The Development of Flipped Learning Model for Foreign Language Class

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Abstract: This study aimed to develop a flipped learning (FL) model for foreign language class to improve the learners' communication skills, based on the ADDIE instructional design method. Radical changes in the educational environment due to the pandemic breakout have brought a crucial transformation in instructional designs. In the current study, the initial FL model for foreign language class was developed by analyzing previous studies and the conceptual frame. The principles of initial FL model were set as self-regulated learning, student-centered learning, collaborative learning, and interaction-facilitated learning. The FL model is composed of 3 phases: Introduction, Before-class learning, and In-class learning. In the phase of introduction, the consensus of applying FL was built among students. In the phase of before-class learning, the basic contents of knowledge; vocabulary, grammar, model conversation, was delivered through the lecture in the type of video clips. The phase of in-class learning CHECK and REPEAT, SUPPLEMENT and EXPAND, and APPLY were taken as the core activities to develop learners' communication skills. Initial FL model was implemented to 60 students in Korean Conversation 1 class, first semester of 2020 (August to December2020) at M university in Thailand. At the end of the semester, learners' attitudes and perceptions were investigated through the survey. As a result, the students in general were satisfied with the FL more than traditional instruction. However, the phase of before-class learning turned out both the most challenging and the most beneficial. Students' lecture evaluation between traditional instruction and FL instruction was used to verify the impact of FL instruction. The mean scores (average 4.68) of all the items in students' lecture evaluation from FL were higher than those (average 4.40) of traditional instruction. Minor modifications, which include applying student response system, and diversification of group work, were made in the final FL model for foreign class by reflecting the learners' opinions and suggestions from the survey.

Keywords: Flipped learning model, foreign language class, communication skill, ADDIE

1. Introduction

The purpose of learning foreign languages is to develop the ability to communicate by expressing the learner's thoughts and opinions in a target language. As communication skill has widely emerged as the goal of foreign language education, speaking ability is recognized as one of the core competencies. However, in the traditional language classes, since most of the class time is allotted to presentation and explanation of the contents, the time for practice of speaking through interaction is remarkably insufficient. In terms of 'knowledge acquisition' and 'knowledge construction'(Blau, & Shamir-Inbal, 2017), in the current language classes, teachers tend to concentrate on the conveying of language knowledge. As a result, the problem of language classes arising in the traditional educational environment is that learners are given limited opportunities to speak, and the learners' language performance is left solely to the learners out of the classroom. However, to improve the ability to communicate, more opportunities to speak should be provided with learners.

While the traditional language class has these kinds of issues, on the other hand, what kind of challenges have been emerging in foreign language class in the unprecedented circumstances, pandemic era? Recently, we have been living in the 'new normal' of education, where virtual online classes are becoming more common and F2F (face-to-face) offline classes are becoming optional. However, in online classes, if learners' participation is not actively encouraged, the effectiveness of classes and learners' participation will inevitably decrease. In the case of foreign language classes, the shortcomings in traditional language classes tend to become worse in online classes. This is because, if online classes

are conducted in a one-way, real-time lecture, learners are more likely to remain passive bystanders rather than active participants. Therefore, in online classes teachers should give learners more chances to speak and promote interaction so that learners may continue to remain as subjects of learning. In this way, whether it is a traditional foreign language class or an online-based foreign language class, the goal of the class can be achieved by applying optimal teaching methods and operations. This current study noted the effectiveness of FL (Flipped Learning) as one of the ways to improve learners' communication ability by overcoming the limitations we have found in foreign language class.

1.1 FL (Flipped Learning)

FL represents an educational strategy that provides a more efficient outcome, by inverting traditional classrooms. FL combines non-real time online lectures that students listen to outside of class with real time F2F classroom learning activities in which students interact with peers and instructors (Bergmann & Sams, 2013; Bishop & Verleger 2013; Bryan & Kirsten, 2013; Hamdan et al., 2013; Herreid &Schiller, 2013; Mason et al., 2013; McLaughlin, et al., 2014; Milman, 2013; Strayer, 2012). FL saves for human instructors to do what only they can do best and leaves to the technology to do what it can do best. This way of blending posits that neither component has a supplementary role, but rather each is a core complementary constituent of the learning experience as a coherent whole (Stannard, 2016). Yet, although the conceptual framework of FL may be intuitively appealing, there are considerable challenges in its design and implementation, and practically infinite design variability in diverse contexts (Bergmann & Sams, 2013; Garrison & Kanuka, 2004; Overmyer, 2012). FL is a learner-centered educational strategy that allows learners to accomplish the objectives of remembering and understanding the contents in advance from online platforms, and in class through some collaborative activities, learners accomplish the objectives of applying, analyzing, evaluating, and creating them (Anderson, & Krathwohl, et al., 2001; Hwang, Lai, & Wang, 2015; Blau, & Shamir-Inbal, 2017). If the activities of remembering and understanding, which occupy a large portion of the traditional language class, are placed outside class, it may be expected that the activities to apply, analyze, evaluate, and create will take place more actively in class.

