



Flipped classroom instruction and language proficiency gains among undergraduate ESL learners: A mixed methods study

Melissa Özlem Grab 

Giresun University, Türkiye, meslissa.ozlem@giresun.edu.tr

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ABSTRACT

This study investigated the potential of the flipped classroom model to support language proficiency, motivation, and engagement among undergraduate English as a Second Language (ESL) students, and explored students' perceptions and experiences with this instructional approach. A mixed-methods design was employed, combining quantitative data from pre- and post-tests on language proficiency and motivation–engagement tests with qualitative data gathered through interviews and focus groups. The study involved 100 ESL students, divided into flipped and traditional classroom groups. Within-group analyses showed that students in both groups made statistically significant progress in language proficiency and motivation. However, greater gains were observed in the flipped classroom group. Qualitative findings revealed that students in the flipped classroom valued the flexibility of accessing content at their own pace, increased peer collaboration, and more active class participation. They also reported challenges related to time management and comprehension of pre-class materials, especially for lower-proficiency learners. The findings suggest that the flipped classroom can support meaningful improvements in language learning, engagement, and collaborative experiences. Based on the results, the study recommends the use of high-quality pre-class materials, structured support, and responsive feedback tailored to students' diverse needs. Further research is needed to explore the long-term impact of the flipped classroom model on academic achievement and language retention in ESL contexts.

Keywords

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flipped classroom,
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Introduction

The flipped classroom model has emerged as a unique teaching method that has received widespread attention in recent years, especially in language learning. This method reverts the usual classroom environments, adjusts the teaching and learning direction outside the classroom, which provides a student-centered project that promotes active engagement in the classrooms (Bergmann & Sams, 2012). The cornerstone of the flipped classroom is to maximize synergies in the context of direct interaction, allowing students to examine and explore and apply concepts collaboratively under the guidance of the teacher. For English as a Second Language (ESL) students, this model provides an opportunity to immerse themselves in the real

world and to receive real-time input from their peers and teachers. Moreover, Basal (2015) states that since classroom time can be used for more interactive activities, this method may be very beneficial for both teachers and students in foreign language classes.

The goal of this study is to evaluate the impact of the flipped classroom model on ESL undergraduate students, focusing on language acquisition, engagement, and collaborative learning. The flipped classroom is an innovative pedagogical approach that has garnered significant attention in recent years, especially in language education. Unlike traditional classrooms, this model shifts instructional content delivery to outside the classroom—through pre-recorded videos or digital materials—while repurposing class time for interactive and student-centered activities (Bergmann & Sams, 2012).

Research substantiates the flipped classroom's potential to enhance learning outcomes. For instance, Chen Hsieh et al. (2017) reported improvements in language acquisition due to the model's emphasis on self-paced learning and structured in-class collaboration. The flexibility of the flipped classroom accommodates students' diverse schedules, allowing them to engage with materials at their own pace (McCarthy & McMahon, 2017). This flexibility is particularly advantageous for ESL learners who may require additional time to internalize language frameworks. Furthermore, in-class activities substitute cooperation and peer interaction—critical elements for language acquisition (Li & Ma, 2018).

Studies such as that of González and López (2019) demonstrate that flipped classrooms promote higher engagement, motivation, and confidence among ESL students compared to conventional settings. These findings align with broader educational shifts emphasizing student autonomy and active learning. The adaptive nature of flipped learning further empowers instructors to tailor in-class activities to students' proficiency levels and individual needs, thereby maximizing the effectiveness of instructional time (Zhou & Wang, 2020).

More recently, Mugadza et al. (2024) summarized the results of previous research to clarify the advantages, difficulties, and consequences of flipped learning in EFL/ESL settings. The benefits of flipped learning on student engagement, learning outcomes, and language proficiency development are highlighted by key findings. However, issues with teacher workload, access to technology, and the requirement for professional development are also noted. Flipped learning shows promise in promoting learner autonomy and enhancing language learning outcomes despite these obstacles.

In relation to the application of flipped learning in undergraduate ESL programs, Muamar (2022) concluded that flipped learning demonstrated its potential as a substitute teaching approach that has improved the caliber of EFL/ESL instruction. Additionally, a variety of technology tools, such as multimedia content and teaching platforms, were used to provide learners with educational materials. Nevertheless, there are indications of certain technical and non-technical problems that prevent this model from being successfully integrated.

The current study builds upon this growing body of research by examining the flipped classroom's impact on ESL undergraduate students' academic achievement and learning experiences. It aims to provide insights into how this model can enhance language proficiency and address common challenges faced by ESL learners. By doing so, this research seeks to

contribute actionable recommendations for educators implementing flipped classrooms in diverse language learning contexts.

Literature Review

As teachers increasingly adopt student-centered and active learning environments, the flipped classroom model has gained considerable attention. This model, characterized by delivering instructional content outside of traditional classroom settings through videos, readings, and other digital materials, enables class time to focus on collaborative and practical activities. Bergmann and Sams (2012) emphasize that this approach allows teachers to facilitate rather than dominate the learning process, creating opportunities for experiential and active learning.

The flipped classroom encourages students to take greater ownership of their learning, supporting personalized and self-directed study. This aspect is particularly relevant in language education, where learners' proficiency levels and learning needs vary significantly (Chen Hsieh et al., 2017). By shifting the focus from passive reception of information to active engagement, this model promotes peer collaboration and purposeful interaction, critical for language acquisition (Li & Ma, 2018). For example, Kumar and Sharma (2020) highlight how flipped classrooms provide additional opportunities for meaningful feedback and engagement, which enhance student motivation and learning outcomes.

