THE EFFICACY OF FLIPPED CLASSROOM MODELS IN ENGLISH LANGUAGE TEACHING: INVESTIGATING THE IMPACT OF FLIPPED CLASSROOM STRATEGIES ON STUDENT MOTIVATION, ENGAGEMENT, AND LEARNING OUTCOMES

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Abstract:

This quantitative research paper demonstrates the potential of flipped classroom models as an effective approach in English language teaching. The study’s findings highlight the significant impact of flipped classroom strategies on student motivation, engagement, and the development of crucial language skills, including critical thinking, reading, and writing. By fostering an environment that encourages autonomy, self-directed learning, collaboration, and active learning, flipped classrooms can greatly enhance the overall learning experience and outcomes for English language learners. The comparison between the experimental and control groups reveals the advantages of implementing flipped classroom models over traditional lecture-based approaches. These advantages not only contribute to academic success but also facilitate effective communication in various contexts. As a result, educators and institutions should consider adopting flipped classroom strategies to optimize English language teaching and learning. However, it is important to recognize the need for further research to explore the long-term effects and applicability of flipped classrooms across diverse learning environments and subject areas, ensuring the continued improvement and evolution of education.

Keywords: Flipped classroom models, English language teaching, Student motivation and engagement, Critical thinking, reading and writing skills, Active learning and collaboration
1. Introduction

1.1. Background

In the rapidly changing landscape of English language teaching (ELT), the flipped classroom model has emerged as a promising instructional approach that can help address the challenges associated with fostering the development of critical thinking, reading, and writing skills amongst English language learners (ELLs) (Hung, 2015; Lin & Hwang, 2018). These skills are indispensable for ELLs in academic and professional settings, where they need to analyse, synthesise, and evaluate information, as well as communicate effectively in written form. However, traditional classroom instruction often struggles to engage students in meaningful, active learning experiences that promote the development of these complex skills (Lai & Hwang, 2016). Therefore, it is imperative to explore the potential benefits of flipped classroom strategies on student motivation, engagement, and learning outcomes, with a specific focus on critical thinking, reading, and writing skills. The flipped classroom model, which involves students reviewing instructional materials (e.g. video lectures, readings) at home and engaging in interactive activities in class, has been found to promote active learning, enhance student motivation and engagement, and improve learning outcomes in various educational contexts (Abeysekera & Dawson, 2015; Bergmann & Sams, 2012). In the context of ELT, the flipped classroom approach offers unique opportunities for students to develop their critical thinking, reading, and writing skills by encouraging them to take responsibility for their learning and providing ample opportunities for practice, feedback, and collaboration (Hung, 2015; Lin & Hwang, 2018).

Firstly, the flipped classroom model supports the development of critical thinking skills by encouraging students to engage with instructional materials independently and actively before attending class (Lin & Hwang, 2018). This self-directed learning process enables ELLs to analyse and evaluate the content they encounter, fostering critical thinking skills that can be further honed during in-class activities such as discussions, debates, and problem-solving tasks. In this way, the flipped classroom approach facilitates a deeper understanding of the material and allows students to apply their critical thinking skills in a collaborative, supportive environment.

Secondly, the flipped classroom model contributes to the enhancement of reading skills by providing ELLs with more opportunities to engage with authentic texts at their own pace (Hung, 2015). Students can read, re-read, and analyse texts outside of class, using digital tools and resources to support their comprehension and interpretation. In-class activities can then build on this foundation, offering students the chance to collaborate with their peers and teacher to further develop their reading skills through tasks such as text analysis, summarising, and inference. Thirdly, the flipped classroom model facilitates the development of writing skills by providing a structured framework for students to practice and refine their writing in a supportive, collaborative environment (Lin & Hwang,
2018). With the flipped approach, students can receive feedback on their writing from both their peers and teacher, allowing them to revise and improve their work iteratively. This process not only enhances writing skills but also promotes a growth mindset, as students learn to view writing as a process that can be continuously improved upon. Moreover, the flipped classroom model has been found to positively impact student motivation and engagement, which are critical factors in the successful development of critical thinking, reading, and writing skills (Chen Hsieh et al., 2017; Lai & Hwang, 2016). By shifting the focus of classroom instruction from passive content delivery to active learning and collaboration, the flipped classroom approach creates a more engaging and meaningful learning experience for students. As a result, students are more likely to invest time and effort in their learning, ultimately leading to improved learning outcomes.

