Self-Regulated Learning and Listening Achievement of Turkish EFL Learners: Does Flipped Classroom Matter After Post Pandemic Recovery

ABSTRACT

The purpose of the present study is two-fold: (i) to examine whether the flipped classroom model has an impact on B1 level Turkish students attending English preparatory program at school of Foreign Languages in a state university, and (ii) to investigate if the flipped classroom model yields different results on the self-regulated learning levels of the participants. The participants of the study consist of 60 B1 level prep-class students attending B1 level Listening course, with 2 classes each including 30 students. Firstly, the students in one class were classified as control group (CG) and the ones in the other class as experimental group (EG). During the 8-week B1 module process, the listening lesson was taught with the traditional method in the CG and with the flipped classroom model (FCM) in the EG. The data were gathered through pre and post-tests of listening skills achievement exam and self-regulated learning scale. As for data analysis, mixed ANOVA analysis was used. The findings showed no significant difference on self-regulated learning levels but on listening skills achievement scores. Suggestions were discussed accordingly.

Keywords: Flipped Classroom Model, self-regulated learning, listening skills achievement, EFL, CEFR

1. **Introduction**

Language skills are of great importance in foreign language learning. One of the language skills, listening, plays a crucial role in foreign language learning since the way we follow while learning our mother tongue begins with listening (Akdemir, 2010). Today, listening is a compulsory course required by the Council of Higher Education for Preparatory Schools to teach English and other languages in Turkey. However, such factors as limited class hour, official language of country, different learning techniques of each individual may limit the opportunities for students to practice listening. In this case it is emphasized that students should organize their learning activities individually. Especially during the COVID-19 pandemic period, the transition to online education has allowed students to learn individually. The individual organization of the learning activities that takes place in the classroom or school is defined as self-regulated learning (Pintrich, 2000, p.451). Self-regulated learning (SRL) allows students to monitor their progress and evaluate their own learning. SRL involves regulating one's feelings, cognitive behavior, and acquiring needful and covetable skills appropriate to the learning experience (Rasheed et al., 2020)

To date, more and more college students are expected to take a responsibility in their own learning by effectively benefiting from information and communication technologies, which makes online learning tools to be strongly recommended for students before coming to the class (Öztürk & Çakıroğlu, 2018). At this point, the importance of using the flipped classroom model (FCM) instead of traditional model has begun to be emphasized. In a traditional model, teachers explain the subjects, students listen to the teacher and take notes. After that, students study on their assignment at home. FCM (also known as inverted classrooms) reverse this status. FCM is a blended learning approach in which students first watch online lectures at home and then complete their homework and practical work in face-to-face classes. Students are responsible for their own learning process. In FCM, teachers act as a facilitator. That is, they assist students throughout the lesson and enable students to help each other. Classroom learning activities include inquiry-based learning, active learning, and peer learning (Danker, 2015).

FCM has been studied in many areas and a great amount of research showed that FCM affects students’ learning in a positive way (Çakıroğlu & Öztürk, 2017; Liu, Sands-Meyer, & Audran, 2019). According to Fulton (2012), the most important advantage of FCM is that it increases the interaction time in the classroom. Teachers use videos for interaction between teacher and student. In this way, teachers can devote more time to fulfilling the learning and emotional needs of the students (Goodwin & Miller, 2013). In FCM, students can discuss the subjects with their teachers, which is not possible in traditional model (Bergmann & Wadell, 2012). It is expected that this interaction and discussion environment will contribute to students’ listening skills. In FCM, teachers use differentiated instruction, problem/project-based learning, inquiry-based study models, that’s why flipped learning is student-centered (Bergmann & Sams, 2014a).

Using FCM in lessons also requires students' SRL. While watching online lectures at home or completing homework and practical work in a class, students should monitor their own learning process so that they achieve their learning goals. According to the studies, students who self-regulate their learning process have some characteristics such as having lot of cognitive strategies like repetition, organization, and elaboration, controlling the time to be used on tasks and directing learning processes for the achievement of their goals, all of which point out the importance of SRL in language teaching/learning (Torrano Montalvo, & González Torres, 2004).

**2. Literature Review**

After the COVID-19 pandemic, the importance of the concepts such as online education, digital materials, use of digital programs, online assessment, etc. has started to be emphasized even more (Wiginton, 2013; Pavanelli, 2018). Specially in these days when the concept of distance education comes to the fore, it is currently discussed in the literature how effective it is to keep the education both in terms of space and time within the classroom hours (Alsowat, 2016; Quint, 2015). Based on this centrality, the term flipped classroom model (FCM) has been widely studied and discussed in the relevant literature.