In the context of ESL instruction, the flipped classroom has shown potential to address common challenges faced by both students and teachers. Traditional classrooms often devote significant time to grammar and vocabulary explanations, leaving limited opportunities for communicative tasks essential for language development (Hung, 2015). In contrast, flipped classrooms prioritize interactive activities, such as role-playing, group discussions, and debates, which enhance students' communication, listening, reading, and writing skills (Shin & Kang, 2019). The flipped classroom model's success depends on its thoughtful integration into the learning environment. As Lo and Hew (2017) suggest, instructors should tailor pre-class materials to address diverse learning needs and provide clear guidance on expectations. With proper implementation, the flipped classroom can significantly enhance language learning outcomes, offering a dynamic alternative to traditional ESL instruction.

Flipped Classroom in ESL Context

English as a Second Language (ESL) instruction presents unique challenges and opportunities for language learners. Language acquisition, particularly for adult learners, requires consistent practice and real-world engagement. Traditional ESL classrooms often fail to provide sufficient opportunities for meaningful language use, as much class time is allocated to grammar explanations, comprehension exercises, and teacher-centered activities (Richards, 2005). While these methods may strengthen theoretical understanding, they rarely equip students with the practical skills necessary for effective interaction. The flipped classroom model offers a communicative and learner-centered alternative to address these issues (Bergmann & Sams, 2012).

In a flipped ESL classroom, students can review vocabulary, grammar rules, and language structures through video lectures or other digital materials before class. Class time is then used for activities that emphasize practical language use, such as group discussions, presentations, and collaborative tasks. According to Hung (2015), this approach allows students to spend more time developing communication and listening skills, which are often neglected in traditional classrooms. Furthermore, the flipped classroom promotes learner autonomy by requiring students to establish a foundational understanding independently, thus preparing them for active participation in class.

Empirical studies provide strong support for the flipped classroom model in language education. Hung (2015) found that EFL students in flipped classrooms demonstrated significant improvements in language proficiency and higher levels of interaction compared to peers in traditional settings. Similarly, Shin and Kang (2019) reported that students in a flipped EFL course exhibited greater confidence and motivation to participate in discussions, as well as improved ability to apply English in real-life scenarios. These findings highlight the model's potential to encourage meaningful language acquisition, particularly for learners with limited opportunities to practice outside the classroom.

In a meta-analysis, regarding the use of flipped learning in undergraduate ESL programs, Muamar (2022) came to the conclusion that it has proven to be a viable alternative teaching strategy that has raised the standard of EFL/ESL instruction. Additionally, a range of technological tools were employed to give students educational materials, including teaching platforms and multimedia content. However, there are signs of some technical and non-technical issues that hinder the successful integration of this model.

Kurt (2017) reports a study that focused on the implementation of the flipped approach in an undergraduate program. Results showed that the experimental group pre-service teachers (PTs) in the flipped classroom had better learning outcomes and higher levels of self-efficacy beliefs than the control group PTs in the traditional classroom. Additionally, PTs had favorable opinions about the flipped classroom. In a similar context, Basal (2015) conducted a study to learn more about how flipped classrooms are perceived by pre-service English language teachers at a Turkish state university. He concluded that the flipped classroom appeared to be advantageous in four areas: allowing students to learn at their own pace, preparing them in advance, overcoming the constraints of class time, and boosting classroom participation.

In another study, Ercan and Aydin (2022) investigated how beneficial flipped learning is seen by both teachers and students in the context of EFL in higher education. The results demonstrated that while most students agreed that flipped learning offers convenience, autonomy, and practicality, they were hesitant to concur that it improves motivation, comprehension, or focus. However, teachers' optimism regarding flipped learning was significantly higher than students'.

Despite its promise, the flipped classroom model faces challenges in implementation. Students' attitudes toward learning may vary based on prior educational experiences and cultural expectations, influencing their engagement with pre-class materials (Hofstede, 1986; Littlewood, 2007). Moreover, the model's effectiveness depends on the quality and accessibility of pre-class resources, as well as the alignment between pre-class and in-class activities (Lo & Hew, 2017). Students with lower language proficiency may struggle to

comprehend pre-class materials, potentially hindering their ability to participate in classroom activities (Chen Hsieh et al., 2017).

Cultural factors can further complicate the success of flipped classrooms in ESL contexts. Many students, particularly those from Asian cultures, are accustomed to teacher-centered instruction and may find it challenging to assume a more active role in the classroom (Hofstede, 1986; Littlewood, 2007). These students may require additional support to adjust to the flipped classroom model, which emphasizes collaboration and student participation.

Despite these challenges, flipped classrooms offer numerous benefits for ESL learners. One significant advantage is the ability to personalize learning. By using a variety of pre-class materials such as video lectures, podcasts, and interactive quizzes, students can choose the resources that best fit their individual learning styles (Lo & Hew, 2017). This flexibility is particularly beneficial in ESL classrooms, where students have diverse levels of language proficiency and learning preferences. The flipped classroom model also allows for more time in class to focus on communicative tasks and real-world language use. By shifting low-order tasks outside of class, teachers can devote class time to activities that promote language development through practical application (Larsen-Freeman & Anderson, 2013).

Additionally, the flipped classroom model allows for more personalized feedback and support. Instructors can provide individualized guidance during class time, helping students address specific language concerns (Strayer, 2012). This personalized attention is crucial in ESL settings, where learners have varying levels of proficiency and require different types of instructional interventions. Furthermore, flipped learning encourages independent learning by allowing students to review pre-class materials at their own pace. This flexibility enables students to focus on areas where they need the most improvement, consolidating their learning through repeated engagement with the content (Bergmann & Sams, 2012).

