-50=poor; 1-35=very poor.

Data analysis

The course structure of speaking activity in Google Classroom was classified and described thoroughly to answer the first and the second research question, then, descriptively compared two method of F2F and OL classroom. To answer an effectiveness of adjusting new learning environment (online learning) and the students' attitudes toward the new design of speaking competence, data gathered from speaking assessment in two method of learning to be analyzed and compared using SPSS.

Findings

The new course structure

As stated before, LMS used in this class is Google classroom which is officially provided by the university. Lecturer prepared the course structure of speaking activity. There are eight sub-divisions for scaffold the students learning activity and those divisions are designed for a final goal-presentation project. Based on the **figure 2**, the learning process can be explained as follow.



Figure 2. The course structures

Public speaking

This part is divided into two sections. First, students were given the information about types of public speaking, (1) speeches to inform, (2) speeches to persuade, (3) speeches to entertain. In this part, students were told about speaking styles, methods of delivery, knowing audience and the part of presentation. Second, students were explained about the technical steps in handling presentation such as tips in using visual aids, how to deal with body language, eye contact, how to rehearse, room setting, and how to overcome fear or stage fright. In this phase, students acknowledged information about public speaking as many as possible.

Preparing presentation

Gaining more information in this part, students were informed about how to deal with rehearsal, knowing audience's prior presentation to anticipate what were more relevant to be presented. They also learned how to organized the presentation, what to practice, how to communicate with audience, adjusting the way of delivery, the do(s) and the don't(s) of presentation.

How to present technical information

The detail on how to deliver presentation was gradually informed in this part such as

organization of presentation, visual aids, delivery and style. Writing check list of the details was necessary to conduct the presentation.

How to start presentation

Starting presentation was essential part when audience start to have an intent look on your presentation. Students learned some tips how grasp audiences' intention.

Speaking practice

In this part, students were drilled to have pronunciation practice. Lecturer gave knowledge how to use online dictionary to find pronunciation dictation and checking the pronunciation using speech-to-text in Google-docs.

How to make an academic power point

Students were given scaffold activity to make an academic PowerPoint. Students were required to follow the instruction and they should show their work progress. Lecturer gave feedback and students improve their work to complete the assignment.

Outlining and preparing presentation

The next step, students prepare the outline and presentation script as a part of their prior presentation activity. Lecturer checks students work and makes sure that the presentation project will be done as instructed.

Presentation-video project

On the last part, students were required to finish the project based on the knowledge, guidance, and practice that had been done on the previous activity. They should perform a presentation recorded and should be uploaded to LMS

Practical activity of Gagne's nine instructions

Taking a closer look on how to apply Gagne's Nine Instructions, below is a sequence of three tables consisting steps in each part of the instructions (see table 1, table 2, and table 3). This application is taken from (4.7) *Outlining and preparing presentation* that the students were asked to make presentation script and simulation.

Before content

In the first stage (see table 1), Lecturer (L) gave prior knowledge to prepare students (SS) readiness in learning process. Gaining attention as a reception phase is given in the form of picture and video presentation. Students were expected to have depiction on presentation activity. Then, L informed SS that the objective of meeting is presentation simulation. The activity is followed with stimulating recall of prior learning or retrieval phase such as telling SS the do(s) and the don't(s) of presentation. An adjustment from F2F to OL was that all of materials such as pictures, video presentation, and other information were uploaded in Google classroom before conducting synchronous or virtual meeting.

Table 1: Example of Gagne's Nine Instruction

Before content

No	Gagne's Nine Instructions	F2F	OL
Before Content			
1	gaining attention (reception)	Lecturer gives picture & video of presenter giving material presentation in front of audience.	Lecturer gives picture & video of presenter giving material presentation in front of audience (<i>Asynchronous & material uploaded in LMS</i>).
2	informing learners of the objective (expectancy)	Lecturer inform the objective of the meeting: presentation simulation.	Lecturer inform the objective of the meeting: presentation simulation (<i>Asynchronous & material uploaded in LMS</i>).
3	stimulating recall of prior learning (retrieval)	Lecturer asks one of the students prior learning, the do(s) and the don't(s) of presentation.	Lecturer asks one of the students prior learning, the do(s) and the don't(s) of presentation (<i>Asynchronous & material uploaded in LMS</i>).

