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**Flipped classroom methodology and its effect on english language
learning outcomes in higher education**

***Metodología de aula invertida y su efecto en los resultados del aprendizaje
del inglés en la educación superior***

Autores:

Diego Alejandro Fernández Cando
Unidad Educativa Particular San Francisco Javier, La Escuela Javeriana de Loja
Loja – Ecuador
fcalex1711@gmail.com
<https://orcid.org/0009-0007-2425-0169>

Marco Paul Beltrán Semblantes
Universidad Técnica de Cotopaxi
Latacunga – Ecuador
marco.beltran@utc.edu.ec
<https://orcid.org/0009-0001-1617-0667>

Katheryn Vanesa Trujillo Guerra
ESFORCE
Ambato – Ecuador
katheryntrujillo77@gmail.com
<https://orcid.org/0009-0002-0811-1605>

Marlon Josué Quezada Chango
ESFORCE
Ambato – Ecuador
marlon.quezada2002@gmail.com
<https://orcid.org/0009-0007-1159-3322>

Washington Salomón Viera Flores
Universidad de las Fuerzas Armadas ESPE
Sangolquí – Ecuador
washoviera@gmail.com
<https://orcid.org/0009-0001-4575-0353>

Autor de correspondencia: Diego Alejandro Fernández Cando, fcalex1711@gmail.com

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ABSTRACT

The flipped classroom methodology combines autonomous pre-class preparation with active, collaborative, and teacher-guided classroom activities. This study aimed to analyze its effect on English language learning outcomes in higher education. An integrative literature review was conducted through a systematic search process based on the identification, screening, eligibility, and inclusion stages established by PRISMA 2020. The literature search covered the period from 2022 to 2026, and 15 publications published between 2022 and 2025 met the eligibility criteria. The findings were organized into four thematic categories: English language achievement and skill development, student engagement and active participation, self-regulated learning and higher-order thinking, and technological and pedagogical implementation conditions. The results indicate that the flipped classroom may improve overall English language achievement, particularly reading and speaking, as well as participation, self-regulation, collaboration, and higher-order thinking. However, the effects varied according to students' proficiency level, intervention duration, instructional design, technological access, quality of pre-class materials, and teacher guidance. Difficulties related to insufficient preparation, workload, technical problems, unequal access, and weak connections between pre-class and in-class activities were also identified. It is concluded that the flipped classroom can strengthen English language teaching when implemented as a structured pedagogical model that integrates accessible resources, meaningful activities, student responsibility, and continuous teacher mediation.

Keywords: flipped classroom; English language learning; higher education; student engagement.

RESUMEN

La metodología de aula invertida combina la preparación autónoma previa con actividades presenciales activas, colaborativas y orientadas por el docente. Este estudio tuvo como objetivo analizar su efecto en los resultados del aprendizaje del inglés en la educación superior. Se realizó una revisión integrativa de la literatura mediante un proceso de búsqueda sistemática basado en las etapas de identificación, cribado, elegibilidad e inclusión establecidas por PRISMA 2020. La búsqueda bibliográfica abarcó el periodo 2022–2026, y se incluyeron 15 publicaciones publicadas entre 2022 y 2025 que cumplieron los criterios de elegibilidad. Los hallazgos se organizaron en cuatro categorías temáticas: rendimiento y desarrollo de habilidades en inglés; participación activa del estudiante; aprendizaje autorregulado y pensamiento de orden superior; y condiciones tecnológicas y pedagógicas de implementación. Los resultados indican que el aula invertida puede favorecer el rendimiento general en inglés, especialmente la lectura y la expresión oral, además de la participación, la autorregulación, la colaboración y el pensamiento de orden superior. Sin embargo, los efectos variaron según el nivel de dominio del estudiante, la duración de la intervención, el diseño instruccional, el acceso tecnológico, la calidad de los materiales previos y la orientación docente. También se identificaron dificultades relacionadas con la falta de preparación, la carga de trabajo, los problemas técnicos, el acceso desigual y la débil conexión entre las actividades previas y presenciales. Se concluye que el aula invertida puede fortalecer la enseñanza del inglés cuando se implementa como un modelo pedagógico estructurado, con recursos accesibles, actividades significativas, responsabilidad estudiantil y mediación docente continua.

Palabras clave: aula invertida; aprendizaje del inglés; educación superior; participación estudiantil.



1. INTRODUCTION

English language learning in higher education requires the development of listening, speaking, reading, writing, vocabulary, grammar, pronunciation, and communicative competence. However, conventional instruction may devote much of classroom time to explanations, leaving limited opportunities for interaction, collaboration, individualized feedback, and practical language use. In response to this limitation, the flipped classroom methodology reorganizes instruction by transferring the initial presentation of content to the pre-class stage and reserving face-to-face sessions for active learning, discussion, problem-solving, and language practice. In EFL and ESL contexts, this model may extend learning beyond scheduled lessons and promote more meaningful interaction during class time (Zain, 2022).

From 2022 onward, flipped learning has gained increasing attention in higher education because of its integration of digital resources with student-centered pedagogy. Before class, learners may access recorded explanations, readings, interactive slides, quizzes, or activities through learning management systems. During class, they participate in discussions, collaborative tasks, speaking activities, writing exercises, peer feedback, and practical applications of previously reviewed content. A systematic review of flipped EFL and ESL instruction found that this approach can create additional opportunities for meaningful and collaborative interaction, although its effectiveness depends on the organization of materials, student preparation, technological access, and teacher guidance (Zain, 2022).