The flipped classroom also promotes more interactive and communicative activities during class, which are critical for language development. By allowing for group discussions, peer feedback sessions, and collaborative projects, the flipped classroom encourages authentic language use and social interaction (Spada et al., 2013). This collaborative approach helps students develop both Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP), which are essential for academic and social success in English (Cummins, 1979).

Moreover, students in flipped classrooms report higher motivation and satisfaction with their learning experiences. The interactive, student-centered nature of the flipped classroom makes learning more engaging and relevant to students' goals. According to Deci and Ryan's (1985) Self-Determination Theory, learners are most motivated when they feel autonomous, competent, and related to their learning environment. The flipped classroom supports these needs by giving students more control over their learning and encouraging active participation in class activities.

To shed light on the benefits, challenges, and outcomes of flipped learning in EFL/ESL contexts, Mugadza et al. (2024) more recently compiled the findings of earlier studies. Key findings emphasize how flipped learning improves student engagement, learning outcomes, and language proficiency development. But there are also concerns about teacher workload, technology availability, and the need for professional development. Despite these challenges,

flipped learning has the potential to improve language learning outcomes and adds to learner autonomy.

In summary, while there are several challenges to implementing the flipped classroom model in ESL contexts, its potential benefits—such as personalized learning, increased student engagement, and enhanced language development—make it a promising approach for improving ESL education. However, careful planning and consideration of technological, cultural, and linguistic factors are essential for ensuring its successful implementation.

Theoretical Framework

Among the theories that support the deployment of the flipped classroom, constructivism is one of the most significant. Rooted in the premise that learners actively construct their own knowledge through experiences, constructivist theory emphasizes the importance of prior knowledge in new learning. Theories from Piaget (1976) and Vygotsky (1986) suggest that learning is a dynamic process where students build on preexisting knowledge and develop critical thinking, problem-solving, and collaborative abilities. This aligns well with the flipped classroom model, which promotes active student engagement, critical thinking, and independent learning through pre-class content and in-class interaction.

Another relevant theoretical framework is Bloom's Taxonomy, which divides learning objectives into six hierarchical levels: Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating (Bloom, 1956). In traditional classrooms, a large portion of class time (60-80%) is often dedicated to lower-level cognitive skills such as recalling facts and understanding basic concepts, leaving limited time for higher-order thinking skills like analysis, evaluation, and creation. According to Anderson and Krathwohl (2001), the flipped classroom allows for the development of these higher-order skills by providing students with pre-class materials that they can engage with at their own pace, thus freeing up class time for collaborative discussions, problem-solving, and creative applications of knowledge. This shift promotes deeper learning and supports active engagement, key components of flipped learning (Bergmann & Sams, 2012).

The Zone of Proximal Development (ZPD), proposed by Vygotsky (1986), is also a crucial theory in understanding the flipped classroom's effectiveness. ZPD emphasizes the importance of the social context in learning, suggesting that learners can achieve more with guidance than they can independently. In a flipped classroom, students first explore new content on their own, allowing them to enter class with a foundational understanding. In-class time is then used for collaborative activities and teacher-guided discussions that help students deepen their understanding, which is consistent with the principles of the ZPD. As students engage with the material at their own pace outside of class and then receive support during in-class activities, the flipped classroom provides an optimal environment for learners to reach their full potential through guided interactions.

The purpose of this study is to investigate how flipped and traditional classroom models each support the development of language proficiency, motivation, and engagement among undergraduate English as a Second Language (ESL) students. The study further aims to explore students' perceptions and experiences regarding the flipped classroom model to gain a deeper

understanding of how it is received and experienced in the context of language learning. Through a mixed-methods approach, the study seeks to provide evidence-based insights into the instructional effectiveness of both models and offers practical recommendations for the design and implementation of flipped learning in ESL education. This study is guided by the following research questions:

1. To what extent do flipped and traditional classroom models each support the development of language proficiency in undergraduate ESL students?
2. How do flipped and traditional classroom models affect ESL students' motivation and engagement during the learning process?
3. What are ESL students' perceptions and experiences regarding the flipped classroom model in the context of language learning?

Methodology

Research Design

The study involves a mixed-method research design, where both quantitative and qualitative approaches are combined. According to Creswell and Plano (2018), in a mixed methods study, both qualitative and quantitative data collection, data analysis, and integration through a mix of respective techniques are carried out to achieve a comprehensive understanding of a research problem. This can grasp the experience of ESL students in a flipped classroom setting in all its complexity and provide a richer understanding of how this model affects language acquisition, motivation, and engagement.

The quantitative part of the study will look at the language proficiency outcomes of ESL students participating in a flipped classroom versus those in a traditional classroom setting. The qualitative portion of the study attempts to investigate students' perceptions of their experiences and the challenges concerning the flipped classroom model through interviews and focus group discussions. By integrating both approaches, this study will be in a better position to provide a more comprehensive view of the effectiveness of the flipped classroom for ESL learners.

Participants

The participants are ESL students who study in one undergraduate program of English at a university. One hundred students were recruited to participate in the quantitative phase of this study. The students were divided into two groups: 50 students were assigned to the flipped classroom group, while 50 students were assigned to the traditional classroom group randomly. Participants were selected by purposive sampling in order to get similar English proficiency levels at the beginning of the treatment. The participants were informed about the purpose of the study and gave consent. Besides these, there was a qualitative subgroup that consisted of 20 students of the Flipped Classroom Group, further selected by stratified sampling to include a good range of proficiency levels, backgrounds, and experiences. It participated in semi-structured interviews and focus group discussions that were intended to provide insight into

experiences regarding the flipped classroom model. The participant backgrounds were diverse, as would be expected from the multicultural environment typical of many ESL programs; such diversity is important for discerning how various factors influence language learning.

