# THE EFFECT OF A FLIPPED CLASSROOM APPROACH ON EFL JAPANESE JUNIOR HIGH SCHOOL STUDENTS' PERFORMANCES AND ATTITUDES

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*Abstract: The purpose of this study was to apply the flipped classroom approach to teaching English in order to examine its effectiveness on Japanese EFL junior high school students' performances, attitudes and perceptions toward learning English. The researchers implemented the flipped classroom by creating videos based on the students' textbook and grammar points, which were the present progressive and regular verb past tenses and uploaded those videos to YouTube to let the students watch them beforehand at home. A hundred and sixty 7th grade students (1st year of junior high) participated (40 students in each class). The students of the experimental group (n=80) were required to watch the videos at home and fill in the worksheet to learn by themselves and come to class prepared to ask for clarification, if needed. The control group students (n=80) received in-class traditional instruction only. Both groups received three classes each for the present progressive and past tense of regular verbs then took a grammar test and a speaking test. Student pre-questionnaires, post-questionnaires, and teacher interviews in the flipped classroom were also conducted to analyze perceptions toward English and flipped classroom. The experiment was conducted with a counterbalanced design. The results illustrated that (1) adopting the flipped classroom strategy in teaching present progressive appeared to play a role in enhancing the students' grammar and speaking performances (via the statistical analysis of the post-test results); (2) the difference in result was not significant when analyzing the whole post-test results that ignored grammar, indicating that the flipped classroom can't be conclusively indicated as a necessarily effective means; and (3) the questionnaires and interviews showed that the students' and teachers' attitudes towards using the flipped classroom strategy in the EFL class were positive.*

**Keywords:** *English as A Foreign Language, Flipped Classroom Approach, Japanese Junior High School*

**Introduction**
The flipped classroom design asks students to learn what they would traditionally learn in the classroom before class and engage in activities that are traditionally given as homework in classes (Bergmann & Sams, 2012). The flipped classroom often enables students to be familiar with the English language outside the classroom by watching educational videos, PowerPoint presentations chosen and prepared by teachers, listening to audio files, and reviewing papers related to the course being taught. Inside the classroom, teachers take advantage of class time to discuss the ideas, to enhance thinking, to conduct collaborative learning and to provide various kinds of student-centered activities (Leicht et al, 2012; Bergmann, & Sams, 2012; Shigeta, 2014).

The flipped classroom approach applied to English as a foreign language (EFL) learning has had a positive impact on the EFL learners' attitudes, engagement, participation, and performances. However, this strategy had not yet been well examined in the Japanese EFL context especially in Japanese junior high schools. Generally speaking, most of the existing studies that include technology and student-centered methods were conducted in higher education rather than in secondary school (Sarah & Yousif, 2016; Moran 2014). Hence, this study focuses on Japanese junior high school students to provide pedagogical implications to EFL education.

According to a report from the Ministry of Education, Culture, Sports, Science, Technology (MEXT, 2014), although the goal of English education is to acquire communication skills in junior and high school, there are some indications that teachers often focus too much on "how much the students acquire grammar and vocabulary" rather than "what students can do by using English." Still, English needs to be learned consciously, and grammar knowledge is essential in order to acquire English proficiency. In the first place, in order to acquire communication ability, grammar knowledge is the basic premise (Sugiyama, 2013). However, because of the limited time in school based on the curriculum (Iwata, 2014), it is difficult to cope with both grammar and speaking skills in a Japanese context. In terms of the situation in Japanese junior high school, English teaching methods vary from very traditional grammar-based ones to very modern communicative ones (Ikegashira et al, 2009). On account of the time constraint, this dichotomy is very salient in Japanese education. Moreover, several studies illustrate that Japanese EFL learners don't have the opportunities to engage in English language use or practice the skills outside of the classroom.

In order to reconsider these circumstances, the researchers chose to implement the flipped classroom as a method to examine its effect on Japanese junior high school students' performances focused on both grammar and speaking skills, and their attitudes toward flipped classroom.

**Literature Review**

*Japanese EFL Context*
English as a foreign language (EFL) is a crucial and required subject in Japanese education. As stated previously, although the goal of English education is to acquire communication skills in junior and senior high school, there are some indications that it often focuses too much on "how much the students acquire grammar and vocabulary" rather than "what students can do by using English." Much assessment of English education in Japanese schools likely focuses on reading comprehension and grammatical features of the language (Sasaki, 2008; Forsythe, 2015). This

often results in a passive learning environment in which students are provided with few opportunities to produce English. Because of the focus on grammar in many Japanese EFL classrooms, according to Mack (2012), as many as 66% of students noted that there weren't enough opportunities to interact with other students using English.

English instruction in junior high schools has a long tradition and its teaching methods vary from very traditional grammar-based ones to very modern communicative ones. It depends on the teachers at the school. In some schools, teachers explain the grammatical points of the lesson and make students do pattern practices and students repeat the sentences after CDs. In other schools, students enjoy games or role-playing activities without any grammatical explanations (Ikegashira et al, 2009). This strong dichotomy continues to be prominent in Japanese EFL education.

Students' sociocultural paradigms is another obstacle that prevents learners from practicing English. Japanese learners don't need to use English in daily life, because Japanese is the language of communication. Thus, there is a lack of out-of-class, authentic situations to use English in Japan (Takano, 2004; Narita, 2013).