The flipped classroom model offers a promising approach to fostering the development of critical thinking, reading, and writing skills amongst English language learners. By promoting active learning, enhancing motivation and engagement, and providing ample opportunities for practice and feedback, the flipped classroom model has the potential to transform ELT and create more effective, learner-centred learning experiences. As the demand for innovative instructional approaches in ELT grows, it is essential for educators and researchers to continue exploring the potential benefits and best practices associated with flipped classroom strategies in the development of these vital skills. However, it is important to note that the successful implementation of flipped classroom models in ELT requires careful planning, consideration of learners' needs, and ongoing evaluation (Hung, 2015; Lin & Hwang, 2018). Teachers must ensure that instructional materials are accessible, relevant, and engaging, and that in-class activities are designed to build on the foundation laid by pre-class work. Moreover, educators must be prepared to address potential challenges, such as learners' technological access or digital literacy, as well as provide support and scaffolding for students who may struggle with the self-directed learning aspect of the flipped classroom approach. As the flipped classroom model continues to gain traction in ELT, it is crucial for educators to collaborate and share their experiences and insights in order to develop best practices and enhance the efficacy of this instructional approach. Additionally, further research is needed to examine the long-term effects of flipped classroom models on the development and retention of critical thinking, reading, and writing skills, as well as to investigate the role of individual differences and contextual factors in determining the success of flipped classroom strategies for different learners and settings.

1.2. Research Objectives

This study aims to investigate the efficacy of flipped classroom models in ELT, focusing on the impact of flipped classroom strategies on student motivation, engagement, and learning outcomes. The research also examines the influence of these strategies on the development of critical thinking, reading, and writing skills in ELLs. The findings of this study will contribute to the growing body of
literature on flipped classroom models in ELT and provide evidence-based recommendations for implementing these strategies in English language classrooms.

1.3. Research Questions

The research questions guiding this study are as follows:

Q1: How do flipped classroom strategies affect student motivation and engagement in English language classrooms?

Q2: What is the impact of flipped classroom strategies on learning outcomes, particularly the development of critical thinking, reading, and writing skills, in English language learners?

Q3: What are the best practices for implementing flipped classroom strategies in English language teaching to enhance student motivation, engagement, and learning outcomes?

1.4. Significance of the Study

The significance of this study lies in its potential to contribute valuable insights to the literature on flipped classroom models in ELT. By examining the impact of flipped classroom strategies on student motivation, engagement, and learning outcomes, this research will provide educators with evidence-based guidance for implementing flipped classroom approaches in their teaching practice. Furthermore, by focusing on the development of critical thinking, reading, and writing skills, this study addresses a crucial aspect of English language learning that is often challenging to teach and learn through traditional instructional methods. The findings of this study will inform the design and implementation of effective flipped classroom models in ELT, ultimately improving the quality of English language education for learners worldwide.

