The Impact of Using a Flipped Classroom Model on ESL Students' Academic Achievement and Motivation

تأثير استخدام أسلوب الصف المقلوب على الدّافعيّة والتّحصيل الأكاديمي لدى متعلمي اللغة الإنجليزية كلغة ثانية

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Abstract   **Turnitin:20%**

This research investigates the efficiency of implementing the Flipped Classroom Model (FCM) on the motivation levels and academic performance of Grade 5 English as a Second Language (ESL) learners within a private educational institution located in Beirut. A quasi-experimental research design was utilized, incorporating 80 student participants who were evenly distributed into two distinct groups: an experimental cohort (n = 40) receiving instruction through the flipped classroom methodology, and a control cohort (n = 40) receiving instruction via conventional teacher-centered pedagogical approaches. The educational intervention spanned an eight-week period, throughout which the experimental cohort engaged with instructional video content prior to class sessions and participated in dynamic, collaborative classroom activities, whereas the control cohort received traditional instructional delivery. Data collection procedures included pre-intervention and post-intervention assessments evaluating students' comprehensive ESL achievement, complemented by motivation questionnaires administered before and after the intervention period. Statistical analysis was conducted using SPSS version 28, employing paired and independent samples t-tests with a significance threshold of p <0.05. The findings demonstrated that although both cohorts exhibited comparable baseline scores on pre-intervention assessments, the experimental cohort displayed substantial improvements in both motivational levels and academic achievement following the intervention when

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compared to the control cohort. These outcomes substantiate that the flipped classroom pedagogical approach promotes enhanced engagement and academic advancement among young ESL learners. Drawing from these findings, the researcher advocates for Lebanese ESL educators to implement

the flipped classroom model as a viable and effective alternative to traditional instructional methodologies to elevate learners' motivation and comprehensive language proficiency.

Keywords: Flipped Classroom Model, ESL Learners, Motivation, Academic Achievement.

المستخلص

يهدف هـذا البحـث إلـى فحـص مدى فعاليّة استخدام نموذج الصف المقلوب (FCM) في صف اللغة الإنجليزيّة كلغة أجنبيّة في تحسين دافعيّة وإنجاز طلاب الصف الخامس في إحدى المدارس الخاصة في بيروت. اعتمدت الدّراسة على تصميم شبه تجريبي شمل (80) طالبًا قسّم بالتّساوي إلى مجموعتين: المجموعة التّجريبيّة (عددها 40) التي تعلمت وفقا لنموذج الصف المقلوب، والمجموعة الضابطة (عددها 40) التي تعلمت وفق الطرق التّقليديّة المعتمدة على المعلم. استمر التدخل لمدة ثمانية أسابيع، وقد شاركت المجموعة التّجريبيّة في أنشطة تعليميّة قبل البدأ بالحصّة من خلال مشاهدة مقاطع فيديو تعليميّة، ثم شاركت في أنشطة صفيّة تفاعليّة وتعاونيّة، بينما اتبعت المجموعة الضابطة أسلوب التعليم التقليدي. جُمعت البيانات من خلال اختبارات قبليّة وبعديّة لقياس التحصيل العام في اللغة الإنجليزيّة، بالإضافة إلى

استبيان الدّافعيّة قبل وبعد التّدخل. وقد حُلِّلت البيانات باستخدام برنامج SPSS الإصدار 28 من خلال اختبارات zللعيّنات المترابطة والمستقلة عند مستوى دلالة $(p < 0.05)$. أظهرت النّتائج أن المجموعتين كانتا متقاربتين في نتائج الاختبار القبلي، إلّا أن المجموعة التّجريبيّة حققت تحسّنًا ملحوظًا في الدّافعيّة، والتّحصيل الأكاديمي بعد تطبيق التّدخل مقارنة بالمجموعة الضابطة. تؤكد النتائج أن استخدام نموذج الصف المقلوب يعزّز التّفاعل، والتّعلم الذاتي، والتّقدم الأكاديمي لـدى متعلمي اللغة الإنجليزيّة مـن الفئة الصغيرة. وبناءً على هذه النتائج، توصي الدّراسة أن يعتمد معلمو اللغة الإنجليزيّة في لبنان نموذج الصف المقلوب كبديل فعّال للطرق التّقليديّة في التدريس من أجل رفع مستوى دافعية الطلاب وإنجازهم الأكاديمي في تعلم اللغة.

الكلمات المفتاحيّة: نمـوذج الصف المقلوب، متعلمو اللغة الإنجليزية كلغة أجنبيّة، الدّافعيّة، التحصيل الأكاديمي.

Introduction

Education is experiencing a great shift characterized by the incorporation of innovative pedagogical methodologies designed to enhance student engagement and optimize learning outcomes. Among these emerging instructional approaches, the Flipped Classroom Model (FCM) has garnered considerable attention within academic communities globally. This pedagogical framework fundamentally restructures the conventional educational paradigm by repositioning traditional lecture-based content delivery to pre-class learning experiences, thereby liberating valuable in-class time for interactive, student-centered activities that promote deeper understanding and application of knowledge (Bergmann & Sams, 2012).

Within the specific context of English as a Second Language (ESL) education, the imperative to cultivate both intrinsic motivation and academic excellence remains paramount. ESL learners frequently encounter multifaceted challenges that extend beyond mere linguistic competence, encompassing psychological, socio-cultural, and pedagogical dimensions that collectively influence their language acquisition journey. Traditional teacher-centered instructional methodologies, while historically prevalent, have demonstrated limitations in adequately addressing the diverse learning needs and motivational requirements of contemporary ESL students (Debs et al., 2019; Schwerdt & Wuppermann, 2011).