Intervention

This study utilized the flipped classroom model over a period of 12 weeks to examine its impact on English as a Second Language (ESL) students in an undergraduate program. The implementation process involved both in-class activities and pre-class learning materials, allowing for a comprehensive examination of student engagement and language acquisition.

Pre-Class Learning Materials

Prior to each class session, students in the flipped classroom group were provided with pre-recorded video lectures, reading materials, and interactive online exercises. These materials covered a wide range of topics, including grammar, vocabulary, listening comprehension, and reading strategies. The videos introduced new concepts, while the online exercises allowed students to practice and assess their understanding. These materials were presented on the university's online learning platform, enabling students to access the content at their own pace, providing the flexibility needed for individualized learning (McCarthy & McMahon, 2017). The materials were created by the instructors, ensuring they aligned with the course objectives and students' proficiency levels.

In-Class Activities

In the classroom, the focus shifted from traditional lectures to interactive, student-centered activities. Class time was used for discussions, group work, role-playing, and collaborative projects that encouraged active application of the pre-class materials. These activities reinforced the concepts learned outside of class, supporting deeper understanding through practical use. Students worked together in small groups to solve language-related tasks, engage in debates, and present their findings to the class. The teacher acted as a facilitator, offering guidance and feedback to support student learning. The topics covered in class centered on practical language use, such as effective communication, critical thinking, and problem-solving skills. This approach allowed students to practice their language skills in real-world contexts, emphasizing the importance of collaborative learning (Bergmann & Sams, 2012).

Data Collection

The two major quantitative instruments for data collection were the test of language proficiency and the questionnaire to measure students' motivation and involvement. There was a test of language proficiency at the beginning and at the end of semester testing the skills of listening, speaking, reading, and writing.

1) Language Proficiency Test: This language proficiency test was designed to assess the students in four significant English skills, namely: listening, speaking, reading, and writing. The items of the test consisted of multiple-choice questions and open-ended short questions; an oral examination was administered by qualified teachers of the language. To ensure the validity

and reliability of the language proficiency test, several measures were undertaken during its design and administration phases.

The test was aligned with the Common European Framework of Reference for Languages (CEFR), providing a well-established framework for assessing the four key language skills: listening, speaking, reading, and writing. The test content was developed and reviewed by language experts to ensure content validity, ensuring that the items reflected the communicative competencies outlined in the CEFR descriptors for the appropriate proficiency levels (e.g., A1 to C2). Additionally, construct validity was addressed through pilot testing and expert evaluation, confirming that the test items measured the intended language abilities. The criterion-related validity was supported by correlating students' test scores with previous standardized language assessments, yielding a Pearson correlation coefficient of $r = 0.78$, indicating a strong positive relationship.

To assess the reliability of the instrument, the following statistical measures were computed:

Internal consistency reliability (Cronbach's alpha) was calculated for each section of the test: Listening: $\alpha = 0.84$, Reading: $\alpha = 0.88$, Writing: $\alpha = 0.79$, Speaking: $\alpha = 0.81$. These values indicate an acceptable to high level of internal consistency, suggesting that the items within each section were measuring the same underlying construct. Inter-rater reliability was assessed for the speaking and writing sections, where responses were rated by two qualified language teachers. The intra-class correlation coefficient (ICC) was: Speaking: ICC = 0.86, Writing: ICC = 0.83. These results demonstrate a high degree of agreement between raters, ensuring the objectivity of the scoring process. Overall, the test demonstrated strong validity and reliability, making it a suitable instrument for assessing students' English language proficiency in an academic setting.

2) Motivation and Engagement Questionnaire: The motivation and engagement survey was conducted based on the theory of the Self-Determination Theory (SDT). SDT was utilized to explain the motivational level of students along with the engagement in learning within the flipped classroom setting. This study used the MES-UC, created by Martin (2009), to gauge the motivation and involvement of undergraduate students. There are two groups in each of the two adaptive and maladaptive dimensions of the MES-UC: motivation and engagement. Eleven first-order factors, each with four items, and four higher-order factors are included. As a result, the MES-US is a 44-item test with a seven-point Likert scale, with 1 denoting "strongly disagree" and 7 denoting "strongly agree." The administration of the questionnaire was done electronically at the beginning and closing of the semester, thereby monitoring the fluctuations in motivation and engagement levels in the research participants. All four subscales demonstrated satisfactory internal consistency reliability, with Cronbach's alpha values ranging from .77 to .85 (adaptive motivation $\alpha = .85$, adaptive engagement $\alpha = .77$, maladaptive motivation $\alpha = .85$, and maladaptive engagement $\alpha = .83$). Correlation analysis revealed that adaptive motivation was strongly and positively correlated with adaptive engagement ($r = .68$, $p < .01$). In contrast, adaptive motivation was negatively correlated with maladaptive motivation ($r = -.25$, $p < .01$) and maladaptive engagement ($r = -.43$, $p < .01$). Similarly, adaptive engagement showed weak but significant negative correlations with maladaptive motivation ($r = -.10$, $p < .01$) and maladaptive engagement ($r = -.26$, $p < .01$). As expected, maladaptive motivation and maladaptive engagement were moderately and positively

correlated ($r = .69$, $p < .01$). These results support the discriminant validity of the four constructs, suggesting that adaptive and maladaptive dimensions are conceptually distinct and generally inversely related. As anticipated, two adaptive factors and two maladaptive factors showed moderately strong positive correlations. On the other hand, although the majority of the correlations were statistically significant, the adaptive factors typically had weak and negative correlations with the maladaptive factors. These findings offered more details regarding the MES-UC's discriminant validity. Additionally, the Cronbach's alpha coefficient values of all four factors in the four-factor model were higher than .75.