Research published in 2023 provided stronger quantitative evidence regarding its influence on English language outcomes. Ni et al. (2023) analyzed 24 empirical studies involving 2,526 university students and reported a positive moderate effect of flipped classroom instruction on college English achievement. The effectiveness of the approach was greater when students had opportunities to review learning materials, when individual preparation was combined with cooperative classroom work, and when learning management systems supported the instructional process. These findings indicate that the flipped classroom is not effective simply because content is presented online; its value depends on the relationship among technology, pedagogy, course content, and active classroom participation.



Research published between 2023 and 2024 continued to examine both the overall effectiveness and the specific conditions of flipped English instruction. Empirical evidence also suggests that the effects of flipped learning may differ across language skills and proficiency levels. Yan et al. (2024) conducted an 18-week quasi-experiment with 612 first-year university students and found that flipped instruction improved second-language performance. Nevertheless, the gains were not uniform: reading showed stronger improvement than writing and listening, and the magnitude of the effect varied according to students' initial proficiency. This demonstrates that flipped learning should not be considered a universal solution with identical results for every learner or language skill.

By 2025, studies increasingly focused on engagement, learner perceptions, and the quality of technology-supported materials. Research on interactive slides in blended and online flipped EFL classrooms showed positive student perceptions of engagement, learning experience, and English-skill development, although face-to-face flipped classes obtained slightly higher ratings than fully online environments. Technical difficulties, workload, activity variety, and language anxiety remained important implementation factors (Petchprasert, 2025). Another quasi-experimental study reported that flipped instruction contributed to reading proficiency and engagement among college EFL trainees, reinforcing the importance of active preparation and structured in-class application (Yalew, 2025).

Despite these favorable findings, the flipped classroom also presents pedagogical and technological challenges. Students may arrive unprepared, fail to complete pre-class activities, experience limited internet access, or perceive the model as an additional workload. Teachers must also invest time in designing concise materials, monitoring preparation, creating purposeful classroom activities, and providing feedback. Therefore, merely assigning videos before class does not constitute effective flipped learning. The pre-class and in-class stages must be connected through clear objectives, accountability mechanisms, collaborative practice, and assessment procedures that encourage meaningful participation.

The literature published between 2022 and 2025 suggests that flipped classroom methodology can improve English language learning outcomes in higher education by increasing preparation, interaction, active participation, autonomy, and opportunities to apply language skills. Nevertheless, the evidence remains heterogeneous because studies



differ in educational context, learner proficiency, intervention duration, technological platform, language skill, and assessment method. A broader synthesis is needed to determine which instructional conditions produce the most consistent benefits and which limitations may reduce effectiveness.

Accordingly, this study aims to analyze the effect of flipped classroom methodology on English language learning outcomes in higher education. It addresses the following research question: How does flipped classroom methodology influence English language learning outcomes and student engagement in higher education?

2. THEORETICAL FRAMEWORK

Flipped classroom as an active methodology

The flipped classroom reorganizes instruction into two connected stages. Before class, students review videos, readings, presentations, or digital activities; during class, they apply the acquired knowledge through discussions, problem-solving, collaborative work, and guided practice. This model allows classroom time to focus on interaction and higher-order learning instead of extended teacher explanations. Baig and Yadegaridehkordi (2023) explain that its effectiveness depends on the appropriate relationship between technological resources, pre-class preparation, pedagogical activities, and teacher support.

Active learning and student engagement

Flipped learning places students in a more active role because they must prepare before class and participate in activities that require applying, discussing, and evaluating knowledge. In English language education, classroom time can therefore be used for speaking practice, debates, writing exercises, peer feedback, and collaborative tasks. Zhong and Abdullah (2023) indicate that this model can encourage meaningful participation, although insufficient preparation and limited familiarity with the methodology may reduce student engagement.

Self-regulated learning

The flipped classroom requires students to manage their time, review materials independently, monitor their understanding, and identify difficulties before attending class. For this reason, self-regulation is a central component of the model. Li and Zhang (2024) associate flipped instruction with self-regulated learning and EFL speaking competence,



emphasizing the importance of motivation, preparation, interaction, and pedagogical guidance.

Samadi et al. (2024) also found that flipped instruction can strengthen cognitive and metacognitive strategies and promote higher-order thinking processes such as analyzing, evaluating, and creating. These findings suggest that flipped learning can support not only language development but also the abilities students need to direct and evaluate their own learning.

Development of English language skills

In English language teaching, introductory explanations about grammar, vocabulary, reading strategies, or communicative structures can be completed before class. Classroom sessions can then be dedicated to meaningful language use and interaction. Hasan (2022) reported favorable perceptions among university EFL students regarding the use of videos, readings, writing activities, and discussions, particularly because these resources supported grammar comprehension and motivation.

Nevertheless, the improvement of language skills depends on the relationship between the materials reviewed before class and the activities completed afterward. Content should prepare students for communication and application rather than simply transfer traditional lectures to a digital format.

Digital competence and teacher preparation

Teachers require digital and pedagogical competence to select resources, produce or organize pre-class content, monitor student preparation, and develop appropriate classroom activities. Han et al. (2024) found that EFL student teachers generally perceived the flipped classroom as an effective use of class time, although some remained hesitant about implementing it in their own professional practice. Their findings show that teacher education should include practical guidance on how to connect digital materials, disciplinary content, and active learning.

