Examining the influence of a flipped classroom approach on the grammar performance of EFL learners: An empirical investigation

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The purpose of this study was to examine the efficiency of a flipped classroom approach to enhance grammar skills among undergraduate English as a foreign language (EFL) student. The research was conducted at Qassim University in Saudi Arabia, with a sample of 44 participants from the Department of English Language and Translation. The participants were divided into two groups, experimental and control, with each group consisting of 22 students. The experimental group received 12 weeks of instruction using online video lectures and materials for learning English grammar, while the control group received traditional classroom instruction. The experimental group also engaged in activities such as presentations, role plays, and discussions during class time. Data was collected through a pre-test, a post-test, and an attitudinal questionnaire administered to the experimental group at the end of the study. The results of the post-test indicated that the experimental group performed significantly better than the control group ($p < 0.05$). Additionally, the questionnaire results revealed that the students had positive attitudes towards the flipped approach and found it to be engaging and effective. These findings suggest that the flipped classroom approach could be implemented for other language skills and sub-skills to enhance the learning experience of EFL students.

Contribution/ Originality: This research is a novel study that fills a gap in the field of applied linguistics empirical research. It contributes to applied linguistics by providing valuable insights into the effectiveness of flipped learning as a pedagogical method in targeting learners' grammar as a crucial aspect of language acquisition.

1. INTRODUCTION

The question of how to effectively teach a foreign language has long been a topic of interest for researchers and theorists in the field of second language learning (L2). Over the years, numerous methods for teaching English as a second language (ESL) have been developed and studied. Some of these methods have proven to be successful, while others are still being researched and experimented with .

In addition to these advancements in L2 teaching, the concept of the flipped classroom emerged in the 1990s. Originally known as inverted classrooms, this idea was introduced by Bergmann and Sams (2012). They applied this approach to enhance the quality of teaching in chemistry by utilizing video lessons. By recording class lectures and providing learners with online videos to watch and review before class, they discovered that this "flipped" approach allowed students to come to class prepared and with a solid understanding of the material to be covered.

These pre-class activities could be completed collectively, individually, or online, offering students a valuable warm-up before engaging in classroom instruction.

In teaching grammar, the traditional approach involves instructors providing grammar rules and explanations in the classroom. Students then practice these rules through exercises or writing activities. However, this conventional method has often been criticized for its limited effectiveness in helping students truly grasp grammar concepts and apply them (DeLozier & Rhodes, 2017). In recent years, an alternative pedagogical model known as the "flipped classroom" has emerged as a potential solution to address these challenges. Flipped classrooms create a dynamic learning environment by reversing the traditional instructional methods. Rather than teachers delivering content during class, students are assigned instructional materials such as videos or readings to review before attending class. Class time is then dedicated to engaging and interactive activities like discussions, collaborative projects, and problem-solving exercises, which promote a deeper understanding and reinforce the concepts (Awidi & Paynter, 2018).

In order for the flipped classroom model to be successful, it is crucial for learners to have autonomy in their online video studies at home and actively participate in the classroom for effective interaction. While second language learners rely on their own independent learning, foreign language learners often depend heavily on the guidance of their teacher to complete tasks. This idea is consistent with Vygotsky's sociocultural theory (Vygotsky, 1978), which posits that learners can regulate their own learning through meaningful tasks, interactions, and feedback that are within their zone of proximal development (ZPD). Thus, the sociocultural theory supports the implementation of flipped classrooms as it encourages learner involvement in the classroom based on the instructions they have received.

The potential of flipped classrooms in different subjects has been widely acknowledged, but their impact on grammar instruction has not been thoroughly explored. This study seeks to address this gap by investigating how a flipped classroom approach can enhance the teaching and learning of grammar. Additionally, despite the growing popularity of flipped teaching, there is a dearth of research on its application in the field of English as a Foreign Language (EFL), specifically in Saudi Arabia. Driven by the sociocultural theory and recognizing the importance of effective grammar teaching, this research aims to evaluate the efficacy of flipped teaching on Saudi EFL learners' grammatical achievement. The study sets out to answer two primary research questions:

1. To what degree does the implementation of the flipped classroom approach impact EFL learners' grammar performance?
2. What do EFL learners perceive about their experience with the flipped classroom model?

1.1. Statement of the Problem

The current problem revolves around the subpar grammar skills exhibited by Saudi students when learning English as a foreign language (EFL). Despite the efforts made by the Saudi government to enhance English education, undergraduate students consistently graduate with low levels of English proficiency. This issue can be attributed to various factors, such as teaching methods, the role of teachers in EFL classes, curriculum textbooks, and a lack of exposure to authentic language resources.

One notable factor that contributes to this problem is the traditional grammar-translation method (GTM) of teaching, which is widely used in the Saudi EFL context. This approach places a strong emphasis on explicitly instructing students on grammar rules and subsequently having them translate sentences from the second language (L2) to their native language (L1). Consequently, Saudi EFL learners heavily rely on memorization and rote learning methods, which do not effectively facilitate comprehensive learning. In English classes in Saudi Arabia, the teaching style is predominantly teacher-centered, with minimal engagement from the students. Lecturing and following the textbook are the primary approaches used, which means the teacher becomes the sole source of

knowledge. This teacher-led approach ultimately limits student participation and involvement in the learning process.