FCM is a student-centered teaching approach used by teachers to reverse the traditional classroom model into a more active classroom environment. (Keengwe, Onchwari, & Oigara, 2014, p.xviii). The idea of the FCM is that it includes both inside and outside classroom activities (Alsowat, 2016). Students watch online videos at home. In this process, students are expected to scan different sources and do research about the subject. Then, they complete their homework and hands-on activity in an interactive face-to-face class. During the lessons, the subjects are discussed with teacher and other students and students reinforce their knowledge. After the lessons, students are expected to do more comprehensive research on the subject.

According to Bergmann & Aaron Sams (2012), FCM will help students’ self-regulated learning. Bergmann & Aaron Sams (2012), in their study, adapted the lecture and explanation of the subjects in the course material into the FCM with activities and interactive tasks to be done in the classroom, and collected positive opinions from the students in terms of the effectiveness of the course. They obtained the opinion from educators who use the FCM that the theoretical topics are conveyed in advance through videos and the lesson time is quite effective in terms of giving more space to the relevant exercises and discussions.

There are other current studies in the field which point out that FCM has positive effect to the listening skills’ development (Turan and Akdag-Cimen, 2020). In another study, Martin (2012) pointed out that FCM has many advantages such as encouraging collaborative learning environments, improving language skills (reading, listening, speaking, writing) and providing immediate feedback. Similarly, according to Wu, Hsieh, & Yang (2017), students can work collaboratively on the tasks in FCM, through which cooperative environment will contribute to students’ listening skills.

A great deal of research has been conducted on the self-regulated learning, especially after the outbreak of the COVID-19 pandemic. For example, Altas & Mede (2021) conducted a quasi-experimental study in which they examined the FCM and its impact on writing achievement and SRL levels of students at university level. They found that self-regulated learning showed no significant difference between the groups. In another study, Tatiana and Natalia (2017) suggest that developing a self-regulated model for getting ESP listening skills makes the listening process clear and provides scaffolding related to the topic. According to their study, this is the efficient way of improving students’ performance. Likewise, Ngo (2019) carried out a study to examine the EFL learners’ SRL and their L2 listening skill competence. At the end of the study SRL activities were found to be considerably connected with the L2 listening competence of EFL learners. The results of these studies revealed that SRL processes were positively associated with L2 competence and students' listening skills achievement.

These studies show the effectiveness of FCM on the self-regulated learning of students and they lead teachers to use FCM, especially after the pandemic, because of the limited face-to-face class hours within the scope of measures. There are many studies examining the effect of the FCM on the success of listening skills in foreign language education. From this point of view, this research aims to examine the effect of the FCM on the development of the self-regulated learning of B1 level Turkish EFL learners and compare the difference between the success of the students in the class in which the flipped classroom approach and the traditional method are used in the listening lesson by seeking an answer to the question, "Does the use of FCM have a statistical and meaningful contribution to the listening skills achievements of B1 level English preparatory class students?"

**3. Method**

3.1. Research context and participants

The research has been carried out in the fall semester of the 2022-2023 academic year. The participants of this this exploratory study were B1 level Turkish students attending English preparatory program at school of Foreign Languages in a state university. Listening course is a compulsory course required by the Council of Higher Education for Preparatory Schools to teach English and other languages in Turkey. The course consists of five hours in total per week and lasts 8 weeks in a given module. This course aims at providing students with the basic and necessary listening skills they are expected to develop in B1 level with reference to CEFR. The participants of the study consist of sixty (N=60) B1 level prep-class students attending B1 level Listening course, with 2 classes each including 30 students. Firstly, the students in one class were classified as control group (CG) and the ones in the other class as experimental group (EG). During the 8-week B1 module process, the listening lesson was taught with the traditional method in the CG and with the flipped classroom model (FCM) in the EG. At the beginning and in the end of the 8-week module, listening skills achievement scores and self-regulated learning levels of the students from CG and EG were examined to determine if FCM yielded differences between the groups.

3.2. Research Questions

In this respect, the research was aimed to answer the following research questions:

1. Is there any difference between EG and CG in terms of English listening skills achievement (After the implementation of the flipped classroom model)?
2. Is there a difference between the self-regulated learning of CG and EG students?

As previously mentioned, there is ample evidence that flipped classroom model facilitates language learning, especially listening achievement. To answer the aforementioned research questions and to build on evidence of the described earlier studies, the present study will shed some light upon the effect of flipped classroom model on self-regulated learning. Therefore, and extending prior research, the goal of this study was twofold: it was aimed to examine in a quasi-experimental design if providing the flipped classroom model influenced mean values of students’ post-test scores in listening and if the FCM had impact on the participants’ self-regulated learning levels.

3.3. Data collection and procedure

The data of the study were collected by examining the achievements of B1 level preparatory class students in the Listening course they took in the fall term of the 2022-2023 academic year. The data of this quasi-experimental study comprises of two different types of quantitative data as data collection instruments. Table 1 shows the intervention and the procedure of the study.