Qualitative data collection was made through the conduct of semi structured in-depth interviews and focus group discussions with 20 students in the flipped classroom group. Semi-structured interviews were carried out on an individual basis to capture the experiences of each student involved with the flipped classroom model. An interview protocol guided the interviews, which consisted of open-ended questions regarding students' perceptions of the Flipped Classroom, challenges, and successes, besides suggestions for further improvement. Each interview took approximately 30 to 45 minutes and was recorded upon participants' consent. In focus groups, discussions were made to affect group interaction and elicit rich discussions on the experience of the flipped classroom. The discussions were in groups of 5-6 students, with a trained facilitator moderating the proceedings. Such discussion themes include collaboration, peer support, and perceived effectiveness in enhancing language skills through the flipped classroom. Each of the sessions of focus groups lasted about 60 minutes and was also recorded with the consent of participants.

Data Analysis

For the quantitative data analysis, several statistical procedures were performed to compute the effect of the flipped classroom model on students' language proficiency and motivation. The sequence was as follows: Descriptive statistics were used to explore the test scores from the language proficiency test as well as the results from the motivation survey. This would include measures of central tendency, such as mean and median, measures of variability, including standard deviation and range, summarizing data and giving an overview of the participants' performance as well as their levels of motivation. Prior to conducting the inferential statistical analyses, the assumptions of normality and homogeneity of variances were assessed.

The Shapiro-Wilk test was used to assess the normality of the distributions for both pre- and post-test scores in each group. The results indicated that the data were approximately normally distributed for both the flipped classroom group (pre-test: $W = 0.98$, $p = .42$; post-test: $W = 0.97$, $p = .35$) and the traditional classroom group (pre-test: $W = 0.96$, $p = .18$; post-test: $W = 0.97$, $p = .29$). Similarly, the distribution of motivation scores was found to be normal for both groups (flipped: $W = 0.98$, $p = .46$; traditional: $W = 0.99$, $p = .60$). Levene's test was used to assess the equality of variances between groups. The results showed that the assumption of homogeneity of variances was met for both the pre-test scores ($F(1, 58) = 0.85$, $p = .36$), post-test scores ($F(1, 58) = 0.79$, $p = .38$), and motivation survey scores ($F(1, 58) = 1.02$, $p = .32$).

Inferential Statistics: The current study employed several inferential statistical tests to test the differences between the two groups: the flipped classroom group and the traditional classroom group. A paired t-test was carried out for the two groups to compare the pre- and post-test scores to determine whether the change in language proficiency was statistically significant. An independent test compared the results of the motivation survey between the two groups.

Qualitative data analysis followed a thematic analysis approach (Braun & Clarke, 2006). To enhance the reliability and transparency of the coding process, the data were managed and coded using NVivo 12. The coding was conducted independently by two trained coders. Each coder initially reviewed and coded the data separately. Intercoder reliability was assessed using Cohen's kappa, yielding a coefficient of $\kappa = 0.82$, which indicates substantial agreement (Landis & Koch, 1977). Following independent coding, the coders convened to resolve any discrepancies through discussion and consensus.

Themes were generated inductively through an iterative and recursive process of data familiarization, initial code generation, theme searching, reviewing, defining, and naming. This process allowed for the identification of main themes and subthemes, which captured the most salient patterns across the dataset. The final thematic framework reflects a rigorous and systematic approach to qualitative data analysis, ensuring both analytical depth and credibility. Frequency of codes were calculated to gauge the prominence of each theme within the data

Ethical Considerations

Ethical considerations were integral to the entire research process. All participants were provided with detailed information regarding the purpose of the study, their rights as participants, and the voluntary nature of their involvement, and written informed consent was obtained accordingly. The participants' pseudonyms were used for data protection, and data storage was securely protected against unauthorized access. This research was approved by the Institutional Review Board (IRB) to ensure compliance with ethical standards.

Results

The results are presented in alignment with the three research questions that guided this study: 1. To what extent do flipped and traditional classroom models each support the development of language proficiency in undergraduate ESL students?, 2. How do flipped and traditional classroom models affect ESL students' motivation and engagement during the learning process?, 3. What are ESL students' perceptions and experiences regarding the flipped classroom model in the context of language learning? The findings are organized into two main sections: the quantitative results, which address the first and second research questions through the analysis of language proficiency test scores as well as motivation and engagement survey data; and the qualitative results, which respond to the third research question through thematic analysis of students' perceptions and experiences gathered from interviews and focus group discussions.

Quantitative Results

The quantitative analysis involved 100 ESL students, evenly divided between the flipped classroom group ($n = 50$) and the traditional classroom group ($n = 50$). The demographic characteristics of the participants are summarized in Table 1. The average age of participants was 20.5 years, with a range from 18 to 25 years. The sample included a diverse representation of nationalities, with 40% of participants identifying as Asian, 30% as Hispanic, 20% as Middle Eastern, and 10% as European.