The Lebanese educational context presents unique characteristics and challenges that warrant specialized pedagogical consideration. Private educational institutions in Beirut, which serve diverse student populations, are increasingly recognizing the necessity to adopt innovative teaching strategies that align with 21st-century learning competencies. The implementation of technology-enhanced instructional models, such as the flipped classroom approach, represents a promising avenue for addressing the persistent challenges of student motivation and academic achievement in ESL education.

Motivation constitutes a fundamental psychological construct that significantly influences the success of learning a language. Research has consistently demonstrated that motivated learners exhibit greater persistence, engagement, and ultimately achieve superior language proficiency outcomes (AlMunawwarah, 2018; Bagheri Nevisi & Farhani, 2022; Dakhi & Damanik, 2018). The intricate relationship between instructional

methodology and student motivation suggests that pedagogical innovations capable of enhancing motivational levels may consequently facilitate improved academic achievement.

The flipped classroom model offers distinctive advantages for ESL instruction by enabling learners to engage with foundational content at their individual pace outside the classroom environment, subsequently utilizing class time for meaningful communicative practice, collaborative learning activities, and personalized teacher support. This pedagogical restructuring aligns with contemporary understanding of effective language acquisition, which emphasizes the significance of active engagement, authentic communication, and learner autonomy (Gustian et al., 2023).

Despite the development of research examining flipped classroom implementations across various educational contexts, there remains a paucity of empirical evidence specifically investigating its effectiveness within Lebanese ESL classrooms, particularly at the elementary level. This research gap underscores the necessity for context-specific investigations that can inform evidence-based pedagogical decisions and contribute to the advancement of ESL education in Lebanon.

Statement of the Problem

Traditional pedagogical approaches in ESL education, characterized by teacher-centered instruction and passive learning experiences, have demonstrated limited effectiveness in fostering sustained student motivation and optimal academic achievement. Lebanese ESL educators face persistent challenges in maintaining student engagement, cultivating intrinsic motivation, and facilitating meaningful language acquisition within conventional classroom structures. The predominance of traditional instructional methodologies may inadequately address the diverse learning preferences, technological fluency, and engagement needs of contemporary elementary-level ESL learners.

Furthermore, the motivational challenges confronting ESL students are well-documented in the literature, with numerous studies identifying demotivating factors including monotonous instructional delivery, limited opportunities for active participation, insufficient personalized learning experiences, and inadequate integration of technology in language learning contexts (Ibrahim Shousha, 2018; Minalla, 2022). These motivational deficits can precipitate diminished academic performance, reduced

language learning persistence, and suboptimal development of communicative competence.

The imperative to identify and implement pedagogical innovations that can simultaneously enhance student motivation and academic achievement in ESL contexts is therefore evident. The flipped classroom model represents a potentially transformative approach that warrants rigorous empirical investigation within the Lebanese educational context to determine its effectiveness and applicability for elementary-level ESL instruction.

Purpose of the Study

The primary purpose of this research is to empirically investigate the impact of implementing the Flipped Classroom Model on the motivation levels and academic achievement of Grade 5 ESL students within a private educational institution in Beirut, Lebanon. This study aims to provide insights that can inform pedagogical decision-making and contribute to the enhancement of ESL instructional practices in Lebanese schools.

Specifically, this study seeks to explore the efficiency of the flipped classroom model in improving academic achievement among Grade 5 ESL learners compared to traditional instructional approaches. It also aims

to evaluate the impact of the flipped classroom model on student motivation levels in ESL learning contexts.

Research Questions

This investigation is guided by the below research questions:

1. Does the implementation of the Flipped Classroom Model significantly impact the academic achievement of Grade 5 ESL students in a private school in Beirut?
2. Does the implementation of the Flipped Classroom Model significantly affect the motivation levels of Grade 5 ESL students in a private school in Beirut?
3. What are the comparative differences in academic achievement and motivation between ESL students taught using the flipped classroom model and those taught using traditional teacher-centered methods?

Significance of the Study

This research holds substantial significance for ESL educators in Lebanon. The findings provide empirical evidence regarding the effectiveness of the flipped classroom model, enabling informed decisions about instructional methodology adoption. The study contributes

practical insights that can guide the design and implementation of flipped classroom approaches specifically tailored to ESL contexts.

For educational administrators and policymakers, this research offers data-driven evidence that can inform curriculum development, professional development initiatives, and resource allocation decisions related to technology integration and pedagogical innovation in ESL programs. The findings may support institutional decisions regarding the adoption of student-centered, technology-enhanced instructional approaches.

For the broader academic community, this study contributes to the growing body of empirical research examining flipped classroom effectiveness in second language education, particularly within underrepresented contexts such as Lebanon. The research addresses existing gaps in the literature and provides context-specific insights that enhance understanding of how pedagogical innovations function across diverse educational settings.

For ESL students themselves, the potential benefits of this research are direct and consequential. If the flipped classroom model demonstrates effectiveness in enhancing motivation and achievement, students may experience more engaging, personalized, and effective language learning experiences that better prepare them for academic success and real-world communication.

Literature Review

This section examines the existing scholarship relevant to the flipped classroom model, ESL education, student motivation, and academic achievement.

The Flipped Classroom Model: Conceptual Foundations

The Flipped Classroom Model represents a pedagogical innovation that fundamentally inverts the traditional educational structure. In conventional classrooms, teachers typically deliver content through lectures during class time, with students subsequently completing practice activities and homework independently outside the classroom environment. The flipped model reverses this sequence, positioning content delivery as a pre-class learning activity, typically through video lectures or multimedia resources, thereby transforming classroom time into an interactive space for application, discussion, collaboration, and deeper learning (Bergmann & Sams, 2012).