During content

In the second stage (see table 2), lecturer (L) started to give main material. L presented the stimulus by explaining how to deliver presentation and prepare visual using power point as selective perception phase. Then L provides learning guidance by giving activity to SS to be discussed. Few are presented to stimulate SS in the activity as a semantic encoding. This part ended with eliciting performance in which L asked volunteer from SS to presentation simulation. The adjustment from F2F to OL was all of activities in delivering content were presented synchronously using *zoom* virtual meeting application. For discussion, L provided breaking out room that the SS were divided into several groups for couple minutes then united after discussion finished.

Table 2: Example of Gagne's Nine Instruction

During content

No	Gagne's Nine Instructions	F2F	OL
During Content			
4	presenting the stimulus (selective perception)	Lecturer explains how to deliver presentation and prepare visual using power point.	Lecturer explains how to deliver presentation and prepare visual using power point (Synchronous using zoom meeting).
5	providing learning guidance (semantic encoding)	Lecturer gives activity to students to be discussed. Few are presented to stimulate students in the activity.	Lecturer gives activity to students to be discussed. Few are presented to stimulate students in the activity (Synchronous using zoom meeting).
6	eliciting performance (responding)	Lecturer asks a volunteer to perform in front of the class.	Lecturer asks a volunteer to perform in virtual meeting (Synchronous using zoom meeting).

After content

Table 3: Example of Gagne's Nine Instruction

After content

No	Gagne's Nine Instructions	F2F	OL
After Content			
7	providing feedback (reinforcement)	Lecturer gives feedback and suggestion on student's performance in front of the class.	Lecturer gives feedback and suggestion on student's performance (Synchronous using zoom meeting).
8	assessing performance (retrieval)	Lecturer gives asks Ss for making presentation recorded (home assignment) and submitted via LMS. Lecturer gives feedback on 1-2 students' assignment.	Lecturer gives asks Ss for making presentation recorded (home assignment) and submitted via LMS. Lecturer gives narrative feedback one by one and scores.
9	enhancing retention and transfer (generalization)	Lecturer gives close survey using G-form to wrap up the teaching material.	Lecturer gives close survey using G-form to wrap up the teaching material (Asynchronous by uploading recorded video to Google classroom).

The last stage (see table 3), the process of learning continues to after content that L focuses on giving feedback, assessment and enhancing retention and transfer for generalization how the knowledge can be applied on wider purpose in real life. Specifically, L gave feedback and suggestion on student's performance (volunteering performance). SS tried to get some insight from L's feedback from volunteer performance, then they complete their presentation assignment and uploaded to Google Classroom. L gave feedback to all SS' assignment.

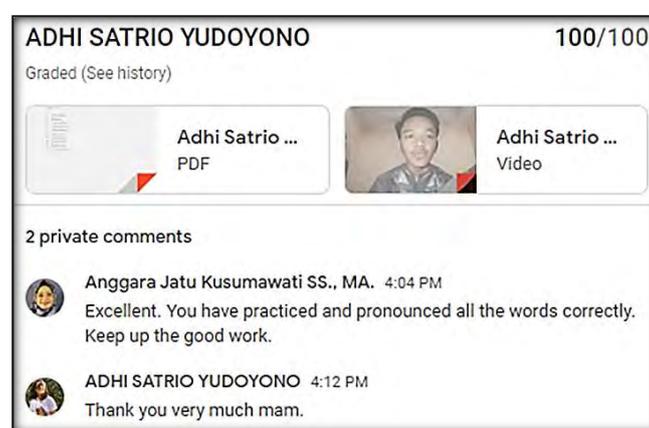


Figure 2. Lecturer's feedback on student's work (1)