As mentioned above, there is a need for more opportunities among students to interact in English; however, the importance of grammar should not be neglected. One of the ways to achieve a balance of both explicit instruction of the target language and opportunities for increased production, whether it be through the spoken or written form, is flipped learning (Leis, 2016).

### *The Flipped Classroom*
The figure below (Figure 1) is of the theoretical framework which explains the time and content distribution for classroom activities and home. The flipped classroom works on the principle of not having lectures in the classroom and spending time on in-class activities (Jacob, 2013). It also shows that in the flipped classroom theoretical knowledge is received outside the class and implementation of that knowledge is done in the classroom with the guidance of the teachers. The content is usually created and distributed either online or in another form as a pre-learning tool. The connection between home study and classroom activities is accomplished by the interactions between the students or between student and teacher (Deepak, 2017).
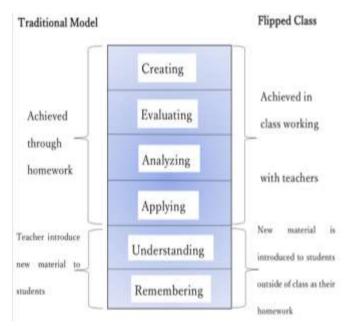
**Traditional Model**

**Flipped Class**

Creating

Evaluating

Analyzing

Applying

Understanding

Remembering

Achieved through homework

Achieved in class working with teachers

Teacher introduce new material to students

New material is introduced to students outside of class as their homework

*Figure 1.* **The Theoretical Framework of Flipped Classroom. This Chart Is Modified by The Author, Originally from Williams (2013).**

Bergmann and Sams (2013) declare that a flipped classroom approach followed by technology focuses on effective ways to use face-to-face class time with students. When it is practiced in a foreign language classroom, it allows students to learn grammar by direct instruction through the use of video lectures outside of the classroom. This results in freeing up time to engage in more student-centered active learning in class (Bergmann & Sams, 2013). The increase in student-centered active learning time can lead students to have more opportunities to activate input, output, and interaction practices. Thus, a flipped classroom approach in foreign language instruction allows instructors to integrate both explicit instruction and interactive approaches, which can promote the understanding of grammar and lead to language proficiency.

### *Previous Studies of the Flipped Classroom in EFL*
Many studies indicate that the flipped classroom strategy positively affects students' performance and proficiency levels in different kinds of English language areas. Obari and Lambacher (2015) found that flipping English classes improves Japanese university students' scores on the Test of English for International Communication (TOEIC). Moreover, flipping English classes enhances adult learners' listening comprehension skills (Kang, 2015) and improves speaking skills (Obari and Lambacher, 2015). In addition, in Kimura, Yamamoto, and Yuhaku's research (2014), Japanese undergraduate students' English writing skill improved. Furthermore, the flipped classroom strategy can encourage learners and make them concentrate more on the learning process. Hung (2015) showed that 80% of the participants in flipped university classes spent more time and effort learning on their own compared to students in traditional classes. However, this doesn't mean flipped classroom strategy will always succeed, and there are some studies that have failed when implementing the strategy. Kang (2015) states that the key to the successful flipped classroom model could rely on how pre-preparation assignments and in-class activities were well-integrated to acquire the benefits of a synergy effect from both.

Since the flipped classroom is a new strategy for students, there are various perceptions and attitudes towards it. Some students complained about the out-of-class assignments that require using technology (Han, 2015; Kang, 2015). However, since there are many beneficial points in flipped classroom, perception and attitudes toward flipped classroom was mainly positive. Correa (2015) discussed some beneficial points of the flipped classroom style that were applicable to developing learners' L2 language knowledge:

1. Exposure to input/output: As the class time is devoted to practice (problem-posing) instead of teacher-led recitation (banking model), exposure to meaningful input is maximized and opportunities for output are multiplied.

2. Retention of material: Retention of material is significantly greater with group discussion (50%), individual practice (75%), and opportunities to teach others (90%) than with lecture (5%) or demonstrations (30%). As lecture and demonstrations are done at home as homework, the flipped classroom ensures that the class time is devoted to activities that increase retention.

3. Meaningful interactions: While mechanical drills and other traditional activities such as fill in the blanks can be done at home, class time can be devoted to meaningful, open activities that put in practice what was learned at home (making and interpreting meaning) (Correa, 2015). Considering these positive perspectives of flipped classroom, students mentioned that by flipping the class, it enabled them to better comprehend the content (Homma, 2015).

Furthermore, Muldrow (2013) indicates the flipped model is just one of the ways teaching and learning process can be organized, and to cater for different students' needs it is best to find a nice balance of approaches and techniques.

As mentioned above, much practical research on the flipped classroom has been reported and it is now known as one of the effective ways of learning. However most of the existing studies that include technology and student-centered methods were conducted in higher education rather than in secondary school (Sarah & Yousif, 2016; Moran, Clarice 2014).

