"CAN WE DO IT NEXT YEAR?" THE IMPACT OF THE FLIPPED CLASSROOM METHOD ON EFL LEARNING PERFORMANCE

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Abstract
The flipped classroom (FC) method has been extensively adopted in STEM disciplines at the university level and garnered favorable results in synchronous learning, while less focus has been directed to its effectiveness in language teaching and learning at school. This experimental study aimed to explore how the flipped classroom approach affected EFL learning performance in the 6th grade. A 16-week semester-long flipped approach with pre-class materials and in-class interactive activities was implemented in two experimental and control EFL learner groups at a public general education school in Vilnius, Lithuania.
The study found that the experimental FC group obtained significantly higher marks on five out of nine topics covered throughout the semester and, importantly, on the final mark for the marking period. In addition, the FC group employed markedly more sophisticated vocabulary and sentence structure and made fewer grammar mistakes. Lastly, the FC group exhibited more engagement, exploration, explanation, elaboration, and evaluation, the five phases that align with the constructivist flipped classroom approach.

Keywords: Flipped classroom, EFL teaching and learning, classroom activities, learning performance.

1. Introduction

Recent developments in education have generated progressive advances, whereby traditional learning lends itself to new educational paradigms that revolutionize the art of teaching. We live in a fluid or liquid society (Bauman, 2019) in which the teacher is no longer considered to be the sole possessor of knowledge they only transmit. The teacher now becomes a partner of collective knowledge they must organize and share, which naturally gives rise to a myriad new ways and methods of teaching, some of them prove beneficial and take root, some do not. One such method which has perhaps existed for as long as people teach and learn but which has generated research interest mostly in recent decades is the flipped classroom (FC) method. Flipping the classroom signifies that events that traditionally occur within the classroom now take place outside the classroom and vice versa. It could be viewed as a hyponym of flipped learning as flipping a class can, but does not necessarily, lead to flipped learning (Flipped Learning Network, 2023) [1].

Indeed, FC involves an inversion of the traditional teaching method, whereby students prepare content that the teacher previously provided them with the idea of turning the classroom into a space for dialectical reflection on the issues and their practical application (Ponce, Oliva, & Claudio, 2022). This approach is based on Bloom's flipped taxonomy: in traditional education, lower-order learning processes (remembering, understanding, and applying) take place in the classroom and students usually have to deal with higher-order learning processes (analyzing, evaluating, and creating) outside the classroom, whereas in flipped classrooms everything is reversed, students can do the lower-order work before the lesson and engage in higher-order learning processes with their classmates and teachers when they come to class.

It must be noted that the FC method rests, first and foremost, on the philosophical perspective of constructivism, which posits that it is the learner's construction of their reality rather than objective input that determines what they attend to (Bless & Greifeneder, 2018). For all that, a student in the FC learning process simultaneously externalizes their own being into the learning experience and internalizes the latter as their newly constructed reality. The father of constructivism Jean Piaget (1969, 1972, 1974) believed that actual learning happens through accommodation, in which knowledge is not simply transferred from teacher to student but rather students implement their own conceptual changes enabled by teachers. Hence, it is important for the teacher to examine each student's cognitions and develop instructional techniques which create a cognitive conflict to be resolved. In this way, students self-assemble meanings

[1] The governing board of the Flipped Learning Network (FLN) announced a formal definition of the term. They also released the Four Pillars of F-L-I-P™ and a checklist of eleven indicators that educators must incorporate into their practice. For a detailed account, please visit the Flipped Learning Network site: https://flippedlearning.org/definition-of-flipped-learning/.

while continually self-assessing their understandings of concepts set in a context of their own world experiences.

All in all, the FC method establishes a novel framework within which students receive a personalized approach to their learning, which meets their individual needs. Yet, most studies conducted to date focus on the use and efficacy of the FC method in STEM disciplines and in university studies. They have garnered favorable results on the in-class synchronous learning aspect, yet less focus has been directed to language teaching and learning at the school level or the possible drawbacks of this method (see Ponce, Oliva, & Claudio, 2022; Fischer & Yang, 2022; Almassri & Zaharudin, 2023; Prieto et al., 2021; Firas et al., 2021). It could be that studies in non-university contexts are scarce since this methodology aims to build on students' self-determination in the management of information, an aspect that children, due to their age, do not have and which would hinder the teaching–learning process both in the mother tongue and L2 (Rodríguez-Vélez & Cedeño-Macías, 2020). It is also advisable to compare traditional and flipped classrooms experimentally as only such study designs can uncover causal relationships between the application of learning methods and learning outcomes. The study of these relationships will likely reveal positive and/or negative changes in the learning process and help to determine the extent to which the method should be integrated into teaching of EFL. Hence, this study aims to evaluate the impact of the flipped classroom method as compared to the traditional teaching method on EFL learning outcomes in the 6th grade of secondary school.

