

Exploring the Integration of the Flipped Classroom in Linguistics
An experimental Study on Third year EFL Students at instruction
yahia Fares University of Médéa

اختبار تطبيق أسلوب الصف المقلوب لتدريس اللسانيات

لطلبة السنة الثالثة ليسانس إنجليزية بجامعة المدية

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Abstract:

In recent years, researchers have paid increasing attention to flipped learning. As a student-based method, flipped learning appears to be a viable alternative to traditional teacher-centered methods. This study is centered on implementing the flipped model to teach linguistics to third-year EFL students at Yahia Fares University of Médéa. It examines the improvements in students' self-learning through an experiment and explores their perception of this model.

The findings show that flipped learning boosted the educational performance of the experimental subjects who expressed positive attitudes towards the flipped method.

Keywords: Experiment, flipped classroom, language learning, learning abilities, linguistics

ملخص:

ظهر أسلوب التعليم بالصف المقلوب في السنوات الأخيرة و لفت انتباه الباحثين بشكل كبير. كوسيلة مبتكرة تركز على الطالب، يبدو الصف المقلوب بديلاً للأساليب التقليدية التي تعتمد أساساً على المعلم. تهدف هذه الدراسة إلى استكشاف تأثير تطبيق الصف المقلوب على طلاب ليسانس لغة إنجليزية كلغة أجنبية في سياق تدريس مقياس اللسانيات. وتركز على فحص فهم الطلاب للمفاهيم اللسانية ومصطلحاتها، وتقييم مدى تحسن التعلم الذاتي لدى الطلاب. بالإضافة إلى ذلك يسعى هذا البحث إلى معرفة انطباعات الطلبة حول هذا النموذج التربوي. تم جمع البيانات من خلال

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اختبارات قبلية وبعدية، أُجريت للمجموعتين التجريبية والضابطة ، واستبيان إلكتروني أُجري على المجموعة التجريبية لمعرفة انطباعاتهم نحو النموذج المقلوب.

توضح نتائج هذه الدراسة أن التعلم المقلوب له تأثير إيجابي بشكل كبير على تطوير قدرات التعلم للمشاركين في التجربة، وتعزيز فهمهم للمفاهيم والمصطلحات اللسانية. علاوة على ذلك، أعرب معظم المشاركين في التجربة عن انطباعات إيجابية اتجاه الصف المقلوب. كلمات مفتاحية: تجربة، الصف المقلوب، تعلم اللغات، التعلم الذاتي، اللسانيات.

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1. Introduction

Advancements in technology and communication tools have significantly influenced various aspects of modern life, particularly in education. Technology not only offers new educational opportunities but also enhances both learning and teaching processes. Due to specific circumstances, there has been a shift towards e-learning and a blended approach that combines traditional face-to-face methods with online learning environments. The goal has been to create immersive learning experiences, foster strong faculty-student relationships, and promote the development of critical thinking skills. In Algeria, the COVID-19 pandemic compelled higher education institutions to transition from in-person instruction to hybrid education. This shift required teachers to upload lectures, videos, activities, and homework on the Moodle educational platform. Students could ask questions and engage in discussions about the lectures through the platform's discussion rooms. Additionally, teachers were able to deliver their lectures directly via Zoom and Google Meet, although students occasionally encountered difficulties related to internet connectivity and communication devices.

To make teaching and learning linguistics successful and more interactive, the researcher adopted the flipped classroom model as a method that meets students' needs and encourages them to be involved in the learning process. The flipped classroom refers to the act of reversing the traditional course instruction, wherein lecture courses are delivered remotely (Bergmann and Sams, 2012). Students access these lectures beforehand,

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using digital platforms in preparation for the on-site classroom session. The flipped model has experienced a surge in popularity as it proved its effectiveness in increasing students' higher-order thinking skills (Purwanto, 2020, p. 3). It contributes to making learners take their learning responsibilities far from the teacher's direct instruction. The flipped model allows for a flexible learning environment (Walton, A. and Christiansen, M.S., 2022); students can access learning materials in their own space and at any time.

Teaching linguistics presents several challenges due to the complex topics, abstract concepts, and specialized terminology involved. These factors create a need for an effective teaching approach. This study examined how the flipped classroom model could transform linguistics education in higher education by enhancing student engagement and promoting independent learning practices. A survey was conducted to gather insights into EFL students' perception of the integration of the Flipped model in learning linguistics and their attitude toward the learning experience.

To achieve the aforementioned study objectives, the research inquiry focused on the following research questions:

1. How effective is the implementation of the flipped model in higher education (L3) in teaching linguistics?
2. Does the flipped classroom model contribute to enhancing self-learning among EFL students in the field of linguistics?
3. How do students perceive the implementation of the flipped classroom to learn linguistics?