### English Grammar Acquisition in Japanese Context

The figure below (Figure 2) indicates the order of English grammar difficulties in Japanese context. This Figure was partly excerpted from the result of Negishi (2012) since present progressive and past tense of regular verbs are focused in the current study. Judging from this table, regular verb past tense is easier to acquire than present progressive for Japanese learners of English. Nishijima (2017) also mentions, regular past -ed in English doesn't seem to present much difficulty for the Japanese learners of English because the Japanese past tense can be made by simply attaching the past tense marker -ta to the end of Japanese verbs, just as English regular past tense is made in a similar way.

| Grammar difficulties | Grammar items |
|---|---|
| High | present progressive |
| | the forth sentence pattern |
| | can (ability) |
| | will |
| | third-person singular -s verb |
| | past irregular verb |
| | I want/ would like to~ |
| | want to~ |
| Low | past regular verb |

*Figure 2.* **Difficulty Level of English Grammar Items in Japanese Context. This Table is Excerpted and Modified by The Author, Originally from Negishi (2012).**

**Research Questions**
Although the flipped classroom is one of the suggested alternatives to the current method in Japanese education, there hasn't been enough research in the Japanese Junior high school context. Therefore, purpose of this study was to apply the flipped classroom approach to teaching English in order to examine its effectiveness on Japanese EFL junior high school students' performances, attitudes and perceptions toward learning English.
Current study seeks to answer the following questions:
1)For junior high school EFL students, do speaking ability and grammar ability improve through the flipped classroom method?
2)Which grammar point is more suitable for the flipped classroom method, the present progressive or the past tense of regular verbs?
3)How did students' attitudes toward English learning change by learning through the flipped classroom method?
4)What are the perceptions of the EFL students and teacher when implementing the flipped classroom?

**Method**

*Participants*
In total, 160 junior high school students participated in this research, 40 students (20 males and 20 females) in each of four classes. All were 7th grade students (first-graders) at Tennoji Junior High School Attached to Osaka Kyoiku University in Osaka, aged 12 or 13 years old. This school is a combined junior high and high school, so the participants had passed the entrance examination to enter the junior high school. 4 group（classes A, B, C, and D）is homogeneous population based on their English proficiency at the beginning of this academic year (April, 2017).

*Procedure*
Before the treatment, the experimental group students were given instructions to followed during the treatment period. Also, a pre-questionnaire was administered to learn about their perceptions and enthusiasm.

The control group was taught using traditional teaching methods, while the experimental group was taught using the flipped classroom method. The experimental group was required to watch short videos at home and to fill in the worksheet to learn by themselves and come to class prepared to ask for clarification, if needed. Both groups were taught by the researcher who was in charge of the participants' daily English classes. The treatment lasted three weeks; both groups received three classes each for the present progressive and past tense of regular verbs. The experiment was conducted with a counterbalanced design. Figure 3 charts the procedure of this study.

The content of each lesson was designed through short videos (5 minutes maximum), and a worksheet for the assigned lesson. Usually, in the traditional classroom setting, the teacher explains and gives some topics to students in an oral introduction at the beginning of the class, but the key in the flipped classroom settings is to carry out the oral introduction or explanation through the videotaped lecture beforehand. Therefore, the researchers made short videos, the contents of which were divided into four parts: the first part was the oral introduction; the second part an explanation of the grammar point; the third was for repetition practice; and the last was a summary of the grammar point. Since the ideal length of the video would be around 5 minutes (Sugiyama, 2013), the researchers made all the videos within 5 minutes. Before the treatment of each class, the content was uploaded onto YouTube, and a paper-based restricted type of URL and QR code on YouTube was distributed to the students.

School class time was divided into three parts: the first part (5 minutes) was devoted to answering students' questions, giving the correct feedback and briefly check and practice what they have learned from the video. The second part (20 minutes) was the core of the class; planned activities were given. Mainly, students worked in pairs to communicate using the grammar points or discuss the problems given. After each activity, a feedback was given out to ensure students' understanding. The third part (5 minutes) was allocated to summarizing the main points of the lesson.

At the end of each period of grammar instruction (present progressive and past tense of regular verbs), the researchers conducted a grammar test and a speaking test with the students. Their voices were recorded during the speaking test. A post-questionnaire was also filled out after finishing the treatment. For the teacher who had taught the students through the flipped classroom approach, the researchers conducted a semi-structured interview in order to understand those teachers' perspectives. The interview was recorded. Finally, the collected data were analyzed.

| Instruction of the flipped classroom & Pre-questionnaire | Grammar Group | Present progressive | | | Speaking & Grammar test ① | Past regular verb | | | Speaking & Grammar test ② | Post-questionnaire (conducted after each FC end course) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Group 1 (A, B) | FC① | FC② | FC③ | | Non-FC① | Non-FC② | Non-FC③ | | |
| | Group 2 (C, D) | Non-FC① | Non-FC② | Non-FC③ | | FC① | FC② | FC③ | | |

*Note.* FC=Flipped Classroom, Non-FC=Non-Flipped Classroom

**Figure 3. Procedure of This Study.**

*Instruments*
*Questionnaires*

The questionnaire was used to evaluate the students' perceptions of the flipped classroom strategy. The researchers used two types of questionnaire: a questionnaire sheet that would be distributed before the class, and one that would be employed after the class. The questionnaire was developed based on previous research about flipped classroom practices (Hamad, 2016; Kang, 2015; Nishimura, 2016). Questions 1~15 are the same for both pre- and post-treatment; this was done to compare the differences of each and estimate the teaching effect of the flipped classroom approach. For the questionnaire sheet used after the treatment, there were an additional 13 questions to measure students' perceptions and attitudes toward implementation of the flipped classroom. The quantitative section was multiple-choice questions (using a 6-point Likert scale, from "1" = "strongly disagree" to "6" = "strongly agree"). The qualitative section for the pre-questionnaire was composed of one open-ended question, which aimed to explore how participants feel toward studying English through videos at home and studying through the flipped classroom approach. The qualitative section for the post-questionnaire was composed of one closed-ended question and two open-ended questions. The post questionnaire aimed to find out how many times they had watched and rewound the videos, students' perceptions and attitudes toward the classroom activities, and their overall perceptions and attitudes toward the flipped classroom. Overall, the questionnaire sought to determine if their perceptions and attitudes toward the flipped classroom approach were positive or negative and to gather any relevant information on how students perceived this method.