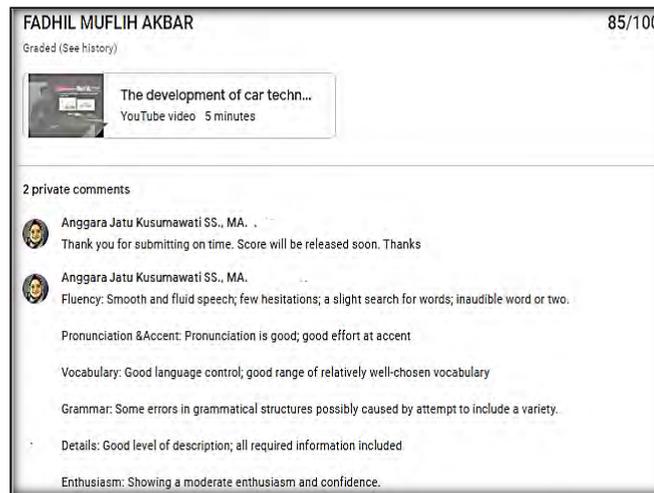


Figure 3. Lecturer’s feedback on student’s work (2)

See figure 2 and figure 3 as the example of L’s feedback on Google classroom. The feedback was given as a praise and should give positive impact on SS (constructive). This will help them to learn the lesson better and encourage them to have better values in the future. The last step in Gagne’s instructions is enhancing retention and transfer (generalization) that L gave close survey using G-form to wrap up the learning material and the activities. The adjustment in OL in giving feedback on volunteering performance was done synchronously (via virtual meeting). Then feedback for the home assignment (recorded presentation) that was submitted via Google Classroom. L gave feedback one by one and scored the video. In the last step, for the OL adjustment is substituted asynchronously by uploading recorded video of wrapping up material to Google classroom.

Effectiveness of adjusting new learning environment (online learning) and the students’ attitudes toward the new design of speaking competence

The effectiveness investigated through comparative analysis

The result of adjusting new learning environment from F2F to OL can be seen in Table 4. SS from year 2019 and 2020 had the same assignment that is pronunciation practice. The result scores were analyzed and compared. The data indicates that SS achieved outstanding performance that the average of pronunciation practice from year 2019 was 96. 5 and from year 2020 was 97.6. In this pronunciation practice, SS were asked to pronounce engineering specific term then they recorded their pronunciation and uploaded to Google classroom. L gave narrative feedback and scores as a part of learning instruction.

Table 4: Pronunciation practice result

	N	Minimum	Maximum	Mean	Std. Deviation
Pronunciation Practice 2019	116	75.00	100.00	96.5517	8.65809
Pronunciation Practice 2020	96	75.00	100.00	97.6563	7.32527
Valid N (listwise)	92				

The last assignment, presentation project, was assessed based on the rubric that had been

prepared and uploaded in assignment board in Google classroom as the presentation parameter. The result is described in Table 5 that there was a slight improvement seen from two different years. It can be concluded that the learning processes from F2F and OL were successfully conducted. All of SS passed the minimum standard for the presentation (6), and surprisingly got an improvement after the OL adjustment.

Table 5: Pronunciation practice result

	N	Minimum	Maximum	Mean	Std. Deviation
Presentation Project 2019	118	60.00	85.00	76.6102	7.06748
Presentation Project 2020	96	70.00	85.00	79.5313	5.76186
Valid N (listwise)	94				

Students' Attitudes on the New Learning Environment

Further analysis is SS' attitudes toward the new learning environment that is divided into four elements. Each element consists of some related statements that can be concluded as SS' attitude on the OL new learning environment.