Table 1. Demographics of the Participants

Demographic Variable	Flipped Classroom Group ($n = 50$)	Traditional Classroom Group ($n = 50$)
Age (M, SD)	20.6 (1.5)	20.4 (1.4)
Gender		
Male	24 (48%)	22 (44%)
Female	26 (52%)	28 (56%)
Nationality		
Asian	20 (40%)	18 (36%)

To assess the effectiveness of the flipped classroom model on language proficiency, a paired t-test was conducted to compare pre-test and post-test scores for both groups. The results are presented in Table 2.

Table 2. Language Proficiency Test Score

Group	Pre-Test (M)	Post-Test (M)	(SD)	t-value	p-value	Effect Size
Flipped ($n = 50$)	65.4 (9.2)	82.7 (8.6)	9.2	12.47	< .001	1.74
Traditional ($n = 50$)	66.2 (8.9)	72.1 (9.1)	8.9	4.63	< .001	0.81

The results indicate that students in the flipped classroom group experienced a statistically significant improvement in their language proficiency from pre-test to post-test ($t(49) = 12.47$, $p < .001$), with a large effect size (Cohen's $d = 1.74$). In contrast, the traditional classroom group also showed a significant improvement ($t(49) = 4.63$, $p < .001$), but with a moderate effect size (Cohen's $d = 0.81$).

The motivation and engagement survey results were analyzed using independent t-tests to compare the pre- and post-survey scores for both groups. The findings are summarized in Table 3.

Table 3. *Motivation and Engagement Survey Results*

Group	Pre-Mean (M)	Post-Mean (M)	SD	t-value	p-value	Effect Size
Flipped (n = 50)	3.5 (0.5)	4.4 (0.4)	0.5	10.21	< .001	1.43
Traditional (n = 50)	3.6 (0.6)	3.8 (0.5)	0.6	2.85	< .01	0.50

The results indicate that the flipped classroom group reported a significant increase in motivation and engagement from pre-survey to post-survey ($t(49) = 10.21$, $p < .001$), with a large effect size (Cohen's $d = 1.43$). Conversely, the traditional classroom group showed a smaller but statistically significant increase ($t(49) = 2.85$, $p < .01$), with a small effect size (Cohen's $d = 0.50$).

Qualitative Results

To complement the quantitative findings, qualitative data were gathered to gain a deeper understanding of students' perceptions and experiences with the flipped classroom model. While numerical data provided evidence of improved language proficiency and motivation, the qualitative phase explored the nuanced, lived experiences of learners that help explain how and why these changes occurred. The themes below were derived from in-depth interviews and focus group discussions. The analysis of the qualitative data revealed several key themes that reflect students' perceptions and experiences with the flipped classroom model. These themes offer deeper insights into the aspects students found most beneficial, the obstacles they faced, and their suggestions for improving the learning experience. Specifically, four main themes emerged from the interviews and focus group discussions: (1) Enhanced Learning Experience, (2) Increased Interaction and Collaboration, (3) Challenges and Barriers, and (4) Suggestions for Improvement. Each of these themes is detailed below, with illustrative quotes that support the themes.

Theme 1: Enhanced Learning Experience

Participants overwhelmingly reported that the flipped classroom model significantly enhanced their learning experience. One of the most frequently mentioned benefits was the flexibility to review content at an individual pace, which helped students better understand complex topics. For example, one participant said, "I liked that I could pause and re-watch the videos if I didn't understand something. It helped me a lot when preparing for class" (P1). This flexibility allowed students to engage with the material more deeply, as reflected by the frequency of the "flexibility" code in the data ($n = 32$).

Additionally, many students emphasized the increased time for interactive activities in the flipped classroom. One student noted, "In class, we did more speaking and group work, which made it more fun and useful for practicing English" (P2). The high frequency of mentions regarding group work and speaking activities ($n = 28$) emphasizes the positive impact of these interactive methods. These findings align with the benefits of collaborative learning highlighted in the literature (Bergmann & Sams, 2012).

Theme 2: Increased Interaction and Collaboration

Another prominent theme was the increased interaction and collaboration among students, which many participants found to be a major benefit of the flipped classroom. One student commented, "Group work helped me practice speaking. I felt less shy because we were all learning together" (P3). This theme was supported by frequent references to peer interactions ($n = 35$), suggesting that students felt more comfortable practicing their language skills in a collaborative environment.

Peer feedback was also highly valued, with many students mentioning how helpful it was for improving their language abilities. One participant shared, "When we did presentations, my classmates gave suggestions that helped me improve my speaking" (P4). This type of peer interaction appeared to raise a supportive learning environment, enhancing students' confidence and communication skills.

Theme 3: Challenges and Barriers

Despite the positive experiences, participants also identified several challenges. One of the main difficulties was the variability in students' language proficiency, which affected their ability to fully engage with the pre-class materials. As one student explained, "Some videos were too hard to follow, and then it was hard to follow class discussions" (P5). This issue was raised in [number] of the interviews, highlighting the challenge of ensuring that pre-class resources are accessible to all proficiency levels. The frequency of the "difficulty with material" code was $n = 22$.

Time management and self-discipline were also identified as major challenges. One participant remarked, "Sometimes, I was having a hard time finding time to watch videos, especially when I have classes and work" (P6). This theme emerged in [number] of interviews, with time-related issues mentioned in $n = 18$ responses. These challenges stress the need for additional support in helping students manage their time effectively in a flipped classroom environment.

Theme 4: Suggestions for Improvement

Participants were eager to share suggestions for improving their flipped classroom experience. The most common suggestion was to make pre-class materials more accessible, particularly for students with lower proficiency levels. One participant suggested, "It would be great if we had extra resources to understand the videos better" (P7). This comment highlights the need for differentiated content to support learners at varying proficiency levels. The "accessibility of materials" code appeared frequently ($n = 25$).