Based on the research questions stated above, we hypothesize that the implementation of the flipped model in higher education will improve the student's comprehension of linguistic concepts and terms compared to traditional methods and that they will have a positive perception of the flipped model. We aim to provide evidence based on experiments regarding the potential benefits of the flipped model for teaching linguistics in higher education. Hence, the significance of this study lies in the examination of the flipped model of teaching and learning, which has previously been studied

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across various disciplines within education and language skills. They have previously conducted surveys and experiments exploring its impact on critical areas such as reading, listening, writing, translation, and beyond. This study sheds light on the comprehension of linguistics that has not been approached.

2. Literature Review

The flipped classroom, also known as reversed instruction, inverted classroom, or the 24/7 classroom (Bergmann and Sams, 2012, p. 7), is an educational model that reverses the traditional elements of a course. In this model, "what was traditionally done in class is now done at home, and what is traditionally accomplished as homework is now completed in class" (Bergmann and Sams, 2012, p. 13) (Mararo et al, 2015, p. 2). In the flipped classroom, which is a form of blended learning, students deal with lesson material before the in-class session. They may review written materials, watch videos including pre-recorded lectures, or read articles and book chapters related to the topic (Bergmann and Sams, 2012). Consequently, class time is dedicated to discussions and activities, such as problem-solving tasks and collaborative group work (Tucker, 2012); (Aydin and Demirel, 2022). This approach allows students to enhance their understanding and develop critical thinking skills. In this model, the teacher's role shifts from disseminating information to acting as a facilitator. Rather than simply presenting the material, the teacher encourages students to learn through hands-on activities and focuses class time on face-to-face discussions and interactions regarding the content (Bergmann and Sams, 2012, p. 14).

Various studies were carried out to examine the effect of the flipped model on different variables. One of the earliest advocates, Bergmann and Sams (2012), wrote "Flip Your Classroom" to share their experiences implementing this model with their students. They encouraged teachers to adopt the flipped classroom approach, noting that it promoted active learning. Their findings indicated that students were actively engaged in a variety of activities using different digital devices, collaborating, and interacting with their teacher (Bergmann and Sams, 2012, p. 21); (Sparks, 2013). Further empirical research has reported significant improvements in student learning

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resulting from the implementation of flipped learning. Flynn (2015) noted a statistically significant increase in students' grades, along with decreases in withdrawal and failure rates. Namaziandost et al (2019) found that the flipped model enhanced the listening comprehension of English as a Foreign Language (EFL) students, who benefited from discussions, activities, problem-solving tasks, and group work. Additional studies have indicated that the flipped classroom contributes to the development of students' language skills (KAYA, 2021) and has the potential to benefit diverse learners due to its student-centered approach (Purwanto, 2020). The flipped model has also positively influenced the reading abilities of students. Moreover, students have expressed positive perceptions of using flipped learning to enhance their language skills (SEBBAH, 2019); (Hsieh et al, 2016). Some studies have reported that flipped learning improves students' self-learning abilities, practical skills, and innovation awareness (Yan-ping, L., & Zhong-ying, Y., 2018). Furthermore, the flipped classroom has demonstrated enhancements in students' higher-order thinking skills (Mas'ud and Surjono, 2018), (Hung, 2015) and (Baepler et al, 2014).

3. Methods

The study applied a mixed-method approach that included an experiment and a survey. The experiment was conducted in the second semester of the 2022-2023 academic year at Yahia Fares University of Medea, within the Department of Foreign Languages, English Section. In this research, flipped learning was implemented as the independent variable, while the students' test scores served as the dependent variable.

The experiment focused on third-year degree students, involving a total population of 120 students. Of these, 96 students, who were taught by the researcher, were selected as the sample and divided into two groups. The experimental group consisted of 46 subjects, while the control group in this experiment included 50 subjects. The assignment of students to these groups was carried out randomly by the administration.

The study employed a pre-test and post-test methodology to measure the impact of the target model on students' ability to understand linguistics. Initially, a pre-test was previously administered to both the control and experimental groups to evaluate their comprehension of fundamental

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linguistics concepts, and familiarity with its terminology, and to establish equivalence between the two groups. The pre-test covered various topics, including the field of study, and objectives of linguistics. It comprised multiple-choice questions aimed at defining key concepts, such as Saussure's dichotomies, as well as True/False statements related to important linguistic terms. Upon the completion of the intervention, a post-test was conducted to evaluate the efficacy of the flipped classroom approach. This test focused on students' understanding of psycholinguistics concepts and terms, including first and second-language acquisition theories, speech disorder, teaching style, individual differences, and so on. The post-test featured diverse question formats and was also used to compare the performance of both groups, identifying any significant differences in achievement. To analyze the quantitative data from the tests, Microsoft Excel was used to convert the results into statistical information. Moreover, a survey was conducted with the subjects in the experimental group to collect qualitative data about the students' perceptions regarding the application of the flipped classroom. Such qualitative information gathered through a questionnaire "is often crucial for the interpretation of the quantitative data" (Nunan, 1992, p. 41). It is worth mentioning that the participants were not required to provide their names as part of ethical considerations. The pre-test and the post-test were handed over to another teacher for both correction and validation.