*Tests*
Grammar test

The post-grammar test for the present progressive and past tense of regular verbs were both consisted of 21 question items. They were designed by the researchers to determine whether the flipped classroom strategy had a positive impact on students' performance in L2 grammar. The post-test was administered to the experimental and control groups after instruction of each grammar point was concluded.

Speaking test

The post-speaking test for each grammar point consisted of two parts. The first part consisted of three questions to describe the picture one by one following the sentence question. The second part which consisted of five questions asked by the examiner while looking at the picture. Overall, the speaking test was focused on picture description. Each of students' answers was recorded.

*Semi-Structured Interview*

A semi-structured interview was conducted to gather qualitative insight into teachers' perceptions, attitudes, and opinions towards the flipped classroom method. The interview consisted of five questions. This interview was also recorded and later transcribed.

**Analysis and Findings**

Among the 160 participants, there were some participants who had filled out the questionnaire imperfectly or were absent for the test or the questionnaire and were therefore removed from the analysis. Thus, the numbers of participants in the questionnaire was 138, and there were 155 participants for the overall grammar test, 157 participants for the present progressive speaking test, and 156 participants for the past regular verb speaking test.

*Comparison of Pre and Post Questionnaire*

To examine differences of students' attitude and perception toward English and the flipped classroom between before after the implementation, dependent-sample t-test was carried out through the treatment by SPSS (Statistical Package for the Social Sciences). Table 1 shows the descriptive statistics for Pre and Post Questionnaire. The questions were all multiple-choice questions (6-point Likert scale; from "1" = "strongly disagree" to "6" = "strongly agree") .The results showed that the class difference was observed for Q1 ($t$ (138) =.-2.506, $p$ = 0.013), that is, the question asking "I like English.", Q2 ( $t$ (138) =-3.329, $p$= 0.001), that is, the question asking "I'm good at English.", Q6 ($t$ (138) =-2.812, $p$ =0.006), that is, the question asking "It is interesting to read English.", Q12 ($t$ (138) =-2.136, $p$ = 0.034), that is, the question asking "It is important to prepare for the class."
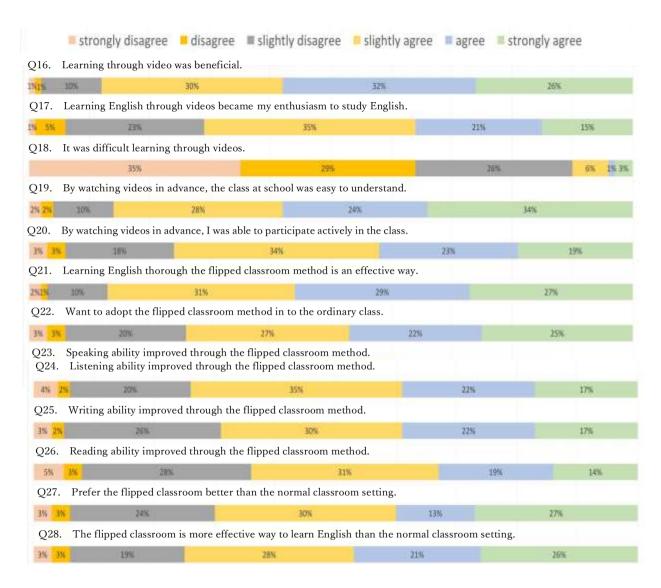
**Table 1**
**Descriptive Statistics of Flipped Classroom Pre And Post Questionnaire**

| | Flipped classroom questionnaire(n=139) | | | |
| --- | --- | --- | --- | --- |
| | Pre | | Post | |
| | M | SD | M | SD |
| Q1. I like English. | 4.48 | 1.326 | 4.64 | 1.222 |
| Q2. I am good at English. | 3.53 | 1.270 | 3.76 | 1.356 |
| Q3. It is interesting to speak English. | 4.36 | 1.239 | 4.51 | 1.230 |
| Q4. It is interesting to listen English. | 4.31 | 1.244 | 4.44 | 1.217 |
| Q5. It is interesting to write English. | 4.29 | 1.270 | 4.41 | 1.082 |
| Q6. It is interesting to read English. | 4.27 | 1.249 | 4.53 | 1.253 |
| Q7. I want to be able to speak English. | 5.53 | .715 | 5.53 | .745 |
| Q8. English speaking skill is what I want to improve the most. | 5.31 | .815 | 5.40 | .890 |
| Q9. English listening skill is what I want to improve the most. | 4.59 | 1.055 | 4.65 | 1.122 |
| Q10. English writing skill is what I want to improve the most. | 4.50 | 1.163 | 4.51 | 1.194 |
| Q11. English reading skill is what I want to improve the most. | 4.33 | 1.086 | 4.48 | 1.157 |
| Q12. To prepare for the class is important. | 4.29 | 1.175 | 4.47 | 1.224 |
| Q13. I like pair and group works. | 4.51 | 1.265 | 4.59 | 1.267 |
| Q14. I feel uncomfortable using video to study. | 1.93 | 1.054 | 1.91 | 1.254 |
| Q15. I am looking forward to study using video. (To study using video was enjoyable.) | 4.81 | 1.122 | 4.81 | 1.160 |

*Note.* n=Participants' Numbers, M=Mean, SD=Standard Deviation

*Post Questionnaire Result*

There were 13 items on the questionnaire which was only asked after implementation of the flipped classroom. The following bar graph detail the results of each question.