Alharbi (2015) describes the role of teachers in Saudi Arabia as being overly dominant in the classroom, which consequently restricts student engagement and active participation in the learning process .Moreover, Al-Seghayer (2014) highlights that the mandated curriculum for Saudi EFL learners, including those in tertiary education, greatly contributes to their low proficiency levels. This assertion is further substantiated by the findings of Batra and Nawani (2010), who observe that in Saudi Arabia, as well as in numerous other EFL contexts worldwide, the textbook has unofficially become the central component of the curriculum. Furthermore, the dearth of authentic language resources and limited opportunities for autonomous learning also exacerbate the issue of grammar incompetence among EFL learners. Alharbi (2015) acknowledges the absence of genuine situations for practicing English communication skills outside of the classroom in Saudi Arabia. Moreover, Alrabai (2017) conducted a study on autonomous learning of English in Saudi Arabia and its impact on academic achievement among EFL students. The research findings revealed that Saudi students demonstrate a very low level of autonomy and predominantly rely on non-autonomous learning methods.

Overall, these studies collectively demonstrate that the teacher-centered approach, reliance on textbooks, and lack of authentic learning sources and learner autonomy in Saudi Arabia contribute to the low English and grammar fluency of English students in the country. Based on these factors, it is evident that students' grammar proficiency is not at the level required for their learning. Therefore, it is essential to make necessary modifications to the teaching approach and introduce more effective strategies that promote active student participation in the learning process .In order to address this issue, this study aims to evaluate the effectiveness of the flipped classroom approach as an alternative method to traditional teaching styles for teaching English grammar. Additionally, due to the limited amount of research conducted on the implementation of this approach in the Saudi EFL context, this study makes a valuable contribution to the existing body of knowledge by examining its impact on students' grammar achievement and introducing more innovative teaching strategies.

2. LITERATURE REVIEW

2.1. Theoretical Framework

Recent years have seen a growing interest in the flipped classroom approach in the field of education. According to Cabi (2018), this technique involves reversing the traditional order of instruction and homework. By engaging in pre-class study, learners are actively involved in in-class activities, as highlighted by Hung (2015), In a flipped classroom, teachers provide materials like videos, articles, and presentations before the lesson. They then utilize various communicative tasks, such as group discussions, roleplays, and writing activities, during the actual class time. Students in a flipped classroom are required to prepare their lessons, read, or watch lecture videos prior to attending class, as pointed out by Kurt (2017) (see Figure 1). The underlying idea behind this technique is to promote a more comprehensive understanding of grammar through collaborative and independent language practice.
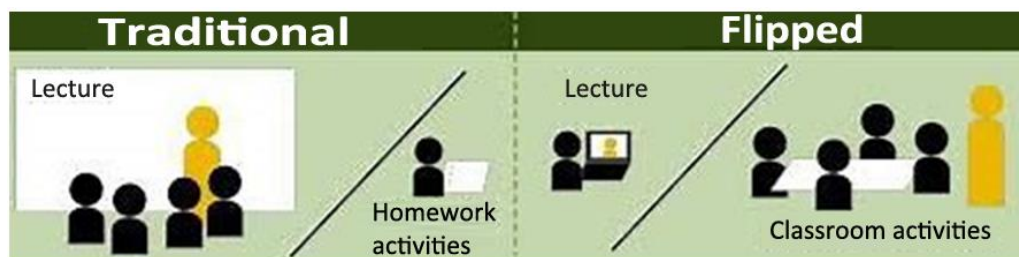

Figure 1. The flipped classroom approach.

Source: Kurt (2017).

The flipped classroom method is rooted in two fundamental theories in second language learning: the zone of proximal development (ZPD) and scaffolding. The concept of ZPD, originally proposed by psychologist Vygotsky (1978), refers to the difference between a learner's current level of development and their potential level of development with the guidance of a knowledgeable adult or peer. In simpler terms, it captures the areas of knowledge that learners have yet to attain but can acquire with the help of an experienced teacher or peer.

When employing the flipped class method, students are provided assistance from a more capable individual to comprehend task objectives and master successful completion strategies. The teacher initially involves the students in a task and gradually reduces the level of support offered, allowing the students to progress independently until they can complete the task unaided. This gradual withdrawal of support enables students to advance at their own pace while honing their skills and expanding their knowledge.

Scaffolding is a relevant theory in the field of second language acquisition (SLA). It was introduced by Bruner (1983) as a metaphor to describe the support provided to learners through interactive assistance in performing a new task. This concept was influenced by Vygotsky (1978) Zone of Proximal Development (ZPD). In the field of education, scaffolding is an instructional strategy where teachers offer support, evaluation, feedback, and gradually reduce assistance to students during their learning activities (Wood, Bruner, & Ross, 1976).

In the context of flipped learning, video lectures can serve as scaffolding techniques used by teachers to simplify and focus on specific content. To achieve this goal, videos should be concise and brief, so as to reduce the amount of information presented to students (Evseeva & Solozhenko, 2015). Another way to implement scaffolding in flipped learning is by guiding the flow of information, allowing students to manage the amount of information they receive when interacting with videos. Additionally, instructors can facilitate the task by reducing the skill or task requirements needed for learners to complete the assigned task (Wood et al., 1976).

2.2. Flipped Classroom in Teaching Grammar

Multiple recent studies have focused on the implementation of flipped classrooms for teaching grammar. Among them, a study conducted by Turan and Akdag-Cimen (2019) explored the impact of Information and Communication Technology (ICT) -aided flipped classrooms on students' grammar proficiency. The findings of this study indicated that the experimental group, which participated in the flipped classroom approach, achieved significantly higher academic success compared to the control group. In a study conducted by Noroozi, Rezvani, and Ameri-Golestan (2020), the impact of flipped classrooms on the development and retention of grammatical knowledge among Iranian L2 learners was explored. The results showed that students who received flipped teaching performed better than those who received traditional grammar instruction. Additionally, the use of the flipped model contributed to significant improvements in their learning and retention of specific grammatical forms.