Technology acceptance and learning continuity

Students' participation also depends on whether technological resources are accessible, useful, and easy to operate. Al-Maroofo et al. (2022) found that perceived usefulness, attitudes toward technology, and expectations regarding its performance influenced university students' acceptance and continued use of flipped learning. Consequently,



institutions should select accessible platforms, provide technical assistance, and avoid technological complexity that may interfere with the learning objectives.

Conditions for effective implementation

Effective flipped learning requires concise and accessible materials, clear instructions, mechanisms to verify pre-class preparation, and classroom activities connected with specific language objectives. Jovanović et al. (2022) emphasize that positive experiences depend on course design, teaching quality, interaction, and students' perception of the model's usefulness.

The main implementation difficulties include increased teacher preparation time, students' failure to complete pre-class tasks, lack of guidance outside the classroom, poor-quality materials, limited technological access, and resistance to a less traditional learning model. These challenges can be reduced through orientation, continuous monitoring, technical support, and coherence between the pre-class and in-class stages (Baig & Yadegaridehkordi, 2023).

In summary, the flipped classroom can support English language learning in higher education by combining autonomous preparation, active participation, communication, self-regulation, and teacher guidance. Its effectiveness depends on the quality of instructional design, students' preparation, teachers' digital competence, accessible technology, and the meaningful connection between activities completed before and during class.

.3. METHODOLOGY

Research Design

This study was conducted as an integrative literature review with a systematic search process to analyze the effects of flipped classroom methodology on English language learning outcomes in higher education. This design was selected because it allows empirical studies, quasi-experimental research, systematic reviews, meta-analyses, and conceptual evidence to be compared within a common analytical framework. Integrative reviews facilitate the synthesis of different forms of evidence and contribute to a broader understanding of an educational phenomenon (Lubbe et al., 2020).

A qualitative descriptive-analytical approach was used to organize and interpret the selected publications. The analysis considered English language achievement, speaking, listening,



reading, writing, grammar, student engagement, motivation, self-regulated learning, higher-order thinking, digital competence, technology acceptance, and implementation conditions. The literature search covered publications from 2022 to 2026. The final corpus consisted of 15 publications published between 2022 and 2025, including primary empirical research, quasi-experimental publications, systematic literature reviews, meta-analyses, and publications focused on technology acceptance. Although the search period extended through 2026, no publication from 2026 met the eligibility criteria. Therefore, all sources included in the final corpus were published between 2022 and 2025.

Information Sources and Search Strategy

The bibliographic search was conducted in Scopus, Web of Science, ScienceDirect, SpringerLink, Taylor & Francis Online, SAGE Journals, ERIC, and Google Scholar.

Searches were performed in title, abstract, and keyword fields whenever these options were available. The search strategy combined terms related to flipped learning, English language education, and higher education through the Boolean operators AND and OR.

The general search equation was:

(“flipped classroom” OR “flipped learning” OR “inverted classroom”) AND (“English language learning” OR “English language teaching” OR “EFL” OR “ESL”) AND (“higher education” OR “university students” OR “college students”)

Additional searches incorporated outcome-related terms:

(“flipped classroom” OR “flipped learning”) AND (“English achievement” OR “speaking competence” OR “reading proficiency” OR “student engagement” OR “self-regulated learning”)

The equations were adapted to the fields, operators, and filters available in each database. The references were organized in a Microsoft Excel matrix. Duplicate records were identified by comparing authorship, title, publication year, journal, and DOI.

Eligibility Criteria

Publications were included when they met the following criteria:

- Published within the search period from 2022 to 2026.
- Directly related to flipped classroom methodology.
- Focused on English as a foreign or second language.
- Conducted in higher education or university contexts.



- Examined linguistic, academic, cognitive, motivational, or engagement outcomes.
- Corresponded to empirical, quasi-experimental, systematic review, meta-analytic, or mixed-methods designs.
- Published in English or Spanish.
- Presented accessible full text and verifiable bibliographic information.
- Included clearly reported objectives, methodology, results, or conclusions.

Publications were excluded when they were duplicates, editorials, informal essays, conference summaries without sufficient methodological information, publications outside the established search period, research unrelated to English education, or publications that used digital resources without clearly implementing a flipped classroom model.

Publication Selection Process

The selection process followed the identification, screening, eligibility, and inclusion phases established by the PRISMA 2020 statement, which provides guidance for transparently reporting the selection of evidence in systematic reviews (Page et al., 2021).