1.2 FL Model Applied to Foreign Language Class

So far, many of the previous studies have shown that FL significantly enhances student learning performance (Day & Foley, 2006; Deslauriers & Wieman, 2011; Hung, 2015; McLaughlin et al., 2014; Zappe, et al., 2009). In this context, most teachers might agree that flipped learning is an effective educational strategy. Furthermore, we want to know how to apply FL model for a specific course, because FL should be designed and operated in consideration of the nature and characteristics of the course. Therefore, I try to find out how the researchers designed and implemented FL, when they applied FL in foreign language classes. Some studies were so focused on the phase of before-class learning that researchers didn't mention instructional design of in-class learning (Watanabe, 2014; Yang,Yin, & Wang, 2018). Some studies have covered the before-class and in-class learning; however, their designs are not very explicit (Chen Hsieh, Wu, & Marek, 2017; Hung, 2017).

1.3 Principles and Key Elements for FL Model for Foreign Language Class

What kind of principles and key elements should be considered when we develop the FL model for foreign language classes to develop communication skills? Principles of FL for foreign languages class include self-regulated learning (Blau, & Shamir-Inbal, 2017) in the phase of before-class, and student-centered learning (Hung, 2017) collaborative learning (Blau, & Shamir-Inbal, 2017; Lee, Lim, & Kim, 2017), interaction-facilitated learning (Hwang, Lai, & Wang, 2015). Most of the FL models for language classes usually implement 2-3 phases: before-class learning and in-class learning as the essential phases. But the phase of introduction and after-learning phases are optional. In the current study, the FL model is composed 3 phases: Introduction, Before-class learning, and In-class learning. In the phase of introduction of FL, teachers try to build the consensus of applying FL among students. Before-class learning should have more weight on knowledge acquisition and in-class learning on knowledge construction. Teachers can apply activities of Present and Explain in the phase of

before-class learning and activities of Check and Repeat, Supplement and Expand, and Apply in the phase of in-class learning. Before-class learning and in-class learning should have systemic and close relevance.

1.4 Research Goals and Research Questions

The current study aims to develop FL model for foreign language classes. The research questions are stated below.

RQ 1. What kind of principles and key elements should be considered when the FL model for foreign language class is developed?

RQ 2. What are students' attitudes and perceptions towards Korean class implemented with flipped learning model?

RQ 3. How can the modified FL model be developed by reflecting the learners' suggestions and opinions?

2. Method

2.1 Participants and Context

This study involved 60 Thai students from the course Korean Conversation 1, M university (a pseudonym of the target university) in Thailand during the first semester of 2020. The students selected Korean as their language track, and in the previous semester studied Korean 1 (45 hours). Firstly, the initial FL model was developed based on the analysis of previous studies and was implemented throughout the semester. To derive some implication from the initial model, the learners' attitudes and perceptions were examined through the survey. The survey was conducted in the last class of the 16th week. Before the survey, the purposes of this study were explained to the learners, and the researcher asked them to answer candidly as it would never affect their grades at all. Secondly, learner's lecture evaluation of second semester of 2018, in which traditional instruction was conducted and that of the first semester of 2020, in which FL was applied. The final FL model was developed by synthesizing the learners' opinions and suggestions from the survey.

