Chapter 11
Case Study 6, Korea: Flipped Content Courses in the Korean Higher Education Context: Benefits and Challenges

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1 Background

With the advent of the fourth industrial revolution, the drive toward smart learning has been accelerated in higher education in Korea (Kim, 2017). This trend is strongly influenced by the fierce competition between Korean colleges to secure their rank in the annual national college ranking. Prestigious universities in Korea have invested in instructional technology and provided various incentives to faculty members for adopting innovative teaching strategies, such as flipped learning.

Flipped learning (FL) is organized in such a way that students are supposed to view lectures at home but tackle "homework" together in class with the teacher on hand to help. Class time is spent on interactive activities and problem-solving tasks to which students apply their content knowledge. In this way, students have more time to interact with their teachers (Cockrum, 2014; Sung, 2015), become more autonomous and self-directed (Vaughan, 2014), and develop higher order thinking skills while solving problems and sharing different perspectives (Bretzmann, 2013; Sung, 2015). Affectively, they become more active, motivated, and willing to communicate (Hung, 2017; Zhang, 2015). In addition, they can achieve better outcomes in language learning, experience deep learning through engagement, and contribute to creating collaborative learning environments (Ahn, 2016; McBride, 2015).

It is therefore not surprising that Korean universities have increasingly invested in the flipped learning approach. With lavish support from the Korean Ministry of Education for educational reform for the fourth industrial revolution, many universities in Korea have been pursuing the expansion of FL. Some universities even make it mandatory for newly hired faculty members to teach flipped courses, regardless of discipline. This enforcement, however, can become problematic as the need for

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L. Miller and J. G. Wu (eds.), *Language Learning with Technology*,
https://doi.org/10.1007/978-981-16-2697-5_11

FL can vary according to the field of study. FL is generally more popular in science-related programs (e.g., math, science, engineering), as shown by studies in those fields, where instructional contents can be transformed into problem-solving tasks more easily (Clark, 2015; See & Conry, 2014). In contrast, relatively few studies have been conducted in the context of language teacher training programs probably because pre-service teachers mostly learn principles of teaching or practice teaching methods, instead of tackling problem-solving tasks (Vaughan, 2014). In light of this situation, the present study is an attempt to examine flipped learning in a teacher training context. The study evaluated flipped learning in two content courses for pre-service language teachers at a college of education in Korea. The study explored the benefits and the problems of flipped learning from teacher trainer perspectives. The research questions were the following: *What were the perceived benefits of the flipped courses? What were the perceived problems of flipped learning?* and *What strategies are useful to ensure successful flipped learning?*

2 Case Study

2.1 Participants

Two female Korean professors in a college of education participated in the study. They had more than 10 years of teaching experience in training pre-service language teachers to become secondary school teachers. One of them, with the pseudonym, Susan, is in the department of Korean education while the other, with the pseudonym, Linda is in the department of English education. Susan, the Korean professor, was in her mid-50s and had a doctoral degree in contemporary fiction from a Korean university. She conducted her classes in Korean. Linda, the English professor, was a highly proficient English language user and delivered her classes in English. She obtained a doctoral degree in linguistics from a university in an English-speaking country, and she was in her early-50s. Both teachers had highly motivated groups of students since these students had chosen to major in Education with the aspiration to become language teachers. The students were in the top 3–5% in humanities and social sciences at the time of admission to university.

2.2 Project Description

Hanyang University is one of the top universities in Korea and has always been at the forefront of educational reform and technology-enhanced teaching methods. As a smart learning initiative, the university implemented pilot flipped courses in 2016. Since then, flipped learning has been actively promoted. Initially, compensation of US $10,000 was provided for tenure-track faculty members who implemented flipped

learning for their content courses. This strong incentive had an immediate effect on producing 373 flipped courses in 2017. Although the incentive has been reduced down to US $500, the university still encourages teachers to implement flipped learning. In 2019, 433 courses (8.3%) were offered in different fields of study via flipped learning. The university has also invested in improving the infrastructure to support technology-enhanced learning.

