ALTERIDAD
REVISTA DE EDUCACIÓN
p-ISSN:1390-325X / e-ISSN:1390-8642
http://alteridad.ups.edu.ec

January-July 2024
Vol. 19, No. 1, 94-112
https://doi.org/10.17163/alt.v19n1.2024.08

Flipped Learning as an educational tool for enhancing English language

Aprendizaje invertido como herramienta educativa potenciadora para mejorar la lengua inglesa

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Received on: 19-04-2023 / **Revised on:** 21-06-2023 / **Accepted on:** 11-09-2023 / **Published on:** 01-01-2024

Abstract

This article aims to examine the effectiveness of Flipped Learning (FL) as a methodology for teaching English subjects to seventh-grade students. The study suggests that FL fosters an active and engaging learning environment by encouraging students to take control of their learning process. While the teacher remains the primary facilitator, they guide students and provide continuous, hands-on assessment. Research shows that applying the FL model promotes student participation and interaction with the teacher, thus improving student engagement. The methodology section of this article describes the processes followed to collect data, starting with a bibliometric analysis to build the state of the art, followed by an experimental approach to evaluate the method. A Likert-scale survey was used to measure student perceptions and opinions, proving an effective data collection method. A quantitative approach was used to assess students' perceptions of LF. The results reveal that FL is an effective methodology that improves student engagement, motivation, and learning outcomes. Consequently, the analysis suggests that FL is an innovative didactic approach that can improve student motivation and learning outcomes by designing and implementing innovative pedagogical strategies.

Keywords: flipped learning, education innovation, pedagogical technology integration, active learning, ICT for Education, digital environments.

Resumen

Este artículo pretende examinar la eficacia del Flipped Learning (FL) como metodología para enseñar asignaturas de inglés a alumnos de séptimo curso. El estudio sugiere que el FL fomenta un entorno de aprendizaje activo y atractivo al animar a los estudiantes a tomar el control de su proceso de aprendizaje. Mientras el profesor sigue siendo el principal facilitador, guía a los alumnos y les proporciona una evaluación continua y práctica. La investigación muestra que la aplicación del modelo FL promueve la participación de los estudiantes y la interacción con el profesor, mejorando así el compromiso de los estudiantes. La sección de metodología de este artículo describe los procesos seguidos para recopilar datos, comenzando con un análisis bibliométrico para construir el estado del arte, seguido de un enfoque experimental para evaluar el método. Se utilizó una encuesta de escala Likert para medir las percepciones y opiniones de los estudiantes, demostrando ser un método eficaz de recogida de datos. Se utilizó un enfoque cuantitativo para evaluar las percepciones de los estudiantes sobre la FL. Los resultados revelan que FL es una metodología eficaz que mejora el compromiso, la motivación y los resultados de aprendizaje de los estudiantes. En consecuencia, el análisis sugiere que FL es un enfoque didáctico innovador que puede mejorar la motivación de los estudiantes y los resultados del aprendizaje mediante el diseño y la aplicación de estrategias pedagógicas innovadoras.

Palabras clave: aprendizaje invertido, innovación educativa, integración de la tecnología pedagógica, aprendizaje activo, TIC para la Educación, entornos digitales.

Suggested citation (APA): Guayasamín, K. & Inga, E. (2024). Flipped Learning as an educational tool for enhancing English language. *Alteridad, 19*(1), 94-112. https://doi.org/10.17163/alt.v19n1.2024.08

1. Introduction

The digital age and the advance of knowledge in research characterize the 21st century. Digital technology has profoundly influenced various aspects of life, including the pedagogy of teaching. In recent years, innovative teaching methods such as massive open online courses (MOOCs) and Flipped classrooms (Shaw & Patra, 2022) have emerged. Technology implementation can significantly benefit both in-class and out-of-class learning experiences (Nja et al., 2022). Education plays an essential role in people's lives and future, creating a more humane and inclusive world through education as a tool of accompaniment and human development (Moghadam & Razavi, 2022).

Methodological innovations in the classroom refer to the implementation of novel methodical proposals by teachers to improve teaching of the educational program and the basic curriculum (Chen-Quesada et al., 2020). The COVID-19 pandemic has made it necessary to adopt new methodological strategies in the classroom, leading teachers to review their conceptions to improve the quality of teaching (Rivadeneira & Inga, 2023).

The pandemic has had a significant impact in education, affecting more than 1.3 billion students worldwide and causing a complete transformation of education (Crawford & Cifuentes-Faura, 2022). As students immerse themselves in the digital and technological world, the interactivity of devices opens up new teaching opportunities. The use of complex teaching resources can improve learning effectiveness (Maya et al., 2021).

However, teachers have faced technological challenges during the pandemic and understand that platforms or technological resources alone do not drive change; the pedagogical approach and teacher-student interaction play a crucial role. Educational innovation involves the transition from conventional and ordinary models to emerging concepts based on ICT solutions, as the digital transformation of educational institutions has increased significantly at all educational levels. Traditional teaching methods rely on teachers explaining textbook topics, forcing students to become more actively involved in the classroom (Safapour et al., 2019).

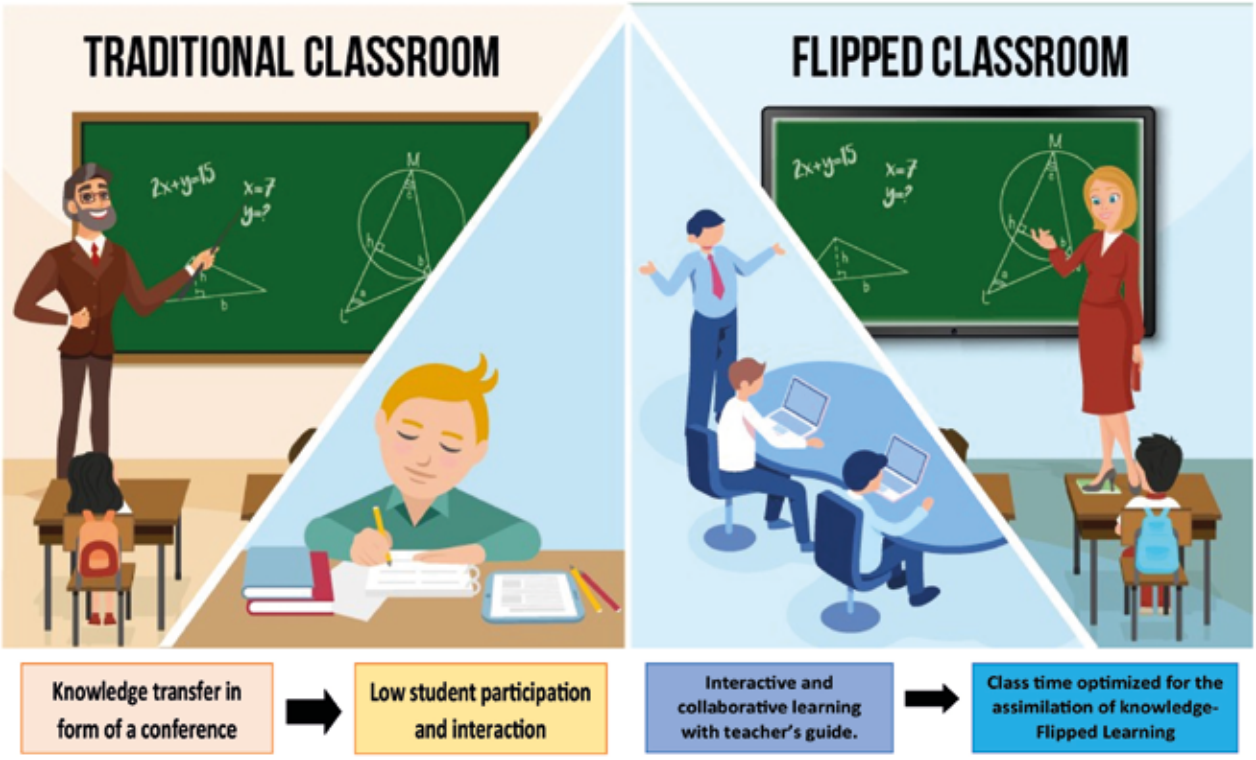
The interaction between teachers and students allows a new curricular innovation, in which the educational community is prepared for changes and works in collaboration to achieve a quality education based on innovation. ICTs provide valuable support for the creation in education, since institutions meet the requirements for undergoing digital transformation. Teachers can leverage their knowledge to improve the classroom environment, as shown in Figure 1. Therefore, it is essential to promote teaching to facilitate the development of educational innovation processes. Consequently, this article aims to demonstrate the applicability of the interactive teaching method based on the Integrated Educational Platform (IEP), using a learning engineering approach to innovate the Academic Support Program (ASP).