Likewise, Avery, Huggan, and Preston (2018) conducted action research to assess the effectiveness of using grammar videos in a flipped classroom model to enhance writing skills. The findings demonstrated that students in the experimental group outperformed those in the control group, and the students expressed positive attitudes towards the flipped classroom during interviews. Furthermore, Kang (2015) compared regular and flipped classrooms for Korean university students learning English as a foreign language. The statistical results indicated that the flipped classroom led to statistically significant improvements in both vocabulary and grammar knowledge. Moreover, questionnaire and interview results revealed high satisfaction and helpfulness among students, particularly in terms of in-class activities and instructor roles.

Zainuddin, Haruna, Li, and Zhang (2019) investigated the impact of a flipped classroom on the teaching of English grammar. The findings suggested that the flipped classroom approach was effective in helping students master and apply grammar rules. Similarly, Noroozi, Rezvani, and Ameri-Golestan (2021) examined the perceptions of Iranian EFL learners towards using flipped learning in a grammar class. The results demonstrated that

participants found the flipped learning instruction to be satisfying, interesting, and sufficient. In a study conducted by Berlinda and Wahyudin (2021), the effectiveness of a flipped classroom model on Indonesian EFL learners' grammar achievements and their satisfaction with this learning method was investigated. The findings revealed that this approach successfully overcome the physical limitations between students and lecturers, and the students displayed a positive attitude towards the use of flipped classrooms. Moreover, the implementation of this method was found to be straightforward and it promoted self-directed learning, leading to an improvement in learners' grammar competence.

Similarly, Al-Harbi1 and Alshumaimeri (2016) conducted a study with Saudi EFL secondary school students to examine the impact of the flipped classroom approach on grammar classes and students' attitudes. Analysis of test statistics indicated that adopting this strategy effectively enhanced students' grammar performance, and the students responded positively to the flipped learning approach through questionnaires and interviews. Likewise, Al-Naabi (2020) conducted a quasi-experimental study to test the effects of flipped learning on Omani EFL learners' grammar and to explore students' views on the flipped classroom experience. The findings of this study demonstrated a positive impact on students' understanding and usage of English grammar, and the students expressed favorable perceptions towards this new approach.

In conclusion, the literature review has provided a comprehensive overview of the existing research on the flipped classroom approach and its impact on grammar performance among EFL learners. It is evident that the majority of the studies have reported positive outcomes in terms of improved grammar skills and overall language proficiency. However, there is limited research conducted in the context of EFL university level students in Saudi Arabia, which creates a research gap that this study aims to fill. The findings of the current study will further contribute to the existing body of literature and provide additional evidence of the effectiveness of flipped learning in enhancing grammar performance among EFL learners.

3. METHODOLOGY

3.1. Population, Participants, and Sampling

This study focuses on female students majoring in English at the Department of English Language and Translation at the College of Science and Arts in Methnab, Qassim University, Saudi Arabia, who are considered English as a foreign language (EFL) students. To ensure a representative sample, the cluster sampling method was used. Entire classes or groups were selected as participants. At the start of the semester, all students were given a consent form (Appendix A), and those who agreed to participate were included in the study.

All participants were Saudi students who had Arabic as their native language. They were enrolled in an English program that included compulsory courses in linguistics, translation, and basic language skills: reading, writing, listening, speaking, grammar, and vocabulary building. During the study, some students withdrew, resulting in a decrease in the number of participants. Initially, the experimental group comprised 27 students, but by the end of the experiment, this number had reduced to 22. To maintain equal numbers, homogeneity, and improvement of the validity of the results, some cases were excluded from both groups, and the total number of participants in each group was kept to 22.

3.2. Research Design

The study employed a true experimental research design to examine the relationship between variables. The participants were divided into an experimental group and a control group, with each group consisting of an equal number of participants, (22) each. The experimental group underwent a 12-week intervention where they were taught grammar using the flipped learning approach, while the control group did not receive any treatment.

The comparison of the pre and post-test results can be attributed to the treatment variable. This experimental design is always advantageous as it allows for the manipulation of specific variables while keeping other factors

constant in a controlled environment (Johnson & Christensen, 2016). The independent variable tested in this study was the implementation of the flipped classroom approach in teaching grammar. On the other hand, the dependent variable was the students' proficiency in different grammar rules and their ability to effectively apply these rules in their performance.

3.3. Instruments

This study utilized two research instruments: tests and an attitudinal questionnaire.

3.3.1. Pre-Test and Post-Test

Prior to conducting the experiment, a pre-test was administered to both the experimental group and the control group. The purpose of this pre-test was to evaluate the participants' overall knowledge of grammar and ensure that both groups had similar background knowledge before the experiment commenced. This step was crucial in establishing a baseline for comparison, as Gravetter and Forzano (2012), noted, "If participants are similar prior to treatment but show differences after treatment, the researcher can have increased confidence that the treatment had an effect."