**Table 1.** The intervention and the procedure of the study.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | The experimental Group | The Control Group |
| Pre-test | 1st week | a listening skills assessment exam  self-regulated learning scale | a listening skills assessment exam  self-regulated learning scale |
| intervention | 2nd-7th week | Flipped classroom model | Traditional in-class model |
| Post-test | 8th week | a listening skills assessment exam | a listening skills assessment exam |
|  |  | self-regulated learning scale | self-regulated learning scale |

The first quantitative data of the research were collected with a listening skills assessment exam as the pre-test and post-test, and the second data collection instrument was self-regulated learning scale, again as the pre-test and post-test. The listening skills assessment exam was used to determine whether FCM had an impact on the success of the participants, and it included two parts: one with ten multiple choice questions and the other with ten note taking questions. Self-Regulated Learning Scale (Erdogan and Senemoglu, 2016) was used to examine whether the intervention yielded impact on the participants’ self-regulated learning levels. Table 2 presents the scale used in the study.

**Table 2.** Self-Regulated Learning Scale (Erdogan and Senemoglu, 2016) used in the study.

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Açıklama otomatik olarak oluşturuldu

The Self-Regulated Learning Scale (Erdogan and Senemoglu, 2016) consists of 67 items and it has two subscales, self-regulated learning skills/strategies (45 items) and motivational factors (22 items). The first subscale included 3 subheadings: before study, during study and after study. On the other hand, the second subscale which includes motivational dimensions consists of five subheadings: self-efficacy, goal-orientations, task value, attributions for failure, and anxiety. The questionnaire has a 5-point Likert-type response format. The participants were asked to evaluate themselves between (1) corresponds exactly and (5) does not correspond at all.

3.4. Data analysis

Grant of application was received from the Board of Ethics before the implementation of the study. The post-test control group design was used in the study. Firstly, students in CG and EG took a listening skills assessment exam and the self-regulated learning scale in the first week of the module. The results of the pre-test scores of the listening exam were tested by scrutinizing the listening skills pre-test scores (sum score) of the experimental group and the control group to examine if there was a significant difference in the success rate of both classes. Then, the same listening skills assessment exam and self-regulated learning scale were applied as the post-test in the last week of the module to examine the impact of FCM on the listening achievements of the participants. The participants in the EG followed Flipped Classroom Approach, reading the articles, studying the PowerPoint presentations, watching the videos, and doing the research when shared by the instructor before attending to the classes each week. Finally, self-regulated learning scale was applied again to both classes in the last week of the module to collect another quantitative data of the study (Erdogan and Senemoglu, 2016). It was aimed to examine whether there was a significant difference between the two classes at the end of the module. The scale was transferred to Survey Monkey and the link was shared with the participants, and the participants were asked to complete it until the end of the first lesson of that day.

The quantitative data which were collected through Listening Skills Assessment Exam and Self-Regulated Learning Scale were analysed by means of SPSS 23 (Statistics Package for Social Sciences) data analysis program. To investigate the significance level of pre-tests and post-tests, ANOVA was used to analyse if there was statistically significant difference between the two groups. The significance level was accepted as p<0.05 in the study and discussions on the findings of the study were carried out based on this significance level. Descriptive statistics were used, and ANOVA was applied to compare pre and post listening skills exam scores and self-regulated learning scores between and within groups. The level of significance for the statistical analyses was accepted as .05.

**4. Results**

**4.1. Preliminary Analyses**

In order to inspect whether our experimental design was equal at the beginning, we conducted preliminary analyses and tested whether the listening skills pre-test scores (sum score) of the experimental group and the control group differed significantly. Results showed no statistically significant differences, that is, the sum score (t(58) = 1.10; p = .27). Descriptive statistics for the listening skills pre-test scores are presented in Table 3.

**Table 3.** Descriptive statistics of the listening skills pre-test scores

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Entire Sample |  |  |  | Experimental Group |  |  |  | Control Group |  |  |  |
|  | M | SD | α | n | M | SD | α | n | M | SD | α | N |
| Sum score | 42.58 | 18.76 | .95 | 60 | 40.63 | 17.22 | .94 | 30 | 44.54 | 20.16 | .95 | 30 |

The sum scores and p value of the listening pre-test scores revealed that the EG and CG of the experimental design used in the study included participants with similar degree of proficiency level with regard to their listening skills performance (with max 50 points).

**4.2. Findings about the Listening Skills Achievement**

In order to determine whether the FCM yielded a significant difference between the listening skills achievement scores of the two groups, the between group statistics were given and a comparative analysis was made. As mentioned earlier, the listening skills assessment exam included two parts: one with ten multiple choice questions (each 2 points and max 20 points) and the other with ten note taking questions (each 3 points and max 30 points). The participants’ maximum score on the test is in total 50. Table 4 shows the comparison of listening skills achievement with mixed ANOVA.