2.2 Instrument and Procedure

The questionnaire used in the survey to investigate the attitudes and effects of FL was composed of 3 parts. Part 1 was composed of 9 questions which cover the basic information, history of learning Korean, and motive of learning Korean as one's language track. Part 2 was composed of 14 items, asking about the effects and attitudes of FL relevant to developing language performance and 4 language skills. To examine the validity of the 14 items, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity were calculated. The results indicate that KMO index (0.794) is acceptable, and P-value (Sig. 0.000.) is significant. The reliability of the 14 items, which used the Likert 5 scale, was calculated by using Cronbach's alpha consistency, which reveals a high level of reliability (r=0.891). Part 3 was composed of 3 items, which are open-ended questions such as the favorite/advantageous things of FL, difficult/challenging things of FL, and suggestions.

The procedure of developing FL model in foreign language classes followed ADDIE, which for many years, educators and instructional designers have used as an Instructional Design (ID) method as a framework in designing and developing educational and training programs (Yeh, & Tseng, 2019). "ADDIE" stands for Analyze, Design, Develop, Implement, and Evaluate. ADDIE has evolved from a linear process to a retrospective process. This study just followed the original linear procedure, for this is a short-term research run during one semester, which is a preliminary stage for developing upgraded FL model for language class in the future.

3. Results

3.1 The development of Initial FL Model

In the phase of analysis, educational principles and key elements for FL were derived through the study of conceptual frame and analysis of literature review. In the phase of design and development, the initial model of FL was developed in consideration of the strengths and challenges of applying FL. The goal of the FL model for foreign language courses was set to develop communication skills. Instructional design for the FL model was divided as 'introduction-before-class learning, in-class learning.'

3.1.1 Phase 1: The introduction of FL (Orientation 30 mins)

Although the phase of introduction of FL is conducted as a one-time activity in course orientation in the first week throughout the entire course, it is a significant phase that greatly affects the success or failure of FL. Nevertheless, the introduction of FL is often omitted or neglected in FL-related studies. Before applying FL to class, teachers should provide guidelines with learners about the pros and cons of FL, how they will proceed with the classes, and what the teachers expect from learners. In addition, the teacher should help learners to build a consensus on the application of FL by explaining in detail the significance of FL and the expected outcome from FL. If such a consensus is not formed, it is difficult for learners to actively participate in the class because they do not understand the teacher's instructional design of the class.

3.1.2 Phase 2: Before-Class Learning (40-45 minutes)

For the before-class learning, I created lecture videos based on the textbook, and uploaded them in the private facebook group, one week ahead of class time. Lecture videos are more effective than class materials in file format. Even if the videos are not of a professional level, it is sufficient, if it can convey the contents concisely and clearly. Rather than using existing lectures, it is optimal for teachers to make lecture videos by themselves to increase the learner's intimacy with the teacher. According to Bergmann & Sams (2012), before-class videos should not be more than 5-10 minutes in consideration of the students' concentration, but in the language classes, as much knowledge as possible must be presented to the learners so that teachers may obtain more time for language performance in the class. I tried to cover at least 80% of the contents in before-class videos with 40-50 minutes of running time because I thought undergraduate students are the learners who could control their own learning and to focus their study for a longer time. In this phase, self- regulated learning is the most important principle for the learners.

3.1.3 Phase 3: In-Class Learning (90 minutes)

In this study, CHECK and REPEAT, SUPPLEMENT and EXPAND, and APPLY were taken as the core activities of in-class learning. These activities were practiced under the principles of student-centered learning, collaborative learning, and interaction-facilitated learning.

    1) CHECK means that teachers should examine the learners' assignment which was embedded in the before class video clips as soon as the class gets started. In this study I applied writing assignments in practice 1 and 2, which asked learners to complete the short conversation text in Korean in accordance with the pictures and instructions. This will help the learners to recognize the significance of before-class learning and motivate them to do before-class learning intently. Constant monitoring of learners' language performance such as pronunciation, intonation, and grammatical errors were done throughout in-class learning through interaction with the teacher and peers.

    2) REPEAT indicates the core contents of each unit should be repeated and instilled to learners. The importance of repetitive learning in foreign language learning cannot be overemphasized. The teacher should help the learners to retrieve and solidify the key points of the unit by interaction with individuals or in a whole class group with a Q and A format in a target language.