Q16.    Learning through video was beneficial.

1% 1% | 10% | 30% | 32% | 26%

Q17.    Learning English through videos became my enthusiasm to study English.

1% 5% | 23% | 35% | 21% | 15%

Q18.    It was difficult learning through videos.

35% | 29% | 26% | 6% 1% 3%

Q19.    By watching videos in advance, the class at school was easy to understand.

2% 2% | 10% | 28% | 24% | 34%

Q20.    By watching videos in advance, I was able to participate actively in the class.

3% 3% | 18% | 34% | 23% | 19%

Q21.    Learning English thorough the flipped classroom method is an effective way.

2% 1% | 10% | 31% | 29% | 27%

Q22.    Want to adopt the flipped classroom method in to the ordinary class.

3% 3% | 20% | 27% | 22% | 25%

Q23.    Speaking ability improved through the flipped classroom method.
Q24.    Listening ability improved through the flipped classroom method.

4% 2% | 20% | 35% | 22% | 17%

Q25.    Writing ability improved through the flipped classroom method.

3% 2% | 26% | 30% | 22% | 17%

Q26.    Reading ability improved through the flipped classroom method.

5% 3% | 28% | 31% | 19% | 14%

Q27.    Prefer the flipped classroom better than the normal classroom setting.

3% 3% | 24% | 30% | 13% | 27%

Q28.    The flipped classroom is more effective way to learn English than the normal classroom setting.

3% 3% | 19% | 28% | 21% | 26%

### *Comparison of Post-Test*

In order to analyze all scores of the post grammar and speaking test statistically, t-tests were conducted to investigate how much the students gained in grammar abilities and speaking abilities through the treatment by SPSS.

Table 2 and 3 show that the comparison of the overall scores of present progressive and past regular verb grammar tests between Flipped classroom (FC) and Non-Flipped classroom (Non-FC). The result indicated present progressive grammar test had a significant difference ($t$ (153) $=2.062, p =0.041$), whereas past regular verb grammar test had no significant difference ($t$ (153) $=1.241, p =0.217$).

**Table 2**
**Descriptive Statistics of Present Progressive Grammar Test**

|  | FC(n=80) | | Non-FC(n=75) | |
| --- | --- | --- | --- | --- |
|  | M | SD | M | SD |
| Present progressive grammar test | 15.90 | 3.470 | 14.69 | 3.817 |

**Table 3**
**Descriptive Statistics of Past Regular Verb Grammar Test**

| | FC(n=75) | | Non-FC(n=80) | |
|---|---|---|---|---|
| | M | SD | M | SD |
| Past tense of regular verb grammar test | 15.53 | 4.500 | 16.33 | 3.306 |

Table 4 and 5 show that the comparison of the overall scores of present progressive and past regular verbs speaking tests between Flipped classroom (FC) and Non-Flipped classroom (Non-FC). The result indicated that present progressive speaking test had a significant difference ($t$ (155) =2.499, $p$ =0.016), whereas past regular verb speaking test had no significant difference ($t$ (154) =1.737, $p$ =0.085).

**Table 4**
**Descriptive Statistics of Present Progressive Speaking Test**

| | FC(n=80) | | Non-FC(n=77) | |
|---|---|---|---|---|
| | M | SD | M | SD |
| Present progressive speaking test | 6.31 | 1.428 | 5.62 | 2.033 |

**Table 5**
**Descriptive Statistics of Past Regular Verb Speaking Test**

| | FC(n=77) | | Non-FC(n=79) | |
|---|---|---|---|---|
| | M | SD | M | SD |
| Past tense of regular verb speaking test | 6.66 | 1.767 | 7.08 | 1.130 |

Table 6 and 7 show that the comparison of the overall score results that ignored grammar between FC and Non-FC. The result indicated no significant difference between FC and Non-FC both grammar test ($t$ (154) =.595, $p$ =.553) and speaking test ($t$ (138) =.6.02, $p$ =.548).

**Table 6**
**Descriptive Statistics of Overall Grammar Test (Flipped vs Non-Flipped)**

| | FC(n=155) | | Non-FC(n=155) | |
|---|---|---|---|---|
| | M | SD | M | SD |
| Overall grammar test | 15.72 | 3.993 | 15.54 | 3.644 |

**Table 7**
**Descriptive Statistics of Overall Speaking Test (Flipped vs Non-Flipped)**

| | FC(n=157) | | Non-FC(n=156) | |
|---|---|---|---|---|
| | M | SD | M | SD |
| Overall speaking test | 6.48 | 1.608 | 6.36 | 1.789 |

*Semi-Structure Interview Result*
In order to understand teachers' perceptions of the flipped classroom, the researcher conducted a semi-structured interview with the teacher who conducted the class. The interview consisted of 4 questions.

### How Was Your Feeling Before Implementing the Flipped Classroom?

The teacher felt both anxious and expectant. As a key point for success of the flipped classroom, he was concerned about three points. First, how much would the students watch the video at home? Second, could the students watch the video without mechanical problems? Third, how would the teachers deal with the students who weren't able to or didn't watch the video. He noted that since there is more time for students to use English, an improvement of English proficiency was expected.