Learning material and instruction

Table 6: Students' attitude on learning material & instruction

No	Statement	SD	D	N	A	SA	N	Score	Mean	LRA	Category
		1	2	3	4	5					
Learning Material & Instruction											
1	Lecturer gives material properly in LMS		2	16	46	26	90	366	4.067	81.33	Good
2	Lecturer gives clear instruction (synchronous & asynchronous)			3	51	36	90	393	4.367	87.33	Very Good
3	Lecturer gradually explain the material and assignment well (synchronous & asynchronous)		2	15	47	26	90	367	4.078	81.56	Good
4	Lecturer gives more space for discussion and consultation via online platform (google classroom, email, Whatsapp)		1	17	51	21	90	362	4.022	80.44	Good

*note: SD= strongly disagree; D=disagree; N=normal; A=Agree; SA=Strongly Agree; LRA: Level of Respondents Achievement; Category= Classification of LRA (85-100=Very Good; 66-84=Good; 51-65=Average; 36-50=poor; 1-35=very poor)

There are four statements to represent SS' attitude on this part (see table 6), L gives material property in LMS; L gives clear instruction (synchronous & asynchronous); L gradually explain the material and assignment well (synchronous & asynchronous); L gives more space for discussion and consultation via online platform (Google classroom, email, WhatsApp). From the result, the category of the mean and LRA is mostly good. SS stated that the learning material and instruction through LMS synchronously and asynchronously were well delivered. L gave more space and guidance during working with assignment, discussion and consultation.

Learning desire

Four statements were given to SS' attitude on this part (see table 7), SS read and learn the material from teacher/ facilitator from Google Classroom (GC) by myself; SS watch the example of video presentation from GC and YouTube; SS study how the speaker from YouTube (or other sources) presenting the material; SS create my own presentation or inspired by the presentation SS watch before. The table shows that three mean and LRA are Good and Very Good at the first statement. It can be concluded that SS had strong motivation to learn the material from Google classroom given by L. SS took the knowledge on how to deliver presentation from the video attached. SS also could replay the video many times when necessary.

Table 7: Students' attitude on Learning Desire

No	Statement	SD	D	N	A	SA	N	Score	Mean	LRA	Category
		1	2	3	4	5					
Learning desire											
5	I read and learn the material from teacher/ facilitator from Google Classroom (GC) by myself.		1	9	40	40	90	389	4.322	86.44	Very Good
6	I watch the example of video presentation from GC and YouTube.	1	2	18	41	28	90	363	4.033	80.67	Good
7	I study how the speaker from YouTube (or other sources) presenting the material.	1	4	21	37	27	90	355	3.944	78.89	Good
8	I create my own presentation or inspired by the presentation I watch before.	1	5	11	45	28	90	364	4.044	80.89	Good

*note: SD= strongly disagree; D=disagree; N=normal; A=Agree; SA=Strongly Agree; LRA: Level of Respondents Achievement; Category= Classification of LRA (85-100=Very Good; 66-84=Good; 51-65=Average; 36-50=poor; 1-35=very poor)

Self confidence

Table 8: Students' attitude on self confidence

No	Statement	SD	D	N	A	SA	N	Score	Mean	LRA	Category
		1	2	3	4	5					
Self confidence											
9	I am sure that my presentation material is good enough.		4	22	39	25	90	355	3.944	78.89	Good
10	I am sure that I can practice speaking by myself (I will search in the internet if I need helps).		2	17	35	36	90	375	4.167	83.33	Good
11	I present my material confidently (in front of camera).	1	3	25	37	24	90	350	3.889	77.78	Good
12	I am proud to upload my presentation video in YouTube (Google Classroom).	1	6	19	33	31	90	357	3.967	79.33	Good

*note: SD= strongly disagree; D=disagree; N=normal; A=Agree; SA=Strongly Agree; LRA: Level of Respondents Achievement; Category= Classification of LRA (85-100=Very Good; 66-84=Good; 51-65=Average; 36-50=poor; 1-35=very poor)

In table 8, there are four statements that show SS confidence in speaking performance. SS are confident enough in presentation because of adequate material, practice and guidance in online learning. There more spaces to learn from L material and others such as internet or discussion. Another sign of SS confidence is being proud to show their presentation to others through YouTube channel and Google classroom.