This pedagogical approach is grounded in constructivist learning theory, which posits that learners actively construct knowledge through engagement with content, social interaction, and authentic problem-solving experiences. The flipped classroom facilitates constructivist principles by enabling students to engage with foundational content at their own pace while utilizing class time for higher-order cognitive activities that benefit from teacher guidance and peer collaboration.

The theoretical underpinnings of the flipped classroom also draw from Bloom's Taxonomy, which hierarchically organizes cognitive processes. By relocating lower-order cognitive activities to pre-class learning and dedicating classroom time to higher-order thinking activities, the flipped model optimizes the use of instructional time and teacher expertise (Anderson & Krathwohl, 2001).

Flipped Classroom in Language Education

The application of flipped classroom methodologies within language education contexts has garnered increasing research attention. Language learning presents unique pedagogical considerations, as it requires not only cognitive knowledge acquisition but also the development of communicative competence through authentic practice and interaction. The flipped classroom model offers distinctive advantages for language education by maximizing opportunities for communicative practice during class time while enabling students to engage with grammatical explanations, vocabulary instruction, and linguistic concepts outside the classroom (Gustian et al., 2023).

Research examining flipped classroom implementations in ESL contexts has yielded generally positive findings. Wahib and Tamer (2021) investigated the effect of the flipped classroom model on ESL phonology students' academic achievement, finding significant improvements in student performance compared to traditional instructional approaches. Their study demonstrated that students exposed to flipped classroom instruction exhibited enhanced understanding of phonological concepts and improved practical application of phonological knowledge.

Similarly, Nhạc (2021) examined the effects of flipped classroom on students' academic achievement in legal English learning contexts, reporting that students in flipped classroom conditions demonstrated superior academic performance compared to control groups receiving

traditional instruction. The study attributed these improvements to increased opportunities for active learning, personalized pacing, and enhanced student engagement with course content.

The benefits of flipped classroom models for ESL learners extend beyond academic achievement to encompass enhanced learner autonomy, improved time management skills, and increased opportunities for differentiated instruction. By enabling students to control the pace and timing of content engagement, the flipped model accommodates diverse learning styles and proficiency levels, addressing the heterogeneity characteristic of many ESL classrooms (Gustian et al., 2023).

Traditional Teaching Methods in ESL Education

Traditional teaching methodologies in ESL education have historically emphasized teacher-centered instruction, explicit grammar instruction, vocabulary memorization, and structured practice activities. These conventional approaches typically position the teacher as the primary knowledge source and authority figure, with students assuming relatively passive roles as recipients of information (Schwerdt & Wuppermann, 2011).

While traditional teaching methods have demonstrated effectiveness in certain contexts and for specific learning objectives, research has increasingly identified limitations associated with these approaches. Debs et al. (2019) conducted a comparative study examining students' perspectives on innovative versus traditional teaching methods in technology programs, finding that students generally perceived innovative approaches as more engaging, relevant, and conducive to deeper learning compared to traditional instructional methods.

Schwerdt and Wuppermann (2011) investigated whether traditional teaching approaches are inherently ineffective, employing a within-student between-subject research design. Their findings suggested that while traditional teaching methods can facilitate basic knowledge acquisition, they may be less effective in promoting higher-order thinking skills, student engagement, and long-term knowledge retention compared to more student-centered approaches.

Wang (2022) studied the effectiveness of old and new teaching methods, concluding that while traditional approaches maintain certain advantages in terms of structure and content coverage,

modern pedagogical innovations generally demonstrate superior effectiveness in fostering student engagement, critical thinking, and practical application of knowledge.

The limitations of traditional ESL teaching methods are particularly evident in relation to student motivation and engagement. The predominantly passive learning experiences characteristic of traditional instruction may fail to adequately stimulate intrinsic motivation or provide the authentic communicative opportunities essential for language acquisition (Sadeghi, 2019).

Student Motivation in ESL Learning

Motivation constitutes one of the most critical factors influencing success in second language acquisition. The construct of motivation in language learning is multidimensional, encompassing both intrinsic motivation (driven by inherent interest and enjoyment) and extrinsic motivation (driven by external rewards or consequences). Research consistently demonstrates that motivated learners invest greater effort, persist longer in the face of challenges, and ultimately achieve higher levels of language proficiency (AlMunawwarah, 2018).

AlMunawwarah (2018) examined students' motivation in ESL learning,

identifying key motivational factors including perceived relevance of content, opportunities for success, teacher support, and engaging instructional activities. The study emphasized that motivation is not a static trait but rather a dynamic state that can be influenced by pedagogical practices and classroom environments.

Bagheri Nevisi and Farhani (2022) investigated motivational factors affecting Iranian ESL learners across differing proficiency levels, finding that motivational profiles vary according to learners' language competence and learning contexts. Their research highlighted the importance of tailoring motivational strategies to students' specific needs and proficiency levels.

Dakhi and Damanik (2018) conducted a qualitative study examining students' motivation in reading English text within ESL contexts, revealing that motivation is significantly influenced by factors such as text relevance, task difficulty, perceived competence, and instructional support. Their findings underscore the importance of carefully designing learning experiences that align with students' interests and capabilities.

The relationship between instructional methodology and student motivation has been extensively

documented. Ibrahim Shousha (2018) explored motivational strategies and student motivation in Saudi ESL contexts, concluding that specific pedagogical practices—including the use of technology, collaborative learning, authentic materials, and student choice—can significantly enhance motivational levels.

Conversely, research has also identified factors that contribute to student demotivation in ESL contexts. Minalla (2022) examined ESL learners' demotivation from teachers' perspectives, identifying key demotivating factors including monotonous teaching methods, lack of perceived progress, insufficient teacher support, and limited opportunities for meaningful interaction. These findings emphasize the critical importance of adopting pedagogical approaches that actively cultivate and sustain student motivation.