### How Did You Feel After Implementing the Flipped Classroom?

He mentioned that quite a few people watched the video and came to the class. Moreover, he noted students' comprehension level was high as he can see in the class. In addition, he indicated that students' English frequency usage has increased more than in the traditional classroom setting.

### Though the Flipped Classroom Was Used for Only A Short Time Period, What Do You Think About Students Getting Bored When Looking Ahead to A Long Period of Implementation?

Regardless of flipped classroom method, he remarks that generally if we use the same approach continuously, the average number of students who get bored will increase. In this instance, the participants were $7^{th}$ graders ($1^{st}$ grade in junior high school) who typically get bored easily compared to older students. Therefore, he indicated that, in order to prevent students from getting bored and to take advantage of flipped classroom characteristics, we might use this method for more complicated content, which means we need to use the method selectively depending on the content. However, he noted that students will not be bored if teachers firmly attempt to enrich the video content and the classroom activities.

### What Challenges Appeared After Implementing the Flipped Classroom? What Are the Solutions for Them?

When implementing the flipped classroom, making the best use of the time which was traditionally used for a grammar introduction and explanation is important. Hence, he mentions that teachers who are going to implement this method need to learn and study the best way to use this time depending on their students. Moreover, he indicates that teachers' burden will increase from a perspective of video production and preparation for the class. As a solution, teachers can cooperate with each or divide their roles.

## Discussion

In this section, the author will examine the following four research questions as proposed before based on the results obtained in the former chapter.

### For Junior High School EFL Students, Do Speaking Ability and Grammar Ability Improve Through the Flipped Classroom Method?

Referring to the independent-sample t-tests, which compared the scores of present progressive grammar tests between FC group and Non-FC group, the results indicated a significant difference: the FC groups' scores on the present progressive grammar test were higher than the Non-FC groups' scores. Judging from this, when looking only at the grammar test scores, the flipped classroom method was more effective than the normal classroom setting. Therefore, it can be said that the flipped classroom method conducted this time was effective for carrying out present progressive grammar instruction. In addition, the present progressive speaking test had a notable difference: FC groups' scores on the present progressive speaking test were

higher than the Non-FC groups' scores. Accordingly, it can be said that the flipped classroom method which was used this time was an effective way to enhance students' speaking ability and grammar ability when focusing on the present progressive.

On the other hand, from the independent-sample t-tests, which compared the score of the past tense of regular verbs grammar tests between the FC group and Non-FC group, indicated no significant difference. Likewise, the speaking test for the past tense of regular verbs had no significant difference. Judging from the result, it could be said that there is no difference in score between the flipped classroom method and the normal classroom setting when teaching past tense of regular verbs. Thus, when teaching past tense of regular verbs in flipped classroom method it cannot be said this this method is a more effective way.

Moreover, the difference in the results of the dependent-sample t-tests was not significant when analyzing the whole post-test results that ignored grammar, indicating that the flipped classroom cannot be sweepingly indicated as a necessarily effective means of instruction, and overall it cannot be stated unconditionally that the flipped classroom is an effective means to improve students speaking ability and grammar ability. Reasons for the non-statistically significant results could include the short length of the experimental treatment.

On the whole, as also mentioned in the teachers' interview and Muldrow (2013), some grammar items are suitable and some not suitable for the flipped classroom method. This implies that instead of using the same method for every item teacher need to change their teaching methods depending on the items they will teach.

### Which Grammar Point Is More Suitable for The Flipped Classroom Method, The Present Progressive or The Past Tense of Regular Verbs?

Judging from the results of grammar and speaking tests, it can be said that the past tense of regular verbs is easier to acquire than the present progressive for Japanese leaners of English. This supports the previous study of Negishi (2012).

As stated above, we can posit the following hypothesis: due to the characteristic of the flipped classroom, it is more suitable for complicated grammar items that are difficult to acquire (in this case, the present progressive). Since this was also mentioned during the teachers' interview, it is relatively obvious from both theoretical and practical perspectives.

### How Did Students' Attitudes Toward English Learning Changed by Learning Through the Flipped Classroom Method?

In the results of the dependent-sample t-test, there were some question items in which statistical significance was observed from the pre to post survey phase, which were Q1 "I like English"; Q2 "I'm good at English"; Q6 "It is interesting to read English"; and Q12 "It is important to prepare for the class."

From the result the number of students who like English increased. Students who changed to a positive answer in Q1 wrote that it was easy to learn the grammar points by watching videos again and again; that the flipped classroom gave them an opportunity to study more at home; that it was easier to understand the class through the flipped classroom method; and that it was fun to communicate with classmates using English. Considering these opinions, due to the increase in real opportunities to use English both in class and at home, learners came to understand English more and this led to an increase in perceived comprehension. This supports

Homma's (2015) statement that flipping the classroom enables students to better comprehend content.

The number of students who believe they are good at English also increased after the implementation. Students who had changed to a positive answer to Q2 wrote that the class was easy to understand because they had already learned the grammar point at home; that they wanted to continue this flipped classroom method; that this method was good because it put them in the habit of preparing for class. Judging from this, preparing for the class by watching the video and filling in the worksheet as homework had a great effect on leaners. This relates to the increase of positive answers to Q12 "It is important to prepare for the class." In the questionnaire many students mentioned that by preparing for the class their class-time became more fruitful.