Mastery of the English language has become increasingly essential to academic, economic, technical, and social success due to globalization and advances in telecommunications. Updated digital technologies and learning methods are gaining worldwide support to improve traditional English language teaching, including innovative approaches such as the online, mixed and flipped learning paradigms (Fischer & Yang, 2022). Invested learning has gained momentum as educators strive to apply creative techniques that foster greater student engagement and active participation in educational settings (Holm et al., 2022).

Flipped Learning is a pedagogical model that involves instructors sharing predetermined digital resources with students outside the traditional classroom environment, facilitating the asynchronous delivery of related content through online platforms (Ruiz-Jiménez et al., 2022). This approach aims to transfer information to a significant group of students in the classroom, taking advantage of various technologies (Bursa & Cengelci Kose, 2020; Cárdenas & Inga, 2021). The Flipped Learning methodology provides students with more opportunities for problem solving, especially when applying newly acquired knowledge, and students have expressed a higher level of satisfaction compared to traditional teaching approaches (Staddon, 2022). This method helps to obtain a positive result when this model is applied to students in the seventh grade of General Basic Education.

Section 2 describes the research work. Section 3 presents the problem and the methodology. Section 4 presents the results. Finally, section 5 provides some conclusions.

Figure 1. *Flipped classroom as an innovation to traditional teaching*



1.1 Related Jobs

Innovation can be defined as the introduction of something new that has a significant impact on the community. It leads to exploring new forms of active learning, a broad concept that usually encompasses student-centered methods and teacher-led activities. Institutions must be well informed about trends in education in order to anticipate changes. Active methodologies play a vital role in teaching and learning, as they give priority to students, making them protagonists of a functional and constructive approach that distinguishes them from traditional teaching methods. Active learning activities such as peer discussions have been shown to improve students' understanding of the subject (Inga et al., 2021; Jia et al., 2023).

Teachers establish strategies that encourage students to apply their creativity, encouraging a learning approach by making it flexible, playful and attentive to various learning styles. This approach facilitates knowledge acquisition and personal fulfillment and promotes positive interpersonal relationships and social values (Moncayo-Bermúdez & Prieto López Yeimer, 2022; Yangari & Inga, 2021).

The current education system should emphasize the importance of active versus passive learning. Operational strategies focus on learning by doing rather than relying solely on passive activities such as listening, copying and repeating. This active learning approach encourages social interaction, discovery, play, and trial and error for effective learning and development.

Various teaching methods have been developed and implemented to involve students in learning, ensuring that they acquire, expand and practice the competencies required of future leaders (Leão et al., 2022). Active and student-centered learning methods will benefit greatly from these changes. Active learning for teaching has been supported by various political organizations, such as UNESCO, professional associations and accreditation organizations, which recommend incorporating active pedagogy into teaching practices (Hartikainen et al., 2019).

Teachers should create interactive classroom activities that involve group work, active exercises, and critical thinking to improve collaboration.

High-level student-led discussions, problem solving, discussions, group projects, case studies, student presentations and collaborative problem solving can be employed (Huang et al., 2022).

Active educational methodologies share a common approach to student participation and the connection of content to real-life situations. Although there are different types or classes of active teaching methods, this research focuses mainly on Flipped Learning, which has three essential characteristics: students must be interested in content to participate in class, the teacher must act as a guide and establish a link with students with diverse needs, and the learning process must include planned activities that incorporate technology, motivation and group work.

The authors have observed improvements in students' grades and found that time for additional tasks is associated with deeper and more comprehensive learning. The benefits of this innovative teaching strategy versus more traditional active methodologies have been widely debated (Serrano Pastor & Casanova López, 2018).

The term "Flipped Learning" gained popularity when one of its methodological strategies was to create a podcast about the subject, which students could review on a platform as many times as they wanted. In the classroom, the students moved to lab activities, demonstrations, one-on-one assistance, and small group tutoring. Hence the slogan "Readings at home and homework in class" (Boubih et al., 2020).

According to the Web of Science database at Scopus, Flipped Learning originated in the United States, where there is extensive research on this approach. Over the years, it has spread worldwide. Many teachers have embraced this innovative methodology, expanding its implementation internationally, as shown in Figure 2. The flipped classroom approach, now known as Flipped Learning, continues to be explored, discovering its many benefits. In this approach, students assume the role of active participants in their education, while teachers guide and facilitate their learning process.

Numerous international studies have shown that the application of the Flipped Learning model encourages student participation and interaction with the teacher, as shown in Figure 3. This shift to digital devices in the classroom enhances student engagement. It allows for a range of interactive activities such as discussions, collaborative and cooperative work, Content and Language Integrated Learning (CLIL), collages, infographics and comic book creation.

Flipped Learning has yielded positive results in student achievement and has provided additional time for richer and more complete learning experiences. The shift from traditional active methodologies to this innovative teaching strategy has been widely debated and discussed (Serrano Pastor & Casanova López, 2018).

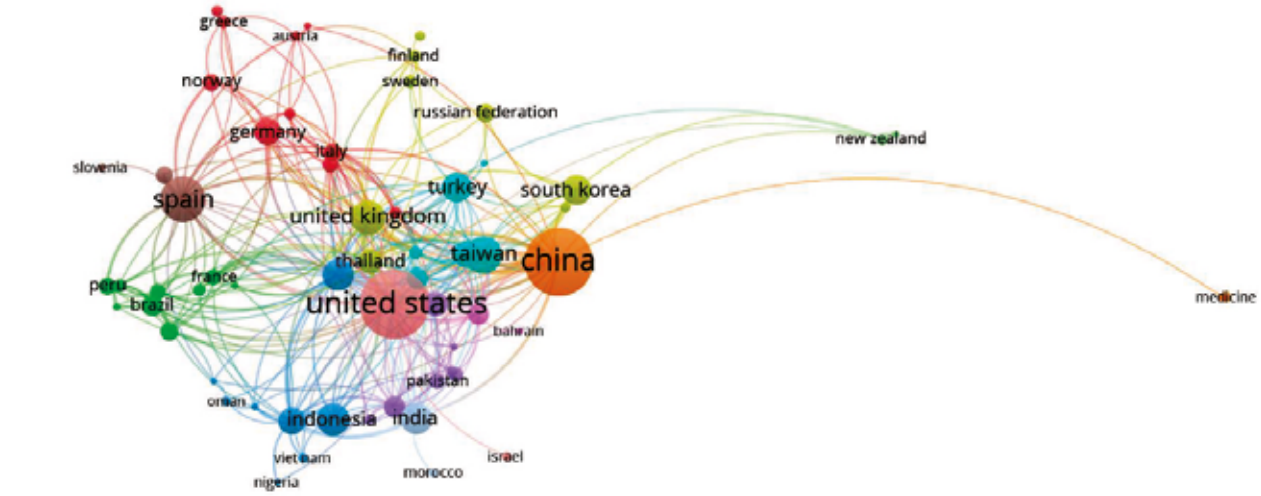
The method gained significant recognition when one of its key strategies consisted of creating podcasts that students could access on a platform at their convenience. It allowed dedicated classroom time exclusively to lab activities, demonstrations, one-on-one assistance, and small-group tutoring. As a result, the slogan "Readings at home and homework in class" was coined (Boubih et al., 2020).