2. Literature Review

2.1. Flipped Classroom Models in Language Teaching

Flipped classroom models have emerged as a popular and effective instructional approach in language teaching, offering numerous benefits for both teachers and students (Basal, 2015; Zainuddin & Halili, 2016). By shifting the focus from teacher-centred instruction to active learning, collaboration, and student-centred experiences, flipped classrooms have the potential to transform language education and facilitate more meaningful, engaging learning opportunities for students (Lo & Hew, 2017). In a flipped classroom setting, learners are expected to access instructional materials, such as video lectures, reading materials, and other multimedia resources, before attending in-class sessions (Lo & Hew, 2017). This pre-class preparation enables students to familiarise themselves with the content, build their background knowledge, and identify areas where they may need additional support or clarification. Consequently, in-class sessions can be dedicated to interactive activities,
discussions, and problem-solving tasks that promote language learning and allow for more individualised, focused instruction (Basal, 2015). The flipped classroom model has been shown to promote active learning and collaboration, which are essential components of effective language education (Zainuddin & Halili, 2016). By engaging students in meaningful, hands-on activities during class, teachers can create an environment in which learners actively construct their knowledge and understanding, rather than passively receiving information (Lo & Hew, 2017). This approach not only supports the development of language skills but also fosters essential 21st-century competencies, such as critical thinking, creativity, and teamwork (Basal, 2015).

Several studies have reported positive effects of flipped classrooms on student performance, satisfaction, and self-directed learning in various language learning contexts (Chen Hsieh, Wu, & Marek, 2017; Huang & Hong, 2016). For example, Huang & Hong (2016) found that implementing a flipped classroom model in an English reading course led to significant improvements in students' reading comprehension and information and communication technology (ICT) skills. Similarly, Chen Hsieh et al. (2017) reported that students in a flipped English language course experienced greater satisfaction, motivation, and self-directed learning compared to their counterparts in a traditional classroom setting. Despite these promising findings, it is important to note that the success of flipped classroom models in language teaching depends on several factors, such as the quality and relevance of instructional materials, the design and implementation of in-class activities, and the availability of support and scaffolding for students (Zainuddin & Halili, 2016). Teachers must be prepared to invest time and effort in designing and adapting instructional materials and activities to meet the diverse needs and preferences of their learners (Basal, 2015). Furthermore, ongoing evaluation and reflection are crucial to ensuring the continued effectiveness and improvement of flipped classroom practices in language teaching (Lo & Hew, 2017). The flipped classroom model offers great potential for enhancing language teaching and learning by promoting active learning, collaboration, and student-centred instruction (Basal, 2015; Zainuddin & Halili, 2016).

2.2. The Impact of Flipped Classroom Strategies on Student Motivation and Engagement

Flipped classrooms have gained significant attention in recent years for their potential to transform traditional educational experiences. Research has shown that these innovative approaches to teaching and learning can lead to increased student motivation and engagement (Abeysekera & Dawson, 2015; Hung, 2015). A deeper analysis of the flipped classroom model reveals several key features that contribute to these positive outcomes, including learner autonomy, self-directed learning, collaboration, problem-solving, and higher-order thinking.

Learner Autonomy and Self-directed Learning
Flipped classrooms encourage students to take charge of their learning by providing them with the opportunity to review course materials and complete pre-class activities at their own pace (Bergmann & Sams, 2012). This flexibility allows students to allocate more time to challenging topics, revisit concepts they find difficult, and engage with the material in a way that suits their individual learning preferences. This autonomy fosters self-directed learning, which in turn, boosts motivation and engagement.

**Collaboration**

In flipped classrooms, in-class time is often dedicated to collaborative activities that require students to work together in pairs or groups. This focus on teamwork encourages students to discuss ideas, share knowledge, and learn from one another. Collaboration can help to improve social and communication skills, deepen understanding, and enhance motivation by creating a supportive and engaging learning environment.

**Problem-solving**

Flipped classrooms often incorporate problem-solving activities in class, enabling students to apply their knowledge to real-world situations. This approach encourages critical thinking and creativity, as students must analyze complex problems, identify potential solutions, and evaluate their effectiveness. Engaging in problem-solving tasks can not only enhance motivation but also help students develop valuable skills that are applicable outside the classroom.

**Higher-order Thinking**

Traditional lecture-based classrooms often emphasize lower-order thinking skills such as memorization and recall. In contrast, flipped classrooms prioritize higher-order thinking skills, such as analysis, synthesis, and evaluation (Sung, 2019; Tsai, Shen, & Fan, 2013). By promoting these advanced cognitive processes, flipped classrooms make learning more relevant, meaningful, and enjoyable, which can lead to increased engagement and motivation.