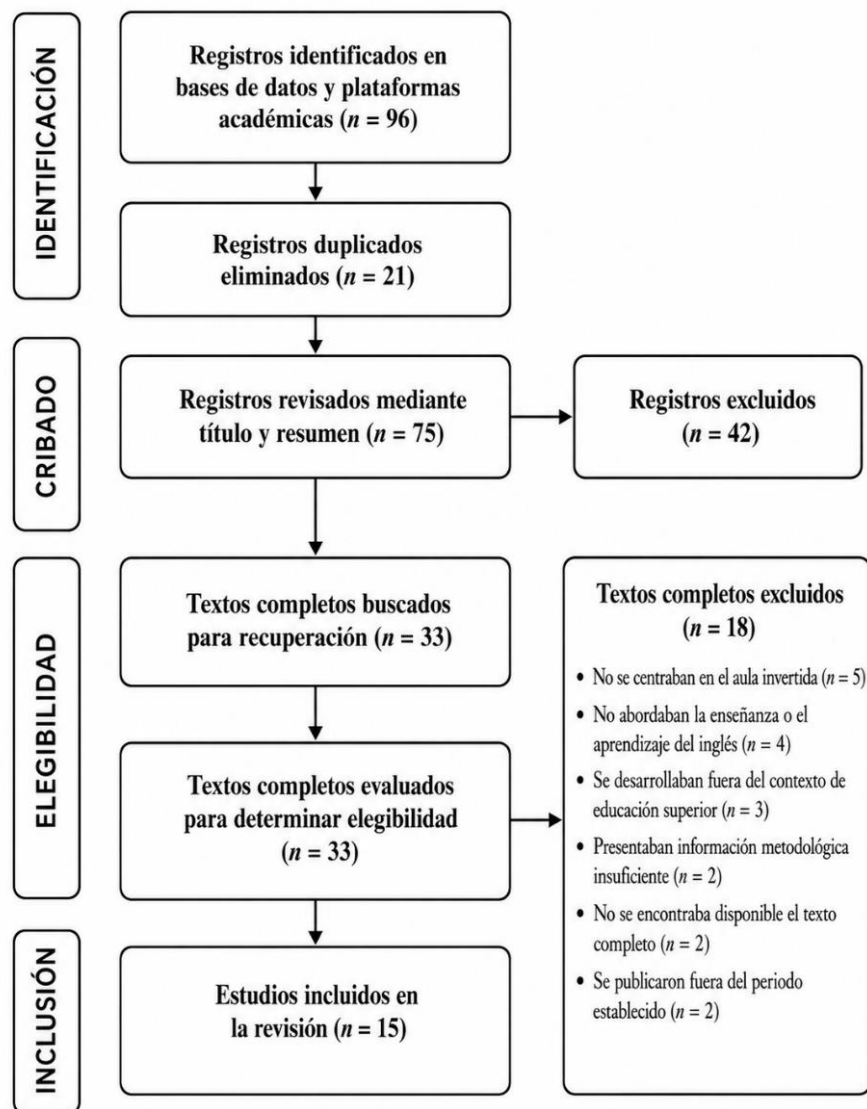
The initial records were screened by title and abstract. Potentially relevant publications were then reviewed in full text according to the eligibility criteria. Duplicate and unrelated records were removed before the final selection.

The final corpus consisted of 15 publications published between 2022 and 2025 that met the eligibility criteria and addressed flipped classroom methodology and English language learning in higher education.

Figure 1

PRISMA 2020 Flow Diagram of the Publication-Selection Process





Note. The publication-selection process followed the identification, screening, eligibility, and inclusion stages established by PRISMA 2020. The search covered the period from 2022 to 2026, and the final corpus consisted of 15 publications published between 2022 and 2025 that met the eligibility criteria.

Data Extraction and Analysis

A standardized matrix was used to extract the following information:

- Author and publication year.
- Type of publication or research design.
- Educational context.



- Participants or corpus.
- English language skill or learning outcome.
- Flipped classroom intervention.
- Digital resources employed.
- Main findings.
- Reported limitations.
- DOI or bibliographic identifier.
- Overall contribution to English language education.

The evidence was analyzed through thematic categorization. Thematic analysis allows recurrent patterns to be identified, organized, interpreted, and presented as meaningful categories (Braun & Clarke, 2021).

The findings were organized into four thematic categories:

English language achievement and skill development.

Student engagement and active participation.

Self-regulated learning and higher-order thinking.

Technological and pedagogical implementation conditions.

The categories were not mutually exclusive because some publications addressed more than one linguistic or educational variable. A new statistical meta-analysis was not conducted because the selected publications differed in design, participants or corpus, duration, language outcomes, technological platforms, and assessment procedures. Therefore, the evidence was synthesized descriptively and thematically.

Methodological Quality Assessment

A common eight-criterion framework was used to evaluate methodological and reporting elements across the different publication types:

C1: Clarity of objectives.

C2: Adequacy of the theoretical foundation.

C3: Methodological transparency.

C4: Appropriateness of the research design.

C5: Description of participants, corpus, or evidence.

C6: Clarity of the analysis.



C7: Correspondence between findings and conclusions.

C8: Acknowledgment of limitations.

Each criterion was scored as follows:

0: The criterion was not met.

1: The criterion was partially met.

2: The criterion was fully met.

The maximum score was 16 points. The quality percentage was calculated by dividing the score obtained by 16 and multiplying it by 100.

Publications obtaining 80% or more were classified as high quality, those obtaining 60%–79% as moderate quality, and those obtaining less than 60% as low quality.

Table 1

Methodological Quality Assessment of the Included Publications

No.	Author and year	Type of document	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	Total	Percentage	Quality
1	Al-Marroof et al. (2022)	Quantitative empirical study	2	2	2	2	2	2	2	1	15/16	93.75%	High
2	Baig and Yadegaridehkordi (2023)	Systematic literature review	2	2	2	2	2	2	2	2	16/16	100.00%	High
3	Chen et al. (2023)	Bayesian meta-analysis	2	2	2	2	2	2	2	2	16/16	100.00%	High
4	Han et al. (2024)	Empirical perception study	2	2	2	2	2	2	2	1	15/16	93.75%	High
5	Hasan (2022)	Empirical descriptive study	2	2	1	2	2	1	2	1	13/16	81.25%	High