Lastly, the result showed that the number of students who are interested in reading English increased. This fact can be considered as a secondary effect to this flipped classroom method. Referring to the change of the response score on Q1, Q2, Q6, and Q12 from before to after the English flipped classroom method, it can be said that their attitudes towards using the flipped classroom strategy were positive.

### *What Are the Perceptions of The EFL Students and Teacher When Implementing the Flipped Classroom?*

Students' responses in the questionnaire declared that they played an active role in their own learning process. For example, students mentioned that they sometimes needed to view the lesson more than once to understand the lesson content. They also stated that they were able to clarify some ambiguous or unclear points of the videos during class time by asking their friends or teacher. In addition, they stated that the opportunities to use English in the class increased so they were able to actively participate in the class and to form English study habits through watching the videos. The bar graph (Q20) also shows that nearly 80% of the students agree that they were able to participate actively in class by watching the videos. All these responses prove that the flipped classroom method can activate students' role in the learning process. This shows that flipping English classes can solve the problem noted by Takano (2004) and Narita (2013), which is the dominance of Japanese and cultural resistance to the use of English in Japan that limits EFL students' chances to communicate in English. Flipping English classes will create opportunities for students to practice and study the language outside and inside the classroom. On the other hand, as Kang (2015) mentioned, there were some students who complained about the out-of-class assignments or who had negative feelings about the flipped classroom method. Some students stated that they could hardly find time in their busy schedules to watch the video or that it was troublesome. This reveals that students' workload are crucial to their acceptance of out-of-class extra tasks. Some students, however, wrote that they wanted more practice sections in the video so that they could practice more at home. This dichotomy may have arisen from students' motivational differences toward flipped classroom method. This implies that it is important to explain more to students about the concept of this model and develop it thoughtfully so that students can realize the benefits of its implementation. In addition, adding activities or practice sections into the videos or during class, ones which would stimulate students' intellectual curiosity, could be a successful solution.

Teachers' responses in the interview revealed that the teacher can spend more time on increasing the frequency students' English usage, since the time spent on grammar instruction was omitted. This indicates that flipping English classes can solve the strong dilemma in

Japanese education, which was difficulty of applying enough time for the instruction of grammar rules and practicing English, mentioned by Ikegashira et al (2009). In the study, most of the students and teacher agreed that they applied the grammatical rules that had been learned in the flipped classroom in speaking and writing activities. Therefore, the flipped classroom strategy can achieve a good balance between explicit instruction of the target language and opportunities for increased production which supports Leis (2016).

Overall, students' questionnaire responses and the teacher's interview concerning the flipped classroom strategy showed that their perceptions were affected positively.

**Conclusion**
The objective of this research was to pave a way for teachers to move past some of the primary hindrances faced by EFL junior high school students in Japan. This includes a dearth of opportunities for language use, low proficiency levels, and traditionally teacher-centered classes. Hence, the present study was conducted with EFL junior high school Japanese students to investigate the effect of the flipped classroom on students' performance and attitudes. The flipped classroom is an educational strategy that allows teachers to support students' self-learning by providing them with interesting e-learning materials in order to free class time for more student-centered activities (Bergmann & Sams, 2013).

The findings indicated that adopting the flipped classroom strategy in teaching the present progressive tense appeared to play a role in enhancing students' grammar and speaking performances, as shown in the statistical analysis of the post-test results. However, the difference in results was not significant when analyzing the whole post-test results that ignored grammar, indicating that the flipped classroom cannot be recommended without reservation as a necessarily effective means. The researchers concluded that there is a field, namely grammar items, in which there are suitable and unsuitable items for flipped classroom method, and therefore recommend carrying out more studies at the junior high school level to discover how flipped classroom strategies can be made use of for more effective teaching and learning.

This study also found that students and teachers hold positive attitudes towards the flipped classroom as it gave students more opportunities to communicate in English and enhance their understanding of grammar points by watching and re-watching videos. Students also mentioned that they hope the flipped classroom strategy would be adopted in their normal classes as well.

There is still little research, however, into flipped instruction methodology in EFL, because the theory of the flipped classroom is still in its infancy especially in secondary school education. For the success of English learning, there should be more practical research into the flipped classroom and the hope that clearer and more useful results will be obtained in the future to advance the goals of both teachers and learners in the EFL classroom. In addition, further research should examine different aspects that may contribute to the success of flipped instruction in English learning.

**References**

Bergmann, J., & Sams, A. (2012). Flip your classroom: Reach every student in every class every day. Eugine, Oregon: International Society for Technology in Education.Retrieved from https://www.liceopalmieri.gov.it/wp-content/uploads/2016/11/Flip-Your-Classroom.pdf

Bergmann, J., & Sams, A. (2013). Flip your students' learning. Educational Leadership, 70(6), 16.

Correa, M. (2015). Flipping the foreign language classroom and critical pedagogies. Higher Education for the Future, 2 (2), 114‑125.doi:10.1177/2347631115584122

Deepak, N. (2017). Videos Production for Flipped Classroom: A Guide for teacher Retrieved from
http://www.theseus.fi/bitstream/handle/10024/124988/Neaupane_Deepak.pdf?sequence=1&isAllowed=y

Forsythe, E. (2015). Improving assessment in Japanese university EFL classes: A model for implementing research-based language assessment practices.
Retrieved from http://repository.ul.hirosaki-u.ac.jp/dspace/bitstream/10129/5526/1/21SeikiForum_10_65.pdf

Han, Y. J. (2015). Successfully flipping the ESL classroom for learner autonomy. NYS TESOL Journal, 2(98), 98‑109.