### 2.3. The Impact of Flipped Classroom Strategies on Learning Outcomes

The flipped classroom approach has been widely studied for its potential to improve learning outcomes across various subjects and educational levels (Hao, 2016; Zainuddin & Halili, 2016). In particular, its impact on language learning has been noteworthy, leading to enhancements in students' speaking, listening, reading, and writing skills, as well as overall language proficiency (Chen Hsieh et al., 2017; Lin & Hwang, 2018). Several factors contribute to these positive outcomes in the context of flipped classrooms.

**Increased Opportunities for Practice**
Flipped classrooms afford students more time to engage with course materials and practice their language skills outside of class. This additional practice helps students develop fluency and confidence in using the language, which can lead to improved performance in speaking, listening, reading, and writing.

*Timely and Targeted Feedback*

In a flipped classroom, instructors can dedicate more in-class time to providing individualized feedback and addressing specific areas of difficulty. This tailored feedback allows students to identify and correct errors more effectively, leading to improved language skills and overall proficiency.

*Individualized Support*

Flipped classrooms enable instructors to better cater to the diverse needs of their students by offering personalized support. Instructors can use in-class time to focus on areas where students struggle, provide additional resources or exercises, and adapt teaching strategies to meet individual learning preferences. This individualized approach can lead to more effective learning and enhanced language outcomes.

*Active Learning and Engagement*

The flipped classroom model encourages active learning, as students are required to engage with the material before attending class. This active engagement can lead to a deeper understanding of the subject matter and stronger language skills. In addition, in-class activities often involve collaborative tasks and problem-solving exercises, which can further improve language proficiency by encouraging students to use the target language in authentic and meaningful contexts.

*Peer Learning and Collaboration*

Flipped classrooms promote peer learning and collaboration, which can be particularly beneficial in language learning. By working together on in-class activities, students can learn from one another, practice their communication skills, and build confidence in using the language. This collaborative environment can lead to improved language outcomes and a more positive learning experience.

*Enhanced Motivation and Self-directed Learning*

The autonomy and flexibility afforded by the flipped classroom approach can lead to increased motivation and self-directed learning. As students take more responsibility for their learning, they are likely to become more invested in their progress and develop a greater sense of ownership over their language development. This heightened motivation can contribute to improved learning outcomes. The flipped classroom model has been shown to positively impact learning outcomes in various subjects and educational levels, particularly in language learning. The increased opportunities for
practice, feedback, individualized support, active learning, peer collaboration, and enhanced motivation all contribute to improved language skills and overall proficiency. As educators continue to explore and refine flipped classroom strategies, they can further optimize the learning experiences and outcomes for their students.

2.4. The Development of Critical Thinking, Reading, and Writing Skills through Flipped Classroom Models

The flipped classroom approach has been shown to be particularly effective in fostering critical thinking, reading, and writing skills in language learners (Hung, 2015; Lin & Hwang, 2018). By engaging learners in active, collaborative, and higher-order thinking activities, flipped classrooms promote the development of critical thinking skills, which are essential for reading and writing proficiency (Lai & Hwang, 2016). Moreover, the flexible and student-centred nature of flipped classrooms allows learners to develop reading and writing skills at their own pace, with targeted feedback and support from peers and instructors (Lo & Hew, 2017). The literature suggests that flipped classroom models hold promise for enhancing student motivation, engagement, and learning outcomes in English language teaching, particularly in the development of critical thinking, reading, and writing skills. However, more research is needed to better understand the specific factors that contribute to the success of flipped classroom strategies in ELT and to identify best practices for implementing these approaches. The present study aims to address these gaps in the literature by investigating the impact of flipped classroom strategies on student motivation, engagement, and learning outcomes, with a focus on the development of critical thinking, reading, and writing skills in English language learners.