2. Suitability of the Flipped Classroom Method for Language Teaching

It appears that the flipped classroom method grants students more autonomy in the learning process and replaces the traditionally teacher-centered learning with learning that is focused on the student and their needs (Zainuddin & Halili, 2016). Ponce, Oliva, & Claudio (2022) conducted a systematic review on language teaching through the flipped classroom and found that most of the articles published between 2021 and 2022 on L2 teaching reported improved results in the development of language teaching. The results of the studies included in the review support the efficacy of the FC approach and justify its validity beyond a possible positive reporting bias that would lead to a tendency to publish on FC and language teaching for reasons of occasional fashion. The FC strengths focus not only on aspects related to the development of communicative language skills but also on aspects related to motivation for learning. In terms of motivation for learning, the FC improves student interactions with teachers in which the role of students is active; in terms of the impact on learning, the key aspect that stands out is the creation of a more collaborative learning environment that can enhance the out-of-class component and thus help improve learning.

In addition, learning in the FC becomes an internal process which builds on previous knowledge and intrinsic motivation as well as facilitates inductive

reflection. Admittedly, there are two main approaches to teaching grammar: deductive and inductive. The deductive approach is when the rule is presented and the language is produced based on the rule (the teacher gives the rule), whilst the inductive approach is when the rule is inferred through some form of guided discovery (the teacher gives the students a means to discover the rule for themselves). The former is more teacher centered and the latter more learner centered (British Council, 2023). It could be argued that the flipped classroom method is in line with the inductive approach to teaching grammar in that it provides students with alternative ways to engage in language learning at their own pace. It allows to bypass the mismatch between the teacher's teaching style and the student's learning style and envisions that some students may need more time to absorb grammar rules, while others may need information repetition with more examples or thorough elaboration in the classroom on what they have mastered during self-study, etc.

When it comes to practical application of the flipped classroom method, Cheng, Chew, & Chen (2017) identify two essential components of the method, pre-recorded interactive video lectures and incorporating interactive learning activities. They both align with six types of classrooms: physical classroom, asynchronous cyber classroom, synchronous cyber classroom[2], mobile classroom, social classroom, and ubiquitous classroom. Each classroom can provide different venues for students to learn a unit/lesson, yet the asynchronous-cyber classroom is perhaps the most suitable FC model in language teaching. This model envisions the use of videos and other means of interactive information transfer (e.g., audio recordings). Teachers can take advantage of a variety of media resources and digital technologies (e.g., short videos, screencasts, podcasts, etc.) and assign students a variety of tasks that can be placed in online educational platforms: Socrative, Kahoot, Quizizz, Test English, YouTube, Microsoft Teams, Google Docs, etc. Students must watch these videos independently before the lesson. In this way, students are given learning autonomy: they can choose when and how many times to watch the video material and thus absorb it in the way that suits them best. Besides, videos have the same content and subject rigor as classroom lectures, labs, homework, and exams (Brecht, 2012). Asynchronous classrooms also engage original language learning materials to create a realistic learning environment for each student as well as to personalize language tasks to tailor activities to student needs. The teacher has more time during the lesson to assign individual tasks to students, which helps them delve into the specific issues that have arisen. For example, if one student has a vocabulary question and another comes up with a grammar question after watching a video on a particular topic, the teacher can accordingly assign a task corresponding to the student's question and help them solve the problems as they have longer practice time. This model

[2] Synchronous learning is instructor-facilitated, while asynchronous is self-directed and self-paced. In other words, synchronous learning requires all the participants to be present at the same time, whereas asynchronous learning does not.

is very favorable for the individualization of learning materials and programs. For EFL teaching, one of the platforms that provides videos suitable for asynchronous-cyber classrooms is *BBC Learning English.*

To sum up, the flipped approach grants more time for in-class activities and provides students a richer and more meaningful content. Also, it enriches the learning experience by integrating teaching into learning and appealing towards younger age groups (Yunus, Zakaria, & Suliman, 2019). However, some younger learners may have mixed attitudes toward this method as they may find it difficult to master language rules on their own, they will require a more extensive pre-introduction into the use of relevant media resources, digital technologies and educational platforms and, most importantly, will need to change their habit or usual ways of doing things by studying the given contents before class, which seems rather challenging for younger students (Hirsto et al., 2019). The current study takes notice of these issues.