Flipped Learning has spread worldwide. Teachers from several countries have adopted this innovative methodology, recognizing its potential to revolutionize education. As the implementation of Flipped Learning continues to grow, it is essential to highlight the change in the role of students, who are now active participants in their learning journey. Meanwhile, teachers take on the role of facilitators and guides, supporting students with diverse learning needs and fostering an enabling environment for effective learning. In conclusion, active learning, with a particular focus on Flipped Learning, has emerged as a powerful pedagogical approach that prioritizes student participation and the application of knowledge. By incorporating student-centered methods and teacher-led activities, institutions can adapt to the evolving educational landscape, anticipate changes and stay at the forefront of education. As education systems adopt active-learning methodologies, students can develop critical thinking, problem-solving, and collaborative skills needed to thrive as future leaders.

All teachers must possess the skills necessary to achieve technological change in education. The use of information and communication technologies (ICT) is essential in Flipped Learning. It includes training in the use, management and application of technology in the classroom to become 21st century teachers capable of developing the skills, attitudes and knowledge necessary for specific tasks (Yangari & Inga, 2021).

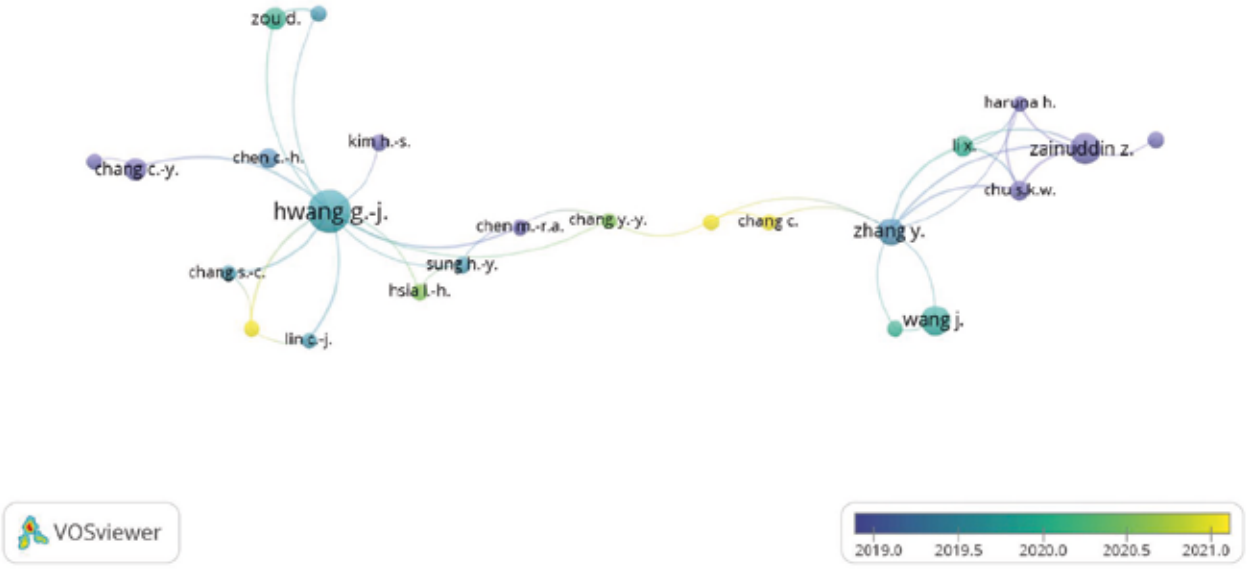
Teachers should receive regular training, especially in the use of technology, as the world was constantly evolving. Institutions should provide continuous ICT training to teachers to effectively teach this new generation of students (Sánchez et al., 2022).

Figure 2. *Bibliometric analysis: Leading countries in Flipped Learning and Education according to research networks — Scopus.*



English is the most widely taught language in different educational levels around the world, making it necessary to develop strategies, needs and approaches in various contexts, such as academic, geographical, social, economic or cultural (González-Urgilés et al., 2020; Xavier et al., 2020).

Figure 3. *The Flipped Learning model and student motivation: A research perspective*



Motivating students to learn English is crucial; students often need more support and interest to learn the language. It is usually due to ineffective teaching methods and learning approaches. Innovations in the teaching of English through new technological tools can help to improve the generation, transformation, storage and dissemination of tacit knowledge in explicit knowledge (Aguayo Vergara et al., 2018).

Flipped Learning in English teaching allows better time management for students to solve doubts, perform group exercises and participate in collaborative practices, favoring the development of communicative competence. The flipped classroom promotes higher-order thinking, enhances teaching, improves oral expression skills, increases student engagement and develops social interaction and critical thinking skills (Umar & Ko, 2022).

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The Flipped Learning model is based on four critical aspects with different environments and options for students, allowing them to move from a passive role to an active one. The teacher guides them on what they will work independently and what they will practice in class (Colomo-Magaña et al., 2020).

Although there has been much discussion about Flipped learning in recent years, more research is needed to explore how to motivate students to engage in self-study and class discussions and improve student performance. It is recommended to focus on discussions and reduce academic anxiety for high-level cognitive thinking (Li et al., 2022).

Table 1 presents relevant studies on the subject, highlighting the importance and relevance of this research in the context of previous studies.

Table 1. *Summary of jobs related to Flipped Learning*

Work	Problem			Restriction				Proposal		
Author	Student Dissatisfaction	Student Participation	Traditional Teaching	Scenario	Disciplinary Knowledge	Technological Knowledge	Pedagogical Knowledge	Learning Engineering Approach	Interactive Learning	Flipped Learning
(Fernández-Carballo, 2022)	✠	✠	✠						✠	✠
(Ruiz-Jiménez 2022)		✠	✠						✠	✠
(Li et al., 2022)			✠	✠		✠	✠		✠	
(Hernández-Sellés, 2021)	✠		✠	✠					✠	✠
(Mayer et al., 2021)						✠	✠		✠	
(Jia et al., 2023)		✠	✠						✠	✠
(Leão et al., 2022)		✠	✠			✠	✠		✠	
Holm et al., 2022		✠					✠		✠	
(Shaw & Patra, 2022)							✠	✠		
(Umar & Ko, 2022)	✠	✠	✠				✠		✠	
(Huang et al., 2022)	✠	✠								
Proposal by the authors	✠	✠	✠	✠	✠	✠	✠	✠	✠	✠

2. Problem formulation and methodology

Flipped learning is an educational tool to improve the teaching of English, so the methodology is divided into two main stages. The first stage is a bibliometric analysis to determine the impact of this tool on education. The second stage is statistical and consists of developing a survey instrument with Likert scale to measure the incidence of classical methodological processes in foreign language teaching, the motivational aspects of the method and its capacity to generate empathy in students. Finally, the results are analyzed to identify the relevant factors for using the learning model invested in the educational process.

At present, the academic level of students has been significantly improved thanks to the use of modern technology. Consequently, teachers must create innovative pedagogical strategies that go beyond the mere transmission of educational content. Teachers must train students with the skills and knowledge needed to face the challenges of the modern world in an independent, transformative and holistic way.