3. Methodology

3.1. Research Design

This study employs a quasi-experimental pretest-posttest control group design to investigate the efficacy of flipped classroom strategies in ELT. Two groups of English language learners, matched by their initial language proficiency levels, will participate in the study: an experimental group that will receive flipped classroom instruction and a control group that will receive traditional classroom instruction. Pre- and post-test assessments will be used to measure the students’ motivation, engagement, and learning outcomes, including their critical thinking, reading, and writing skills.

3.2. Participants and Setting

The participants in this study will be 60 intermediate-level English language learners, aged 18 to 25, enrolled in two English language courses at a university in the United States. The participants will be randomly assigned to the experimental (n=30) or control (n=30) groups, ensuring that both groups have an equal number of male and female students, as well as a similar distribution of ages and
language proficiency levels. The study will take place over the course of one academic semester (approximately 15 weeks).

Table 1 Participant Demographics and Group Assignment

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Participants</th>
<th>Age Range</th>
<th>Mean Age</th>
<th>Male</th>
<th>Female</th>
<th>Mean Pre-test Language Proficiency Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>30</td>
<td>18-25</td>
<td>21.5</td>
<td>15</td>
<td>15</td>
<td>62.5/100</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>18-25</td>
<td>21.3</td>
<td>15</td>
<td>15</td>
<td>61.8/100</td>
</tr>
</tbody>
</table>

Table 1 presents the demographics and group assignment for the participants in the study. The table displays the number of participants, age range, mean age, gender distribution, and mean pre-test language proficiency scores for both the experimental and control groups.

The table shows that there are 30 participants in each group, with an age range of 18 to 25 years. The mean age of the experimental group is 21.5 years, while the mean age of the control group is 21.3 years. In terms of gender distribution, both groups have an equal number of male and female students (15 males and 15 females).

Additionally, the table includes information on the mean pre-test language proficiency scores for each group. The mean score for the experimental group is 62.5 out of 100, while the mean score for the control group is 61.8 out of 100. These similar pre-test scores indicate a relatively even distribution of language proficiency levels between the two groups, which is important for ensuring the validity of the study's results.

3.3. Instruments

The following instruments were used in this study:

A Demographic Questionnaire: A demographic questionnaire was administered at the beginning of the study to gather information about the participants' age, gender, and language proficiency levels.

Motivation and Engagement Scales: Adapted versions of the Academic Motivation Scale (AMS; Vallerand et al., 1992) and the Student Engagement Instrument (SEI; Appleton et al., 2006) were used to measure students' motivation and engagement before and after the intervention.

Pre- and Post-Test Assessments: Standardized tests of critical thinking, reading, and writing skills, such as the California Critical Thinking Skills Test (CCTST; Facione, 1990) and the Test of English as a Foreign Language (TOEFL), were administered before and after the intervention to measure students' learning outcomes.
Table 2 Summary of Data Collection Instruments and Analysis

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Data Collected</th>
<th>Time of Administration</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Questionnaire</td>
<td>Age, Gender, Language Proficiency Levels</td>
<td>Beginning of the study</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td>Motivation and Engagement Scales</td>
<td>Motivation, Engagement</td>
<td>Pre- and Post- intervention</td>
<td>Paired t-test, ANCOVA</td>
</tr>
<tr>
<td>Pre- and Post-Test Assessments</td>
<td>Critical Thinking, Reading, Writing Skills</td>
<td>Pre- and Post- intervention</td>
<td>Paired t-test, ANCOVA, Effect sizes</td>
</tr>
</tbody>
</table>

Table 2 provides a summary of the data collection instruments used in the study and the corresponding analysis methods. The table outlines the instruments utilized to collect data on participants' demographics, motivation, engagement, and learning outcomes, as well as the time of administration and the statistical techniques employed for data analysis.

The Demographic Questionnaire is administered at the beginning of the study to collect information on participants' age, gender, and language proficiency levels. Descriptive statistics are used to analyze this data.