4. Data Collection Procedure

The experiment –as aforementioned- was carried out in the second semester of the academic year 2022-2023. The students of both groups studied the module of linguistics twice a week, a lecture followed by one-hour-and-a-half tutorials.

At the beginning of the semester, during the pre-treatment phase, the subjects under study underwent a pre-test as previously described. Following the pre-test, the control group was instructed according to a traditional method (the students did not receive the courses beforehand. Instead, they attend the lecture and listen to the explanation and the examples provided by the teacher). During the tutorials, they had different activities including individual, pair, and group work, answering questions about the lecture content, comparing, table completion, and so on. However, the experimental subjects were taught according to the flipped model. This lasted 15 weeks and involved online learning outside the classroom and collaborative activities within the classroom setting.

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In the experimental group, participants read PDF lectures posted to them via Google Classroom, which they accessed at home. Occasionally, they also watched videos that explained the upcoming course content. After completing the readings, they filled out a questionnaire designed to assess their understanding of the lecture material. During the course, the subjects received assignments and activities related to each lecture, which were intended to be reviewed during tutorials. These assignments included answering questions and completing tables, among others. In the in-person classes, the teacher focused on clarifying challenging concepts based on the students' responses to the questionnaire (See Appendix 1). Additionally, students engaged in class discussions, exploring various aspects of the course content. Within a group setting, they were asked to analyze short paragraphs, identify key concepts and ideas

In the post-treatment phase, a post-test was conducted on both groups to reveal any difference in their progress. Afterward, the experimental subjects had to fill in an additional questionnaire to know how satisfied they were with the method and whether it was suitable for their learning.

5. Results and Analysis

In this section, a detailed analysis was performed using data collected from both pre- and post-tests. The primary aim was to examine the data closely, offering insights into the participants' progress over the study period. The results from both the experimental and control groups were compared to assess the impact of the flipped classroom model on students' learning outcomes.

In addition, the responses from the questionnaire were analyzed to gather qualitative data that highlighted the attitudes and experiences of the students regarding flipped learning. This qualitative analysis provided a deeper understanding of how students perceived the effectiveness of the flipped classroom approach, as well as any challenges they encountered during the learning process. The combination of quantitative and qualitative data enabled a comprehensive overview of the study, ensuring a deep examination of the flipped model in teaching linguistics.

5.1. Students' Scores in Pre-Post-Tests in Both Groups

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The results of both groups in both tests are summarized in the following table.

Table 1. Comparing Pre- and Post-test mean results and Development in Both Groups (based on the frequency distribution)

Scores /Groups	Number of participants	Pre-test Mean	Post-test Mean	pre-test scores $\leq$ 10	Post-test scores $\leq$ 10
Control group	50	9,36	10,32	25	36
Experimental group	46	9,13	12,30	20	36

(**N.B:** The way the means were calculated is explained in the next subtitle)

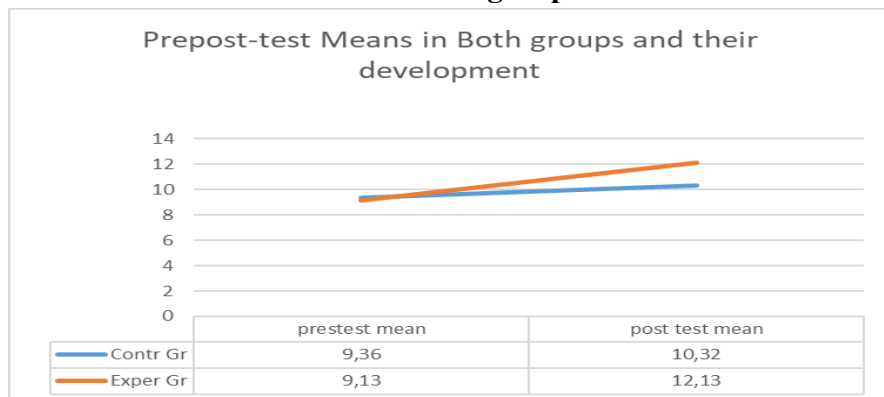
Table 1 presents pre- and post-test results for both groups. In the control group, the mean score increased from 9.36 to 10.32 showing a slight difference of 0.96 while the mean of the experimental group in the pre-test which was 9.13 shifted to 12.30 in the post-test, with an increase of 3.17, which is a significant improvement. In addition, subjects who obtained an average mark or more in the control group were 25 and improved to 36 in the post-test, with a percentage of 22%. As the experimental group is concerned, only 20 students had the average mark in the pre-test, which reached 36 with an advancement rate of 35.2%. Hence, the difference between both groups' results is considerable in the post-tests; the experimental group showed evident mean progress of 12.30 compared to the control group, which got 10.32. The graph below displays the contrast between the improvements in scores (means) of both groups. (See Fig 01)