An innovative pedagogical approach is the Flipped Learning (FL) model, which encourages interactive learning and allows students to build their knowledge. The FL model incorporates inductive-deductive and analytical-synthetic methods, which facilitate the evaluation of students' progress in the framework of FL. This approach represents a shift from passive to active learning, and is gaining popularity as a modern and effective teaching methodology.

Therefore, to evaluate the effectiveness of the FL model, a survey was conducted using the Likert scale to measure the motivation of students to apply this approach during class hours. The results of the survey were analyzed to determine the success of the FL model. Figure 4 provides an overview of the current work, methods and assessments.

The Flipped Learning method is a pedagogical approach that consists of teaching classes outside the classroom while doing homework and other activities in the school. This model promotes an active and attractive learning environment, which motivates students to take ownership of their learning process. In contemporary society, the ubiquity of digital devices such as tablets and mobile phones makes it easier for students to access the materials needed for Flipped Learning, eliminating the need for traditional notebooks.

Figure 4. *Enhancing Evaluation in the Flipped Learning Model: Educational Innovation in Evaluation*

The teacher continues to be the main facilitator of the learning process, guiding students and providing continuous hands-on assessment. Feedback is provided based on the specific needs of each student, ensuring that all students receive personalized attention and support. Through this approach, students become the protagonists of their education, allowing the identification and grouping of students according to their knowledge and skills.

Then, using the inductive-deductive method, the scientific articles organize the information in a comprehensive and localized way. This approach has a significant potential for the construction of knowledge, especially in the initial phases of research, by adhering to the external laws that govern the object of research. Then, to complement the research study, an exhaustive search of scientific articles was conducted in virtual libraries such as Web of Science and Scopus, covering the period 2018-2022 and using digital object identifiers (DOI) (Inga & Hinemphasis, 2015).

Therefore, to evaluate the long-term impact of this research, a weighted bibliographic analysis of 2000 scientific articles from the Web of Science and Scopus virtual libraries was performed. This analysis allows to understand how Flipped Learning has been developed at an educational level. In addition, the visualization of these data can provide more striking statements about the phenomenon of study.

Table 2 shows the countries with the most documents and citations using the Flipped Learning model. By comparing countries based on the number of studies per database, it can be confirmed that Web of Science contains more documents and information per country than Scopus, suggesting that research on Flipped Learning is more frequent in this database.

Table 2. *Most influential countries in Flipped & Blended Learning strategies*

Bibliometric Analysis					
Web of Science			Scopus		
Country	Documents	Citations	Country	Documents	Citations
U.S.A	569	2505	U.S.A	413	3085
Australia	148	1360	Taiwan	115	1230
China	238	1042	Australia	106	816
England	118	747	Hong Kong	56	801
Spain	200	676	Spain	102	670
Malaysia	55	508	China	113	624
Taiwan	104	478	Turkey	55	514
Belgium	23	451	United Kingdom	70	445
Canada	66	406	South Korea	52	333
Germany	64	352	Belgium	10	225

The use of innovative models in schools responds to the needs of the educational community, which requires the mobilization of resources and collective participation. Such models induce innovation and generate transformations in extracurricular subjects, leading to active learning. However, to achieve this, it is necessary to visualize a change from the traditional to the current pedagogy.

The use of technological and innovative tools can help in the implementation of Flipped Learning, which can be evaluated through this method. An analytical-synthetic process is valuable to analyze research documents and extract crucial elements associated with the object of study. This method helps to observe and verify the causes and effects of innovative learning models. Applied to an evaluation

process, it can determine if the student constructs knowledge successfully.

The subjects of the research were students between 10 and 11 years of age, who are studying the seventh year of Elementary school at the Bilingual Private Academia Militar del Valle (AMV). With technological advances, educational institutions have been remodeled and, due to the pandemic, institutions are better equipped than teachers and students at home. Students and teachers can now connect to the classroom and use the materials teachers share, using the Internet and network devices.

The data for the study was obtained through a survey conducted in Microsoft, and the survey aimed to gather general information on the application of the innovative methodology in English subjects for seventh grade students in the second term. The questions and tools used in the survey were identified by studying other relevant articles. In addition, the survey aimed to examine whether the stated objective of the innovative methodology had been achieved.

Table 3 presents a set of 25 questions designed to be administered to students, using a 5-point Likert scale that includes a neutral midpoint and points of disagreement and agreement. This scale ranges from 1 to 5 and aims to capture the attitudes and opinions of students towards the subject. Specifically, this research aims to know the perceptions of students about the effectiveness of the Flipped Learning model and information and communication technologies (ICT) in the acquisition of knowledge, motivation and communication with teachers, as well as in the overall academic performance in English.

The objective of the survey was to inform students of the research objectives and to know their views on Flipped Learning and ICT. The questionnaire aimed to know the perceptions of students on how Flipped Learning and ICT can influence their acquisition of knowledge, motivation, communication with teachers and their performance in English. The data obtained from the study revealed a considerable variability, since students expressed different levels according to the items presented. In addition, the survey provided valuable insights into how often students use digital tools for academic activities in and outside the classroom.

Table 3. *Invested Learning and ICT for Education - Student Survey*

1. Are you interested in using more digital (technological) resources during school hours?
2. Would you like your teachers to use interactive games more frequently to encourage the teaching content in class?
3. Do you think your knowledge will improve if your teacher uses new technological tools?
4. Can activities like interactive games or videos help you better understand a topic?
5. Would you like your teacher to implement lessons through interactive games?
6. Does your teacher use digital tools in the classroom such as videos, games and virtual environments?
7. Does your teacher motivate you in class when you learn new topics?
8. When you have difficulty learning a topic, does your teacher help you?
9. Does your teacher use innovative technology tools to evaluate in class?
10 The methodology of the teacher in this second semester considers the strengths, weaknesses and interests of the teacher.
11 The methodology allows everyone to participate in the discussion of the issues.
12. Do you work with your teacher on the three stages of the “Learning by Doing” model?
a. Review of the lessons on video at home.
b. Reinforcement with the teacher.
c. Tasks to assimilate knowledge and evaluate the process.
13. The activity of watching interactive videos such as Playpost, Edpuzzle and Youtube helps to understand the content
14. Watching videos at home encourages learning and understanding of concepts before class.
15. Reading before class helped me understand the topic that was going to be discussed.
16. Bringing images to discuss helped me develop communication (speaking) skills.
17. Would you like to have more knowledge about the topic to discuss before the class?
18. Do you find it difficult to do activities at home? Do you get easily distracted?
19. Do you think you could learn on your own (autonomously) using the Internet without a teacher?

20. Do you think that doing group work among peers favors the understanding of the topic?
21. Completing worksheets in class about the video you watched at home reinforced your knowledge.
22. Reading before class helped us understand the topic being discussed.
23. Did giving oral presentations on the topic improve your English language skills?
24. Would you like your teachers to use a different teaching method in class?
25. Are you interested in the tasks and projects presented by your teacher?

3. Analysis of the results

The results were obtained from a population of 72 students of seventh grade of Elementary School at the the Bilingual Private Academia Militar del Valle.

The opinion of all students who solved the research instrument is known. The following table shows the Likert scale options and the percentages of each question selected by the students surveyed. These percentages will be fundamental to discover if FL is considered an innovative methodology for its application in the teaching of English. Table 4 shows the quantitative survey results.

This data analysis is divided into four parts to discuss the FL model in seventh grade students.