    3) SUPPLEMENT represents that the teachers should provide more knowledge and more information in the phase of in-class learning compared to the contents the video clips covered. Teachers

should provide i+1 to the content of the coursebook by presenting useful expressions for daily life, more colloquial expressions, similar or opposite expressions. For example, the learners already learned the expression of 머리가 아파요.(My head is painful) through the video clips, therefore teachers can enlarge the expression of 두통이 있어요. (I have a headache.) Additionally, teachers can ask questions based on the model dialogue. Through this process, the teacher can find out the level of learners' understanding about the dialogue, and the learners can learn to respond appropriately using different sentence patterns depending on the questions. For example:

< Model dialogue>
Billy: 이 등산화 270 있어요? (Do you have the size 270 of this trekking shoes?)
Staff: 네, 있어요.잠깐만요. 여기 있어요. (Yes, we have. Just a moment. Here you are.)
Billy: 한번 신어봐도 돼요? (Can I try this on?)
Staff: 네, 됩니다. (Yes, you can.)

<Questions that teachers may ask>
손님이 지금 어디에 있어요?(Where is the customer for now?)
여자는 누구예요?(Who is this woman?)
빌리 씨는 뭐 사고 싶어요?(What does Billy want to buy?)
빌리 씨 신발 사이즈는 뭐예요?(What is the size of Billy's shoes?)

4) EXPAND allows learners to experience more natural and practical language use based on the learner's real life. Teachers can ask various questions relevant to the contents or beyond the contents in Korean so that learners may have more chance to speak about their real life in a target language. The extent to which the teacher wants to expand can be appropriately adjusted depending on the acceptance and intellectual curiosity level of the learners.

5) APPLY represents that the teachers spur the learners to apply the knowledge and create outcomes in a small group. To make the knowledge meaningful for the learners, it is essential that the learners try to re-create and re-construct the words and expressions from the coursebook, based on their real life. Among the small group activities that can be applied in the language class, I applied the role play presentation. I assigned the students to make a role play script in accordance with the objectives of each unit. Through this activity, Korean knowledge is applied to the learner's real life while creating their own script. After watching the role play, teachers can provide feedback in a small group. When students get the feedback from a teacher, they are allowed to dismiss class. Through role play presentation, learner-centered learning, cooperative learning, and interaction-facilitated learning took place.

3.1.4 The Linkage of Before-class Learning and In-class Learning

In the design of an FL model, there should be close linkage between before-class learning and in-class learning in terms that in-class learning should upgrade and improve before-class learning. If before-class learning and in-class learning are closely connected, the learners will be more encouraged and be more motivated to continue before-class learning. In this study, the linkage between before-class learning and in-class learning was designed as follows.
1) The medium language of teaching was allotted differently; English was mainly (80%) used for conveying the contents in the phase of before-class learning and Korean was mainly (80%) used for communicating with students in the phase of in-class learning. Through this, the time exposed to the target language during in-class learning in FL settings was significantly increased, compared to that in traditional learning settings. 2) The contents of a textbook were presented and explained in the phase of before-learning, and were checked, repeated, supplemented, expanded, and applied in the phase of in class learning. 3) An input-oriented task was assigned in the phase of before-learning, output oriented task in the phase of in-class learning. 4) The time of in-class learning was double that of before-class learning.5) Interaction with instructors and peers took place in the phase of in-class learning. 6) The feedback towards the whole class and individuals was given during in-class learning in the format of Q

and A activity. The feedback towards small groups was provided through the process of modifying the role play script, which was developed by the learners.

Table 1. *Linkage between Before-Class Learning and In-Class Learning*

	Before-Class Learning	In-Class Learning
1.Medium language	English (80%) +Korean (20%)	Korean (80%) +English (20%)
2. Contents	PE (Present and Explain)	CRSEA (Check, Repeat, Supplement, Expand, Apply)
3. Task	Input oriented task	Output oriented task
4. Time	45-50 mins/week	90-100 mins/week
5. Interaction	N/A	Interaction with instructors/peers
6. Feedbacks	N/A	1) The feedback towards Individuals, small groups, and whole class

3.2 Implementation and Evaluation of Initial FL Model

The initial FL Model was implemented in Korean class, and evaluated through the results of a survey.