The role of teacher-student rapport in motivation has also received research attention. AlAssali and Davenport (2024) investigated teachers' perceptions of the impact of teacher-student rapport on motivation in ESL classrooms, finding that positive teacher-student relationships significantly contribute to enhanced student motivation, engagement, and academic persistence.

Academic Achievement in ESL Education

Academic achievement in ESL education encompasses multiple dimensions, including linguistic competence (grammar, vocabulary, pronunciation), communicative abilities (speaking, listening, reading, writing), and pragmatic knowledge (appropriate language use in social contexts). The factors influencing ESL academic achievement are complex and multifaceted, involving individual learner characteristics, instructional quality, learning environment, and motivational factors (Yang & Wang, 2022).

Yang and Wang (2022) examined the role of academic resilience and motivational intensity in ESL learners' academic achievement, finding that both constructs significantly predict language learning success. Their research demonstrated that students who exhibit higher levels of resilience and motivation achieve superior academic outcomes, even when controlling for other variables such as prior proficiency and learning aptitude.

Sabboor Hussain et al. (2020) conducted an exploratory study of motivational factors for ESL and ESL adult learners, revealing that motivation directly correlates with academic achievement outcomes.

Their findings indicated that learners with stronger motivational profiles demonstrate greater academic progress and higher proficiency attainment.

The relationship between instructional methodology and academic achievement has been a central focus of educational research. Studies comparing innovative and traditional teaching approaches have generally found that student-centered, technology-enhanced pedagogical methods yield superior academic outcomes compared to conventional teacher-centered instruction (Debs et al., 2019; Wang, 2022).

Tseng (2021) explored motivation in ESL learning through a case study of elementary students in rural areas, finding that motivation significantly mediates the relationship between instructional quality and academic achievement. The study emphasized that pedagogical approaches capable of enhancing motivation are likely to produce corresponding improvements in academic performance.

Technology Integration in ESL Education

The integration of technology in ESL education has become increasingly prevalent, driven by the ubiquity of digital devices, the availability of multimedia resources, and recognition of technology's potential to enhance language learning experiences. Technology-enhanced language learning offers numerous advantages, including access to authentic materials, opportunities for individualized practice, immediate feedback, and engagement with multimodal content (Sadeghi, 2019).

The flipped classroom model inherently relies on technology integration, as pre-class content delivery typically utilizes video lectures, online resources, and digital learning platforms. The effectiveness of flipped classroom implementations is therefore partially contingent on students' technological access, digital literacy, and willingness to engage with technology-mediated learning experiences.

Research examining technology integration in language education has generally yielded positive findings regarding its impact on student engagement, motivation, and learning outcomes. However, scholars have also identified potential challenges, including the digital divide (unequal access to technology), the necessity for teacher professional development in educational technology, and the importance of thoughtful pedagogical design to ensure that technology enhances rather than distracts from learning objectives (Sadeghi, 2019).

Blended Learning Approaches

The flipped classroom model represents a specific form of blended learning, which combines face-to-face instruction with online or technology-mediated learning experiences. Blended learning approaches seek to leverage the advantages of both traditional classroom instruction and digital learning, creating flexible, student-centered educational experiences that optimize learning outcomes (Chikh, n.d.).

Chikh (n.d.) examined blended learning as a student-centered approach, arguing that blended models effectively address diverse learning needs, accommodate different learning paces, and provide opportunities for both independent study and collaborative learning. The research emphasized that successful blended learning implementations require careful instructional design, clear communication of expectations, and ongoing assessment of student progress.

The theoretical foundations of blended learning draw from multiple pedagogical traditions, including constructivism, connectivism, and self-directed learning theories. These theoretical perspectives collectively emphasize the importance of active learning, social interaction, personalized learning pathways, and learner autonomy—principles that align closely with the flipped classroom model.

Synthesis and Research Gaps

The existing literature provides substantial evidence supporting the potential effectiveness of flipped classroom models in enhancing student motivation and academic achievement in various educational contexts. Research specifically examining flipped classroom implementations in ESL education has generally yielded positive findings, suggesting that this pedagogical approach offers meaningful benefits for language learners.

However, several research gaps remain evident. First, there is limited empirical research examining flipped classroom effectiveness in Lebanese ESL contexts, particularly at the elementary level. Most existing studies have been conducted in other geographic and cultural contexts, raising questions about the transferability of findings to Lebanese educational settings.

Second, while numerous studies have examined either motivation or academic achievement as outcomes of flipped classroom implementation, fewer investigations

have simultaneously assessed both constructs within the same study, limiting understanding of their interrelationship in flipped learning contexts.

Third, the majority of existing research has focused on secondary or tertiary education levels, with comparatively less attention devoted to elementary-level implementations. Given the developmental and pedagogical differences characterizing elementary education, context-specific research at this level is warranted.

This study addresses these gaps by providing empirical evidence regarding the effectiveness of the flipped classroom model on both motivation and academic achievement among Grade 5 ESL learners in a Lebanese private school context. The research contributes to the scholarly literature by offering context-specific insights that can inform evidence-based pedagogical practices in Lebanese ESL education.

Methodology

This section delineates the methodological framework employed in this research, including the research design, participant selection, intervention procedures, data collection instruments, and analytical approaches.

Research Design

This study employed a quasi-experimental research design incorporating pre-test and post-test measurements with two groups: an experimental group and a control group. The quasi-experimental design was selected as the most appropriate methodological approach given the practical constraints of educational research in authentic school settings, where random assignment of individual students to conditions may not be feasible due to existing classroom structures and administrative considerations. The quasi-experimental design enables researchers to examine causal relationships between variables while accommodating the realities of educational contexts.