Hamad, A. (2016). An EFL Flipped Classroom Teaching Model: Effects on English Language Higher-order Thinking Skills, Student Engagement and Satisfaction. Retrieved from https://files.eric.ed.gov/fulltext/EJ1095734.pdf

Homma, J. E. B. (2015). Learner autonomy and practice in a flipped EFL classroom: Perception and perspectives in new digital environment. Retrieved from https://ci.nii.ac.jp/els/contentscinii_20171009200328.pdf?id=ART0010416094

Hung, H. T. (2015). Flipping the classroom for English language learners to foster active learning. Computer Assisted Language Learning, 28(1)81‑96.

Ikegashira, A.,Matsumoto, Y., & Morita, Y. (2009). English Education in Japan -From Kindergarten to University. Retrieved from http://web.iess.ehime-u.ac.jp/raineruto1/02RD2.pdf

Iwata, A. (2014). English speaking activities targeting fluency development: A practical suggestion for Japanese high school classrooms. Journal of Teaching English, 23, 75‑85.

Jacob, B. & Matthew, A.V. (2013) The Flipped Classroom: A Survey of the Research. Retrieved from URL: https://peer.asee.org/22585.

Kang, N. (2015). The comparison between regular and flipped classrooms for EFL Korean adult learners. Retrieved, from
http://journal.kamall.or.kr/wp-content/uploads/2015/10/Kang_18_3_02.pdf

Kimura, S., Yamoto, Y., & Yuhaku, A. (2014). Hantenjyugyokeishikiniyoru Eibunwritingtensakushidonotameno onlinedogakyouzaino seisakuto katsuyounitsuite [How to Make Online Movie Material and to Use It for English Writing Instruction through Flipped Classroom Style]. Selected Papers from the 2014 CIEC Academic Meeting, 5, 80‑83.

Leicht, R.M., Zappe, S.E., Messner, J.I., & Litzinger, T. (2012). Employing the classroom flip to move "lecture" out of the classroom. Journal of Applications and Practices in Engineering Education, 3, 19‑31.

Leis, A. (2016). The Effects of Flipped Learning on Output in the Japanese English as a Foreign Language Environment. Retrieved from http://hdl.handle.net/10097/63875

Mack, L. (2012). Does every student have a voice? Critical action research on equitable classroom participation practices. Language Teaching Research, 16(3), 417‑434. doi:10.1177/1362168812436922

Ministry of Education, Culture, Sports, Science, and Technology. (2014). Retrieved from http://www.mext.go.jp/b_menu/shingi/chousa/shotou/102/houkoku/attach/1352464.htm

Moran, C.M. (2014). Changing Paradigms: A Mixed Methods Study of Flipping the English Language Arts Classroom. Retrieved from https://repository.lib.ncsu.edu/bitstream/handle/1840.16/9985/etd.pdf?sequence=1&isAllowed=y

Muldrow, K. (2013). A New Approach to Language Instruction-Flipping the Classroom. Retrieved from https://www.actfl.org/sites/default/files/pdfs/TLE_pdf/TLE_Nov13_Article.pdf

Narita, H. (2013). English Education for Japanese-Mechanism of Foreign Language Acquisition and Linguistic Differences. Retrieved from http://www.japio.or.jp/00yearbook/files/2013book/13_4_02.pdf

Negishi, M. (2012). Different CEFR Criterial Features for English Learners at Different Developmental Stages: Their Applicability to the Assessment of English Writing. Retrieved from http://cblle.tufs.ac.jp/assets/files/publications/working_papers_09/section/105-127.pdf

Nishijima, H. (2017). Japanese University Students' Order of Morpheme Acquisition. Gakkoukyouikucenternenpou,2, 9‑20 doi/10.14993/00001053

Nishimura, N. (2016). Developing L2 Speaking Fluency and Accuracy in EFL Undergraduate Students Based on Flipped Instruction Methodology. Master's Thesis, Osaka Kyoiku University, Osaka, Japan.

Obari, H., & Lambacher, S. (2015). Successful EFL teaching using mobile technologies in a flipped classroom.

Retrieved from https://files.eric.ed.gov/fulltext/ED564234.pdf

Sarah S., & Yousif A. (2016). The Flipped Classroom Impact in Grammar Class on EFL Saudi Secondary School Students' Performances and Attitudes. Retrieved http://www.ccsenet.org/journal/index.php/elt/article/view/62682/33671

Sasaki, M. (2008). The 150-year history of English language assessment in Japanese education. Language Testing, 25(1), 63‑83. doi: 10.1177/0265532207083745

Shigeta, K. (2014). Hantenjugyo: ICT ni yoru kyoikukaikaku no shinten. [Flipped classroom: Educational reform utilizing information technology]. Joho kanri: Journal of Information Processing and Management, 56, 677‑684.

Sugiyama, S. (2013). The Pros and Cons of Grammar Translation Method: Is It Really Harmful? Retrieved from http://www.jaell.org/gakkaishi23rd/Sachiko%20SUGIYAMA.pdf

Takano, Y. (2004). Nihon no Eigo to Eigo Kyoiku. [English and English Education in Japan. ] Retrieved from

URL:https://www.agulin.aoyama.ac.jp/mmd/library01/BD90039085/Body/link/n12u0021_036.pdf

Weitzenkamp D. (2013) Blooms and the Flipped Classroom. Retrieved from URL: https://nextgenerationextension.org/2013/10/01/blooms-and-the-flipped-classroom/