**Table 4.** Comparison of listening skills achievement with mixed ANOVA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Source | Type III Sum of Squares | df | Mean  Square | F | Sig. | Partial Eta Squared |
| Between Groups |  |  |  |  |  |  |
| Group (CG/ EG) | 509.346 | 1 | 509.346 | 4.027 | .050\* | .075 |
| Error | 6705.338 | 53 | 121.453 |  |  |  |

Note. \*p<.05, \*\*p<.01

Table 4 displays that there is statistically significant difference between the groups with respect to the pre and post-tests of the listening skills achievement exam (p=0.05, ηp2 = .075). As a result, it can be claimed that FCM yielded a positive impact on the listening achievement of the experimental group. The findings also show that both groups made progress in the post-test (CG: M=45.74, SD= 13.84 / EG: M=46.13, SD= 12.75) compared to the pre-test (CG: M= 44.54, SD= 20.16 / EG: M= 40.63, SD= 17.22).

**4.3. Findings about the effect of FCM on Self-regulated Learning**

The self-regulated learning scale (Erdogan & Senemoglu, 2016) was used as pre-test in the first week of the module, and post-test in the last week of the module to examine the effect of FCM on the self-regulated learning levels of the experimental group, to find out whether there will be statistically significant difference between the pre-test and post-test scores of the control and experimental group after the intervention. In order to determine whether the FCM yielded a significant difference between the self-regulated learning levels of the two groups, the between group statistics were given in Table 5, and a comparative analysis was made.

**Table 5.** Comparison of overall self-regulated learning scores with mixed ANOVA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Source | Type III Sum of Squares | df | Mean  Square | F | Sig. | Partial Eta Squared |
| Between Groups |  |  |  |  |  |  |
| Group (CG/ EG) | .245 | 1 | .146 | 1.302 | .314 | .032 |
| Error | 9.354 | 48 | .185 |  |  |  |

Note. \*p<.05, \*\*p<.01

Table 5 displays that there was not statistically significant difference between the groups with respect to their pre and post-tests of self-regulated learning levels (p=0.314>0.5, ηp2 =.032). Hence, it can be concluded that FCM did not yield any difference between the experimental and control groups’ self-regulated learning pre-test (CG: M=3.33, SD=0.38 / EG: M=3.29, SD= 0.39) and post-test (CG: M=3.33, SD=0.38 / EG: M=3.43, SD= 0.42) scores.

**5. Discussions and Conclusion**

The first research question of the study sought to answer if there was any difference between EG and CG in terms of English listening skills achievement (After the implementation of the flipped classroom model). The findings of the study revealed that FCM yielded a positive impact on the listening achievement of the experimental group.

These findings are in line with the study of Turan and Akdag-Cimen (2020), in which they also discussed the positive effect of FCM on the listening skills’ development of the students. Similarly, in his study, Martin (2012) also emphasized the advantages of FCM such as improving language skills. Additionally, Wu, Hsieh, & Yang (2017) also revealed that students can work collaboratively on the tasks in FCM, through which cooperative environment will contribute to students’ listening skills. The significant difference between the groups and the impact of FCM found in the present study might be due to the nature of FCM which increases the input flood of the participants and also makes it more individualized for them to study on their own.

The second research question aimed to investigate if there was a difference between the self-regulated learning of CG and EG students. The findings showed that FCM did not create any difference between the experimental and control groups’ self-regulated learning pre-test and post-test scores. These findings support the study of Altas & Mede (2021), in which they also concluded that self-regulated learning showed no significant difference between the control and the experimental group after the implementation of the FCM. In a quasi-experimental study, Elakovich (2018) also compared students in a lecture remedial math course by utilising the Motivated Strategies Learning Questionnaire to explore control of learning, self-efficacy and self-regulation. The findings showed no significant difference between the classes, which was discussed by the fact that the requirements of the flipped classroom did not encourage learners to become more independent learners than the learners in the control group. Similar to those studies, the characteristics of the participants might be the reason for the insignificant differences. As also indicated by the studies of Altas & Mede (2021) and Alsancak-Sirakaya (2015), there could have been different self-regulated learning levels if participants from average or below average had participated in the study.

**6. Limitations and Suggestions**

Although the findings of the study contribute significantly to the existing research, it also suffered from some limitations. First, this study is limited to B1 level prep-class students. More research on FCM at graduate and postgraduate level could be useful. And it is noteworthy to indicate that FCM comprises different components and factors and it can be difficult to control confounding factors such as materials, tasks, teachers’ abilities, and so on.

The findings of the study revealed that FCM increased participants’ listening skills achievement. Considering these advantageous impacts of FCM, English practitioners are supposed to spend more time in “flipped teaching” of listening. Although teaching listening seems to be difficult and is rather burdensome to any practitioner, it is a “pass-way” for the ones who favour classrooms without borders.

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