3. Method

3.1. Participants

The present study used the convenience and purposive sampling methods and included 6th grade students from Vilnius King Mindaugas School, a public general education school subordinate to Vilnius Municipality (Lithuania). The total sample consisted of 30 participants, 15 students from Class 6A and 15 from Class 6B, 12 girls and 18 boys ranging in age from 11 to 12 years (M = 11.8, SD = .35). Students from Class 6B were randomly assigned to the experimental group and those from Class 6A to the control group using the randomization tool Research Randomizer (https://www.randomizer.org/). The experiment was conducted by a female teacher aged 51, with 17 years of experience of teaching EFL at school (the second author), and structured overt observation of classroom work and activities was performed by a female student teacher from the Vilnius University Professional Pedagogical Study Program (the third author).

3.2. Ethics

The study was carried out within the framework of the Vilnius University project Optimization of the Network of Higher Education Institutions and Improvement of the Quality of Studies by Merging Šiauliai University to Vilnius University (No. 09.3.1-ESFA-V-738-03-0001, priority axis 9: Public Education and Increasing the Potential of Human Resources). The ethical aspects and feasibility of the current study were assessed by the Joint Committee on Research Ethics at Vilnius University Faculty of Philosophy, which also granted an ethical permission to conduct the study (internal document No (1.5 E) 250000-V-299). The participants and their parents signed separate consent forms which included

a thorough description of the foreseeable experimental study, its aim and procedure. The participants were also informed of their right to withdraw from the study at any time and the experiment was conducted with no risk of revealing personal identities of participants.

3.3. Procedure

The experimental group was exposed to a semester-long flipped instruction in which they worked on the pre-prepared materials designed by the teacher. The predominant type of classroom was asynchronous cyber classroom in which the general principle was to provide a menu of options for the students to use in their EFL learning. The practice part was done collaboratively inside the classroom (both the traditional class and the flipped class had 3 English lessons per week).

The course material in both the experimental and the control groups was divided into nine topics that corresponded to chapters in the *Gateway 2A* (Spencer, 2016a) textbook: 1) Writing an Informal Email; 2) Project *My Dream Job*; 3) Project *My Favorite Animal*; 4) The Use of Comparatives and Superlatives; 5) Nature; 6) Project *Let's Travel*; 7) Writing a Blog Post; 8) The Use of Modal Verbs (Must, Have to, Should, Shouldn't); 9) Holidays (see Appendix 1). In most cases, one topic was covered in two weeks. Students in the FC group (Class 6B) were expected to read, watch related videos of lectures, and do practice exercises in advance before coming to class to cover the topic. The videos walked the students through the material and could be accessed in a variety of formats from the *Gateway 2A Student's Book* (Spencer, 2016b) and the Internet (see Appendix 2). Students were expected to come to class prepared to practice and discuss the material. The teacher started the lesson every day by asking if there were any questions and the students could use this question time if they had not understood something in the book or in the videos or if they wanted additional examples. Student questions generally led to a mini lecture of approximately 15 minutes but if there were no questions, the teacher would not lecture.

After the teacher answered student questions, the teacher and the students would engage in activities that corresponded to the topic. These activities allowed the students to enact the rules and vocabulary items they had learned. They consisted of hands-on exercises that varied in the level of complexity. For instance, word formation, gap fill, multiple choice, or sentence transformation tasks. More complex exercises consisted of paragraph writing, oral or written descriptions of pictures, dialogue writing, presentations, etc.

The students were also given the opportunity to demonstrate their fluency, pronunciation, and presentation skills as well as the ability to investigate the real world through projects *My Dream Job*, *Let's Travel,* and *My Favorite Animal*.

Stages of preparation for the project:

1. Definition and development of the topic: learning vocabulary, grammatical structures, listening and reading texts on the topic, activating the material in lexical and grammatical exercises.

