

Unpacking the research trends in flipped learning through a bibliometric lens

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Abstract

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This bibliometric analysis examines research trends in flipped learning within English as a Foreign Language (EFL) classrooms from 2020 to 2023. Analyzing 930 publications sourced from Google Scholar, the study highlights the steady growth in scholarly interest, peaking in 2022. The findings emphasize the effectiveness of flipped learning in enhancing language skills, student engagement, and learning outcomes, particularly during the COVID-19 pandemic. Highly cited studies underscore the significant impact of this instructional approach. The analysis also explores diverse strategies, models, and technological integrations that contribute to the adaptability of flipped learning in various educational contexts. Despite a slight decline in publications in 2023, flipped learning remains a promising pedagogical method in EFL/ESL education, warranting further exploration and innovation.

Keywords: Flipped learning, EFL classrooms, bibliometric analysis

INTRODUCTION

Flipped learning, an instructional strategy that reverses the traditional learning environment by delivering instructional content (Liu, 2020; Mastrogiacomì, 2020; Бердиёрова, 2021), often online (Tarragó, 2021; Wijaya, 2023), outside of the classroom (Alodail, 2020; Dana et al., 2022; Shareef & Sadiku, 2020), has gained significant attention in recent years. This approach, which shifts the focus from teacher-centered to student-centered learning (Ardimento & Scalera, 2020; Fang, 2023; Pham, 2021; Tang et al., 2020; Tegeh et al., 2022), has been hailed for its potential to enhance student engagement (Kurniasari, 2020), improve learning outcomes,

and foster active learning (Cherrez, 2022; Güler & Yaşar, n.d.; Hassounah et al., 2023). As educators seek to harness the benefits of technology in education, flipped learning has emerged as a prominent area of research, leading to a growing body of literature that explores its various dimensions, challenges, and opportunities.

The rise of flipped learning is closely tied to the increasing integration of technology in education, particularly in the context of the digital age (Khawaldeh & Alkhawaldeh, 2022; Li, 2022; Muharom et al., 2022). With the proliferation of online resources, learning management systems, and multimedia tools, the traditional boundaries of the classroom have expanded, enabling a more flexible and personalized approach to learning (Khodabandeh et al., 2023; Michos & Gómez, 2023; Yazdizadeh et al., 2023). This paradigm shift has prompted educators and researchers to explore the impact of flipped learning on various educational outcomes, including student performance, motivation, and collaboration. As a result, the literature on flipped learning has evolved rapidly, reflecting the dynamic nature of this instructional model (Abdullah et al., 2023; Al-Naabi, 2020; Anisa & Aniq, 2020; Carhill-Poza & Gounari, 2021).

A bibliometric analysis offers a comprehensive lens through which to examine the research trends in flipped learning. By analyzing the publication patterns, citation networks, and research themes within the field, bibliometric studies provide valuable insights into the evolution of knowledge, the dissemination of ideas, and the identification of influential works and scholars. This method allows researchers to map the intellectual landscape of flipped learning, revealing key areas of focus, emerging trends, and potential gaps in the literature.

In recent years, bibliometric studies have become increasingly popular in educational research, providing a systematic approach to analyzing large volumes of academic literature (Al-Marroof & Al-Emran, 2021; Kubra, 2020; Mali & Timotius, 2023; Solmaz, 2021). Through the use of bibliometric tools and techniques, researchers can uncover patterns in authorship, collaboration, and citation behavior, offering a data-driven perspective on the development of a particular field. In the context of flipped learning, a bibliometric analysis can shed light on the trajectory of research, highlighting the most influential studies, the evolution of research themes, and the impact of technological advancements on this pedagogical approach.

The present study aims to unpack the research trends in flipped learning through a bibliometric lens, offering a detailed analysis of the field's growth, citations numbers, and thematic focus. By examining the publication trends, citation networks, and keyword analysis, this study seeks to provide a comprehensive overview of the current state of research in flipped

learning This article will contribute to the understanding of flipped learning by providing a bibliometric overview of the field's development and highlighting the key trends and themes that have shaped its trajectory. As flipped learning continues to evolve in response to technological advancements and changing educational needs, this study will offer valuable insights for educators, researchers, and policymakers seeking to understand and leverage the potential of this innovative instructional approach.