Students' interaction with teacher

Table 9. Students' attitude on interaction with teacher

No	Statement	SD	D	N	A	SA	N	Score	Mean	LRA	Category
		1	2	3	4	5					
Student's interaction with teacher											
13	I get a constructive feedback from my teacher (She checked my presentation script).			4	29	57	90	413	4.589	91.78	Very Good
14	I get help from my teacher on how to practice speaking correctly (She tells us some options to be used in practicing speaking e.g. speech to text.)			6	33	51	90	405	4.5	90	Very Good
15	I get feedback/comment on my presentation video in Google Classroom.		2	5	24	59	90	410	4.556	91.11	Very Good
16	practice speaking correctly (She tells us some options to be used in practicing			5	36	49	90	404	4.489	89.78	Very Good

*note: SD= strongly disagree; D=disagree; N=normal; A=Agree; SA=Strongly Agree; LRA: Level of Respondents Achievement; Category= Classification of LRA (85-100=Very Good; 66-84=Good; 51-65=Average; 36-50=poor; 1-35=very poor)

Students' statement on interaction with teacher was categorized into very good level. In all statements, SS were satisfied with interaction in online learning. In the process, L possibly provides feedback and interaction more than in F2F class that there is no limit of time and more space to SS to express their thought.

Improved speaking skill

Table 10. Students' attitude on improved speaking skill

No	Statement	SD	D	N	A	SA	N	Score	Mean	LRA	Category
		1	2	3	4	5					
Improved Speaking skill											
17	I am able to express ideas about the topic that is related to my department (Engineering)		1	14	40	35	90	379	4.211	84.22	Good
18	I am fluent in expressing my idea.		4	26	36	24	90	350	3.889	77.78	Good
19	I can pronounce English well (with the help of dictionary and other tools).		4	24	40	22	90	350	3.889	77.78	Good
20	I have good grammar in my speaking (presentation).	1	10	35	28	16	90	318	3.533	70.67	Good

*note: SD= strongly disagree; D=disagree; N=normal; A=Agree; SA=Strongly Agree; LRA: Level of Respondents Achievement; Category= Classification of LRA (85-100=Very Good; 66-84=Good; 51-65=Average; 36-50=poor; 1-35=very poor)

The last part of questionnaire statements is speaking skill improvement. Based on Table 10, SS stated that their speaking skill was upgraded during the learning process.

Discussion

In F2F classroom, students were directly guided to practice and finish a presentation project. It was a challenge to design speaking learning activities in OL provided in Google Classroom that should be effectively applied and SS were able to finish a presentation project. Both learning experiences (F2F and OL) should enable SS to explore more experiences (Money Penny & Aldrich, 2016). The learning experiences were gained from eight activities which contain theory-practice-feedback process. Students improved their work from the feedback and able to finish based on the assessment criteria. The quality of feedback gives positive impacts on students learning goal (Wanner & Palmer, 2018).

Based on the finding of the presentation project in OL learning, it indicates that students were successfully experiencing the learning process as similar as in F2F learning. It is sharpened with the adapted of Gagne's nine events which was applied into three leveling process. These accommodate students to do speaking activities in the form of synchronous and asynchronous online learning (Korhonen, Ruhalahti, & Veermans, 2019). The two are able to substitute the learning process in F2F which is the outcome can be a feasible standard for OL (Fatkhulloh & Haryanto, 2020).

In Covid 19 period, SS's response to the OL process plays an important role to gain more learning experience (Panigrahi, Srivastava, & Sharma, 2018). SS satisfaction positively impact a continuation and desire to explore more. Learning material and instruction in OL were given to have more space and guidance during working with assignment, discussion and consultation. Thus, SS have more confidence to present their material through virtual environment and resulted in upgraded speaking and presentation skill.

Conclusion

Covid-19 changes all of aspect of education especially the learning delivery. The changes from F2F to wholly OL requires simple yet meaningful solution. Gagne's 9 instruction in learning process using Google classroom as learning media was successfully applied in speaking class in which usually only be done in F2F learning. This accomplishment was proven by re-designing the lesson plan and activity from F2F to OL, comparing the result from F2F and OL assessment, and analyzing the SS' attitude to the new learning environment. This study can be further researched on some aspects such as SS' barrier in OL, assessment criteria in OL, and so on.

Declaration of conflicting interest

No potential conflict of interest was reported by the author.

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