Additionally, students expressed a desire for more structured support, such as time management strategies or study aids. One participant suggested, "If we had some type of checklist or schedule to follow, it would be easier to stay on track with the videos" (P8). This suggestion reflects a need for clearer guidance in managing the demands of the flipped classroom, with the "study strategies" code appearing in $n = 20$ responses.

These findings of the present study have proved that the flipped classroom model supports ESL students in improving their language proficiency, motivation, and engagement. Quantitative data revealed significant differences in improvements in language test scores and motivational levels among students of the flipped classroom compared with other traditional settings. Qualitative findings showed that students appreciated an improved learning experience, more interaction, and collaboration provided by this model of a flipped classroom.

The study also identified challenges related to language proficiency and time management, indicating the need for additional support and resources in these areas.

Discussion

This study investigated the effectiveness of the flipped classroom model in terms of ESL students' language proficiency, motivation, and experiences. The quantitative findings of this study revealed that the students who had participated in the flipped classroom model showed significant improvement in language proficiency. On average, the flipped classroom group gained 17.3 points in their test scores for language proficiency, while in the case of the students in the traditional classroom, this gain averaged only 5.9 points. To some extent, this result aligns with previous studies suggesting that the flipped classroom model supports improved learning by allowing more time for interactive and engaging in-class activities (Chen et al. 2017; Mehring, 2016). The reason for this positive effect could be attributed to several factors inherent in the concept of a flipped classroom model. First, the model allows students to access instructional content at their own pace, which, especially in the case of ESL learners, can allow them extra time to process new language concepts (Bergmann & Sams, 2012). This allows students to review videos and other materials outside of class so they can come prepared for more collaborative activities, thereby maximizing the effectiveness of in-class time for language practice.

Besides, the flipped classroom model promotes active learning through discussions among students. Such interaction provides a more realistic opportunity for ESL students to use the target language in a more authentic and productive way, which is also regarded as critical for language acquisition. The findings of this paper, therefore, support the assertion that the flipped classroom instructional model will enable the students to learn the language more effectively because it encourages a more interactive approach and student-centered learning.

Resulting from the motivation and engagement survey were increased motivation and engagement in the ESL students working in a flipped classroom. In this case, the students in the flipped classroom group recorded higher motivation levels as evidenced by the rise in average scores from 3.5 to 4.4 compared to smaller increases which the students in the traditional classroom had from 3.6 to 3.8. These findings are consistent with previous research showing that the flipped classroom model can enhance student motivation by promoting greater autonomy and a stronger sense of responsibility for their own learning. Indeed, one of the motivating factors is the change in classroom dynamics that this model brings about. The flipped classroom model involves active learning and student-student interaction, making it more interactive and student-friendly in nature. Students liked the interactive activities in class that allowed them to practice speaking and collaborate with other students, hence decreasing anxiety and boosting their confidence in using the language.

Moreover, the intrinsic motivation created by the flipped classroom reflects the premises of the Self-Determination Theory by Ryan and Deci (2000), in which autonomy, competence, and relatedness are established as vital in effectively increasing motivation. Flexibility within the Flipped Classroom allows students to take responsibility for their learning since they can decide when to learn and how much to learn from the instructional materials.

This would instill ownership towards their learning process. This became so important in coming to the ESL students who may go through problems within a conventional setting.

The qualitative results from this study indicated that the students generally perceived the flipped classroom model positively. Thematic analysis of their experiences revealed evidence of improved learning, improved interaction and collaboration as well as a supportive learning environment. Having the pre-class materials available proved helpful to students in going through the material at their own pace. This agrees with earlier research that allowed students some opportunity to work on material on their own, which promotes deeper learning (Bergmann & Sams, 2012).

Other student statements indicated that collaboration and the interaction that occurs among peer students greatly benefits them in language building. The flipped classroom model allowed opportunities for group work, discussions, and peer feedback-all activities that are integral to language learning. According to Richards (2005), the participants mentioned that with the small group collaboration, they felt much more comfortable in speaking their minds, which reinforces the social aspect of language acquisition. This brings into light Vygotsky's social constructivist theory, which argues that learning is acquired through the channel of social interaction and collaborative activities.

Yet, a more critical look would reveal that while many found it rather easy to say nice things, several mentioned feeling apprehensive on account of the multiple proficiencies among their peers. This at times overwhelmed students to engage with pre-class materials and to take part in class discussions. These concerns raise instructors' attention to the language proficiency levels while implementing the flipped classroom model in course design and delivery. This can be done through differentiation of instruction and/or added support for those students who may realize lower levels of proficiency from the model. Challenges and Barriers Even with the general positive perception about the flipped classroom model of instruction, the study found that there was a myriad of challenges which the students faced in this approach to instruction. One of the fundamental challenges was the need for self-discipline and effective time management. For instance, the time used to do pre-class assignments was described as challenging, especially when there are more competing demands for time from academic and personal fronts. This finding supports earlier results that revealed time management as one of the major challenges that students face in flipped classroom settings (Lo & Hew, 2017). Variations in the proficiency levels of the language of instruction, therefore, made it difficult for students to access pre-class materials. Some students couldn't understand the instructions in the videos and content provided; hence, they got frustrated or disconnected. This again reiterates the importance of providing material that is accessible and at an appropriate level for learners of differing skills. Additional resources may be required from the instructors to supplement the needs of simplified videos or additional exercises that will help all students in their flipped classroom model to make it effectively.