The university initiated flipped learning with the expectation that this instructional approach would improve student learning outcomes. The present study examined how flipped learning was carried out in two different content courses for pre-service language teachers: "Curriculum and Materials Evaluation" (CME) for English education majors and "An Introduction to Contemporary Fiction" (ICF) for Korean education majors. Susan, the Korean professor, rationalized that ICF was most appropriate for flipped learning because it was a theory-based literature course that involved reading texts. On the other hand, Linda, the English professor, selected CME because it required hands-on activities. She believed that independent online lectures would allow her students time to work on problem-solving tasks or application tasks in class. Although the two professors worded their approach differently: theory-based vs. task-based, they both decided to flip the courses to promote student-centered learning by using "theory-based" online lectures as a springboard for "task-based" offline classes.

The goal of the CME course was to cover the theory and practice of materials evaluation and development. As the course was based on a flipped learning approach, the students were instructed to preview videos as well as assigned readings, worksheets, and questions prior to class. The instructor of the course used Tomlinson (2014) as the main textbook, from which she covered eight chapters on standard topics such as materials evaluation, materials adaptation, and materials development. Student achievement was assessed through a mid-term quiz (20%), final quiz (20%), group project (20%), in-class discussion (20%), attendance (10%), and a reflection paper (10%).

In contrast, the ICF course aimed to help students develop aesthetic appreciation skills by understanding the fundamental theories of contemporary fiction and applying them to the critical analysis of literary work. The course covered the following topics: general theories of fiction, components of fiction, in-depth analysis of fiction, and the intertextuality of fiction and movies. The course had a specific focus on the components of contemporary fiction, such as background, themes, characters, plot, conflict, and point of view. The instructor used two Korean textbooks on contemporary fiction, and she also used Korean fiction and movies as supplementary materials. Student learning was evaluated by a mid-term exam (25%), a final exam (25%), the average of two quizzes (15%), attendance (10%), learning attitude (5%), and assignments (15% for presentations and 5% for literary analysis).

Regarding the flipped course design, the teachers followed the standardized format prescribed by the university. According to the guidelines, they produced two sets of materials: one for the online class and another for the regular class. For FL, they both had a 20- to 30-minute online lecture and a two-hour-long offline class. As the teachers made video lectures available online, they met their students only once

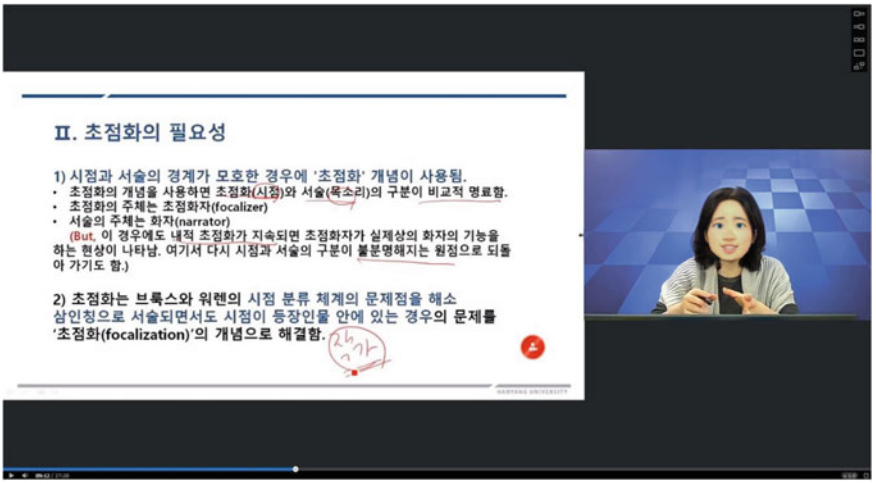

Fig. 1 ICF online lecture on "point of view"

a week for two hours. Susan conducted flipped learning for 12 weeks, for which she video-recorded 12 weeks of online lectures and prepared presentation slides for her lecture every week. She connected her video lectures with offline classes by having students present the topics covered online or watch relevant movies with a specific focus, such as "point of view." Each week two groups of students gave group presentations of their own analysis of the literary work. If the video lecture covered the concept of characters, the assigned groups were asked to present their findings on the unique characters in the work. In addition to the group presentations, the students sometimes watched movies and discussed the link between the movies and the books (Fig. 1).

In contrast, Linda implemented FL for eight weeks. Face-to-face sessions were carried out in three phases: student-led discussion, summary of an online lecture, and application tasks. During the student-led discussion, the students participated in group discussions on the readings for about 40–50 minutes where they performed one of four roles in groups: discussion leader, connector, summarizer, or word master, as shown in Table 1.