Fig. 1. Comparing mean score development of experimental and control

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groups.



5.2 Frequency Distribution of Subjects' Scores

Owing to the large number of the sample (including 50 and 46 individuals, the table will be too long), and so that the collected data could be organized and understood easily and properly, the researcher opted to use the frequency distribution as a tool to reorganize the scores in a summarized table.

5.2.1 Frequency Distribution of the Experimental Group's Post-test Scores

The following table shows the distribution of the obtained scores by the subjects of the experimental group, their frequencies as well as the mean. In addition, the table shows the step-by-step process of finding the data which will be used later to determine the standard deviation of the research data points.

Table 2. Frequency Distribution of the Post-test Scores in the Experimental Group

Class Limit	Frequency (F)	Mid-point (x)	F*X	Mean ($\bar{x}$)	$X - \bar{x}$	$(X - \bar{x})^2$	F ($x - \bar{x})^2$
7-9	9	8	72	12,3	-4,3	18,49	166,41
9-11	6	10	60	12,3	-2,3	5,29	31,74
11-13	10	12	120	12,3	-0,3	0,09	0,9
13-15	12	14	168	12,3	1,7	2,89	34,68

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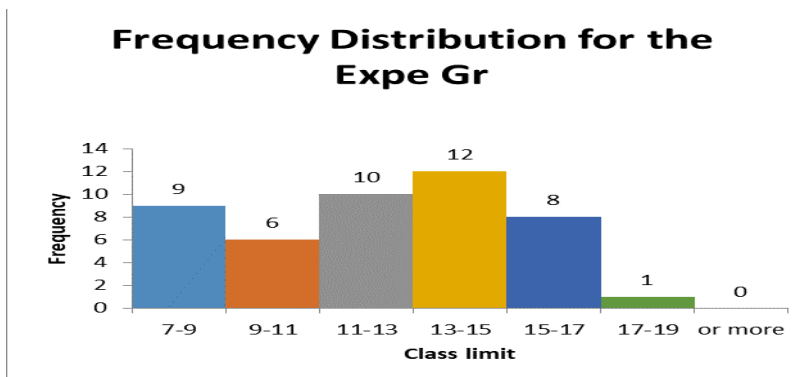
15-17	8	16	128	12,3	3,7	13,69	109,52
17-19	1	18	18	12,3	5,7	32,49	32,49
	46		566				375,74

The table shows that the scores from the post-test have improved both in quantity and quality, with more students achieving higher marks. Only 9 subjects failed to meet the average score, a significant improvement compared to the 18 subjects that did so in the pre-test.

In terms of specific score ranges, 10 students scored between 11 and 13, while 12 students fell within the range of 13-15. This results in a total of 22 subjects receiving good marks in the post-test, compared to 16 in the pre-test. Additionally, eight subjects in the post-test were classified within the 15-17 range, and one subject achieved an exceptionally high score. In contrast, the pre-test had only 12 subjects with good results and 4 subjects that scored below the minimum of 15-16.

The chart below illustrates the distribution of scores for the experimental group according to the category limits mentioned in the table.

Fig. 2. Post-test Frequency Distribution of the Experimental Group



5.2.2 Frequency Distribution of the Post-test Scores in the Control Group

The following table indicates the way we obtained the frequency distribution of the control group.