2. Development of the project plan.

3. Distribution of tasks, roles: formation of teams; distribution of tasks between members of the group.

4. Search and selection of material in authentic sources.

5. Designing the project (PowerPoint, poster, etc.).

6. Project presentation.

7. Discussion and reflection.

The remainder of each class was typically devoted to worksheets and review questions. The worksheets were simple exercises designed to give students a pass at the material. Students were expected to have completed these worksheets before attending the class on a topic. Often students then got into groups, discussed their answers, and presented their work to the rest of the class. To ensure that students were coming to class prepared, these worksheets would periodically and randomly be collected and graded for completeness. The review questions were more complex and designed specifically to have students apply the rules and vocabulary items they had learned. Students would work in small groups on these review questions and then present their results to the rest of the class. The unit was completed in the same way it began, with the teacher asking if there were any final questions.

Given the increased responsibility placed on the student in the FC, students could also reach the teacher through the class homepage chat room, where during certain hours of the week the teacher would be available online to answer any questions. The homepage also contained a bulletin board for each section of the course so students could discuss applications of the course material in more detail than lesson time allowed. The course homepage contained a library of additional (online and offline) resources for students as well as optional, interactive quizzes on each topic for students to test their knowledge of the course material.

The control group of students was taught the course material in the traditional way in which the topic presentations took place in the classroom and practice activities were performed as homework. This group also had regular question and answer as well as group work sessions, presentations, etc.

After completing each topic, vocabulary and grammar quizzes or tests were administered to both the experimental and control groups to assess their knowledge and skills.

The activities of both the experimental and control groups were overtly observed and coded by the third author following the guidelines proposed by Levine & Norenzayan (1999). We employed the method of *structured observation* in which the investigator usually makes careful observations of one or more specific behaviors in a particular setting that is more structured and less global than the settings used in naturalistic or participant observation, in our case, a classroom that was structured by introducing specific FC manipulations and tasks participants were to engage in.

To reach a thorough understanding of the case, we also employed the strategies of direct interpretation and categorical aggregation to combine emergent properties and make tallies in intuitive aggregation[3]. The observation protocols included pertinent instances of English teaching and learning witnessed by the observer which later were combined into emergent codes (see the Results section). Reliability of observation results was ensured by multiple observations and inter-coder agreement such that the analysis was first performed independently by the third author and then in team discussions of all the three authors to compare interpretations, further develop codes, and select illustrative quotes and examples.

3.4. Statistical analysis

The software package SSPS 28.0.1 was used for statistical processing of the data to explore descriptive statistics, normality of distributions (Kolmogorov–Smirnov test), and significance of mean differences (Mann-Whitney U tests). The level of significance was set at $p < .05$.

4. Results

In the first stage of the analysis, normality of distributions was assessed using the Kolmogorov–Smirnov test. Since the distribution of most variables was non-normal, the nonparametric Mann-Whitney U tests were performed to examine differences in student performance in the flipped classroom (FC) and the traditional classroom (TC) across the nine topics covered during the experiment. For this purpose, the differences were analyzed both according to the results of performance tests taken throughout the semester and the final marks students obtained at the end of the semester.

Our analysis of differences between the FC and TC in performance tests on the topics covered revealed several significant differences (see Table 1).

[3] In direct interpretation we explored the individual utterances of students, trying to pull them apart and put them back together again more meaningfully, a procedure which may be referred to as analysis and synthesis of direct interpretation. We also collated the individual utterances to see how from the whole aggregate FC-relevant meanings emerged (see Stake, 1995).

Table 1: Results of the Mann-Whitney U tests comparing performances of students in the flipped class (the experimental group) and the traditional class (the control group).

	Flipped Class		Traditional Class		
Variable	**M**	**SD**	**M**	**SD**	**p**
1. Informal Email	8.17	.84	7.29	1.86	.143
2. *My Dream Job* (Project)	8.53	1.59	6.47	2.39	**.009**
3. *My Favorite Animal* (Project)	8.08	2.29	6.21	3.24	.99
4. Comparatives and Superlatives	8	1.79	7.43	2.71	.517
5. Nature	8.93	1.39	6.53	2.42	**.002**
6. *Let's Travel* (Project)	9.25	1.55	6.86	3.3	**.031**
7. Writing a Blog Post	7.46	1.85	6.69	2.18	.341
8. Modal Verbs	9	1.19	7.07	1.67	**.001**
9. Holidays	8.43	2.17	6.42	2.54	**.039**
10. Final Mark	8.4	1.45	7	1.96	**.035**