6	Jovanović et al. (2022)	Quantitative empirical study	2	2	2	2	2	2	2	2	16/16	100.00%	High
7	Li and Zhang (2024)	Empirical EFL study	2	2	2	2	2	2	2	1	15/16	93.75%	High
8	Zhong and Abdullah (2023)	Systematic literature review	2	2	2	2	2	2	2	1	15/16	93.75%	High
9	Ni et al. (2023)	Meta-analysis	2	2	2	2	2	2	2	2	16/16	100.00%	High
10	Petchprasert (2025)	Empirical perception study	2	2	2	2	2	2	2	1	15/16	93.75%	High
11	Samadi et al. (2024)	Empirical intervention study	2	2	2	2	2	2	2	1	15/16	93.75%	High
12	Vitta and Al-Hoorie (2024)	Literature review	2	2	2	1	1	2	2	1	13/16	81.25%	High
13	Yalew (2025)	Quasi-experimental study	2	2	2	2	2	2	2	1	15/16	93.75%	High
14	Yan et al. (2024)	Quasi-experimental study	2	2	2	2	2	2	2	2	16/16	100.00%	High
15	Zain (2022)	Systematic literature review	2	2	2	2	2	2	2	1	15/16	93.75%	High

Note. C1 = clarity of objectives; C2 = adequacy of the theoretical foundation; C3 = methodological transparency; C4 = appropriateness of the research design; C5 = description of participants, corpus, or evidence; C6 = clarity of the analysis; C7 =



correspondence between findings and conclusions; and C8 = acknowledgment of limitations.

Each criterion was scored as 0, 1, or 2. The maximum possible score was 16 points.

The search covered publications from 2022 to 2026; however, the sources included in the final corpus were published between 2022 and 2025.

The preliminary assessment classified all 15 publications as high quality. The strongest scores were obtained by Baig and Yadegaridehkordi (2023), Chen et al. (2023), Jovanović et al. (2022), Ni et al. (2023), and Yan et al. (2024), which presented detailed methodological procedures and clear correspondence between evidence and conclusions.

Hasan (2022) and Vitta and Al-Hoorie (2024) obtained comparatively lower scores because some methodological or participant-related elements were less extensive than those reported in experimental studies and meta-analyses. Nevertheless, both publications were retained because they provided relevant information about learners' perspectives and flipped EFL instruction.

The quality scores were used to guide the interpretation of the evidence rather than as an automatic exclusion criterion.

Review Process and Protocol

Publication identification, screening, full-text assessment, data extraction, thematic categorization, and methodological quality evaluation were conducted by one reviewer. The extracted information was reviewed using the full texts of the included publications. When a methodological characteristic was not explicitly reported by the original authors, it was recorded as "Not explicitly reported" without making assumptions or presenting alternative interpretations.

Because no second independent reviewer participated, no inter-rater agreement coefficient was calculated. The review was not prospectively registered, and no public protocol was published before the search. Nevertheless, the databases, search equation, eligibility criteria, selection stages, extraction variables, analytical categories, and quality criteria were documented to improve transparency and reproducibility.

4. RESULTS

General Characteristics of the Included Publications



The literature search covered the period from 2022 to 2026. The final corpus consisted of 15 publications published between 2022 and 2025, because no publication from 2026 met the eligibility criterion. The sources included primary empirical research, quasi-experimental publications, systematic literature reviews, meta-analyses, and publications focused on student perceptions, technology acceptance, and teacher preparation. The publications examined the effects of flipped classroom methodology on English language achievement, reading, speaking, engagement, motivation, self-regulated learning, higher-order thinking, digital competence, and technology acceptance in higher education.

Because the publications differed in design, participants or corpus, intervention duration, technological resources, language skills, and assessment procedures, the results were synthesized descriptively. The findings were organized into four broader thematic categories. The methodological and educational characteristics presented in Tables 2A and 2B were extracted from the full texts of the 15 included publications. Only information explicitly reported by the original authors was incorporated. When a particular characteristic was not available, it was identified as “Not explicitly reported,” and no assumptions or alternative descriptions were used to complete the record.

Table 2
Methodological Characteristics of the Sources Included in the Integrative Literature Review

No.	Author and year	Country	Research design	Sample or corpus	Intervention duration	English proficiency level
1	Al-Maroofof et al. (2022)	Not explicitly reported	Quantitative empirical study	University students; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
2	Baig and Yadegaridehkordi (2023)	Multiple countries	Systematic literature review	Corpus of studies; number of studies not explicitly reported	Not applicable	Not explicitly reported



No.	Author and year	Country	Research design	Sample or corpus	Intervention duration	English proficiency level
3	Chen et al. (2023)	Multiple countries	Bayesian meta-analysis	Corpus of studies; number of studies not explicitly reported	Not applicable	Mixed proficiency levels
4	Han et al. (2024)	Not explicitly reported	Empirical perception study	EFL student teachers; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
5	Hasan (2022)	Not explicitly reported	Descriptive empirical study	Undergraduate EFL students; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
6	Jovanović et al. (2022)	Not explicitly reported	Quantitative empirical study	University students; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
7	Li and Zhang (2024)	Not explicitly reported	Empirical EFL study	EFL students; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
8	Zhong and Abdullah (2023)	Multiple countries	Systematic literature review	Corpus of EFL studies; number of studies not explicitly reported	Not applicable	Not explicitly reported
9	Ni et al. (2023)	Multiple countries	Meta-analysis	24 empirical studies involving 2,526 university students	Not applicable	Mixed proficiency levels



No.	Author and year	Country	Research design	Sample or corpus	Intervention duration	English proficiency level
10	Petchprasert (2025)	Not explicitly reported	Empirical perception study	EFL students; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
11	Samadi et al. (2024)	Not explicitly reported	Empirical intervention study	EFL learners; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
12	Vitta and Al-Hoorie (2024)	Multiple countries	Literature review	40 primary studies	Not applicable	Mixed proficiency levels
13	Yalew (2025)	Not explicitly reported	Quasi-experimental study	College EFL trainees; sample size not explicitly reported	Not explicitly reported	Not explicitly reported
14	Yan et al. (2024)	Not explicitly reported	Quasi-experimental study	612 first-year university students	18 weeks	Different initial proficiency levels
15	Zain (2022)	Multiple countries	Systematic literature review	Corpus of higher-education EFL and ESL studies; number of studies not explicitly reported	Not applicable	Mixed proficiency levels

Note. The methodological characteristics were extracted from the full texts of the included publications. The literature search covered the period from 2022 to 2026, whereas the 15 sources included in the final corpus were published between 2022 and 2025. “Not explicitly reported” indicates that the corresponding information was not stated by the original authors. No assumptions or alternative interpretations were used to complete missing data.