Research Setting and Context

The research was conducted in a private school located in Beirut, Lebanon. The school serves a diverse student population representing various socioeconomic backgrounds and linguistic profiles typical of Lebanese urban educational contexts. The school possesses adequate technological infrastructure, including internet connectivity, computer facilities, and support for students to access digital learning resources, making it a suitable setting for implementing technology-

enhanced pedagogical approaches such as the flipped classroom model.

Participants and Sampling
Sample Size and Selection

The study involved 80 Grade 5 students who were enrolled in ESL classes during the academic year in which the research was conducted. Participants were selected through purposive sampling from existing classroom sections, with two intact classes designated as the experimental and control groups respectively. Each group comprised 40 students (n = 40 per group), ensuring adequate statistical power for detecting meaningful differences between conditions.

Participant Characteristics

The participant sample included both male and female students ranging in age from 10 to 11 years, representing the typical age range for Grade 5 students in the Lebanese educational system. Students possessed varying levels of English proficiency, reflecting the heterogeneity characteristic of ESL classrooms. Prior to the intervention, baseline assessments confirmed that the two groups were comparable in terms of pre-existing English language proficiency and motivational levels, establishing equivalence between conditions.

Intervention Description
Experimental Group: Flipped Classroom Model

The experimental group received ESL instruction using the Flipped Classroom Model over an eight-week intervention period. The topics that were discussed in the classroom were daily habits and all related vocabulary words. It also included present simple tense and writing instructions on sequence of events.

The first stage was pre-class learning activities. Students were provided access to instructional video content covering foundational ESL concepts, grammar explanations, vocabulary introduction, and language skills demonstrations. Videos were specifically designed for Grade 5 ESL learners, featuring clear explanations, visual support, and appropriate linguistic complexity. Videos typically ranged from 10 to 15 minutes in duration to maintain student attention and accommodate young learners' cognitive capacities. Students were expected to watch assigned videos before attending class and could review content multiple times as needed.

The second stage was in class learning activities. In-class activities included collaborative learning tasks where students worked in small groups on communicative activities,

problem-solving tasks, and project-based learning experiences that required application of concepts introduced in pre-class videos. It also included interactive practices where the teacher facilitated activities by including role-plays, discussions, games, and authentic communication tasks that enabled students to use English in meaningful contexts. The teacher provided individualized and small-group support, addressing specific learning needs, clarifying misconceptions, and offering targeted feedback based on observations of student performance during activities. Ongoing formative assessment strategies were employed to monitor student understanding and adjust instruction accordingly.

Moreover, students accessed pre-class video content through a designated online learning platform. The platform enabled tracking of student engagement with videos and provided opportunities for students to ask questions or seek clarification before class.

Control Group: Traditional Instruction

The control group received ESL instruction using traditional teacher-centered methodologies over the same eight-week period. The traditional instruction incorporated teacher-led instructions where the teacher delivered content primarily through direct instruction using prescribed ESL textbooks, including explanations of grammar rules, vocabulary introduction, and demonstrations of language skills. The teacher served as the primary source of information and authority in the classroom. Students spent considerable class time working individually on practice exercises, worksheets, and textbook activities. Moreover, technology use was minimal in the control group, primarily limited to occasional use of audio recordings or visual aids to supplement instruction.

Intervention Fidelity

To ensure intervention fidelity, the researcher provided training to the teacher implementing the flipped classroom approach, including guidance on video selection, in-class activity design, and facilitation strategies. Regular observations and check-ins were conducted throughout the intervention period to monitor implementation quality and address any challenges. The control group teacher received guidance to maintain consistency with traditional instructional practices typical of the school's ESL program.

Data Collection Instruments

Academic achievement was measured using pre-intervention and post-intervention ESL achievement tests designed to comprehensively assess students' English language proficiency across multiple skill areas. The achievement tests evaluated: reading comprehension (25 points), vocabulary (20 points), grammar knowledge (25 points) and writing skills (30 points).

The achievement tests were developed based on curriculum standards and validated through expert review by experienced ESL educators. Parallel forms of the test were created for pre- and post-intervention administration to minimize practice effects while maintaining comparable difficulty levels. The maximum possible score on the achievement test was 100 points.

Student motivation was assessed using a validated motivation questionnaire administered before and after the intervention. The questionnaire was adapted from the Motivated Strategies for Learning Questionnaire (MSLQ) which was originally developed by Pintrich et al. (1991) and later modified and validated by Bin Dayel et al. (2018). It aims to measure language learning motivation, with modifications to ensure age-appropriateness for Grade 5 students.

The motivation questionnaire included items assessing multiple dimensions of motivation including intrinsic motivation, extrinsic motivation, self-efficacy, effort and persistence and attitude toward English learning.

The questionnaire utilized a 5-point Likert-scale format. The questionnaire comprised 20 items, yielding a total motivation score ranging from 20 to 100 points. Higher scores indicated greater motivation levels.

The motivation questionnaire showed an acceptable level of reliability with Cronbach's alpha coefficients exceeding.70, indicating internal consistency of the instrument.

Data Collection Procedures

Data collection proceeded according to the following timeline:

Week 0 (Pre-Intervention): Both experimental and control groups completed the pre-intervention academic achievement test and motivation questionnaire. These baseline assessments established initial equivalence between groups and provided reference points for measuring change.

Weeks 18- (Intervention Period): The experimental group received

flipped classroom instruction while the control group received traditional instruction. Throughout this period, the researcher monitored implementation fidelity and documented any relevant observations or challenges.

Week 9 (Post-Intervention): Both groups completed the post-intervention academic achievement test and motivation questionnaire. These assessments measured outcomes following the eight-week intervention.

All assessments were administered during regular class time under standardized conditions to ensure consistency. Clear instructions were provided to students, and adequate time was allocated for test completion. The researcher and classroom teachers were available to answer procedural questions but did not provide assistance with test content.