In particular, the Mann-Whitney U tests found significant differences in terms of the most important aggregate variable, the final mark (FC M = 8.4, SD = 1.45 vs TC M = 7, SD = 1.96, $p < .05$), which indicates that overall, the flipped class outperformed the traditional class. Also, students in the FC obtained better results in the final tests on such topics as *Nature* (FC M = 8.93, SD = 1.39 vs TC M = 6.53, SD = 2.42, $p < .01$), *Modal Verbs* (FC M = 9, SD = 1.19 vs TC M = 7.07, SD = 1.67, $p < .01$), and *Holidays* (FC M = 8.43, SD = 2.17 vs TC M = 6.42, SD = 2.54, $p < .05$) as well as the projects *My Dream Job* (FC M = 8.53, SD = 1.59 vs TC M = 6.47, SD = 2.39, $p < .01$) and *Let's Travel* (FC M = 9.25, SD = 1.55 vs TC M = 6.86, SD = 3.3, $p < .05$). These findings suggest significantly more positive performance outcomes for the flipped classroom in more than half of the activities carried out throughout the semester. The same pattern applies for all the other topics as well given that the FC means are higher than the TC means, albeit the differences are not significant. It must be noted that the experiment used small groups (N = 15 in both cases), which might have produced the lower levels of significance of our results.

These results show notable differences in student motivation, eloquence, and overall performance manifest, among other things, in the vocabulary items used by students in both groups. The vocabulary and sentence structure of the experimental group were markedly more sophisticated. To illustrate, one of the tasks required students to write a blog post (at least 200 words) about a school excursion using a given model (Beth's blog from the *Gateway A2 Student's*

Book (Spencer, 2016, p. 123, ex. 2)). The students in the FC group produced longer and more elaborate sentences, e.g.: "One of the highlights of the trip was definitely our visit to the nuclear power station" (Participant 2); "The guide told us how the plant was being deconstructed and how the radioactive materials were put in underground bunkers so they wouldn't pollute the environment" (Participant 12); "Although the road was quite bumpy, the views were just breathtaking" (Participant 10); "It was a once-in-a-lifetime experience that I will always cherish" (Participant 8); "The guide took us to a room where there was a miniature model of the power plant" (Participant 7).

In contrast, students in the traditional classroom wrote shorter sentences, made more grammar mistakes and used more trivial phrases, e.g.: "I liked the trip to Ignalina because it was interesting" (Participant 18); "The road was mountainous, which made many feel sick" (Participant 24); "Then we looked at a small model of that power plant when it was working we can turn off and on lights [sic]" (Participant 25); "The bus ride took 2 hours and we saw interesting places thru [sic] the windows" (Participant 17).

Another task was to write an email to a friend (at least 120 words) to give news (at least 2 pieces of news) using a given model (Natalie's email from the *Gateway A2 Student's Book* (Spencer, 2016, p. 109, ex. 1)) and including expressions from the writing bank in *Gateway A2 Student's Book* (Spencer, 2016, p. 109, ex. 3). The tendency observed in the emails written by the two groups was the same as in the previous task, whereby again, the FC group outperformed the traditional classroom group. E.g., students from the FC group wrote the following sentences: "And the sad news is that my hamster died and we made a cardboard coffin for [sic]. We put him in the coffin, sealed it with the duct tape and burned him in our fireplace" (Participant 12); "My friend and I went to the cinema to watch the Avatar movie last weekend on Saturday" (Participant 4); "My class won the 4th place in the dodgeball competition, not the best but at least we didn't get the last place!" (Participant 6); "As you know how [sic] I've been taking acting classes and now I've got a role in a play" (Participant 10).

While students from the TC group wrote: "My dad found new very good job [sic]" (Participant 16); "I bought new iphone [sic]. My brother very likes my iphone [sic]" (Participant 18); "I've got some great news about my brother […], he found a job in restaurant [sic]" (Participant 24); "My weekend was so good, let me explain, I won Minecraft tournament [sic] with Gustas!" (Participant 27).