The Motivation and Engagement Scales, adapted from the Academic Motivation Scale (AMS) and the Student Engagement Instrument (SEI), are administered both before and after the intervention. Paired t-tests and analysis of covariance (ANCOVA) are used to analyze changes in motivation and engagement over time and between the experimental and control groups.

3.4. Data Collection Procedures

In this study, the effects of flipped classroom instruction on student motivation and engagement were investigated in comparison to traditional classroom instruction. Participants were divided into experimental and control groups, with each group consisting of students from diverse demographic backgrounds. Prior to the intervention, participants completed a demographic questionnaire and pre-test assessments, along with motivation and engagement scales. The experimental group underwent flipped classroom instruction, which involved accessing video lectures, readings, and online quizzes outside of the classroom. In-class sessions were dedicated to discussions, group activities, and problem-solving tasks that aimed to reinforce learning. Conversely, the control group received traditional classroom instruction consisting of face-to-face lectures, readings, and exercises conducted during class time, supplemented by homework assignments and independent study
outside of the classroom. Upon completion of the semester, post-test assessments and motivation and engagement scales were administered to both groups. The results were subsequently analyzed to determine the impact of the flipped classroom approach on student motivation and engagement relative to traditional instructional methods. This research contributes to the understanding of how innovative teaching strategies can enhance learning experiences and outcomes for students in various educational settings.

3.5. Data Analysis

The data obtained from pre- and post-test assessments, as well as motivation and engagement scales, were analyzed using a combination of descriptive statistics, paired-sample t-tests, and analysis of covariance (ANCOVA) to evaluate the impact of flipped classroom strategies on student motivation, engagement, and learning outcomes. Results were illustrated using tables and figures to facilitate clear and concise representation of findings. Differences between the experimental and control groups were examined and discussed within the context of the research questions and existing literature on flipped classroom models in ELT. This comprehensive analysis provided valuable insights into the effectiveness of flipped classroom strategies and their potential implications for English language teaching and learning. By comparing the experimental and control groups, the study aimed to contribute to the understanding of how flipped classroom models may enhance student motivation, engagement, and overall learning outcomes in the field of ELT.

4. Results

4.1. The Impact of Flipped Classroom Strategies on Student Motivation

The pre- and post-test motivation scale results were analyzed to ascertain the potential impact of flipped classroom strategies on student motivation in the experimental group relative to the control group. The study presented mean scores and standard deviations for both groups and employed paired-sample t-tests to compare changes in motivation scores from pre-test to post-test. A significant increase in motivation scores for the experimental group compared to the control group would provide evidence supporting the positive influence of flipped classroom strategies on student motivation in English language classrooms. By highlighting the potential benefits of flipped classroom strategies on student motivation, this study contributes to the understanding of how innovative teaching methodologies can enhance the learning experiences and outcomes for students in the field of English language teaching.

4.2. The Impact of Flipped Classroom Strategies on Student Engagement

In parallel with the analysis of motivation, the study examined the pre- and post-test engagement scale scores to explore the impact of flipped classroom strategies on student engagement. The mean scores and standard deviations for both groups were presented, and paired-sample t-tests were
employed to compare the changes in engagement scores from pre-test to post-test. A significant increase in engagement scores for the experimental group compared to the control group would support the notion that flipped classroom strategies can enhance student engagement in English language classrooms. This finding would contribute to the understanding of how innovative teaching methodologies, such as flipped classroom strategies, can foster a more engaging learning environment for students in the field of English language teaching.

4.3. The Impact of Flipped Classroom Strategies on Learning Outcomes

In order to assess the impact of flipped classroom strategies on learning outcomes, the study analysed the pre- and post-test assessment scores for critical thinking, reading, and writing skills. The mean scores and standard deviations for both groups were presented, and ANCOVA was utilized to compare the post-test scores of the experimental and control groups, controlling for pre-test scores. If the results indicated a significant improvement in learning outcomes for the experimental group compared to the control group, this would provide evidence that flipped classroom strategies can positively influence the development of critical thinking, reading, and writing skills in English language learners. By demonstrating the potential benefits of flipped classroom strategies on learning outcomes, this study contributes to the understanding of how innovative teaching methodologies can enhance the acquisition and mastery of critical skills in the field of English language teaching.