After the experiment concluded, a post-test was conducted on both groups in order to assess the effects of the experiment on the treatment group. The post-test followed the same format as the pre-test and was designed by the researchers, utilizing a multiple-choice (MCQ) format (refer to Appendix B & C for specific examples). Multiple-choice tests have been found to be versatile, valid, reliable, and efficient methods of assessment. Each test consisted of a total of 20 items, with each item having a value of 2 points, resulting in a maximum possible score of 40 points per test. The items in both the pre-test and post-test were categorized into four distinct grammar rules: subject-verb agreement, gerunds and infinitives, clauses, and preposition combinations. This categorization was done to ensure a comprehensive evaluation of the participants' grasp of these specific grammar concepts.

3.3.2. Questionnaire

After the experiment concluded, the researchers administered a questionnaire (Appendix D) the participants in the experimental group. The questionnaire consisted of 18 closed-ended items, using a Likert-scale format. Participants were asked to express their level of agreement or disagreement with statements, ranging from "strongly agree" to "strongly disagree." The objective of the survey was to gather insights into participants' attitudes and opinions concerning the flipped classroom learning experience.

3.4. Procedure

During the second semester of the academic year 2022-2023, the participants were categorized into two groups: the experimental group and the control group. To establish a baseline, both groups were given a pre-test. Subsequently, the experimental group embarked on their grammar instruction utilizing the flipped classroom approach. They were instructed to pre-watch videos and peruse online materials before attending class, with the added note-taking of any concerns or queries to be discussed during the sessions. Conversely, the control group received conventional classroom instruction for grammar. Upon the completion of 12 weeks of learning through the flipped approach, both groups were administered a post-test. Additionally, the participants in the experimental group were required to complete a survey to express their attitudes and opinions regarding this novel learning experience.

3.5. Data Collection and Analysis

The researchers utilized a variety of tools to gather data and address the research questions in this study. These tools included a pre-test, post-test, and a perceptual survey. For data analysis, the Statistical Package for the Social

Sciences (SPSS, version 23) was employed. The raw scores obtained from the tests were entered into SPSS for further examination, with a significance level set at p < .05. Inferential statistics were conducted to derive the final results. Additionally, independent samples t-tests were conducted to compare the means of the pre-test results for both groups, as well as the means of the post-test for both groups. Descriptive statistics and frequency analyses were utilized to determine the means and percentages of the students' responses to the questionnaire items. Figures and tables were also incorporated as necessary to provide visual representation of the data.

3.6. Validity

Validity refers to the degree to which an assessment process accurately measures the variables it intends to measure (Dornyei, 2007). To ensure content validity in this study, the researchers sought expert judgment from three professors who specialized in applied linguistics. The two tests and questionnaire were carefully reviewed and revised based on feedback received from these experts (see Appendix E). Moreover, the researchers addressed the potential threat of attrition on research validity by initially recruiting a larger group of participants (50) and anticipating a decrease in the final number of participants, which ultimately amounted to 44.

3.7. Reliability

The reliability of the test and questionnaire items was assessed using a standard reliability test, specifically Cronbach's alpha (Table 1). The results showed that the instrument had a reliability score of 0.592 for the pretest, which is considered acceptable based on the general evaluation system for Cronbach's alpha statistics.

Table 1. The reliability test results for the pretest.

Reliability statistics	
Cronbach's alpha	N of items
0.592	20

Furthermore, Table 2 presents statistics regarding the reliability of the questionnaire. It shows the number of items in the questionnaire is 18 and the reliability value is provided according to Cronbach's alpha and is calculated to be 0.748. Cronbach's alpha is a measure of internal consistency and determines how closely the items in the questionnaire are interrelated. In this particular case, the reliability value of 0.748 suggests a moderate level of internal consistency, indicating that the questionnaire's items are reasonably reliable.

Table 2. Results of the questionnaire reliability-test.

Reliability statistics	
Cronbach's alpha	N of items
0.748	18

4. DATA ANALYSIS

Research Question 1: To What Extent Does the Flipped Classroom Approach Impact EFL Learners 'Grammar Performance?

This research question explored the effects of the flipped classroom approach on the grammar performance of EFL learners. To this end, a pre-test and post-test were administered to EFL university students. Analysis of the test results revealed that the implementation of the flipped classroom approach led to an improvement in learners' grammar skills.

The results showed that the experimental group had an overall mean score of 23.00 on the pre-test, while the control group had a slightly higher mean score of 23.45. However, the difference between the two groups was not statistically significant, as indicated by the independent samples t-test results (p. < 05), shown in Table 3 and the graph in Figure 2.

Table 3. T-test of pre-test scores.

	T	Df	S.g (2-tailed)
Pre-test	-0.213-	42	0.832

In contrast, the post-test results revealed a notable enhancement in grammar skills among the students in the experimental group. Their overall mean score of 29.73 exceeded that of the control group, which was 23.86 .This disparity was statistically significant with a p-value of less than. 05 (see Table 4 and Figure 2).

Table 4. T-test of post-test scores.

	T	Df	S.g (2-Tailed)
Post-test	2.955	42	0.005
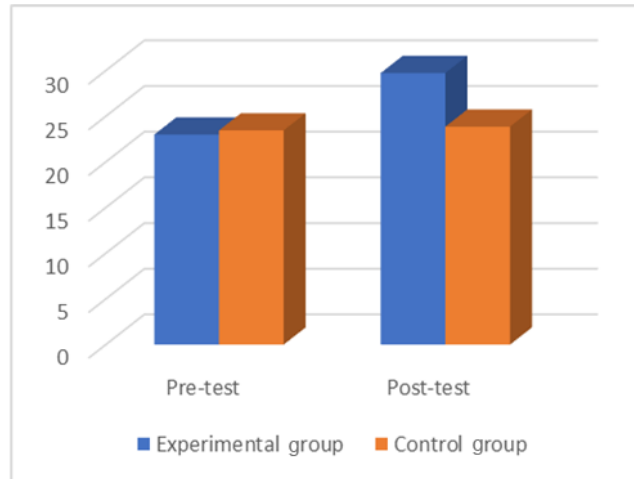
Figure 2. Pre-test and post-test result for both groups.