Table 4. *Survey Score: Flipped Learning - Students*

	Q1	Q2	Q3	Q4	Q5
Questions	**Totally agree**	**Agree**	**Undecided**	**Disagree**	**Totally disagree**
	%	%	%	%	%
Q1	43 %	28 %	24 %	1 %	4 %
Q2	69 %	22 %	6 %	1 %	1 %
Q3	42 %	22 %	25 %	7 %	4 %
Q4	61 %	24 %	10 %	3 %	3 %
Q5	58 %	25 %	8 %	6 %	3 %
Q6	60 %	17 %	17 %	4 %	3 %
Q7	67 %	24 %	3 %	3 %	4 %
Q8	75 %	21 %	3 %	1 %	0 %
Q9	44 %	28 %	24 %	3 %	1 %
Q10	43 %	36 %	15 %	4 %	1 %
Q11	63 %	26 %	8 %	1 %	1 %
Q12	65 %	22 %	10 %	0 %	3 %
Q13	58 %	29 %	7 %	6 %	0 %
Q14	46 %	38 %	7 %	7 %	3 %
Q15	64 %	28 %	7 %	0 %	1 %
Q16	61 %	25 %	8 %	6 %	0 %
Q17	60 %	22 %	15 %	3 %	0 %

	Q1	Q2	Q3	Q4	Q5
Questions	**Totally agree**	**Agree**	**Undecided**	**Disagree**	**Totally disagree**
Q18	14 %	11 %	27 %	19 %	29 %
Q19	15 %	13 %	18 %	11 %	43 %
Q20	75 %	17 %	6 %	1 %	1 %
Q21	72 %	22 %	1 %	1 %	3 %
Q22	67 %	26 %	6 %	0 %	1 %
Q23	60 %	17 %	21 %	0 %	6 %
Q24	35 %	11 %	28 %	6 %	21 %
Q25	58 %	26 %	11 %	1 %	3 %

Figure 5 discusses the use of technology in virtual and face-to-face classes. It is observed that 43% would like to implement digital resources during class hours as this would change the traditional methodology of copying by an innovative method where they are the protagonists of their learning.

Seventy percent of students agree that teachers should use interactive games more often to revitalize teaching in the classroom. Sixty percent of them say that activities like interactive games and videos helped them better understand the topic. The same percentage range agrees that teachers use lessons through interactive games and that digital tools such as videos, games and virtual environments are used in the classroom to make this new learning more active and enjoyable.

Figura 5. *Technology in face-to-face and virtual classes*

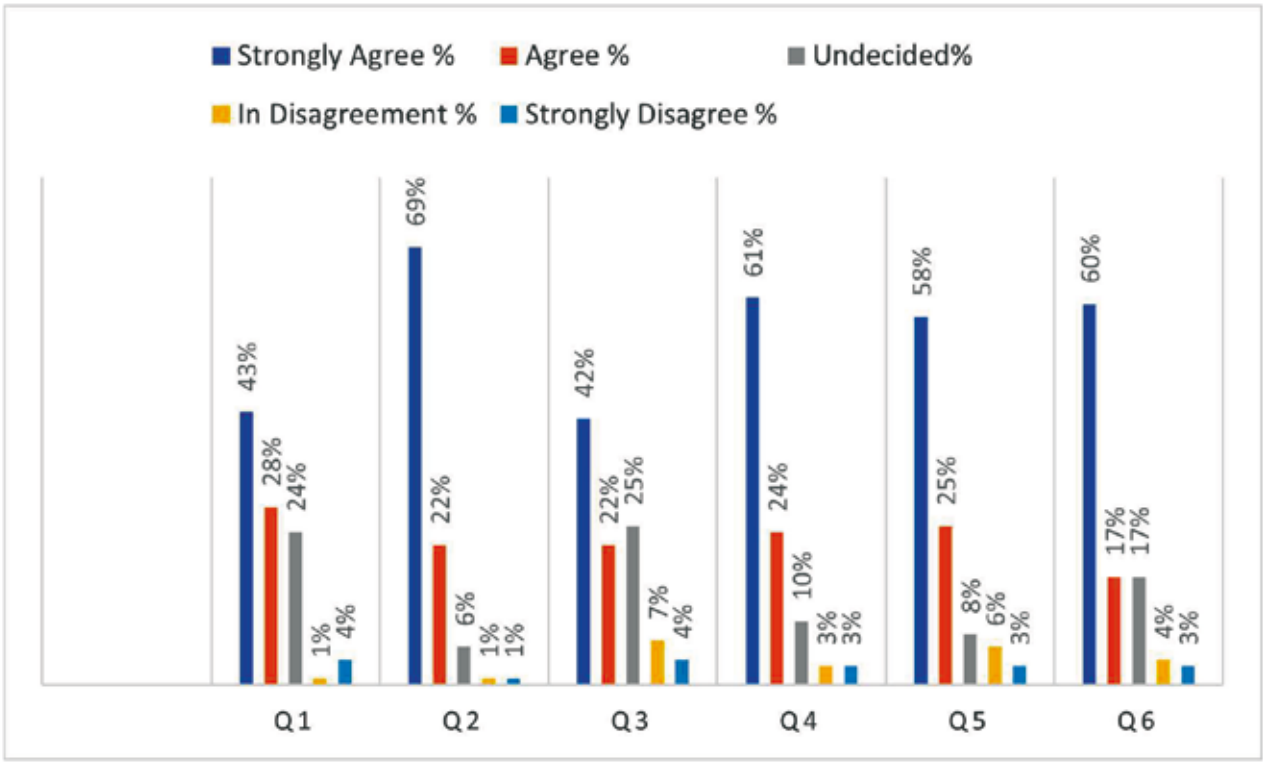


Figure 6 refers to the methodology used in class and the motivation students receive when they study a subject in English. The visualization of the data in the figure shows that approximately 70% of students feel motivated by the teacher during the class, especially when they learn new topics in English. In addition, students claim to receive support from their teacher when they face learning difficulties. It should be noted that motivation plays a crucial role in the learning process, as it fosters a supportive environment in which students can confidently ask questions and learn from their mistakes.

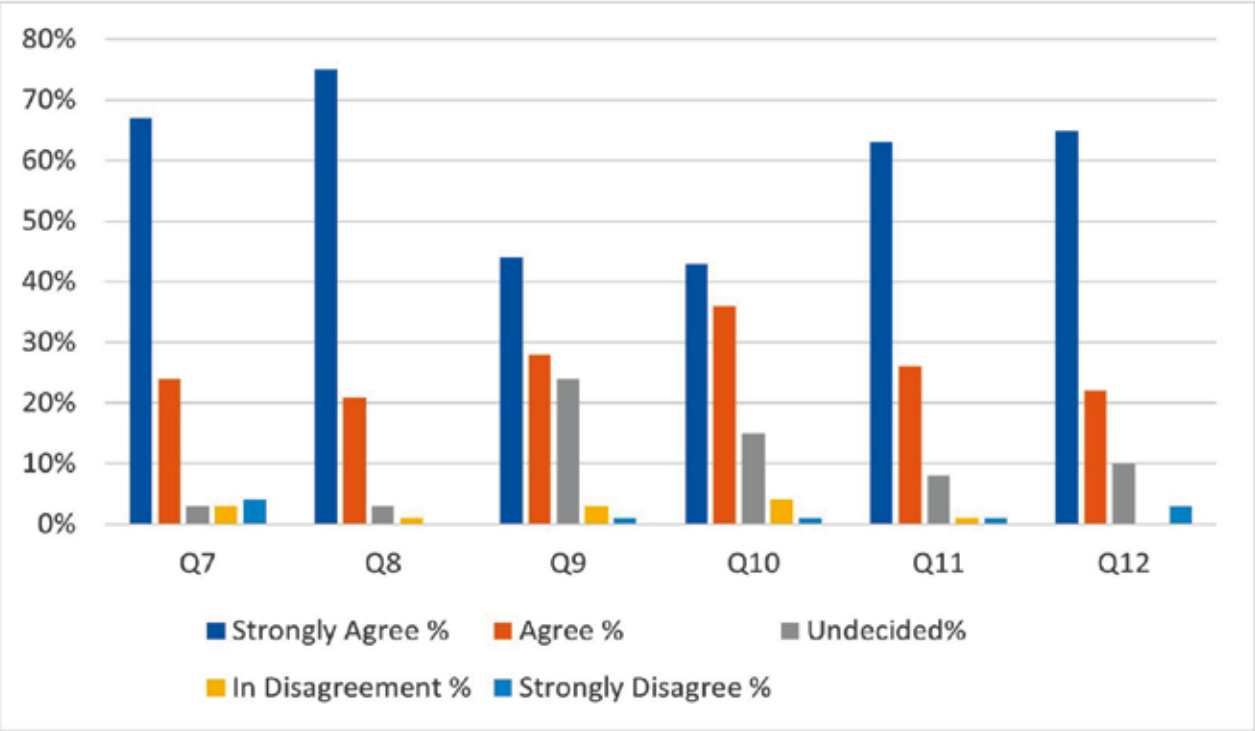
The data presented in the figure also reveals that 63% of students approve the active methodology used by the teacher in the second term. Flipped Learning allows students to be the protagonists of their learning while the teacher guides them. In addition, the graph indicates that 65% of the population approves the teacher's implementation of the three phases of Flipped Learning: reviewing previous lessons on video at home, reinforcing knowledge in class, completing tasks to acquire knowledge and evaluating the learning process.