Lastly, the results obtained from participant observations in both the experimental and control groups also revealed notable tendencies in student performance and activities in the classroom. In particular, the FC group exhibited more engagement, exploration, explanation, elaboration, and evaluation, the five phases that characterize the constructivist classroom (see Bybee, 2003; Robertson, 2022). In terms of *engagement*, they utilized more real-world events as hooks to pursue conceptual understandings and content of the lessons, were more involved in the learning process (asked relevant questions more often than the TC group,

were personally interested in the topic of the lesson, gave answers when not asked by name, offered help to other students). E.g., students in the FC expressed the following: "I'm gonna like it (the video lesson)!" (Participant 1); "There are more videos on YouTube. I watched them as well" (Participant 6); "Next year I would like more projects like this".

As for *exploration*, the FC group were more eager to interact in class to research the topics and expressed enthusiasm about using videos to convey theoretical material. E.g., "I liked the video about animals. We could make a project where we would have to make a video" (Participant 12).

Explanation entails that students often had questions about the videos they had watched before the lesson and were better at integrating readings, videos, and other relevant resources. E.g., one participant said: "It's good that we discuss the videos in class because I didn't really understand the difference between must and have to in the video" (Participant 15); "At home I can watch it (the grammar video presentation) again and again" (Participant 10).

In terms of *elaboration*, this group was more capable of making connections within the topics with greater depth and specificity, they often expressed their opinions about the implementation of the practical part of projects (that is, what tasks should be done, what tasks would be most useful, what tasks to start with). E.g., "I'd like a task that goes with the video. I wrote a story instead of sentences" (Participant 10); "I didn't watch it at home, but I watched it before lesson [sic] twice. It's better to watch before the lesson, this way I learn better" (Participant 1).

And as for *evaluation*, this group was better at self-scrutiny and self and task assessments, they related the lesson material to their own experiences and agreed that classroom learning and the availability of theoretical material at home was an effective combination. E.g., "Grammar is boring! Videos about grammar are OK" (Participant 11); "I like these video lessons. I started doing homework!" (Participant 2); "It's good... we don't waste time in class on theory. We can do other more interesting things" (Participant 12); "Next year I would like more projects like this" (Participant 9); "I liked it! Can we do it next year?" (Participant 7).

To sum up, the students in the FC group benefited from the flipped classroom method. This approach had a positive impact on the students' EFL learning performance as reflected in their marks and enhanced the learners' higher-order skills that enabled them to scrutinize ideas critically to match them with their existing realities.

5. Discussion

Flipped classroom envisions that that "which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class" (Bergmann & Sams, 2012, p. 13). It is a learner-centered method which delivers content through multimedia resources or other materials outside the class, frees teachers and students for dynamic activities in the classroom, and creates

a learning environment where learners interact with the material as well as with each other to construct meaning.

The present study found that the flipped classroom approach leads to more favorable EFL learning outcomes than the traditional classroom as the experimental FC group obtained significantly higher marks on five out of nine topics covered throughout the semester and, importantly, on the final mark for the marking period. In addition, the FC group employed markedly more sophisticated vocabulary and sentence structure and made fewer mistakes. The results obtained from participant observations also revealed that the FC group exhibited more engagement, exploration, explanation, elaboration, and evaluation, the five phases that align with the constructivist flipped classroom approach.

The results of our study are in line with findings from other previous research (Kırmızı & Kömeç, 2019; Basal, 2015; Mehring, 2016; Alsowat, 2016; Obari & Lambacher, 2015; Zhang et al., 2016). Kırmızı & Kömeç (2019) measured the effect of the flipped classroom on vocabulary learning in terms of both receptive and productive vocabulary in the 10th grade and found that students who received flipped instruction performed significantly better in tests on receptive and productive vocabulary knowledge and generally had more positive attitudes towards the learning environment than students who received traditional instruction. Furthermore, the FC group thought class activities consolidated their learning and led to long-lasting vocabulary retention. Given that traditional methods of teaching vocabulary develop mostly the receptive vocabulary knowledge, recent approaches favor more active involvement with words to also improve students' productive vocabulary knowledge. Rather than simply giving them word lists to memorize, we had better involve them in vocabulary learning in a more autonomous and dynamic mode. Zhang et al. (2016) found that in the flipped classroom students in college learn more words by themselves, devote more time to language output and improve their sense of learning achievements. This contrasts with the traditional teaching method, which is often boring, allows little interaction between teachers and students, and arouses less interest of students in learning.