Research Question 2: What Do EFL Learners Think About the Flipped Classroom Experience?

This question intended to investigate the opinions of the participants in the experimental group regarding the flipped classroom method. The analysis of the attitudinal questionnaire administered to the students at the end of the study revealed a positive overall attitude towards the learning approach.

When examining the students' responses in the experimental group regarding the first statement of the questionnaire, ″ I find learning grammar interesting, ″it was found that 45.5% (n=10) of the participants strongly agreed, 45.5% (n=10) agreed, and 9.1% (n=2) remained neutral (Figure 3).
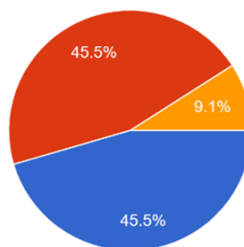
Figure 3. Is learning grammar interesting?

Figure 4 shows the participants' responses when asked if their English grammar had improved after joining the experiment. It is reported that 36.4% of participants strongly agreed (n=8), 54.5% agreed (n=12), and only 9.1% were neutral (n=2).
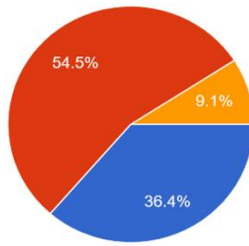
Figure 4. Has your grammar improved after joining the experiment?

Additionally, the graph in Figure 5 illustrates the opinions of the participants regarding the importance of grammar in language. It reveals that 50% (n=11) of respondents strongly agreed with the idea, 36.4% (n=8) agreed , 9.1% (n=2) disagreed ,and 4.5% (n=1) were neutral.
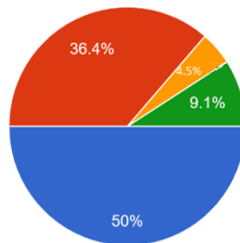

Figure 5. Is grammar central in the language?

Figure 6 shows that when asked about their satisfaction with their current level in grammar, only 13.6% of the students (n=3) strongly agreed, 50% (n=11) agreed, 31.8%) n=7) were neutral, and just 4.5%, (n=1) disagreed.
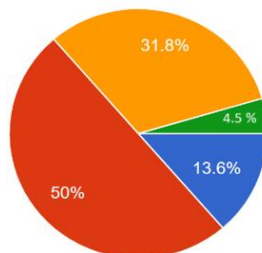
Figure 6. Are you satisfied with your level in grammar?

In Figure 7, it is shown that 31.8% (n=7) of the students strongly agreed, 40.9. % (n=9) agreed, 22.7 % (5) were neutral, and 4.5% (n=1) disagreed when asked if they feel the need to further improve their knowledge of grammar.
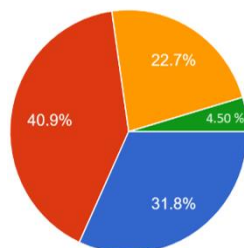

Figure 7. Do you think that you still need to improve your level in grammar?

According to the data depicted in Figure 8, 18. 2 % (n=4) of the participants were strongly in agreement with receiving sufficient instruction upon enrollment in the experiment .Additionally, 50 % (n=11) agreed ,while 31.8% (n=7) remained neutral on this matter.
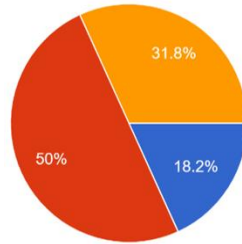
Figure 8. Did you receive sufficient instruction upon your enrolment in the experiment?

According to Figure 9, when asked if their English had improved after joining the new learning experience, 9.1% (n=2) of the participants strongly agreed, 72.7% (n=16) agreed, 13.6% (n=3) were neutral, and 4.5% (n=1) disagreed.
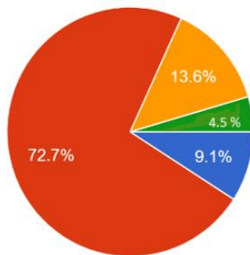

Figure 9. Do you feel that your English has improved after the experiment?

In relation to the inquiry about any progress in their speaking skills after participating in the experiment, 13.6% (n=3) strongly affirmed, 72.7% (n=16) asserted, 9.1% (n=2) remained neutral, whereas 4.5% (n=1) expressed disagreement Figure 10.
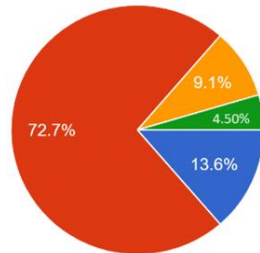

Figure 10. Do you notice any improvement in your speaking after the experiment?

In terms of writing skills, out of a total of 22 participants, 3 individuals (13.6%) strongly agreed that they observed an improvement in their writing after participating in the experiment. 10 participants (45.5%) agreed, 8 participants (36.4%) remained neutral, and only 1 participant (4.1%) strongly disagreed (Figure 11).
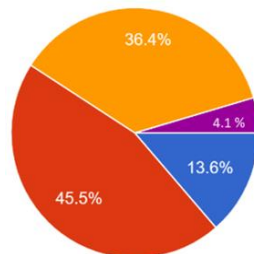

Figure 11. Do you notice any improvement in your writing skills after the experiment?