While playing different roles in the group discussion, the students clarified their understanding of the assigned readings with their peers. Afterward, Linda summarized her online lecture for about 10–20 minutes to fill in possible gaps in the students' understanding of the course content. Then the students performed application tasks for the remaining time, where they applied their content knowledge to task performance. For example, the students evaluated a given set of materials after learning about materials evaluation criteria, or they were instructed to revise existing materials by using appropriate adaptation techniques presented in the video lecture. They also examined how the principles of materials design had been realized in listening, speaking, reading, writing, and vocabulary textbooks. For instance,

Table 1 Role division in group discussion

	Role	Activity
Discussion leader	Lead discussion and manage member participation	Bring a minimum of three questions about the readings, and initiate and maintain the discussion
Connector	Connect the theories in the readings with the practices	Identify the connection between the theories and the practices, and share the findings and further discuss them
Summarizer	Summarize the assigned readings	Write a summary of the readings and share it
Word master	Find core words and phrases in the readings	Present the meanings of the core words and phrases from the readings

after learning about the psychological conditions of vocabulary learning, such as noticing, retrieving, and elaboration, they examined vocabulary materials to identify activities that exemplified the concepts. In summary, the Korean education majors performed mostly group presentation tasks face-to-face whereas the English education majors performed varied application tasks, such as materials evaluation, materials adaptation, and principle identification exercise.

2.3 Data Collection and Analysis

Interviews were conducted in Korean with the two instructors. It took about an hour to interview each teacher. As the researcher had established rapport with the respondents, they were comfortable about sharing their experiences of the flipped courses and to share their teaching resources, such as course syllabi, materials, and classroom tasks. For the in-depth interviews, the study used a structured interview guide composed of questions on their reasons for implementing FL, lesson plan and task design for their flipped courses, benefits and problems of FL, and suggestions for successful FL.

The interviews were audio-recorded with consent from the participants and transcribed afterward. Their responses to the questions were initially open-coded to identify commonly occurring themes and ideas, and were then categorized according to the research questions. Afterward, the relationships between the ideas and the categories were examined and interpreted. In addition, the contents of other materials, such as the course syllabi and instructional materials were examined to scrutinize how they planned their online and offline lessons and what types of tasks they designed and employed for face-to-face sessions.

3 Results

3.1 Benefits of Flipped Learning

Both professors perceived FL as beneficial for teachers and learners. Regarding the benefits for teachers, Linda reported that FL made it easy to make up for missing classes, and that she could recycle the ready-made contents for at least four years. In the same vein, Susan pointed out the efficiency of class time management as one of the benefits for teachers. She could just meet her students once a week face-to-face for two hours unlike other offline-only course instructors who were obliged to have two classes per week, each time for 75 minutes. She also reported that FL contributed to her professional development as it led her to proactively update course content to better accommodate learner needs.

As to the benefits for students, Susan argued that the flipped course was useful for her students because it increased the amount of learning materials. When asked whether her students would not complain about the increased learning contents, she shared an interesting insight: *These kids are Internet lecture generation who are already used to this kind of learning mode. So even when online lectures often exceeded 30 minutes, they did not complain about the amount of materials they had to deal with.* She also mentioned more frequent interaction with the teacher as one of the advantages. As the students met their teacher face-to-face only once a week, they scarcely had time to ask questions in class. For this reason, Susan arranged consultation sessions outside of class so that students preparing for group presentations could visit her in person for her coaching. This contributed to fostering student-to-teacher interaction as the students asked questions and clarified content with her, and the teacher offered feedback regarding their plans.

Similarly, Linda mentioned that FL rendered classroom instruction more interactive as it allowed students more chances to ask questions in offline classes: "I've witnessed students tutoring one another in offline class… When I walked around the classroom, there were always students who asked me questions." These students, who would have been seated still in the teacher-led, lecture-oriented class, were active and interactive as they had to do their part in group discussion or group project. This confirms earlier findings by Ahn (2016) and Sung (2015) that flipped classes enhanced interaction among students. In addition, she addressed many advantages related to language practice and content comprehension, as in the following excerpt:

> *Students tell me that online lectures are effective for summary, review, test preparation… (I think it is) good for those deficient in listening skills as they can repeatedly use the materials once recorded. Listening to the lectures over and over again helps to develop listening skills and comprehend the content better.*