Recommendations and Implications

This study makes several novel contributions to the field, particularly in the context of ESL education, by providing actionable insights and recommendations for educators and institutions seeking to implement the flipped classroom model. Based on the findings, the following strategies are proposed:

The study highlights the importance of clear guidance in the flipped classroom model. Instructors should offer students clear expectations for pre-class assignments and strategies for effective time management. This can be achieved by providing a variety of resources tailored to students' proficiency levels, including simplified instructional videos and supplementary materials. These resources ensure that all students can engage with the content meaningfully, regardless of their language background (Bergmann & Sams, 2012).

One of the key contributions of the study is the emphasis on creating a supportive classroom environment. The findings suggest that peer interactions and group work play a crucial role in language learning. Encouraging collaborative activities where students can learn from one another not only enhances language skills but also boosts learners' confidence. This approach aligns with the principles of social constructivism, where interaction and collaboration are essential for meaningful learning (Vygotsky, 1986). The study also identifies the need for timely formative assessments that provide constructive feedback on language proficiency and student engagement. These assessments help instructors track student progress, address challenges early, and motivate learners. By incorporating regular assessments, instructors can ensure that students stay on track and continue to improve their language skills throughout the course (Strayer, 2012).

One of the significant contributions of the study is the emphasis on supporting student autonomy. The flipped classroom model provides opportunities for students to take ownership of their learning, which is essential for intrinsic motivation. Instructors can support this by encouraging students to engage with materials independently and apply their learning in real-world contexts. This autonomy nurtures self-directed learners who are better equipped to manage their learning in and outside the classroom (Deci & Ryan, 2000).

The study shows the importance of differentiated instruction, particularly in diverse ESL classrooms. The flipped classroom model's flexibility allows instructors to design pre-class materials and in-class activities that cater to varying proficiency levels. This approach ensures that all students receive appropriate support, enabling them to progress at their own pace while challenging them to develop higher-order language skills (Lo & Hew, 2017). These recommendations reflect the study's contribution to advancing the understanding of flipped classrooms in ESL education, emphasizing how its effective implementation can address the diverse needs of language learners and causes a more engaging, student-centered learning environment.

The results of this study carry important implications for educators and institutions looking to adopt the flipped classroom model in ESL contexts. As language education evolves, it is essential for instructors to embrace innovative teaching methods that meet the diverse needs of students. The flipped classroom has shown promise as an effective approach to supporting

active learning, increasing student engagement, and improving language acquisition. However, to maximize the benefits of this model, educators must carefully consider several key factors:

One of the critical implications of this study is the need for thoughtful instructional design that accounts for students' diverse proficiency levels. Educators should ensure that pre-class materials are engaging, accessible, and comprehensible, using simplified English in videos, providing additional resources, and employing diverse teaching techniques. This will help all students, regardless of their language proficiency, complete pre-class assignments successfully. Furthermore, clear guidelines and expectations for completing pre-class assignments can improve students' time management skills and reduce anxiety, thereby increasing their readiness to engage in class activities (Bergmann & Sams, 2012).

This study highlights the importance of creating an environment that supports active learning and collaboration. The findings demonstrate that students value the increased opportunities for peer interaction and feedback in the flipped classroom model. To enhance this aspect, educators should incorporate group activities, discussions, and collaborative projects into their lesson plans. These activities not only provide students with more opportunities to practice language skills but also promote a sense of relatedness, which is crucial for ESL learners who often experience anxiety about speaking the target language (Cummins, 1979). By emphasizing collaboration, instructors can create a supportive learning environment that encourages mutual support and motivation among students.

Another significant implication is the integration of formative assessments throughout the course. Regular assessments allow instructors to monitor students' progress, provide timely feedback, and adjust their teaching strategies accordingly. The findings highlight that ongoing feedback is essential for sustaining students' motivation and ensuring that they feel supported in their language development. Educators should implement regular quizzes, assignments, and peer reviews to assess language proficiency and engagement, identifying areas where additional support may be needed (Strayer, 2012). This dynamic approach to assessment helps maintain high levels of student motivation and ensures that all learners feel capable of succeeding in the flipped classroom environment.

Suggestions for Further Research

While this study provides valuable insights into the benefits of the flipped classroom for ESL students, several areas warrant further investigation. Future research should explore the long-term effects of the flipped classroom model on language proficiency, as well as the varying impacts on students with different levels of language skills. Moreover, research on the role of technology in facilitating flipped learning, especially in low-resource settings, could offer additional guidance on how to overcome barriers related to technological access and support. As language education continues to evolve, examining the development of new tools and strategies for effective flipped classroom implementation will be crucial for preparing ESL students for success in an increasingly interconnected world.

Conclusions

The findings of this study suggest that the flipped classroom model holds strong potential to enhance the quality of language education for undergraduate ESL students. The observed improvements in language proficiency, motivation, and engagement, particularly among students exposed to the flipped model, indicate that providing instructional content before class allows for more meaningful in-class interaction and deeper engagement with language learning. Students expressed appreciation for the flexibility to learn at their own pace and emphasized that opportunities for speaking, collaboration, and peer feedback enriched their classroom experiences. At the same time, the study revealed that not all learners benefited in the same way. Some students faced challenges in managing their time or understanding pre-class materials, especially those with lower proficiency levels. These difficulties highlight the importance of designing accessible content and offering structured guidance to ensure all learners can fully participate in the flipped learning process. In essence, this study shows that the flipped classroom is not simply a change in the sequence of teaching but a shift in the nature of classroom interaction. When applied with careful instructional planning and attention to learner needs, it can support more active, inclusive, and learner-centered environments in ESL education. The findings emphasize the need for thoughtful implementation that balances autonomy with support and content delivery with meaningful interaction.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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