The next section of the research analysis delves into Flipped Learning and its three stages. Figure 7 compares the conventional teaching methodology and the Flipped Learning model. The traditional approach involves the teacher preparing and delivering the material during the class, while students listen and take notes, followed by homework to test their understanding.

Instead, Flipped Learning puts the student in the foreground and the teacher as a guide. Students receive study material to read and internalize the content beforehand, while the teacher records and shares lessons outside the class. Students then see or hear the lesson before they attend class.

However, the study scenario will be different for Latin America, where there are educational institutions in urban, suburban and rural areas, and where technological resources can be an obstacle to the proper application of Flipped learning. Questions 10, 11 and 12 imply that the students used Flipped Learning in their learning process, thus evaluating the application of the methodology during a certain period, which evidences an experimental approach.

Figure 6. *Class Methodology*



Classroom time is devoted to applied learning activities and individual tasks, reinforcing the knowledge acquired before class. During this time, students discuss the content with their peers and the teacher. In the last stage, students verified and confirmed their understanding by performing additional learning activities and received support from the teacher when needed. After applying this active and innovative methodology, the following results were obtained in understanding how the process works.

Figure 7. *Traditional Learning vs. Flipped learning*

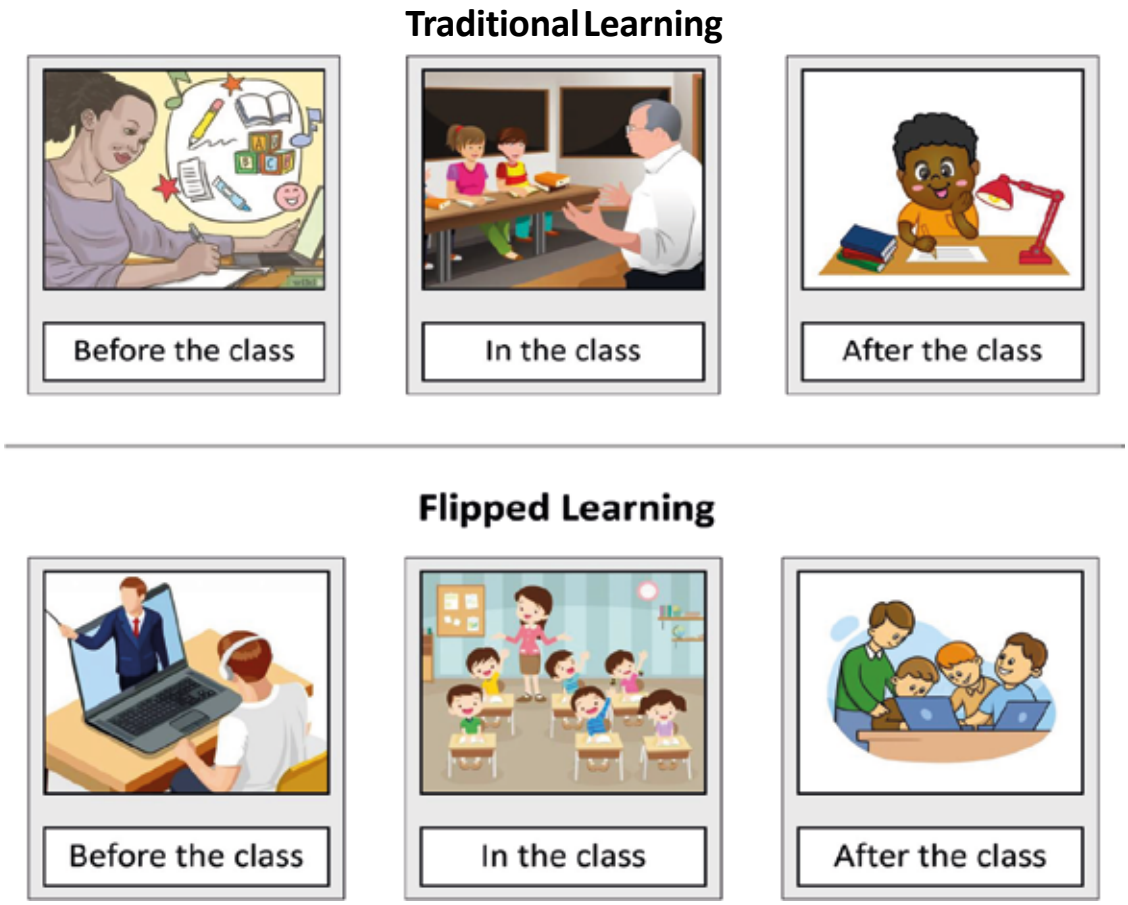
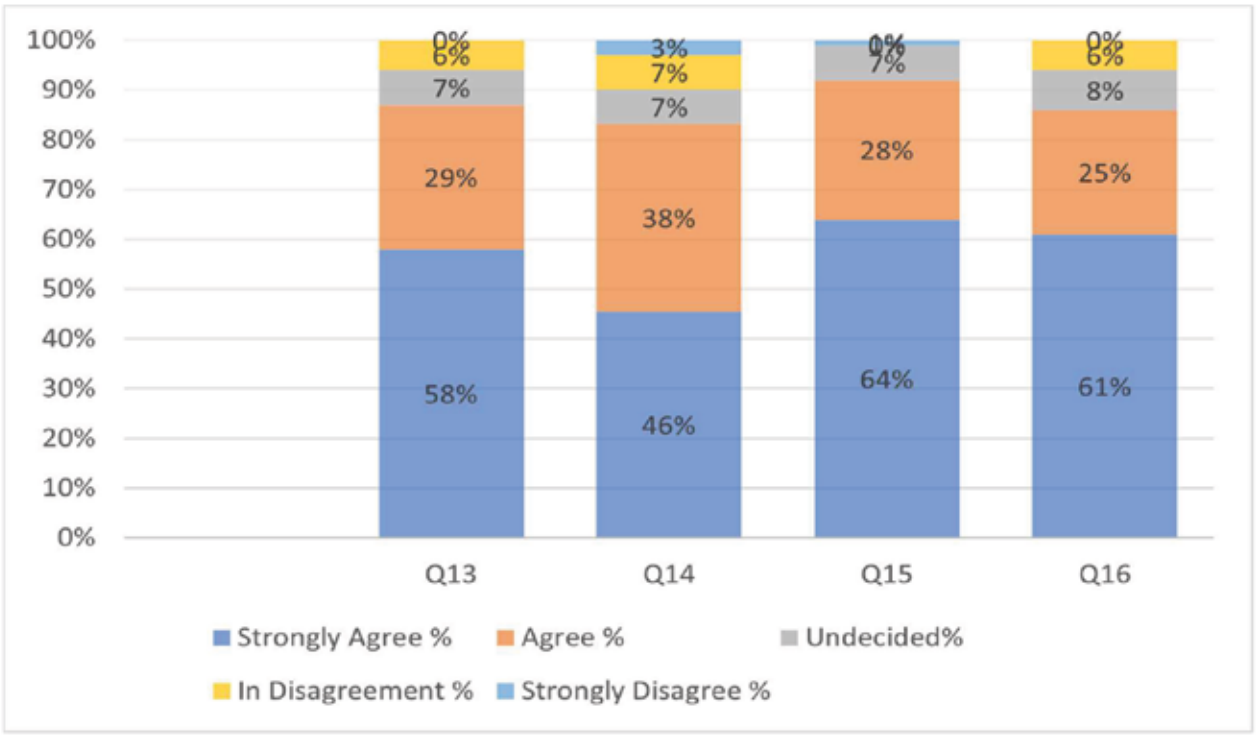