As Linda delivered her instruction in English, her online lectures were useful for language practice. In particular, the students with limited proficiency were able to repeatedly listen to them at their own pace. This helped them prepare for the course content better and develop their listening skills. This is in line with Zhang's (2015)

finding that Chinese students were able to practice listening and speaking skills and acquire lexical knowledge as a result of taking a flipped business English course. Linda noticed that her students transferred the listening input to spoken output when performing discussion tasks in class. She also stated a plausible relationship between the repeated practice and the reduced speaking anxiety. She reported that her students became less anxious and more comfortable about speaking as they got better prepared for content over time. She also mentioned that her students used the readily available online materials for preview, review, and test preparation.

Linda also believed that the course was particularly useful for pre-service teachers, in that it offered an experiential learning opportunity and a good instruction model for her students. She reported that they would be able to apply this cutting edge approach to their own classroom instruction and lesson design when they become in-service teachers, as the following excerpt shows:

> *The students were quite content with the fact that they learned the content with this state-of-the-art approach, flipped learning … They also seemed to have got some ideas from this course that they can use for their classroom instruction in the future, for example, how to implement FL in classroom settings. Now that they had a chance to experience different types of application tasks, I hope they learned how to design classroom tasks and use them for their prospective teaching.*

In the case of Korean majors, as the language was not a foreign language that they had to practice or acquire, the benefits Susan mentioned were quite different. Susan believed that through FL, her students as pre-service teachers were able to learn how to make instruction more comprehensible by observing how she used paralinguistic features, such as tone, volume, and rate of speech, for effective presentation. She thought that FL helped her students develop an awareness of what constitutes good instruction. In general, the two teachers were quite favorable about FL as they both perceived that FL contributed to fostering student-teacher interaction. They also believed that FL led students to use disciplinary thinking skills while applying acquired concepts to literary analysis or classroom tasks. These findings are consistent with the findings from previous studies (Bergmann & Sams, 2012; Bretzmann, 2013; Cockrum, 2014).

3.2 Problems of Flipped Learning and Suggestions for Successful FL

Despite the advantages, the teachers both agreed that FL had some limitations or problems. They both noted that it was quite demanding to prepare lessons as mentioned in previous research by Ahn (2016) and Sung (2015). Susan reported that it took more than six hours each week to create presentation materials out of her lecture notes. Linda stated that flipped courses would mean more workload for teachers and students, compared to regular classes, in that teachers have to develop tasks, and students have to watch videos and read texts. She said, "FL is quite time-consuming

and labor-demanding for both students and teachers. Students have to read texts and preview videos, and the teachers have to design tasks related to the readings."

One of the commonly noted problems had to do with flexibility in course content management. Susan mentioned that online lectures had to be good enough in the first shooting because she was not allowed to edit or update contents on her own. She also found it inconvenient that she would have to stick to the same contents for at least four years once recorded. This may be why Susan paid keen attention to designing her course with the latest materials. Similarly, Linda expressed concerns about the lack of flexibility in uploading the course contents. As the smart center for teaching and learning at the university had control over the recorded contents, it was quite difficult to revise the course contents and adjust the pace of instruction. Namely, it was not easy to change the teaching schedule in the FL context once all the contents were uploaded at the beginning of the semester. This rigid and fixed schedule triggered confusion among students and the teacher from time to time.

While the two teachers displayed a similar reaction to these problems, their views differed regarding the effectiveness of the online or offline portion of FL. Susan noted the problem of the absence of question and answer (Q & A) sessions, compared to normal classes composed of two face-to-face sessions. According to her, as there was only one offline session per week, which was used mostly for student presentations, it was not easy to hold Q & A sessions in class. As a result, they were always pressed for time and consequently had little time to clarify their understanding regarding the online lectures.

In contrast, Linda mentioned that 20-minute online lectures were not sufficient to cover the contents in adequate depth and breadth. In fact, this problem was repeatedly mentioned to her by her students, who were saying that online classes were not as effective as face-to-face classes. Maybe she could have assigned more readings to supplement the short video lectures or used more extensive instructional materials instead of online lectures. While it is true that FL is usually implemented in a combination of video lectures and offline tasks, it can also take place without the video portion (Talbert, 2017). Thus, students can be instructed to read a wider range of texts instead of relying on short video lectures and apply their content knowledge to problem-solving tasks.