Figure 12 depicts the responses of students when asked about their perception of learning grammar as fun. Out of the total respondents (n=22), 18.2% (n=4) strongly agreed, 45.5 % (n=10) agreed, 13.6% (n=3) were neutral, 18.2% (n=4) disagreed ,and 4.5% (n=1) strongly disagreed.
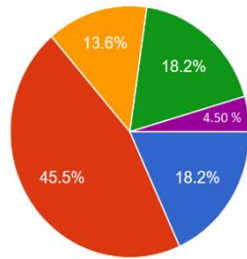
Figure 12. Is learning grammar fun?

According to Figure 13 ,when students were asked about their struggles with grammar rules, 27.3% (n=6) strongly agreed, 45.5% (n=10) agreed, 18.2% (n=4) were neutral, and 9.1% (n=2) disagreed.
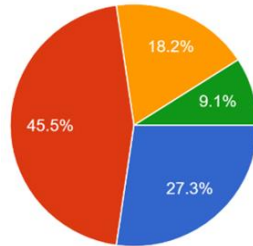

Figure 13. Do you still struggle with grammar?

According to the findings presented in Figure 14, 18.2% (n=4) of respondents strongly agreed that they enjoyed the new experience of learning English grammar .Additionally, 68.2% (n=15) agreed, 9.1% (n=2) were neutral, and 4.5% (n=1) disagreed.
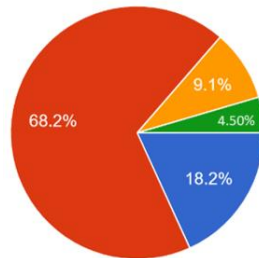

Figure 14. Did you enjoy the experience of learning grammar?

As shown in Figure 15, when students were asked about their perception of learning grammar, a small percentage of students 4.5%, (n=1) strongly agreed that it was intimidating and difficult .However, a majority of students 50%, (n=11) agreed with this sentiment .A smaller portion of students18.2%, (n=4) remained neutral , neither agreeing nor disagreeing.On the other hand, 22.7% (n=5) of students disagreed with the notion that learning grammar was intimidating and difficult ,and a minority of students 4.5%, (n=1) strongly disagreed.
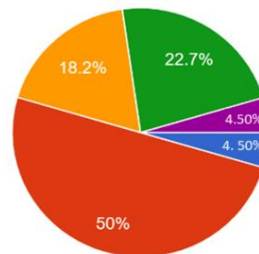

Figure 15. Do you think that grammar is intimidating and difficult?

Figure 16 illustrates the participants' responses to the statement "Learning grammar has improved my thinking skills". Out of the total number of participants (n=22) 18.2% (n=4) strongly agreed. 63.6% (n=14) agreed, 13.6% (n=3) were neutral, and 4.5% (n=1) disagreed.
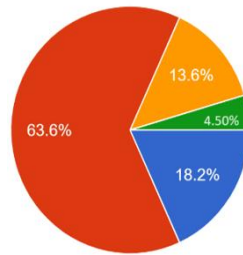

Figure 16. Do you think that learning grammar has improved your cognitive skills?

In Figure 17, the results of questioning students about their preference for student-centered learning approaches versus teacher-centered approaches are shown .Out of the total sample size of (n=22) 13.6% (n=3) strongly agreed, 36.4% (n=8) agreed, 45.5% (n=10) were neutral, and 4.5% (n=1) disagreed.
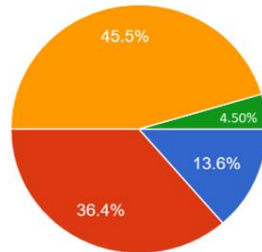

Figure 17. Do you prefer learner-centered approaches?

In addition ,the findings revealed that 9.1% (n=2) of the participants expressed strong agreement that the new teaching experience had a positive impact on their attitude towards learning grammar .Furthermore, 63.6% (n=6) agreed with this statement, while 22.7% (n=7) remained neutral. Only 4.5% (n=1) disagreed with the idea (Figure 18).
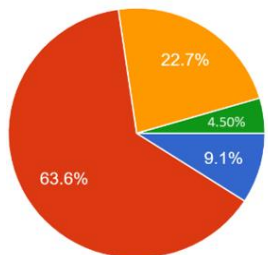

Figure 18. Has the new teaching experience changed your attitudes toward learning grammar?

In Figure 19 ,the following is depicted: 3 participants, accounting for 13.6% of the total, strongly agreed that the new learning experience had enhanced their motivation for further learning. Additionally, 13 participants, making up 59.1% ,agreed with this statement. On the other hand, 4 individuals, constituting 18.2%, remained neutral on the matter. Lastly, 2 participants, equivalent to 9.1%, expressed disagreement.
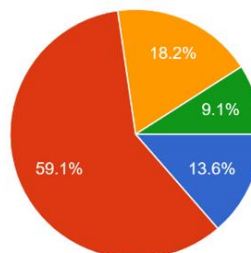

Figure 19. Did you feel more motivated toward learning grammar?

Lastly, it is important to note that in Figure 20, 31.8% (n=7) of the participants expressed a strong agreement regarding the significant benefits they gained from the new learning approach. Furthermore, 59.1% (n=13) agreed with this sentiment, while 9.1% (n=2) remained neutral on the matter.
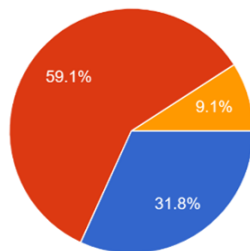

Figure 20. Did you benefit from the new learning approach?