Table 3

Educational Outcomes and Quality of the Sources Included in the Integrative Literature Review

N o.	Author and year	Resource s used	Skill or outcome assessed	Instrume nts	Main result	Reported limitations	Methodolo gical quality
1	Al-Maroofof et al. (2022)	Flipped-learning technological environment	Technology acceptance and continued use	Technology acceptance questionnaire based on the TAM and UTAUT frameworks	Perceived usefulness, attitudes, and performance expectations influenced acceptance and continued use	Limitations not explicitly reported	High — 93.75%
2	Baig and Yadegaridehkordi (2023)	Digital platforms and flipped-classroom resources	Pedagogical benefits and implementation conditions	Systematic-review extraction matrix	Effectiveness depended on the relationship among technology, pedagogy, preparation, and teacher support	Limitations not explicitly reported	High — 100%
3	Chen et al. (2023)	Flipped-language classroom resources	General language-learning outcomes	Bayesian meta-analytic procedures and	A positive overall effect on language-learning	Heterogeneity among the included studies	High — 100%



N o.	Author and year	Resource s used	Skill or outcome assessed	Instrume nts	Main result	Reported limitations	Methodolo gical quality
				effect-size analysis	outcomes was reported		
4	Han et al. (2024)	Digital materials used in flipped EFL teacher education	Teacher preparation, digital competence , and perceptions	Student- perception survey	Student teachers generally perceived flipped learning as an effective use of class time	Evidence was based mainly on participants , perceptions ; other limitations were not explicitly reported	High — 93.75%
5	Hasan (2022)	Videos, readings, writing activities, and discussio ns	Grammar comprehens ion, motivation, engagement , and language learning	Student- perception instrument	Students reported favorable perceptions , particularly regarding grammar comprehen sion and motivation	Methodolo gical and participant information was less extensive	High — 81.25%
6	Jovanović et al. (2022)	Flipped- course resources and digital activities	Positive student experiences and implementa	Student questionna ire and predictive statistical analysis	Positive experience s were associated with course design, teaching	Limitations not explicitly reported	High — 100%



N o.	Author and year	Resource s used	Skill or outcome assessed	Instrume nts	Main result	Reported limitations	Methodolo gical quality
7	Li and Zhang (2024)	Pre-class materials and guided classroom interactio n	Speaking competence and self- regulated learning	Speaking assessment t and self- regulation measures	quality, interaction, and perceived usefulness Flipped instruction was associated with speaking competenc e and self- regulated learning	Limitations not explicitly reported	High — 93.75%
8	Zhong and Abdullah (2023)	Online platforms and digital flipped- learning resources	Engagemen t, technology use, and implementa tion challenges	Systemati c-review extraction matrix	The methodolo gy promoted participatio n, although insufficient preparation reduced engagemen t	Variability among studies and educational contexts	High — 93.75%
9	Ni et al. (2023)	Learning- managem ent systems, reviewabl e	Overall college English achievement t	Meta- analytic effect-size analysis	Flipped instruction produced a positive moderate effect on	Heterogene ity in study designs and interventions	High — 100%



N o.	Author and year	Resource s used	Skill or outcome assessed	Instrume nts	Main result	Reported limitations	Methodolo gical quality
		materials, and cooperati ve classroom work			English achieveme nt		
10	Petchprasert (2025)	Interactiv e slides, including Pear Deck	Engagemen t, learning experience, and English- skill developmen t	Student- perception questionna ire	Positive perceptions were reported; face-to- face flipped classes received slightly higher ratings than online classes	Technical difficulties, workload, limited activity variety, and language anxiety	High — 93.75%
11	Samadi et al. (2024)	Digital pre-class materials and flipped activities	Self- regulated learning and higher- order thinking	Self- regulation and higher- order- thinking measures	The interventio n strengthene d cognitive and metacognit ive strategies	Limitations not explicitly reported	High — 93.75%



N o.	Author and year	Resource s used	Skill or outcome assessed	Instrume nts	Main result	Reported limitations	Methodolo gical quality
12	Vitta and Al- Hoorie (2024)	Various flipped- learning materials and platforms	English- language outcomes and implementa tion conditions	Literature- review extraction procedures	Flipped learning strengthened participation and active language use	Inconsistent designs, workload, preparation, and material quality	High — 81.25%
13	Yalew (2025)	Pre-class preparation and structured in-class activities	Reading proficiency, perceptions, and engagement	Reading- proficiency test, perception questionnaire, and engagement measures	Flipped instruction improved reading proficiency and engagement	Limitations not explicitly reported	High — 93.75%
14	Yan et al. (2024)	Flipped- learning materials and classroom activities	Reading, listening, writing, and second- language development	Language- performance pre-test and post- test assessments	Performance improved, with stronger gains in reading than in listening and writing	Effects varied across language skills and initial proficiency levels	High — 100%
15	Zain (2022)	Videos, readings, digital resources, and	Active learning, interaction, and	Systematic-review	The methodology created opportunities	Results depended on preparation,	High — 93.75%