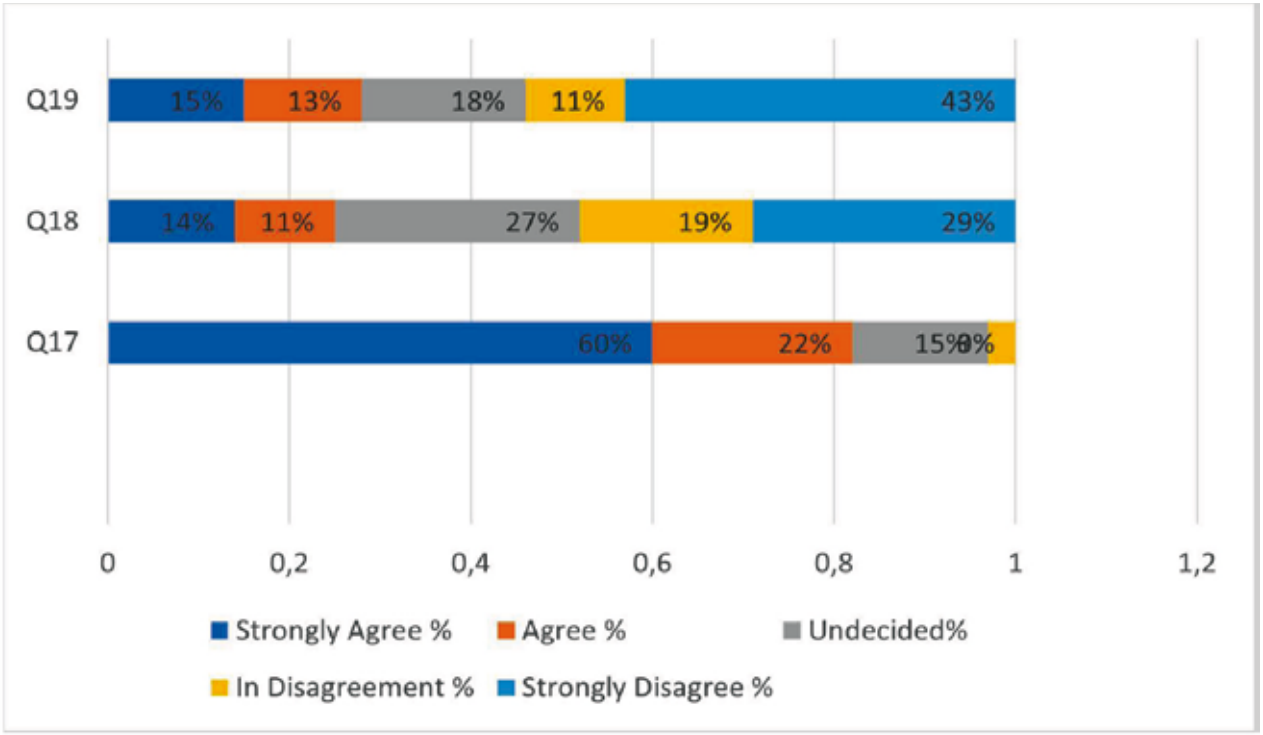
Figure 8 identifies that 70% of students agreed with the previous moment, which consisted of watching interactive videos on Playposit, Edpuzzle, and YouTube. These videos helped to understand the topic before attending class. They said watching videos at home helps them learn and understand concepts, and that reading before class helped them understand a new topic. Therefore, to develop the ability to communicate (speak), presenting images on a subject allowed the student to imagine the topic of the class, to ask questions and imagine what is being discussed; in class, a debate on images is held.

Therefore, the acceptance of this moment was very positive, with more than 60% of the students wanting to acquire more knowledge about the topics to be discussed before attending classes, so they could have a very open dialogue in class, hold discussions and better understand some doubts they may have had the day before. Hence, they stated that it was easy to carry out these previous activities with the mentioned platforms, Playposit and Edpuzzle. Each of these applications is interactive; while watching a video made by the teacher, they have questions within the video, which keeps them active and focused on the information provided. In addition, it is confirmed that 43% of students need the support and direction of the teacher to guide them in the new knowledge, so the teacher directed this moment well.

Figure 8. *Teacher survey: a comparative analysis of results. —(a) Application of the moment before (b) Acceptance of the moment before*