1) To investigate the attitude and perception of learners toward the initial FL model, the following 15 items were surveyed by using a Likert 5-point scale. As a result, the effect of FL was found in the order of 'FL was helpful for exploring new vocabulary' (4.48), improving grammar ability (4.10), remembering vocabulary (4.10), improving collaborative ability (4.09), and acquiring various grammatical patterns (4.05). The one with the highest mean and the lowest standard deviation was 'exploring new vocabulary', which indicates the effect of the in-class activities of SUPPLEMENT, EXPAND, and APPLY. In addition, it reflects that the learners explored what they wanted to express in the process of making their own script in the role play presentation. In the process of making and performing role plays, learners also improved their collaborative skills through peers or small group activities. The items whose score did not reach 4.0 were the reinforcement of learning motive (3.84), the applying Korean to their real life (3.84), and the composition of various sentences (3.93). Previous studies reported that FL strengthened learning motivation (Traxler & Riordan, 2003; Strayer, 2012; Chen Hsieh, Wu, & Marek, 2017), but in this study, it did not appear in the high ranking.

2) I asked how much FL contributed to the improvement of four language skills. The results revealed that the reading skill (4.31) had the highest average, followed by the speaking skill (4.24) and the listening skill (4.05) and writing skill (3.81). In foreign language learning, learners' reading skills can be regarded as a preliminary ability for speaking. The second rank of the 'improvement of speaking skill' seems to have been influenced by the teacher's Q and A activities throughout the class and the learners' role play presentation. In the existing traditional classroom, even in the speaking classes, the learners are not given many opportunities to speak because teachers must present and explain the contents of the textbook. Therefore, 'improvement of speaking skills' placed for the second rank can be regarded as a significant achievement of applying FL in foreign language class. The listening skill seems to have been affected by using Korean as a medium language, more than 80% in-class learning, which made the learners be exposed to the target language a lot. Comparing the standard deviations for the three skills, the results appeared in the order of speaking (0.82), reading (0.92), and listening (0.98). This indicates that the respondents who chose speaking skills are more concentrated on average.

3) As for the questions, whether learners preferred FL over traditional classes, in which

students learn the contents in a classroom from scratch, they answered that they preferred FL over traditional classes (4.19). They wished to continue to apply FL in the subsequent course of 'Korean Conversation 2' (4.47). This represents that the FL model applied to the current course was properly developed and operated.

4) The survey asked whether they had ever experienced FL in other courses. 51 people (82.8%) out of 58 respondents answered that they had never experienced FL. This confirmed that there were significantly a few courses in which FL was applied at M University.

5) The survey asked the good points or benefits from the application of FL. The learners mentioned that 'before-class learning was quite useful.' (20 times), FL promoted understanding of class contents (19 times), and FL enabled repetitive learning. (14 times). All the items stated by the learners were related to the before-class learning. This reflects that before-class learning is one of the most explicit characteristics that distinguishes FL from other teaching methods.

6) The most mentioned challenges of FL were to learn the contents before class through watching video clips. Learners pointed out that it was difficult for them to remember to watch the video clips. They also found it was not easy to concentrate on watching the videos. Ironically, before-class learning through video clips was both the most beneficial and the most challenging for learners. This reflects that measures that can motivate learners' before-class learning and a device that can keep track of their learning should be considered in the design of future FL model. 7) The most common suggestion for FL was that the existing method was good (12 times), followed by wishing to apply FL in the future (4 times). In general, it was found that learners were satisfied with the operation of the initial FL model.

In order to examine how the learners perceive the teacher's FL model, I compared the students' lecture evaluations of two semesters in which different teaching methods were applied. The courses were the same as 'Korean Conversation 1', and I was a teacher in both semesters, and the coursebook was the same. In the second semester of 2018, there were 60 tourism students who chose Korean as their language track, and in the first semester of 2020, there were also 60 students from tourism. In the second semester of 2018 (January 28, 2019 - May 17, 2019) under the same conditions such as a teacher, a coursebook, lecture hours, and the learner's major, a traditional instruction was conducted, and in the first semester of 2020 (From August 24, 2020 to December 13, 2020), FL was implemented. The student's evaluation results were provided by the 'Division of Quality Assurance and Curriculum Development' of M University. The evaluation items consisted of a total of 13 items, and a Likert 5-point scale was applied. Among 13 items, I took 8 items, excluding 5 items (5,9,11,12,13) that were less related to the application of teaching instructions. As a result, the average of 8 items from the class in which the FL was applied was higher. The items that showed the highest improvement were 4. Teaching technique for better understanding (+0.54), 10. Use of teaching aids to improve understanding (+0.32), 7. Motivation for thinking, problem presentation, and ability to analyze and integrate knowledge (+0.3) in order. These three items directly indicate that FL has a 'manifest effect on improving teaching quality. Additionally, simply observing the number of learners, in the second semester of 2018, 4 students out of 60, withdrew, and in the first semester of 2020, there were no withdrawals. This can be implied that FL is more effective in helping learners to complete their study.