N o.	Author and year	Resource s used	Skill or outcome assessed	Instrume nts	Main result	Reported limitations	Methodolo gical quality
		and collaborat ive activities	implemen ta tion conditions	extrac tion matrix	es for mean ingful and collaborati ve interaction	technologic al access, material organizatio n, and teacher guidance	

Note. Tables 2A and 2B present complementary information extracted from the full texts of the same 15 publications. The search period covered 2022–2026, while the included sources were published between 2022 and 2025. Information not explicitly stated by the original authors was recorded as “Not explicitly reported.” No provisional data, pending-verification statements, or alternative expressions were retained.

English Language Achievement and Skill Development

The reviewed evidence showed a generally favorable effect of flipped classroom methodology on English language learning. Meta-analytic findings indicated that students exposed to flipped instruction achieved better overall results than those receiving traditional instruction, particularly when pre-class materials were clearly connected with classroom activities (Ni et al., 2023; Chen et al., 2023).

The effects differed across language skills. Yan et al. (2024) reported improvements in second-language development, although reading gains were stronger than those observed in listening and writing. Yalew (2025) also found positive effects on reading proficiency and learner engagement.

Overall, flipped instruction contributed by increasing opportunities for preparation, practice, collaboration, and feedback. However, the results depended on learner proficiency, intervention duration, task design, and the quality of the relationship between pre-class and in-class activities.

Student Engagement and Active Participation



The selected publications indicated that flipped classrooms can promote participation by using class time for discussions, speaking activities, writing tasks, peer feedback, and collaborative problem-solving. Students generally valued the possibility of reviewing materials before class and applying knowledge during guided activities.

Hasan (2022) identified favorable student perceptions of videos, readings, and interactive tasks. Petchprasert (2025) similarly reported positive perceptions of interactive slides in blended and online flipped classrooms, particularly regarding engagement and learning experience.

Nevertheless, participation decreased when students did not complete the pre-class preparation, experienced technological difficulties, or perceived the workload as excessive. These findings suggest that engagement depends on accessible materials, clear instructions, teacher monitoring, and meaningful classroom activities.

Self-Regulation and Higher-Order Thinking

Flipped learning required students to organize their time, review content independently, monitor comprehension, and prepare for classroom participation. Li and Zhang (2024) associated this methodology with self-regulated learning and EFL speaking competence, especially when learners received structured guidance.

Samadi et al. (2024) found that flipped instruction could also strengthen higher-order thinking skills, including analysis, evaluation, problem-solving, and knowledge application. However, these abilities did not develop automatically. Students required clear objectives, organized materials, preparation checks, and continuous feedback.

Overall, flipped learning supported greater learner responsibility when students understood the process and participated actively in both learning stages.

Technological and Pedagogical Implementation Conditions

Technology supported the delivery of videos, readings, quizzes, interactive slides, and preparation activities. Al-Maroofo et al. (2022) found that perceived usefulness and ease of use influenced students' acceptance and intention to continue using flipped learning environments.

Teacher preparation was also essential. Han et al. (2024) showed that flipped EFL teacher education could strengthen digital competence and pedagogical awareness. Teachers needed



to know how to select resources, organize pre-class tasks, monitor preparation, and connect digital materials with language objectives.

The main limitations included limited internet access, technical problems, increased preparation time, student resistance, incomplete pre-class work, and weak connections between the two stages of instruction. Jovanović et al. (2022) emphasized that positive experiences were associated with course organization, instructional quality, interaction, and perceived usefulness.

Overall, the findings showed that flipped classroom methodology can improve English language learning, engagement, self-regulation, and active participation. However, its effectiveness depends on instructional design, student preparation, teacher guidance, technological access, and the integration of pre-class and classroom activities.

5. DISCUSSION

This integrative review examined the effect of flipped classroom methodology on English language learning outcomes in higher education. The findings indicate that flipped learning can improve language achievement, active participation, engagement, self-regulation, and higher-order thinking. However, its effectiveness does not depend only on the use of videos or digital platforms, but on the connection between pre-class preparation, meaningful classroom activities, technological accessibility, and teacher guidance.

English Language Achievement and Skill Development

The reviewed evidence suggests that flipped classroom methodology can support overall English achievement and the development of reading, speaking, listening, and writing. Its main contribution lies in transferring introductory explanations outside the classroom and using class time for language practice, interaction, feedback, and knowledge application.

Meta-analytic evidence showed positive effects on college English learning outcomes. Ni et al. (2023) identified favorable results when students reviewed learning materials before class and participated in structured classroom activities. Similarly, Chen et al. (2023) reported an overall positive effect of flipped language classrooms in higher education. Nevertheless, these findings should not be interpreted as evidence of identical benefits across all learners and language skills.



The results varied according to proficiency, intervention duration, instructional design, and assessment procedures. Yan et al. (2024) found improvements in second-language development, although reading showed stronger gains than listening and writing. Yalew (2025) also associated flipped instruction with improved reading proficiency. Therefore, flipped learning should be understood as a pedagogical structure whose effect depends on how each language skill is taught and practised.