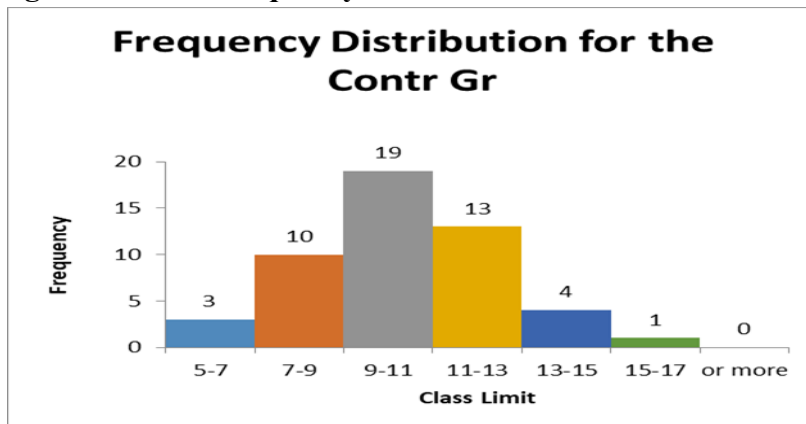
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Table 3. Frequency Distribution Table of the Control Group's Post-test Scores

Class Limit	Frequency (F)	Mid-point (x)	F*X	Mean ($\bar{x}$)	$X - \bar{x}$	$(X - \bar{x})^2$	$f(x - \bar{x})^2$
5-7	3	6	18	10,32	-4,32	18,66	55,98
7-9	10	8	80	10,32	-2,32	5,38	53,82
9-11	19	10	190	10,32	-0,32	0,10	1,94
11-13	13	12	156	10,32	1,68	2,82	36,69
13-15	4	14	56	10,32	3,68	13,54	54,16
15-17	1	16	16	10,32	5,68	32,26	32,26

In the post-test, the subjects in the control group showed slight improvement. According to Table 3, three subjects scored between 5 and 7, which are considered very low grades. Additionally, 10 students scored below the average mark. Furthermore, 32 students obtained scores between 10 and 13, compared to only 20 in the pre-test. Only four individuals achieved good scores, and one of them had a high score ranging from 15 to 17. The following chart is a representation of the score distribution of the control group:

Fig. 3. Post-test Frequency Distribution of the Control Group



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The outcomes of both groups have been previously summarized and described through the mean values of both groups. The mean was calculated based on the data in the table 2 as follows:

Table 4. Calculating the Means of Pre- and Post-test Means of Both Groups

	Mean equation	Pre-test mean	Post-test mean
Experimental group	$\bar{x} = \frac{\sum fx}{\sum f}$	$\bar{x} = \frac{420}{46}$ $= 9,13$	$\bar{x} = \frac{566}{46}$ $= 12.30$
Control group	$\bar{x} = \frac{\sum fx}{\sum f}$	$\bar{x} = \frac{468}{50}$ $= 9.36$	$\bar{x} = \frac{516}{50}$ $= 10.32$

To know the degree of dispersion of the scores in comparison to the mean, the variance and the standard deviation in the pre-and post-tests are calculated for both groups as follows:

Table 5. Calculating the Variance and the Standard Deviation of Both Groups

	Equation	variance (V)	Standard Deviation (σ)
Experimental group	$v = \frac{\sum f(x - \bar{x})^2}{\sum f - 1}$ $\sigma = \sqrt{v}$	$v = \frac{375.74}{46 - 1}$ $v = 8,34$	$\sigma = \sqrt{8.34}$ $\sigma = 2,85$
Control group		$v = \frac{234.88}{50 - 1}$ $V = 4,79$	$\sigma = \sqrt{4.79}$ $\sigma = 2,18$

The variability in both groups is relatively low, with a mean of 2.85 for the experimental group and 2.18 for the control group. This indicates that

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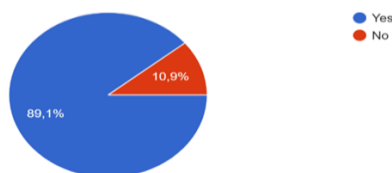
individual results in both groups are close to their respective means, suggesting less dispersion in the data. However, it is important to note that the standard deviation for the experimental group is slightly higher than that of the control group, which implies that scores in the experimental group may show more variability compared to those in the control group.

5.3 Analysis of the Students' Questionnaire

Responses were collected via Google Forms, and the data obtained were analyzed to explore the subjects' reception of the flipped model in the context of learning linguistics. To assess the experimental subjects' perceptions of the course content in advance, they were asked if they preferred to review it at home and discuss it in the classroom. A significant majority of students (89.1%) expressed a high level of satisfaction, while a smaller percentage (10.9%) indicated dissatisfaction with this approach. (See Figure 04.)