To sum up, the students' reactions to the new learning experience were mostly positive, indicating that the participants found it both engaging and effective.

5. DISCUSSION

The above findings demonstrate that incorporating the flipped classroom approach is an effective method for teaching grammar. This aligns with previous research conducted by Turan and Akdag-Cimen (2019) as well as Noroozi et al. (2020), which consistently showed that implementing the flipped classroom method resulted in significant improvements in EFL learners' grammar skills.

Additionally, the data collected from the attitudinal questionnaire revealed that participants in the experimental group expressed a high level of satisfaction with learning grammar through the flipped method. This finding supports prior studies examining learner perceptions of the flipped classroom approach to teaching grammar, such as those conducted by Noroozi et al. (2021); Berlinda and Wahyudin (2021); Al-Naabi (2020) and Alqasham and Al-Ahdal (2022). These studies consistently found that EFL learners involved in flipped learning experiments hold positive attitudes towards this instructional strategy.

The results from the above study unequivocally demonstrate the positive impact of the reversed classroom on students' grammar achievement. Although the exact extent of this impact and its direct correlation to exam results could not be definitively determined, this research suggests that the increased level of achievement can be attributed to three key factors: pre-class activities such as video watching and handout reading, collaborative tasks during class time, and the teaching process itself.

Additionally, this study lends empirical support to the findings of Bergmann and Sams (2012), who posited that a combination of online and face-to-face instruction fosters an interactive environment that encourages active participation and improves language skills and sub-skills. Furthermore, the study establishes that flipped teaching acts as a mediator between learners and teachers by creating a motivating learning environment. This finding aligns with Vygotsky (1978) sociocultural theory of learning, which underlines the significance of scaffolding in assisting learners in self-regulating their language learning process. The effective feedback provided by teachers in the flipped classroom successfully targets learners' Zone of Proximal Development (ZPD), aiding in the identification and correction of errors with the support of the teacher. Ultimately, flipped instruction empowers EFL learners to manipulate their learning environment and foster increased communication within the classroom, thereby enhancing their grammatical knowledge.

6. CONCLUSION

In conclusion, the current study provides evidence that the implementation of the flipped classroom approach effectively enhances EFL learners' grammar proficiency over a 12-week period. The learners demonstrated noticeable improvements in their grammar skills and expressed positive attitudes towards this new learning

experience, describing it as both efficient and enjoyable. These findings suggest that incorporating interactive activities and granting students a more active role in their learning can yield greater effectiveness compared to traditional teaching methods.

However, it is important to acknowledge the limitations of the study. Firstly, the sample size was relatively small, consisting of only one group of 44 students. This may limit the generalizability of the findings to a broader population of EFL learners. Replicating the study with a more diverse range of group levels or across different educational settings would likely yield more generalizable results. Secondly, the study focused solely on grammar skills and did not specifically assess the students' grammatical skills with regard to writing. Writing is a crucial language skill highly valued by university-level students, and it requires a comprehensive evaluation that measures various sub-skills within writing. Thus, conducting a subsequent study to examine the development of students' grammar in relation to their writing abilities would undoubtedly provide valuable insights.

In light of these limitations, there are several recommendations for future research. First, subsequent studies should explore the application of the flipped classroom approach to other language skills and sub-skills, such as speaking, listening, and writing, as a means to validate and expand upon the current findings. Additionally, it is recommended to replicate this study in similar settings to ensure consistent results and to generalize the findings to a larger population of EFL learners. Moreover, future research could also consider comparing the flipped classroom approach with other innovative teaching methods to identify the most effective and efficient pedagogical approaches for EFL learners. The insights gained from these future studies will contribute to the advancement of language teaching and learning, providing valuable information for educators and curriculum designers.

6.1. Pedagogical Implementations

The current research has several important implications, including:

- Confirming the findings of previous studies and forming common conclusions and generalizations.
- Demonstrating the effectiveness of multimedia, visual, and audio materials as supplements to classroom instruction.
- Validating the usefulness of innovative teaching methods that involve communicative tasks to improve learners' productive skills.
- Emphasizing the importance of learners being actively engaged in foreign language classrooms to enhance their personal and educational development.
- Highlighting the significance of immersing learners in cognitive tasks to promote critical thinking skills such as analysis, problem-solving, and association.
- Showcasing the benefits of learners taking responsibility for their own learning ,which enhances the effectiveness of autonomous learning in foreign language teaching and learning.

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APPENDIX

Appendix A. Informed consent form.

Dear Participant,

You are invited to participate in a research study titled: *"Examining the Influence of a Flipped Classroom Approach on the Grammar Performance of EFL Learners: An Empirical Investigation".* Please note that your participation is completely voluntary, and you are free to withdraw from the study at any time. Also, be assured that your identity will be kept confidential ,and all the information you provide will be treated with the utmost privacy.

The data collected for this study will be used exclusively for research purposes. By agreeing to participate in the experiment, you will receive training on enhancing your English grammar skills through the flipped learning approach.

If you are interested in participating, please kindly provide your name and signature below to indicate your consent.

Thank you for considering our request.
Best regards,
Researchers,
Dr .Shatha Alkhalaf
Dr .Yasmiyan Alolaywi

Consent:
I agree to participate in this study, and I understand that my enrollment is totally voluntary.

Name: ………………………………
Signature: ………………………….
Date: ……………………………….