A study by Lin et al. (2019) found that university students who watched more pre-recorded video lectures tended to participate in the synchronous learning activities more actively and obtained a higher semester grade; higher completion of asynchronous learning activities benefited students' understanding of the learning concepts. And most importantly, a study by Alsowat (2016) even found that the flipped model was effective in increasing university students' foreign language higher-order thinking skills (HOTS), namely analyzing, evaluating, and creating, which are known as the three highest levels of Bloom's taxonomy. Indeed, the ultimate objective in classrooms is to use higher-order thinking skills not because they are superior to facts but because higher-order thinking skills encompass lower-order thinking skills (remembering, understanding, and applying). Higher-order thinking skills train students for real-world application outside

the classroom since they involve related problems which contain important facts to solve instead of just a series of facts to memorize (Conklin, 2012).

It could be that the FC method is beneficial for language teaching because it encourages the learner to construct their own word worlds. This way, the constructivist flipped classroom enhances important 21st-century skills for learners including creativity, innovation, comprehension, content acquisition, and problem-solving, each of which have been linked to increased academic performance by students (Wang et al., 2019).

Granted that previous studies converge on the efficacy of the FC method in student achievement, engagement, and satisfaction, this method also has challenges related to difficulties students experience in adjusting to active learning (Kırmızı & Kömeç, 2019). Besides, most students lack the motivation and resources needed to learn autonomously. Yet another aspect that stands out is teacher training for the implementation of FC in the classroom. Therefore, several studies (Karapetian, 2020; Moreno & Malovrh, 2020; Ponce, Oliva, & Claudio, 2022) conclude that there is a need to provide training courses and specific support materials, such as tutorials, to teachers in schools and universities. Moreover, Ginting (2018) urges training for the creation of personalized material by teachers suggesting that teaching videos should be developed by the teachers themselves and not taken from the Internet so that the students could better adjust to the FC approach. In this sense, it would be a prospective line of research to investigate to what extent the characteristics of the instructors would affect the type of practice carried out in the classroom (Ponce, Oliva, & Claudio, 2022; Moreno & Malovrh, 2020).

A conclusion that emerges is that the flipped classroom model can be more advantageous for teaching English than traditional methods by maximizing the support provided for students, freeing up class time for the development of higher-order thinking skills during in-class activities, and helping to shift the instructor's role from teaching to training of students. Using the Internet and technological devices fill a large part of teenagers' lives, so it seems only natural that they benefit from the FC method. Besides, weak students lacking interest in learning a language in traditional contexts are more motivated when they are involved in authentic situations. Last but not least, educating students to become autonomous learners prepares them for real life tasks ahead. Since the FC has not been adequately integrated into the school and home culture, it is important that both teachers and school administrators work together to raise the awareness of the school community of the benefits of FC.

The results of the present study should be treated with some caution as it is not without limitations. First, our experimental study only includes two groups of EFL students (N = 30), a small sample which might not reflect the real picture. Yet the fact that there were statistically significant differences between such small groups is indicative of the impact of FC on student performance. Second, the data may have been susceptible to socially desirable responding as the students knew they were taking part in the experiment and might have wanted to comply with their

teacher's interventions. Finally, one more limitation stems from the study's cross-sectional design, which did not allow us to follow up on the performance of study participants, though the latter limitation was outweighed by the experimental design of the study, which is the only method that allows to establish causation, not merely association.

We suggest there is a need for replication research to generalize and validate the results beyond the context of this study. It would be advisable to extend our exploration to other grades and schools in other geographical areas, thus increasing the diversity and size of the sample. Future studies might also investigate other possible influences on the effectiveness of the FC method (e.g., some relevant personality dispositions, parenting and peer influences, relevant life events, etc.). Furthermore, it is essential to investigate students' attitudes and expectations towards the FC method to understand how they can be helped to work with this methodology (Soltanpour & Valizadeh, 2018; Ponce, Oliva, & Claudio, 2022). In this sense, the most applicable study design would be longitudinal, covering three or four semesters beyond the implementation of a didactic experiment as was the case in our study.