Data Analysis

Data analysis was conducted using SPSS (Statistical Package for the Social Sciences) version 28. The analytical approach incorporated both descriptive and inferential statistical procedures.

Descriptive Statistics

Descriptive statistics were calculated for all variables, including means, standard deviations, and ranges for both pre-intervention and post-intervention scores on achievement tests and motivation questionnaires. Descriptive statistics provided an overview of the data and facilitated initial comparisons between groups.

Inferential Statistics

The primary inferential statistical analyses included paired samples t-tests that were conducted separately for each group (experimental and control) to examine within-group changes from pre-intervention to post-intervention on both achievement and motivation measures. These analyses addressed whether each group demonstrated significant improvement over the intervention period. It also included independent samples t-tests that were conducted to compare post-intervention scores between the experimental and control groups on both achievement and motivation measures. These analyses addressed whether the experimental group demonstrated significantly different outcomes compared to the control group following the intervention. Independent samples t-tests were also conducted on pre-intervention scores to verify that the two groups were comparable at baseline, confirming the appropriateness of subsequent comparisons.

All inferential tests were conducted using a significance level of $p < 0.05$, indicating that results with p-values below this threshold would be considered statistically significant. Effect sizes were calculated using Cohen's d to provide information about the magnitude of differences, with $d = 0.2$ considered small, $d = 0.5$ considered medium, and $d = 0.8$ considered large effects.

Validity and Reliability

Several measures were implemented to enhance internal validity including pre-test measurements, standardized intervention procedures, fidelity monitoring and controlled duration. As for the construct validity, it was addressed through the use of validated assessment instruments that appropriately measure the constructs of interest (motivation and academic achievement). The achievement test was aligned with curriculum standards and validated through expert review. The motivation questionnaire was adapted from established instruments with demonstrated validity in language learning contexts.

Results
Descriptive Statistics
Academic Achievement Scores

Table 1 presents descriptive statistics for academic achievement scores for both the experimental and control groups at pre-intervention and post-intervention time points.

Table 1: Descriptive Statistics for Academic Achievement Scores

Group	Time Point	N	Mean	SD	Minimum	Maximum
Experimental	Pre-test	40	62.45	8.73	45	78
Experimental	Post-test	40	78.92	7.21	64	92
Control	Pre-test	40	61.88	9.15	43	77
Control	Post-test	40	67.35	8.84	51	83

The descriptive statistics reveal that both groups demonstrated similar baseline achievement levels, with the experimental group averaging 62.45 (SD = 8.73) and the control group averaging 61.88 (SD = 9.15) on pre-intervention assessments. Following the intervention, the experimental group demonstrated substantial improvement, with a mean post-test score of 78.92 (SD = 7.21), representing a gain of 16.47 points. The control group also showed improvement, with a mean post-test score of 67.35 (SD = 8.84), representing a gain of 5.47 points. The magnitude of improvement was notably greater for the experimental group.

Motivation Scores

Table 2 presents descriptive statistics for motivation scores for both groups at pre-intervention and post-intervention time points.

Table 2: Descriptive Statistics for Motivation Scores

Group	Time Point	N	Mean	SD	Minimum	Maximum
Experimental	Pre-questionnaire	40	58.35	10.42	38	76
Experimental	Post-questionnaire	40	76.18	8.67	59	91
Control	Pre-questionnaire	40	57.92	11.08	35	75
Control	Post-questionnaire	40	62.45	10.21	43	79

The descriptive statistics indicate that both groups exhibited comparable baseline motivation levels, with the experimental group averaging 58.35 (SD = 10.42) and the control group averaging 57.92 (SD = 11.08) on pre-intervention questionnaires. Following the intervention, the experimental group demonstrated marked improvement in motivation, with a mean post-questionnaire score of 76.18 (SD = 8.67), representing a gain of 17.83 points. The control group showed modest improvement, with a mean post-questionnaire score of 62.45 (SD = 10.21), representing a gain of 4.53 points. The experimental group's motivational gains substantially exceeded those of the control group.

Baseline Equivalence Testing

Prior to examining intervention effects, independent samples t-tests were conducted to verify baseline equivalence between the experimental and control groups on both achievement and motivation measures. An independent samples t-test comparing pre-intervention achievement scores between groups revealed no statistically significant difference, t (78) = 0.29, p =.774. This finding confirms that the two groups were equivalent in terms of baseline academic achievement, with mean scores of 62.45 for the experimental group and 61.88 for the control group. The non-significant difference validates subsequent comparisons of post-intervention outcomes. Moreover, an independent samples t-test comparing pre-intervention motivation scores between groups revealed no statistically significant difference, t(78) = 0.18, p =.857. This finding confirms that the two groups were equivalent in terms of baseline motivation levels, with mean scores of 58.35 for the experimental group and 57.92 for the control group. The baseline equivalence supports the

validity of subsequent comparisons.

Within-Group Changes: Paired Samples t-Tests

Academic Achievement: Experimental Group

A paired samples t-test was conducted to examine whether the experimental group demonstrated significant improvement in academic achievement from pre-intervention to post-intervention. The analysis revealed a statistically significant increase in achievement scores, $t(39) = 14.87$, $p < .001$, $d = 2.35$. The mean increase of 16.47 points (from 62.45 to 78.92) represents a large effect size, indicating substantial improvement in academic achievement for students receiving flipped classroom instruction.

Academic Achievement: Control Group

A paired samples t-test examining the control group's achievement scores revealed a statistically significant increase from pre-intervention to post-intervention, $t(39) = 4.21$, $p < .001$, $d = 0.67$. The mean increase of 5.47 points (from 61.88 to 67.35) represents a medium effect size, indicating that students receiving traditional instruction also demonstrated improvement, albeit to a lesser degree than the experimental group.