Another problem noted by Linda was that her students were not as alert and attentive in offline classes because they were easily swayed by other distractions. According to her, some students neglected assigned readings and came to class without reading the materials in advance. She related such negligence to learner autonomy, and claimed that learner attitude, particularly autonomy was a crucial factor for successful FL. She cautioned that it was challenging to keep students self-directed in the online learning context. The students, as they were used to a teacher-centered class, preferred face-to-face classes to online classes.

> *Some students told me that online lectures did not fully cover the course contents. Others told me that they tended to either lose attention or neglect assigned readings and … In fact, one student explicitly mentioned that the online lecture was not helpful … FL cannot be successful without learner autonomy. Students can stay logged on without viewing materials and there is no way to track who is watching and who is not.*

Other problems addressed included technical problems such as non-compatible connections between the links on the PPT slides and the Internet, sudden shut down in the middle of online lectures, and unstable learner management system (LMS) for monitoring online attendance. There were also problems with the physical environment, such as inefficient classroom arrangement for TBI and the restricted use of an air conditioner while recording lectures.

As to the strategies for successful implementation of FL, the teachers offered some valuable suggestions. Linda proposed that existing institutional support should be enhanced in the form of raising the incentives or endowing some points for faculty evaluation, and that the university should provide some guidelines about how to use copyrighted materials in flipped courses. She also recommended that teachers' constant monitoring and feedback are essential for promoting learner autonomy.

Unlike Linda who stressed the value of learner autonomy as a determinant for successful FL, Susan highlighted the importance of teacher attitude: teachers should have intrinsic motivation for professional development and for adaptation to the changes in the educational environment. She also emphasized the importance of computing skills and expressed her desire to improve her skills, making a confession that she did not get to utilize different features of online video lectures, such as highlighters. She believed teacher's desire for professional growth would positively affect their willingness to voluntarily update course contents and manage FL effectively, as shown in the following excerpt:

> *There's nothing but to develop yourself as a teacher to raise the degree of student satisfaction. Teacher willingness to change and their will for professional development should be the prerequisite. Without it, other kinds of support will not bring about expected changes.*

4 Pedagogical Principles

The findings of the study have the following pedagogical implications:

a. *On-line vs Off-line learning*: Language learning is a complex phenomenon that is to be realized through various channels including both online and offline tasks and resources. Classroom teachers should carefully connect the online lectures with offline tasks. Tasks should be designed to supplement learners' incomplete knowledge, solidify their understanding, and facilitate their language use while learning course content (Zhang, 2015).
b. *Learner Autonomy*: The success of FL is also dependent on learner autonomy as not every student will engage in FL, as Correa (2015) and others have cautioned. For this reason, teachers, when dealing with passive students, should show genuine interests in their work, provide ongoing feedback, and consider their learning preferences. They can foster learner autonomy by designing meaningful and engaging tasks.
c. *Institutional Support*: For successful flipped classes, institutional support in various forms is important (Gerstein, 2015). Institutions have to provide

adequate financial and technological support. It will be extrinsically rewarding if the teacher initiatives for innovative teaching approaches can be compensated with higher incentives or credited for faculty evaluation. Institutions also need to find a way to allow teachers more control over their contents. It will be useful to offer some training sessions on video production and editing so that faculty can update, edit, and upload contents on their own.

In implementing a new instructional program, it is necessary to understand the rationale and principles behind the techniques and methods. Universities may be motivated to promote the new program for various reasons, including cost-effectiveness. They may not want to count the online portion as teaching hours after some time lapses or have different instructors recycle the ready-made online contents. In this sense, FL can become an economical option in the long run, although it may require some expenses at the entry-level. The cost-effectiveness of FL may thus lead them to enforce FL policy across disciplines.

However, FL should not be enforced because it can heighten psychological pressure or stress on the part of teachers. Some teachers can feel threatened with the drastic change in their roles, thinking that their role has been marginalized or trivialized to that of assistant teachers. Therefore, it is important to guide and convince classroom instructors, and to let them decide whether FL would work for their courses. In addition, university administrators should not just pursue FL for cost-efficiency but also promote its pedagogical value. They may have to conduct a large-scale study that investigates the effectiveness of learning from learner perspectives, specifically focusing on the effects of reduced teaching hours on student learning outcomes.

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