Fig. 4. Students' Reception of the Flipped Method

Did you like to have the course content at home and discuss it in classroom?
46 réponses



After watching the video and trying to understand it without the teacher's explanation as preparation for in-class sessions, 26.1% of students found it challenging to comprehend the lecture content. In contrast, 32.6% reported no difficulties, while 41.3% stated that any difficulty they experienced was only at the beginning when they first started using the flipped classroom model. (See Fig. 5)

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**Fig. 5. Students' perception of the course content beforehand:
Comprehension and challenges**

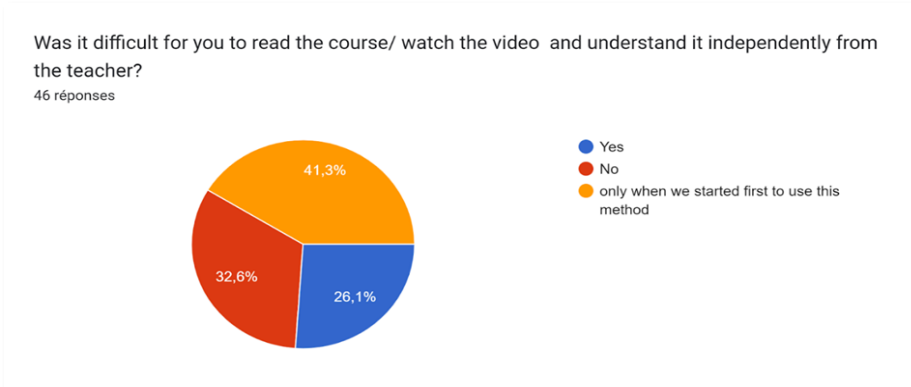
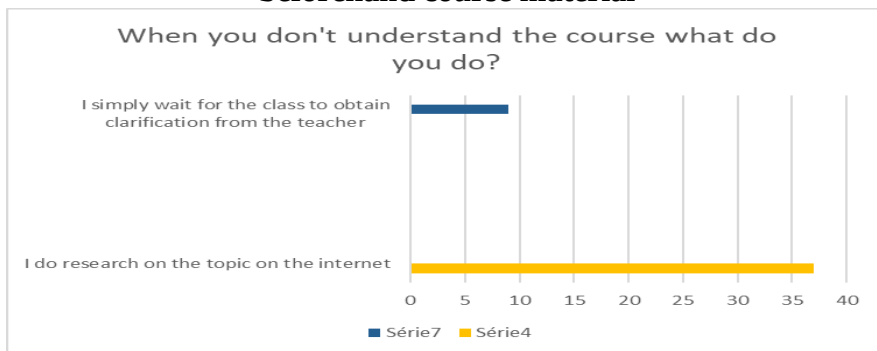


Figure 06 illustrates the actions taken by students when they encountered difficulties in understanding the course material. A significant majority of respondents (80%) sought additional information by researching the topic independently in an effort to grasp the challenging aspects. In contrast, only 20% chose to remain passive and waited for the in-class sessions to receive explanations and clarifications from the instructor.

**Fig. 6. Students' responses to challenges in understanding the
beforehand course material**

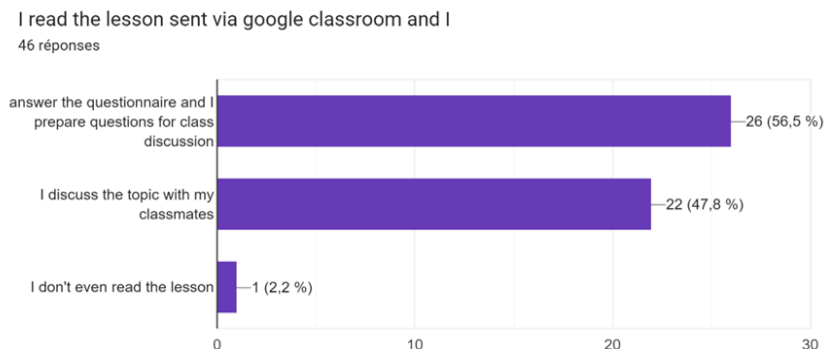


In order to know how students are involved and interested in the course material posted via Google Classroom and thus the effect of the flipped model on the participants, the question in Figure 7 was asked. As displayed in the figure, 56.5% of the participants read the course content, tried to understand it in an effort to fill in the questionnaire, and prepared questions for class discussion. Moreover, (47.8%) of the participants, which is an important rate, engaged in student-student discussions related to the topic of the lecture during the pre-class session.

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Fig.7. Students' actions after discovering the course content



The last question of the questionnaire was open-ended; it focused on the students' evaluation of the experience and their attitudes towards the flipped model. Most of the students showed contentment with the flipped model for learning linguistics. They affirmed its effectiveness in understanding the course contents. In addition, it allows them to engage with the course and its related activities without being restricted to a time limit. Their feedback displayed awareness of the method's positive effect on their learning process during the pre-learning phase and the in-class discussion. Students also realized the benefits of collaborative work when working in groups, which proved helpful in handling problem-solving activities. Here are some of their statements:

“I liked this way it helps a lot to understand the lessons and it makes us search for the information which helped to improve our skills”

“First when I read the course on Google Classroom and since I have no background, I found it a bit difficult. Then, it became easier, especially after answering the questionnaire, and then more evident when the teacher provided us with more clarifications, explanations, and examples in the classroom”

“I like when the teacher gives us the course before coming to class; To have an idea, simplify the difficult words, and prepare questions for the face-to-face sessions.”