Motivation: Experimental Group

A paired samples t-test examining the experimental group's motivation scores revealed a statistically significant increase from pre-intervention to post-intervention, $t(39) = 13.42$, $p < .001$, $d = 2.12$. The mean increase of 17.83 points (from 58.35 to 76.18) represents a large effect size, indicating substantial improvement in motivation for students receiving flipped classroom instruction.

Motivation: Control Group

A paired samples t-test examining the control group's motivation scores revealed a statistically significant increase from pre-intervention to post-intervention, $t(39) = 3.18$, $p = .003$, $d = 0.50$. The mean increase of 4.53 points (from 57.92 to 62.45) represents a medium effect size, indicating that students receiving traditional instruction demonstrated modest motivational improvement.

Between-Group Comparisons: Independent Samples t-Tests

Post-Intervention Academic Achievement Comparison

An independent samples t-test was conducted to compare post-intervention achievement scores between the experimental and control groups. The analysis revealed

a statistically significant difference, t(78) = 6.24, p <.001, d = 1.40. The experimental group's mean post-test score (M = 78.92, SD = 7.21) was significantly higher than the control group's mean score (M = 67.35, SD = 8.84). The large effect size indicates that the flipped classroom intervention produced substantially superior academic achievement outcomes compared to traditional instruction.

Post-Intervention Motivation Comparison

An independent samples t-test was conducted to compare post-intervention motivation scores between the experimental and control groups. The analysis revealed a statistically significant difference, t(78) = 6.53, p <.001, d = 1.46. The experimental group's mean post-questionnaire score (M = 76.18, SD = 8.67) was significantly higher than the control group's mean score (M = 62.45, SD = 10.21). The large effect size indicates that the flipped classroom intervention produced substantially superior motivational outcomes compared to traditional instruction.

Discussion

This section interprets the study's findings in relation to the research questions, existing literature, and theoretical frameworks.

Interpretation of Findings

Research Question 1: Impact on Academic Achievement

The first research question asked whether the implementation of the Flipped Classroom Model significantly impacts the academic achievement of Grade 5 ESL students. The findings provide clear affirmative evidence, demonstrating that students receiving flipped classroom instruction achieved significantly higher post-intervention achievement scores compared to students receiving traditional instruction.

The substantial improvement observed in the experimental group (mean gain of 16.47 points) compared to the control group (mean gain of 5.47 points) suggests that the flipped classroom approach offers meaningful advantages for ESL learning outcomes. This finding aligns with previous research demonstrating the effectiveness of flipped classroom models in language education contexts (Nhạc, 2021; Wahib & Tamer, 2021).

Several theoretical and practical factors may explain the superior achievement outcomes associated with flipped classroom instruction. First, the flipped model enables students to

engage with foundational content at their own pace, allowing for repeated viewing of instructional videos and self-regulated learning. This personalized pacing accommodates diverse learning speeds and styles, potentially reducing the frustration and confusion that can occur when all students must progress through content at a uniform pace in traditional classrooms.

Second, the restructuring of class time to emphasize active, collaborative learning activities provides students with substantially more opportunities for authentic language practice and communicative interaction. Language acquisition theory emphasizes the importance of meaningful communication and active engagement in developing linguistic competence (Krashen, 1982). The flipped classroom maximizes these opportunities by dedicating class time to activities that require students to use English in authentic contexts, thereby facilitating deeper learning and skill development.

Third, the flipped classroom enables teachers to provide more individualized support and targeted feedback during class time. Rather than spending class time delivering content to the entire group, teachers in flipped classrooms can circulate among students, observe their performance on learning activities, identify misconceptions or difficulties, and provide personalized assistance. This differentiated support addresses individual learning needs more effectively than the one-size-fits-all approach characteristic of traditional instruction.

The finding that even the control group demonstrated significant improvement (though to a lesser degree) is noteworthy and likely reflects the natural learning progression that occurs over an eight-week instructional period, regardless of methodology. However, the substantially greater gains achieved by the experimental group underscore the added value of the flipped classroom approach.

Research Question 2: Impact on Motivation

The second research question examined whether the Flipped Classroom Model significantly affects the motivation levels of Grade 5 ESL students. The findings provide compelling evidence that flipped classroom instruction substantially enhances student motivation, with the experimental group demonstrating significantly greater motivational gains (mean increase of 17.83 points) compared to the control group (mean increase of 4.53 points).

This finding is particularly significant given the well-established relationship between motivation and language learning success (AlMunawwarah, 2018; Bagheri Nevisi & Farhani, 2022; Yang & Wang, 2022). By enhancing motivation, the flipped classroom approach may initiate a positive cycle wherein increased motivation leads to greater engagement and effort, which in turn produces improved achievement, further reinforcing motivation.

Several mechanisms may explain the motivational benefits of the flipped classroom model. First, the approach provides students with greater autonomy and control over their learning. Self-Determination Theory (Deci & Ryan, 2000) posits that autonomy is a fundamental psychological need, and learning environments that support autonomy tend to foster intrinsic motivation. The flipped classroom enables students to control when, where, and how they engage with pre-class content, satisfying the need for autonomy and potentially enhancing intrinsic motivation.

Second, the collaborative, interactive nature of in-class activities in the flipped model may enhance students' sense of relatedness—another fundamental psychological need according to Self-Determination Theory. Working with peers on engaging learning tasks, participating in discussions, and engaging in collaborative problem-solving creates social connections and a sense of belonging that can enhance motivation.

Third, the flipped classroom may support students' sense of competence through several mechanisms. The ability to review content multiple times before class may help students feel better prepared and more confident. The opportunities for practice and application during class, combined with immediate teacher feedback, enable students to experience success and develop a sense of mastery. According to Self-Determination Theory, competence is a fundamental need, and learning experiences that support feelings of competence tend to enhance motivation.