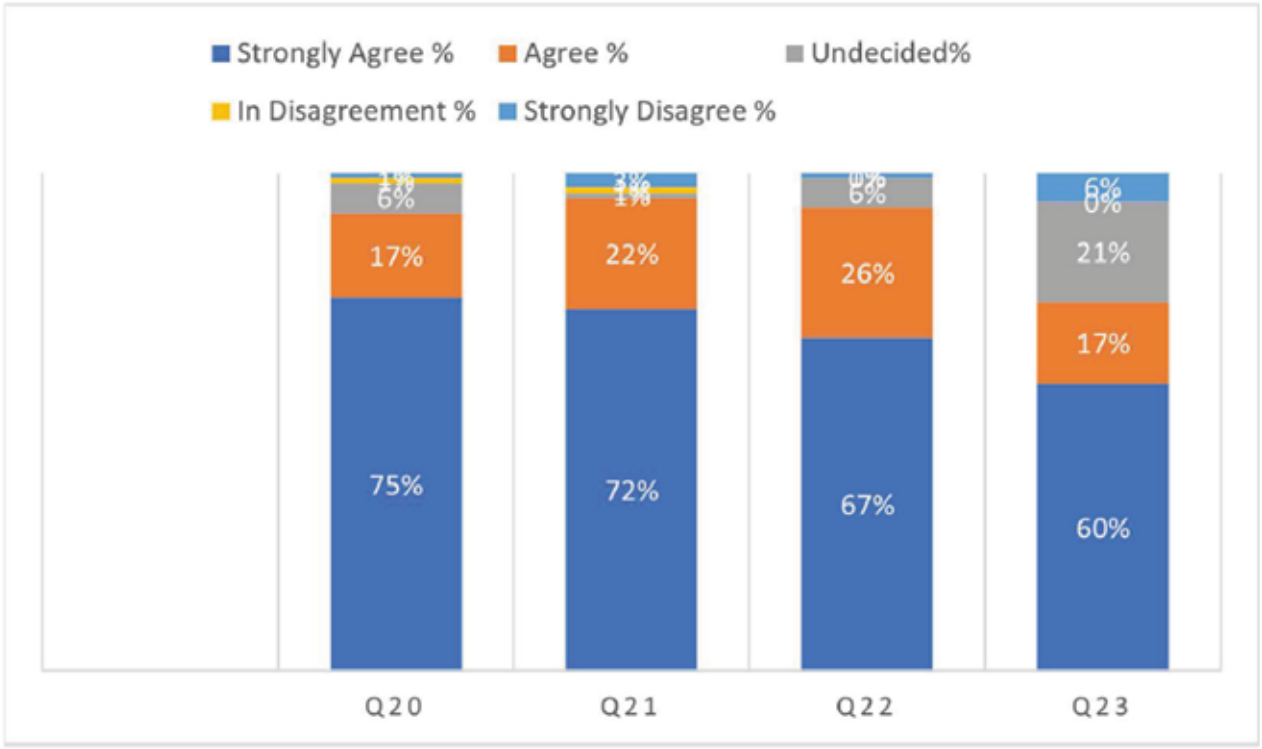


(a) Application of the moment before FL

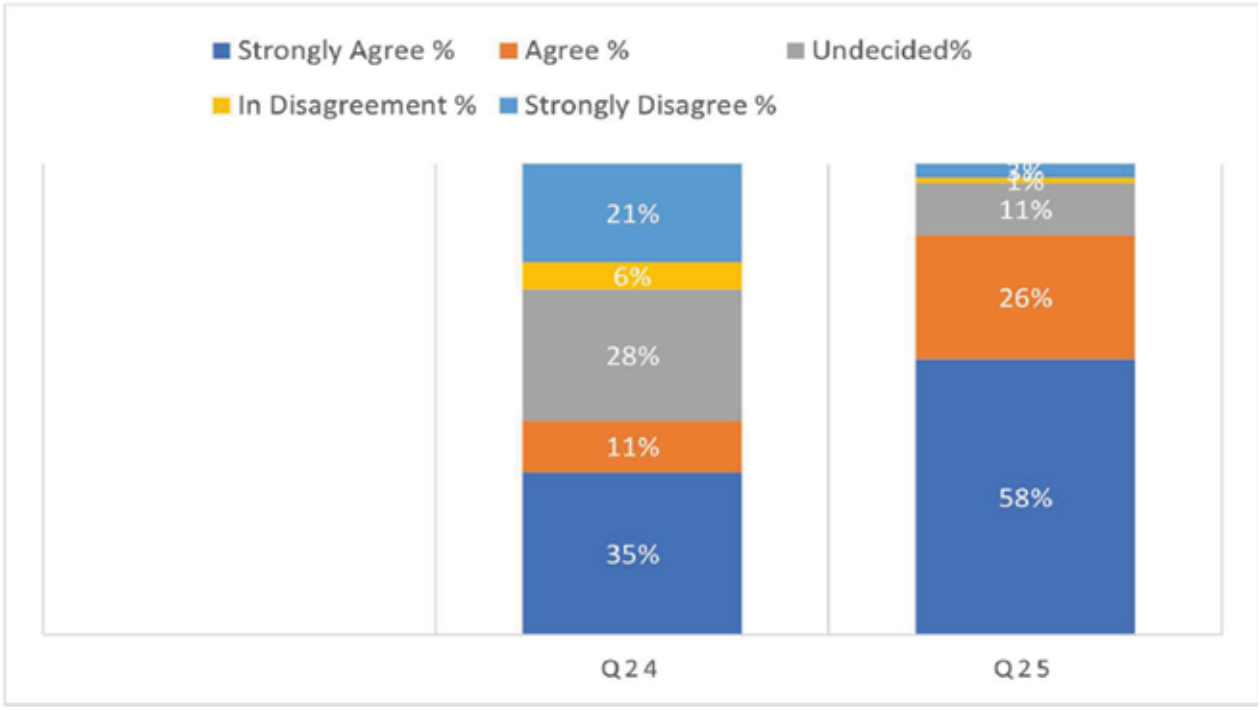


b) Acceptance of the moment before FL

Figure 9. *Teacher survey: a comparative analysis of the results. —(a) Application during and after (b) Acceptance of moments during and after.*



(a) Application of the moments during and after



(b) Acceptance of moments during and after

Figure 9 shows students' perceptions of the moments during and after Flipped Learning. It is observed that 75% agree with the way they worked in class, since it favors the understanding of the subject and the teamwork strengthened friendship. Completing classroom worksheets on home-watching video reinforced the knowledge gained at home. Reading before class helped them understand the content, and applying it to reading comprehension was very beneficial, as they researched words they did not know. They stated that oral presentations or discussions improved their English language.

The acceptance of these two moments of Flipped Learning corresponded to the total. Students want teachers to use a different, active and innovative way of teaching, so they confirm that having applied this methodology, they were very interested in working both outside and inside the classroom. To conclude this section, it can be stated that the students accepted this active methodology.

4. Discussion and conclusions

This article has yet to review the disadvantages of the model, which are evident when technological resources are scarce in urban, suburban or rural areas. Other studies address concerns about the extra time teachers would need to invest in creating technical resources, bandwidth limitations in homes, or limited time after completing various forms inherent to a chaotic education system in Latin America due to the increase in indicators that seek to measure the entire teaching-learning process (Cueva & Inga, 2022).

There are concerns about the time teachers would have to spend in a computer to acquire the learning resources needed for Flipped Learning or the time students forced many teachers to use technology; however, educational innovation must be focused in rural areas without the Internet (Ramirez, 2022).

However, after the pandemic, many have returned to traditional classroom teaching, often experiencing fatigue, frustration and even early retirement by not being updated in competition with digital tools or unable to read updated documents in English.

This work has shown that Flipped Learning is an innovative educational strategy that offers numerous benefits in the teaching-learning process. By shifting the traditional delivery of content in the classroom to pre-study activities, Flipped Learning promotes a more active approach by students, encouraging their participation and engagement. By accessing pre-class learning materials, students can better prepare themselves, delve into concepts and reach the course with a basic level of knowledge, facilitating a more enriching and meaningful discussion environment according to Parra-González et al. (2020).

In addition, Invested Learning allows teachers to devote more time in class to solving problems, carrying out practical activities and providing personalized tutoring, promoting a deeper and lasting learning. However, in spite of the benefits mentioned above, there are also challenges and limitations that must be taken into account in Flipped Learning. First, their implementation requires careful planning and preparation by teachers. Creating pre-study materials and managing classroom activities can be intensive and time consuming, as expressed in Hossein-Mohand et al. (2021).

In addition, some students may need help accessing resources outside the classroom, especially those who need reliable Internet access at home. This can create inequalities in learning and affect the participation of specific students. In addition, Flipped Learning requires more responsibility and self-discipline on the part of students, requiring them to participate independently. Some students may need help organizing their time and keeping up with homework.

Flipped Learning has been widely accepted as an innovative and active method for integrating ICTs within and outside the classroom. This approach has helped students feel more involved in their learning process.

After researching the scientific literature related to the Flipped Learning model, it is possible to affirm that it promotes interaction between teachers and students, especially in the teaching of English. This model has allowed students to interact with technological tools and engage in meaningful discussions about what they have learned in class.

The results of the survey show that Flipped Learning has improved critical thinking, collaborative and cooperative skills, and the ability to create independently in students. These skills prepare them for new realities and facilitate more effective learning outcomes than traditional teaching approaches.

In addition, the students' feedback revealed that they were highly motivated to interact with their teacher in this new way. All the technological tools

used to implement the flipped learning model provided significant support to their learning process, allowing them to adapt to their own pace of learning.

By planning and implementing the Flipped Learning, the teacher was able to renew his/her teaching approach and explore new active methodologies. This approach emphasized the development of students' oral expression in English language teaching, identifying motivation as the key factor for students' continuous acquisition of English language skills.

Flipped Learning is one of the most widely used active teaching methodologies in the world, and this research supports its acceptance and effectiveness among students and teachers. As a result of this study, further research will continue to explore new active teaching methodologies for English subjects.

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