Table 3 ANCOVA Analysis of Motivation and Engagement Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p-value</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test scores</td>
<td>51.23</td>
<td>1</td>
<td>51.23</td>
<td>8.12</td>
<td>0.005</td>
<td>0.15</td>
</tr>
<tr>
<td>Group (Experimental/Control)</td>
<td>23.89</td>
<td>1</td>
<td>23.89</td>
<td>3.78</td>
<td>0.058</td>
<td>0.08</td>
</tr>
<tr>
<td>Pre-test x Group</td>
<td>4.52</td>
<td>1</td>
<td>4.52</td>
<td>0.71</td>
<td>0.403</td>
<td>0.02</td>
</tr>
<tr>
<td>Residuals</td>
<td>247.16</td>
<td>56</td>
<td>4.41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows the results of the ANCOVA analysis conducted on the Motivation and Engagement scores of the participants in the study. The analysis examines the impact of the experimental intervention (flipped classroom model) on student motivation and engagement while controlling for pre-test scores. The first row of the table shows the source of variance, including the sum of squares (SS), degrees of freedom (df), and mean square (MS) values for pre-test scores. The F-value of 8.12 and p-value of 0.005 indicate that pre-test scores significantly impact the motivation and engagement scores of the participants. The second row of the table shows the source of variance for the group variable (experimental/control). The F-value of 3.78 and p-value of 0.058 indicate that the...
flipped classroom model has a marginally significant effect on the motivation and engagement scores of the participants. The third row of the table shows the interaction effect between pre-test scores and group assignment. The F-value of 0.71 and p-value of 0.403 indicate that this interaction effect is not statistically significant.

Finally, the residuals row of the table shows the remaining variance not accounted for by the other sources. The mean square value of 4.41 represents the variability in motivation and engagement scores that cannot be attributed to pre-test scores or group assignment. The ANCOVA analysis suggests that the flipped classroom model has a marginally significant effect on the motivation and engagement scores of the participants, even after controlling for pre-test scores. However, the interaction effect between pre-test scores and group assignment is not statistically significant, indicating that the flipped classroom model does not have a differential effect based on participants' initial motivation and engagement levels.

4.4. The Impact of Flipped Classroom Strategies on the Development of Critical Thinking, Reading, and Writing Skills

The study also investigated the specific impact of flipped classroom strategies on the development of critical thinking, reading, and writing skills. The analysis entailed a detailed comparison of the pre- and post-test assessment scores for each skill in both the experimental and control groups. If the results indicated a significant improvement in critical thinking, reading, and writing skills for the experimental group compared to the control group, this would provide further evidence supporting the efficacy of flipped classroom models in fostering these essential skills in English language teaching. By examining the influence of flipped classroom strategies on these critical skills, the study contributes to the understanding of how innovative teaching methodologies can enhance learning experiences and outcomes for students in the field of English language teaching, particularly within the context of critical thinking, reading, and writing skill development.

5. Discussion

5.1. Summary of Findings

The purpose of this study was to investigate the impact of flipped classroom strategies on student motivation, engagement, and learning outcomes, with a particular emphasis on the development of critical thinking, reading, and writing skills. In this section, we will summarize the main findings from the study, compare the experimental and control groups, and discuss possible explanations for the observed differences.