“I prefer to discover the lecture content before coming to class and sometimes I summarize it and prepare the course to participate in class discussions”.

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“It helps us study more at home and take our time to understand the lecture, I can replay the video many times. It's more practical, I took benefit from the flipped method to develop my thinking skills”

“For me, the flipped classroom is better than the traditional one since it has been efficient for us this year for the linguistics module, we all know linguistics requires good comprehension and concentration, so I had the opportunity to search for other sources to understand the lesson. In addition, I was able to participate in class discussions about different points of the lecture. I liked to work within groups; it helps each other, discuss the task in the tutorials, and make better presentations.”

On the other hand, a few students expressed their dissatisfaction with the flipped model. They rather preferred the traditional method, citing that the flipped model for them requires more effort, self-reliance, and consumes their personal time at home. Here are excerpts from their declarations:

“I prefer to listen to the teacher explaining the lecture content, linguistics is difficult and requires the intervention of the teacher and many examples, it is not easy for me to deal with its theories and concepts alone”

“I like having the course content before coming to the classroom. It is good to have an idea about it and be able to follow up with the teacher, but I found it difficult to understand certain linguistic concepts on my own. As students we have to do our homework, prepare presentations, and make summaries for our exams, so, I do not think it will be successful for me, because it requires much time and effort”

“I feel more confident when I see the teacher explaining the lesson, I rely on the information I receive in the classroom; this helps me realize the TD activities and the homework easily”

6. Discussion

The first research question aimed to investigate the potential impact of applying the flipped classroom model on third-year English students. To assess this, pre- and post-tests were conducted. The results from the pre-test showed no significant differences between the experimental group and the control group. However, the post-test results revealed a statistically significant difference in favor of the experimental group, highlighting the positive effects of the flipped classroom approach.

The results showed the effectiveness of the flipped model in enhancing student serious engagement and promoting fruitful participation. Students were able to take control of their learning process at their own pace, while class time was dedicated to discussions. This shift from traditional teaching

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methods to self- learning allowed them to engage with the material in their own environment, leading to a more effective reception of information. Most students reported being actively involved in class discussions about key linguistic concepts. This engagement can be attributed to the prior knowledge they acquired while preparing for lectures, conducting additional research for clarification, and completing homework assignments. Such activities not only helped in deepening their understanding of the content but also fostered the development of self-learning skills. This result is consistent with the study of (Benzert, F.Z and Sarnou, H., 2020), which determined that this model is, largely, beneficial in promoting learners' engagement. The flipped learning approach empowered students, giving them the confidence to participate in meaningful discussions, even when faced with complex linguistic theories. The experiment clearly illustrated a significant advantage of the flipped classroom model: it promoted self-learning and improved comprehension of course material. According to the questionnaires provided alongside each piece of course content or video, most participants were able to answer course-related questions competently, although some faced challenges, particularly at the beginning of the process.

During the in-class sessions, the experimental subjects showed satisfaction concerning group work; they displayed interest in collaborative work while completing their assignments. They demonstrated their ability to interact with each other by collaborating on problem-solving tasks and creating a joint product.

Regarding the third research question, the findings of the questionnaire demonstrated that the majority of students expressed comfort in learning independently within their own space without being restricted to a particular time limit. This method encouraged them to research the course's topic and boosts students' self-confidence and reliance in understanding linguistics which has always been a challenging module requiring the teacher's explanation.

However, not all students were satisfied with the use of the flipped method; this category could not understand the course material without the teacher's instruction. Consequently, they were not able to participate in class discussions and problem-solving activities. Students who had negative attitudes towards the flipped classroom tended to be more field-dependent (they depended more on the teacher and class environment). It was also noted

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that the learning strategy depends a lot on the learner's cognitive style. This may explain why there was more variability in the outcomes of the experimental group compared to the control group. Students' learning style is a wide topic that can not be explained in a few lines but requires further research.

7. Conclusion:

The flipped classroom has increasingly gained popularity and given rise to many empirical studies that examined the impact of this model on students' abilities. This study examined the effect of integrating the flipped classroom as a novel teaching and learning method in Algerian higher education. The objective was to find a suitable method to teach linguistics to graduate EFL students, which has always been challenging for students in general. Both objective and subjective studies were conducted using pre-and post-tests to evaluate the impact of this model on students' self-learning abilities and comprehension of linguistics. Additionally, a Google form was used to administer an electronic questionnaire to explore students' satisfaction with the target method.