Table 2. A Comparison of Students' Lecture Evaluation

	Item	Traditional Learning (2nd semester of 2018)		Flipped learning (1st semester of 2020)		Gap of mean
		Mean	SD	Mean	SD	
1	Clear explanation of the course objectives, scope, contents, and evaluation method;	**4.52**	0.76	**4.72**	0.52	+0.20
2	Instruction according to objectives, scope, and content	**4.50**	0.76	**4.68**	0.54	+0.18

3	Adoption of selected evaluation methods	**4.45**	0.78	**4.70**	0.46	+0.25
4	Teaching Techniques for Better Understanding	**4.13**	0.97	**4.67**	0.60	**+0.54**
6	Motivation of self-study and guidance, and recommendations of resources	**4.36**	0.86	**4.62**	0.56	+0.26
7	Motivation of thought process, problem presentation, analysis, and synthesis	**4.38**	0.82	**4.68**	0.50	**+0.30**
8	Opportunities for students to share opinion and participate in class lecture	**4.46**	0.79	**4.63**	0.58	+0.17
10	Use of teaching aids to enhance understanding	**4.38**	0.80	**4.70**	0.53	**+0.32**
AVG		**4.40**	0.83	**4.68**	0.53	+0.29
N		**56**/60		**60**/60		

4. Discussion

4.1 Final FL model for Foreign Language Class

Based on the results of a survey of learners, the final FL model was modified based on the following points. 1) It is necessary to consider that the before-class learning time should be reduced to about 30-35 minutes. Before-class learning could focus more on presentation and explanation of the key contents and practice parts of the coursebook could be implemented with in-class learning. 2) In the activity of checking learner's before-class learning, it would be better to apply Student Response System (Hung, 2017) by using Google form or Kahoot etc. than writing assignments since some students tried to copy them from others. 3) The materials for before-class learning should be more diverse. In most of the studies, the video clips were mostly utilized (Watanabe, 2014; Hung, 2017; Yang, Yin, & Wang, 2018), However, because learners have different types of learning style, if teachers provide diverse materials, the learners can choose the learning materials according to their learning material preference. For instance, if lecture notes are provided along with the video clips, some learners might prefer to understand the contents in a short time through reading the materials. 4) It is necessary to upload video clips in a system that can keep tracking the process of before-class learning. 5) The activities of in-class learning should be designed for facilitating learners' active learning, collaborative learning, and motivating learners to apply what they learned into their real life. They should be more diverse, which can be role play presentation, storytelling, show and tell, etc. so that learners can practice communication skills based on their real-life context. 6) Activities of supplement, expand, and apply should be allotted more in the phase of in-class learning so that learners may have more chances to apply knowledge of language into performance of language (Blau, & Shamir-Inbal, 2017).
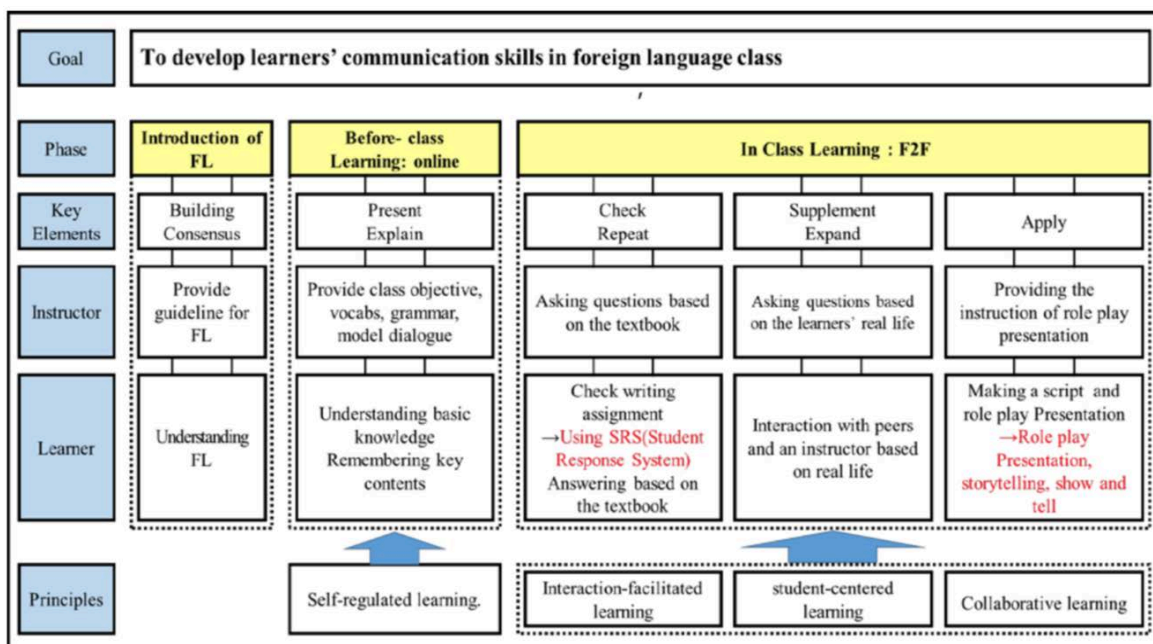
		Introduction of FL	Before-class Learning: online	In Class Learning : F2F		
Goal	To develop learners' communication skills in foreign language class					
Phase		Introduction of FL	Before-class Learning: online	In Class Learning : F2F		
Key Elements		Building Consensus	Present Explain	Check Repeat	Supplement Expand	Apply
Instructor		Provide guideline for FL	Provide class objective, vocabs, grammar, model dialogue	Asking questions based on the textbook	Asking questions based on the learners' real life	Providing the instruction of role play presentation
Learner		Understanding FL	Understanding basic knowledge Remembering key contents	Check writing assignment →Using SRS(Student Response System) Answering based on the textbook	Interaction with peers and an instructor based on real life	Making a script and role play Presentation →Role play Presentation, storytelling, show and tell
Principles			Self-regulated learning.	Interaction-facilitated learning	student-centered learning	Collaborative learning