Student Engagement and Active Participation

Flipped learning was associated with greater participation because students could review materials in advance and use classroom time for discussions, collaborative activities, problem-solving, and language production. Hasan (2022) reported favorable perceptions of videos and interactive activities among EFL undergraduates, while Petchprasert (2025) found positive responses to interactive slides in blended and online flipped classrooms.

However, engagement was not automatic. Students who did not complete the pre-class tasks had fewer opportunities to participate effectively during class. Technical problems, excessive workload, unclear instructions, and repetitive materials could also reduce motivation. Consequently, temporary interest in digital resources should not be interpreted as sustained engagement.

The relationship between participation and learning outcomes was reciprocal. Adequate preparation encouraged more active classroom involvement, while successful participation could strengthen motivation and confidence. In contrast, incomplete preparation could limit interaction and reduce the effectiveness of classroom activities.

Self-Regulation and Higher-Order Thinking

Self-regulation was one of the main educational processes associated with flipped learning. Students were expected to organize their time, review materials, monitor comprehension, and identify difficulties before class. Li and Zhang (2024) connected flipped instruction with self-regulated learning and EFL speaking competence, indicating that preparation and interaction are important for language development.

Samadi et al. (2024) also found that flipped instruction can contribute to higher-order thinking skills, including analysis, evaluation, problem-solving, and knowledge application. These findings suggest that the methodology can support cognitive and metacognitive development in addition to linguistic performance.



Nevertheless, autonomy should not be understood as learning without teacher assistance. Students still require clear objectives, organized resources, preparation checks, and feedback. Flipped learning may weaken participation when learners lack time-management abilities or do not understand their responsibilities within the model.

Technological and Pedagogical Implementation Conditions

The effects of flipped instruction were influenced by interconnected factors such as course design, technological access, learner preparation, teacher competence, perceived usefulness, and the relationship between the two instructional stages.

Al-Maroofof et al. (2022) found that usefulness and ease of use influenced students' acceptance of flipped learning technologies. Likewise, Jovanović et al. (2022) emphasized that positive experiences depend on teaching quality, interaction, organization, and the value students attribute to the methodology.

Teacher mediation remained essential. Teachers were responsible for selecting appropriate materials, defining objectives, monitoring preparation, designing active classroom tasks, and providing feedback. Han et al. (2024) showed that flipped EFL teacher education can strengthen digital competence and pedagogical awareness, but practical preparation is necessary for connecting technology with language-learning objectives.

The main challenges included unequal access to devices and connectivity, increased preparation time, incomplete pre-class work, excessive workload, technological difficulties, and weak connections between online content and classroom practice. The evidence therefore does not support replacing classroom teaching with videos. Effective flipped learning requires a coordinated instructional sequence in which pre-class preparation directly supports active classroom application.

This review presents several limitations. The 15 publications differed in design, participants, language skills, technological resources, intervention duration, and assessment procedures. The corpus also combined empirical studies, quasi-experimental research, systematic reviews, and meta-analyses, which allowed a broad synthesis but prevented direct methodological equivalence. In addition, selection, extraction, and quality assessment were conducted by one reviewer, and the review was not prospectively registered.

Future studies should examine longer interventions, compare different proficiency levels, evaluate each English language skill separately, and analyze whether



improvements remain after the intervention. Research should also explore the influence of teacher training, digital access, student preparation, and the quality of pre-class materials.

6. CONCLUSIONS

This integrative review analyzed the effect of flipped classroom methodology on English language learning outcomes in higher education. The literature search covered the period from 2022 to 2026, whereas the 15 publications included in the final corpus were published between 2022 and 2025. The evidence indicates that flipped learning can support four main dimensions: English language achievement and skill development; student engagement and active participation; self-regulated learning and higher-order thinking; and technological and pedagogical implementation conditions. Its most consistent contribution lies in allowing students to prepare before class and use classroom time for interaction, application, collaboration, and feedback.

The benefits were stronger when pre-class materials were accessible, concise, and directly connected with classroom activities. Effective implementation also required clear objectives, student accountability, technological support, active learning tasks, and continuous teacher mediation. However, the available evidence did not demonstrate identical effects across all learners, language skills, educational contexts, or technological platforms.

The conclusions are limited by the methodological diversity of the 15 publications, the inclusion of primary and secondary evidence, the participation of one reviewer, and the absence of prospective protocol registration. Future research should prioritize longer and comparable interventions, diverse higher-education contexts, transparent reporting, and separate assessment of reading, writing, speaking, listening, engagement, and self-regulation. Flipped classroom methodology should therefore be understood as a structured pedagogical approach rather than simply the use of videos before class. When properly designed, it can strengthen English language learning without replacing teacher guidance, classroom interaction, or student responsibility.

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AUTHOR CONTRIBUTIONS (CRediT)

Conceptualization: Diego Alejandro Fernández Cando, Marco Paul Beltrán Semblantes, Washington Salomón Viera Flores.

Methodology: Diego Alejandro Fernández Cando, Marco Paul Beltrán Semblantes, Washington Salomón Viera Flores.

Investigation: Diego Alejandro Fernández Cando, Marco Paul Beltrán Semblantes, Katheryn Vanesa Trujillo Guerra, Marlon Josué Quezada Chango, Washington Salomón Viera Flores.
Writing – original draft: Diego Alejandro Fernández Cando, Katheryn Vanesa Trujillo Guerra, Marlon Josué Quezada Chango.

Writing – review and editing: Diego Alejandro Fernández Cando, Marco Paul Beltrán Semblantes, Katheryn Vanesa Trujillo Guerra, Marlon Josué Quezada Chango, Washington Salomón Viera Flores.