The findings were consistent regarding the efficacy of the method in students' comprehension of linguistics and the enhancement of their self-learning. Besides, Students were satisfied with the method, particularly self-paced learning, time control, interaction, and autonomy. However, a small number of students preferred the traditional method attributing their preference to their cognitive style, which does not match with the flipped classroom as a consistent learning strategy for them.

In general, flipped learning yields several pedagogical benefits including allowing students to delve deeper into course material through research and student-student interaction, dedicating class time to discussion, providing more clarifications and feedback, and fostering collaborative work. A future study dealing with the consistency of the flipped model with students' different learning styles may provide valuable insights into the matter.

As any study, the current research has its limitations that need to be acknowledged. One limitation is the duration of the study and the duration and frequency of exposure to the flipped learning model, may not have been long enough to capture its full effects on the learners. Moreover, external factors such as technological issues (internet connection and communicative devices) could have influenced the results.

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University of Médéa

Bibliography List:

- Ayasrah et al. (2023). The effect of using flipped learning on student achievement and measuring their attitudes towards learning through it during the corona pandemic period. *International Journal of Data and Network Science*, 243-254.
- Bergmann and Sams. (2012). *Flip Your Classroom, Reach Every Student in Every Class Every Day*. USA: International Society for Technology in Education.
- Hung, H. T. (2015). Flipping the classroom for English language learners to foster active learning. *Computer Assisted Language Learning*, 28(1), pp. 81-96.
- Kaya, M. F. (2021). Implementing Flipped Classroom Model in Developing Basic Language Arts of the Fourth Grade Students. *Turkish Online Journal of Distance Education-TOJDE*, 22(4), pp. 183- 211.
- Mararo et al. (2015). Flipping For Success: Evaluating the Effectiveness of a Novel Teaching approach in a Graduate level Setting. *BMC Medical Education*, 15(27), pp. 2-10.
- Mattis, K. V. (2015). Flipped classroom versus traditional textbook instruction: Assessing accuracy and mental effort at different levels of mathematical complexity. *Technology, Knowledge and Learning*, 20(2), pp. 231–248.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education Washington*(93), pp. 223–232.
- Purwanto, A. (2020). Flipped Virtual Classroom Learning Model for the Course Study Discourse Analysis in Translation. *Scope Journal of English Language Teaching*, 5(1), pp. 1-7.

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- Sebbah, L. (2019). Impact of the Flipped Learning Model on First Year Algerian EFL Degree Students' Reading Ability: A Blended Learning Approach. *AL-LISĀNIYYĀT*, 25(1), pp. 7-32.
- Sparks, R. J. (2013). Flipping the Classroom: An Empirical Study Examining Student Learning. *Journal of Learning in Higher Education*, 9(2), pp. 65-70.
- Tucker, B. (2012). The flipped classroom: online instruction at home frees class time for learning. *Education*, 12(1), pp. 82-83.
- Walton, A. and Christiansen, M.S. (2022). The Flipped Classroom in ELT: What it is, How it Works, How it is Done. *United Academic Journals*, pp. 18-29.
- Yan-ping, L., and Zhong-ying, Y. (2018). Application of Flipped Classroom in University Physics Experiment. *Advances in Social Science. Education and Humanities Research*(221), 211-213.

Appendices

Appendix 1: Links to questionnaires that test students' comprehension of written courses and their related videos

https://docs.google.com/forms/d/e/1FAIpQLSdKXcplScoOhrXDcU1xdBfC9B_X1YS6TQ9SjsBXWOpfjvAg9Q/viewform?usp=pp_url&authuser=0

https://docs.google.com/forms/d/e/1FAIpQLSch_mBGpthGrw4-9JufJhQQSDSajl07DntMM_Yi1H_6P_tiaA/viewform?usp=pp_url&authuser=0

https://docs.google.com/forms/d/e/1FAIpQLSfIM1oJDz-SF1NjAOPFYJSNvql7_NJji9AaEEf5piHNlyu6OQ/viewform?usp=pp_url&authuser=0

https://docs.google.com/forms/d/e/1FAIpQLSc1Wgv6Z247p4JQhIyVxt-d8Ol6aLil2bSV0RHOZlXKDGuyJw/viewform?usp=pp_url&authuser=0

https://docs.google.com/forms/d/e/1FAIpQLSccOrDKdPXpWjsnUMblvuMtENyVRBdchhjAE0woKEyKBbGDrg/viewform?usp=sf_link&authuser=0

<https://forms.gle/N9b8ZVh2FH41qMZC8?authuser=0>