Fig 1. Final FL Model for Foreign Language Class(Red parts was added from the initial model)

5. Conclusion

This study tried to develop an FL model for foreign language classes to improve the communication skills by facilitating language performance in class. First, through the analysis of the previous study, the principles of flipped learning were derived as self-regulated learning in the phase of before-class learning and student-centered learning, collaborative learning, and interaction-facilitated learning in the phase of in-class learning. The procedure of initial FL model consisted of 'Introduction of FL→Before-class learning→In-class learning'.

1) The phase of introduction is a one-time process but an essential one to elicit the expectations and consensus of learners before teachers apply an FL model in class. If learners didn't get proper guidelines, they wouldn't get prepared for the FL model. In the phase of before-class learning, self-regulated learning is the most important principle for the learners. The phase of in-class learning is the most significant, because through the interactions and feedback from in-class activities, learners may have more opportunity to improve their communication skills in the target language. Therefore in-class learning should be developed and operated from the various types of activity in accordance with the characteristics of the courses. In this study, reflecting the characteristics of the language classes, activities of 'Check and Repeat', 'Supplement and Expand', and 'Apply' were applied.

2) The initial FL model was implemented to 60 students in the 'Korean Conversation 1' course in the first semester of 2020 at M University in Thailand. Learners' attitudes and perceptions toward FL learning were investigated. The lecture evaluation over 2 semesters in which different teaching strategies were applied was also examined. As a result, a few significant points were derived. Firstly, from the learners' perspective, before-class learning was both beneficial and challenging because it entirely depends on learners themselves. To motivate learners' before-class learning, there should be measures to monitor the process of study. If teachers adopt a Student Response System (Hung, 2017), it will make the checking of before-class learning easier and more compulsory. Secondly, The activities of in-class learning should be designed for facilitating learners' active learning, collaborative learning, and motivating learners to apply what they learned into their real life. Based on these, the final FL model stresses that in-class learning should include various activities so that the learners can learn the contents and create outcomes through collaborative work.

The current study has limitations in generalization of the results of this study because this study was conducted for a limited number of learners in a region of Thailand, and this study was only conducted in a quantitative methodology. However, it can provide the implication that we may upgrade and develop FL model that is customized for the characteristics of the many different courses.

Acknowledgements

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