6. Conclusions

The results of our experiment suggest that the flipped classroom approach has a positive impact on 6th graders' EFL learning performance. Our study has found significant differences in student performance across six out of ten study variables: the students in the flipped class (the experimental group) outperformed the students in the traditional class (the control group) on such topics as *Nature*, *Modal Verbs*, and *Holidays,* on the projects *My Dream Job* and *Let's Travel* and, most importantly, on the aggregate variable, the final mark. The FC group also exhibited more engagement, exploration, explanation, elaboration, and evaluation, the major components of the constructivist classroom. The group used markedly more sophisticated vocabulary and sentence structures, made fewer grammar mistakes, were more eager to interact in class, utilized more real-world events, asked more relevant questions, were better at self-scrutiny and self and task assessments, etc. This could be because the FC model frees up class time for the development of higher-order thinking skills, helps fill a large part of teenagers' lives, and helps them become autonomous learners.

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Appendix 1

Sample Tasks on EFL Course Topics from *Gateway A2 Student's Book* (Spencer, 2016)

I. WRITING AN INFORMAL EMAIL GIVING NEWS

Write an email to a friend giving your news (at least 2 pieces of news). Invent information if necessary. Use Natalie's email as a model (Student's Book, page 109, ex. 1) and include expressions from the writing bank (Student's Book, page 109, ex. 3). Write at least 120 words (write the number of words at the end).

II. WRITING A BLOG POST

Write a blog post about a school excursion. Use Beth's blog as a model (Student's Book, page 123, ex. 2).
Organize your text into three paragraphs. Think carefully about the tenses you use and why (Present Simple, Present Continuous, Past Simple, Present Perfect). Use the information in the Writing Bank to help you. Write at least 200 words (write the number of words at the end).

III. PROJECT MY DREAM JOB

Prepare a presentation (a poster or PowerPoint slide presentation) about your dream job. Use the vocabulary you learned in Unit 8 and the outline below.

Presentation outline

1. Short description of a job. What do people actually do in this job? Where do they work?
2. Qualifications. What school/university do you have to finish in order to do this job?
3. What personal traits are necessary for this job?
4. Do you know any people who do this job? Famous people in this profession.
5. Interesting/fun facts about the job.

IV. PROJECT MY FAVOURITE ANIMAL

Working in pairs or individually prepare a presentation (a poster or PowerPoint slide presentation) about your favourite animal. If it is your pet, you can bring it to the classroom. Use the vocabulary you learned in Unit 9 and the outline below.

Presentation outline

1. NAME.
2. DESCRIPTION ACCORDING TO SCIENTIFIC CLASSICIFICATION (wild, domestic, carnivorous, herbivorous, mammal, reptile, bird, insect, predator, etc.).
3. APPEARANCE (size, height, weight, colour, number of legs, etc., special features.
4. NATURAL HABITAT (Where does it live in nature? Where does it come from if it is domesticated?)
5. DIET (What does it eat? What is its favourite food?)
   REPRODUCTION (How does it have young? What are they called? How often? How many?)
6. INTERESTING/FUNNY INFORMATION.

Appendix 2

FLIPPED CLASSROOM SAMPLE TASKS

I. Top 10 MOST VISITED Countries in the World for 2023

A. Watch the video as many times as necessary and complete the table.
https://www.youtube.com/watch?v=LuDaFfvMSQw

COUNTRY	INTERNATIONAL VISITORS (MILLIONS)	COUNTRY	INTERNATIONAL VISITORS (MILLIONS)
1. SPAIN		6. FRANCE	
2. THAILAND		7. ITALY	
3. MEXICO		8. MALAYSIA	
4. CHINA		9. GERMANY	
5. THE USA		10. TURKEY	

B. Prepare to answer the following questions:

1. What other facts apart from the number of visitors are presented about each country?

2. Which country would you like to visit and why?

II. THE USE OF MUST, MUSTN'T, HAVE TO, NOT HAVE TO

Watch the video and complete the sentences below so that they were true for you.
https://www.youtube.com/watch?v=AA4Zvs-xSEE

1. I must
   _____.
2. I have to
   _____.
3. I mustn't
   _____.
4. I don't have to
   _____.

III. THE USE OF SHOULD and SHOULDN'T

Watch the video and write advice for each situation below using *should* and *shouldn't.*
https://www.youtube.com/watch?v=-N9te6dUqjw

Example:

I've got a bad mark on my English grammar test.
Your answer:
You should revise before a test next time.

1. I would like to buy a new phone, but I don't have money.
   _____
2. I am hungry.
   _____
3. Help! I'm bored!
   _____
4. These jeans are too short for me.
   _____
5. Tom is a bit overweight.
   _____