Appendix B. The pre-test
Choose the correct answer in the statements below:
 I. Subject-Verb Agreement:
 1. I (enjoy- enjoys-enjoying) my English classes.
 2. The book that I got from my parents (was-were- been) very interesting.
 3. Each girl in the sixth-grade class (has-have) to do a science project.
 4. The professor and the students (agree- agrees) on the point.
 5. Every one of the students (is-are) required to take the final test.

II. Gerunds and Infinitives:

1. We enjoy (play- plays- playing) tennis.

2. Joe quit (smoke- smokes -smoking) cigarettes.

3. Sam often forgets (lock- locking- to lock) the door.

4. I am trying (learn- learning- to learn) English well.

5. It is difficult (learning- learn- to learn) a second language.

III. Clauses:

1. He closed the window when it (get- gets- got) windy.

2. Because he was sleepy, he (gone- goes- went) to bed.

3. I will leave before he (come- came-comes).

4. I have (know- known-knows) her since I was a child.

5. He was watching T.V. when his phone (ring- rings-rang).

IV. Preposition Combinations:

1. She is known (about- for- in) creating high-quality toys.

2. She is interested (on- in – at) Mathematics.

3. The materials in her toys are limited (in- to- on) wood.

4. They are dedicated (in- for- to) helping people in times of crisis.

5. It is winter, and the ground is covered (on- in- with) snow.

Appendix C. The post-test.

Choose the correct answer in the statements below:

V.   Subject-Verb Agreement:

6. Friends (is – are- am) important.

7. That book on part design (is – am – are) interesting.

8. Why (was-were) Yoko and Alex late for the meeting.

9. (Do- Does) all of the students have their books?

10. I (know-knows-known) how to use the internet.

VI. Gerunds and Infinitives:

6. I look forward to (go- goes- going) to the museum tonight.

7. The speakers enjoy (watch- watching- watched) movies on weekends.

8. Ann stopped in the way (talking- to talk- talks) to her professor.

9. I 'll never forget (see- seen- seeing) the Alps for the first time.

10. It is important (learning- to learn- learn) English.

VII. Clauses:

6. The boy woke up when the phone (ring- rings- rang).

7. Would you please close the window if it (get- got- gets) windy?

8. After she graduates, she will (invite- invites-invited) her friends to a party.

9. I haven't seen him since he (leave- leaves-left) this morning.

10. While I was walking home, it (begun- begins- began) to rain.

VIII. Preposition Combinations:

6. She is excited (about- for- in) creating toys children enjoy.

7. She is interested (on- in- at) Geography.

8. Jack is married (for- to- with) Joan.

9. The choices in the restaurant are limited (in- to- on) pizza and sandwiches.

10. She worries (of- for- about) her brother who is travelling abroad.

Appendix D. Questionnaire.

Select the response that best describes your opinion to the following statements:

1. I think that learning grammar is interesting.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

2. My English grammar has improved after joining the experiment.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

3. I think that the role of grammar is central in the language.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

4. I am satisfied with my current level in grammar.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

5. I feel that I need to further improve my knowledge about English grammar.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

6. I received sufficient instruction to join the experiment starting from enrolment through testing.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

7. My English has improved after joining the new learning experience.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

8. I noticed an improvement in my speaking skills after joining the experiment.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

9. My writing has improved after joining the experiment.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

10. I think that learning grammar is fun.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

11. I still struggle with some rules of grammar.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

12. I enjoy the new experience of learning grammar.

O Strongly agree   O Agree   O Undecided   O Disagree   O Strongly disagree

13. I think that learning grammar is intimidating and difficult.

⭕ Strongly agree   ⭕ Agree   ⭕ Undecided   ⭕ Disagree   ⭕ Strongly disagree

14. Learning grammar has improved my thinking skills.

⭕ Strongly agree   ⭕ Agree   ⭕ Undecided   ⭕ Disagree   ⭕ Strongly disagree

15. I prefer student-cantered learning approaches over teacher-centered approaches.

⭕ Strongly agree   ⭕ Agree   ⭕ Undecided   ⭕ Disagree   ⭕ Strongly disagree

16. The new teaching experience has changed my attitudes positively towards learning grammar.

⭕ Strongly agree   ⭕ Agree   ⭕ Undecided   ⭕ Disagree   ⭕ Strongly disagree

17. The new learning experience has boosted my motivation towards further learning.

⭕ Strongly agree   ⭕ Agree   ⭕ Undecided   ⭕ Disagree   ⭕ Strongly disagree

18. I benefited greatly from the new learning approach.

⭕ Strongly agree   ⭕ Agree   ⭕ Undecided   ⭕ Disagree   ⭕ Strongly disagree

Appendix E. Research instruments' validation letters.

To Whom it May Concern

I hereby certify that I have reviewed the research instruments designed to collect data for a study entitled: "The Impact of a Flipped Classroom Approach on EFL Learners' Grammar Performance". I have found the instruments valid and suitable to measure the research variables.

Dr. Aziza Alzubaidi

Assistant Professor of Applied Linguistics

Qassim University

Department of English Language and Translation

To Whom it May Concern

This is to certify that I have reviewed the research tools prepared to test the variables for a study entitled: "*The Impact of a Flipped Classroom Approach on EFL Learners' Grammar Performance*". I have suggested the necessary changes to improve the tools' validity. I think they are now valid and should serve the purpose of the study.

Dr. Fatimah Baker Humaid

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Almithnab College of Science and Arts, Qassim University

Department of English Language and Translation