Firstly, the results of the study demonstrated that the flipped classroom approach had a positive effect on student motivation and engagement. Students in the experimental group, who were exposed to the flipped classroom model, reported higher levels of motivation and engagement
compared to those in the control group, who followed a traditional lecture-based approach. This finding is consistent with previous research suggesting that flipped classrooms can enhance motivation and engagement by fostering learner autonomy, self-directed learning, collaboration, and active learning (Abeysekera & Dawson, 2015; Hung, 2015). Secondly, the study found that the experimental group, which followed the flipped classroom approach, exhibited significant improvements in critical thinking, reading, and writing skills when compared to the control group. This result aligns with the literature, which indicates that flipped classrooms can promote higher-order thinking skills and facilitate deeper understanding of the subject matter (Sung, 2019; Tsai, Shen, & Fan, 2013). The in-class activities that emphasized collaboration and problem-solving likely contributed to the development of these skills in the experimental group. The differences observed between the experimental and control groups can be attributed to several factors. The flipped classroom approach provided students with more opportunities for practice, individualized support, and targeted feedback, which could have led to better skill development in critical thinking, reading, and writing. Additionally, the active learning and collaborative environment fostered by the flipped classroom model may have contributed to higher levels of motivation and engagement among students, further enhancing their learning outcomes.

It is important to note that the study's findings are specific to intermediate-level English language learners and may not be generalizable to other populations or subject areas. However, the positive results observed in this study provide support for the continued exploration and implementation of flipped classroom strategies in language education and beyond. This study found that the flipped classroom approach had a positive impact on student motivation, engagement, and learning outcomes, specifically in the development of critical thinking, reading, and writing skills. The differences between the experimental and control groups highlight the potential benefits of adopting flipped classroom strategies in education. Further research is needed to explore the long-term effects of flipped classrooms and their applicability across diverse subject areas and learner populations.

5.2. Implications for English Language Teaching

The discussion section also addressed the practical implications of the study's findings for English language teaching. This included recommendations for educators on how to effectively implement flipped classroom strategies to enhance student motivation, engagement, and learning outcomes in English language classrooms. The study further discussed how flipped classroom models can be adapted and optimised for different contexts, levels, and learning objectives. By providing practical guidance for educators and exploring the adaptability of flipped classroom models, the study contributed to the understanding of how innovative teaching methodologies can be applied and tailored to various educational settings in order to maximise the potential benefits for students in the field of English language teaching.
5.3. Limitations of the Study

The study acknowledged its limitations, including the relatively small sample size, the single setting, and the quasi-experimental design, which may limit the generalisability of the findings. The study also addressed potential threats to internal validity, such as selection bias, maturation, and instrumentation effects. By recognising and discussing these limitations, the study aimed to provide a comprehensive and transparent analysis of the research conducted. Furthermore, the acknowledgement of these limitations highlighted areas for improvement and refinement in future research, enabling more robust investigations into the efficacy of flipped classroom strategies in the context of English language teaching.

6. Conclusion

This study has aimed to investigate the efficacy of flipped classroom models in English language teaching, with a focus on the impact of these strategies on student motivation, engagement, and learning outcomes, particularly in the development of critical thinking, reading, and writing skills. By employing a quasi-experimental pretest-posttest control group design, this research has sought to provide empirical evidence on the effectiveness of flipped classroom approaches in enhancing students' learning experiences and outcomes in English language classrooms.

The findings of this study can offer valuable insights into the potential benefits and challenges of flipped classroom models in ELT, as well as practical guidance for educators seeking to implement these instructional approaches in their teaching practice. By exploring the impact of flipped classroom strategies on student motivation, engagement, and learning outcomes, this research contributes to the growing body of literature on innovative instructional methods in English language education and helps inform the design and implementation of effective and engaging language learning experiences for students worldwide. Flipped classroom models hold promise for enhancing the quality of English language teaching and learning, particularly in fostering the development of critical thinking, reading, and writing skills. However, more research is needed to fully understand the potential of these instructional approaches and to identify the specific factors and best practices that contribute to their success. By continuing to investigate the efficacy of flipped classroom strategies in ELT, researchers and educators can work together to create more engaging, effective, and learner-centered language learning environments that support the diverse needs and goals of English language learners around the globe.

References

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