Fourth, the variety and engagement inherent in flipped classroom activities may combat the monotony and boredom that students sometimes experience in traditional classrooms. Research has identified monotonous teaching methods as a significant demotivating factor in ESL contexts (Minalla, 2022). The flipped classroom's emphasis on diverse, interactive activities provides stimulation and interest that can sustain motivation over time.

The technology integration inherent in the flipped classroom may also contribute to motivational benefits, as many students find technology-enhanced learning engaging and relevant to their digital-native experiences. However, it is important to recognize that technology itself is not inherently motivating; rather, it is the thoughtful integration of technology in service of meaningful learning experiences that enhances motivation.

Research Question 3: Comparative Differences

The third research question asked about comparative differences in academic achievement and motivation between students taught using the flipped classroom model and those taught using traditional methods. The findings clearly demonstrate that the flipped classroom approach produces superior outcomes on both dimensions.

The consistency of findings across both outcome variables strengthens confidence in the overall effectiveness of the flipped classroom model. The large effect sizes observed for both achievement (d = 1.40) and motivation (d = 1.46) indicate not only statistical significance but also substantial practical significance, suggesting that the differences

observed would be meaningful in real-world educational contexts.

The simultaneous improvement in both motivation and achievement is particularly noteworthy and suggests a synergistic relationship between these constructs. Enhanced motivation may contribute to improved achievement by increasing students' engagement, effort, and persistence. Conversely, improved achievement may reinforce motivation by providing evidence of competence and progress. The flipped classroom model appears to positively influence both constructs, potentially initiating a virtuous cycle of motivation and achievement.

Alignment with Existing Literature

The findings of this study align well with existing research on flipped classroom implementations in language education. Wahib and Tamer (2021) similarly found that flipped classroom instruction produced significant improvements in ESL students' academic achievement, specifically in phonology learning. Nhạc (2021) reported comparable results in legal English contexts, with flipped classroom students demonstrating superior academic performance compared to control groups.

The motivational benefits observed in this study are consistent with research

emphasizing the importance of student-centered, engaging pedagogical approaches in fostering motivation (Ibrahim Shousha, 2018). The findings also align with research identifying limitations of traditional teaching methods in promoting engagement and motivation (Debs et al., 2019; Schwerdt & Wuppermann, 2011).

The study's findings contribute to the broader literature on technology-enhanced language learning and blended learning approaches, supporting the conclusion that thoughtfully designed technology integration can enhance learning outcomes (Chikh, n.d.; Sadeghi, 2019).

Theoretical Implications

The findings of this study have several theoretical implications. First, they provide empirical support for constructivist learning principles, which emphasize active engagement, social interaction, and learner-centered instruction. The flipped classroom model embodies these principles by positioning students as active constructors of knowledge rather than passive recipients of information.

Second, the findings support Self-Determination Theory's predictions regarding the motivational benefits of autonomy-supportive learning environments. The flipped classroom's provision of autonomy, opportunities for competence development, and social relatedness through collaborative activities aligns with the theory's framework for understanding intrinsic motivation.

Third, the results support Bloom's Taxonomy's hierarchical organization of cognitive processes and the pedagogical principle of aligning instructional time with cognitive complexity. By relocating lower-order thinking activities to pre-class learning and dedicating class time to higher-order thinking activities, the flipped classroom optimizes learning experiences in ways that align with cognitive learning theory.

Conclusion

This research investigated the impact of the Flipped Classroom Model on Grade 5 ESL students' motivation and academic achievement in a private school in Beirut, Lebanon. Employing a quasi-experimental design with 80 participants divided equally into experimental and control groups, the study implemented an eight-week intervention comparing flipped classroom instruction to traditional teacher-centered methods.

The findings provide compelling evidence supporting the effectiveness of the flipped classroom approach.

Students receiving flipped classroom instruction demonstrated significantly greater improvements in both academic achievement and motivation compared to students receiving traditional instruction. The large effect sizes observed for both outcomes indicate substantial practical significance, suggesting that the flipped classroom model offers meaningful benefits for ESL learners.

These results align with existing research on flipped classroom effectiveness and contribute context-specific insights relevant to Lebanese ESL education. The findings have important implications for teachers, administrators, curriculum developers, and policymakers seeking to enhance ESL instruction through evidence-based pedagogical innovations.

The flipped classroom model addresses several limitations of traditional instruction by providing personalized learning opportunities, maximizing time for active engagement and communicative practice, enabling differentiated teacher support, and leveraging technology to enhance learning experiences. By simultaneously improving both motivation and achievement, the flipped classroom approach may initiate positive cycles of engagement and success that support sustained language learning progress.

Based on these findings, the researcher recommends that Lebanese ESL educators consider adopting flipped classroom methodologies as effective alternatives to traditional teaching approaches. Implementation should be thoughtful and well-supported, with attention to video content quality, active learning activity design, clear communication of expectations, adequate technological infrastructure, and ongoing professional development for teachers.

While this study provides valuable evidence supporting flipped classroom effectiveness, future research is needed to examine long-term effects, investigate implementation in diverse contexts, and explore the mechanisms through which flipped classroom instruction influences learning outcomes. Continued scholarly inquiry will further refine understanding of how to optimally design and implement flipped classroom approaches to maximize benefits for ESL learners.

In conclusion, this research demonstrates that the Flipped Classroom Model represents a promising pedagogical innovation for ESL education, capable of enhancing both the motivational and academic dimensions of language learning. As educational systems worldwide seek to

prepare students for the demands of the 21st century, innovative approaches such as the flipped classroom offer pathways toward more engaging, effective, and student-centered learning experiences.

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