METHODS

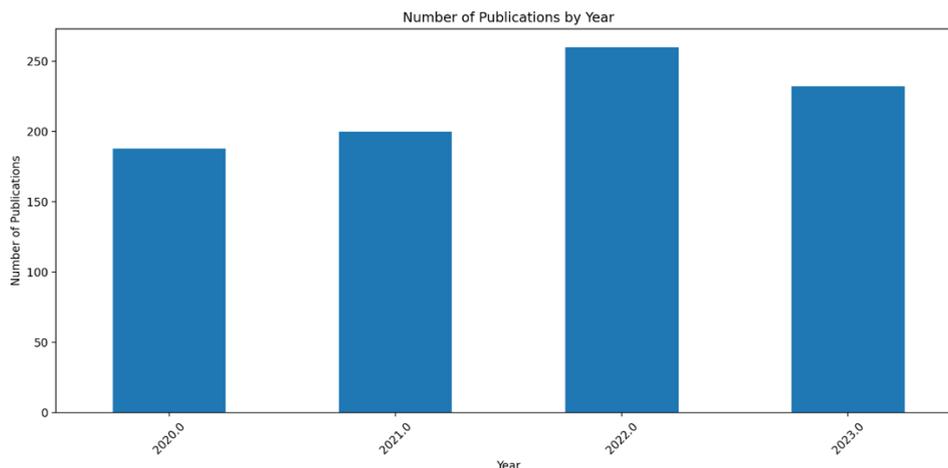
This study employs a bibliometric analysis to explore the research trends in flipped learning, specifically within the context of English as a Foreign Language (EFL) classrooms. The data for this analysis were sourced from Google Scholar, utilizing the Publish or Perish software to facilitate an extensive search of relevant literature. The keyword "Flipped learning in EFL Classroom" was used to identify pertinent research articles published between 2020 and 2023. The search yielded a total of 930 research articles, which formed the basis of the bibliometric analysis.

The primary focus of the analysis was threefold: (1) the volume of publications related to flipped learning in EFL classrooms, (2) the citation counts of these publications, and (3) the specific topics or sub-themes associated with flipped learning in the EFL context. The data on the number of publications provided insights into the growth and trajectory of research in this area over the specified time frame. Citation analysis was conducted to determine the impact and influence of individual studies within the scholarly community. This analysis also identified highly cited works, which are often indicative of seminal research or significant contributions to the field.

To further understand the thematic focus of the research, a keyword analysis was performed, identifying the most frequently occurring terms and phrases related to flipped learning in EFL classrooms. This allowed for the categorization of research topics, highlighting key areas of interest, emerging trends, and potential gaps in the literature. The comprehensive analysis provided a detailed overview of the research landscape, offering valuable insights into how flipped learning is being explored, implemented, and discussed within the context of EFL education.

RESULTS AND DISCUSSION

Results

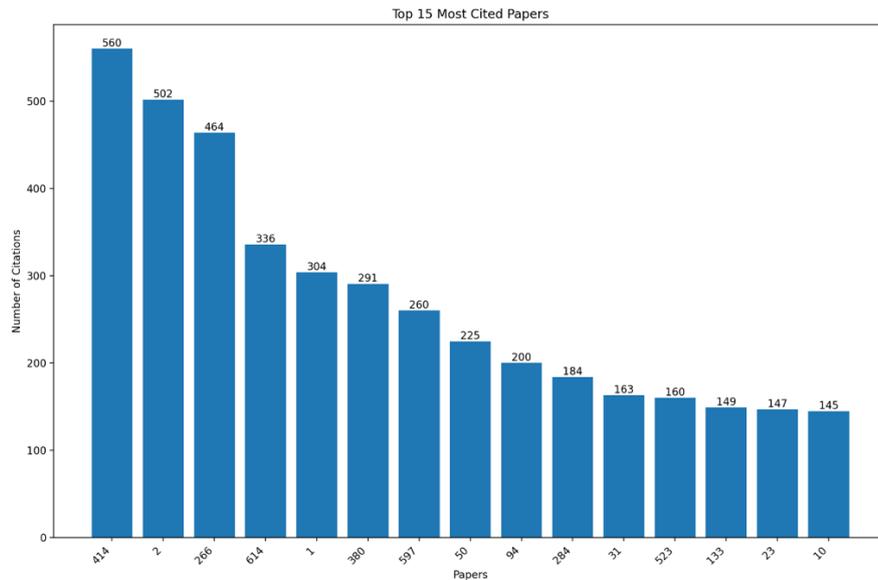


The data indicates a growing interest in flipped learning in EFL classrooms over the years. Starting with 188 publications in 2020, the number of publications increased to 200 in 2021 and peaked at 260 in 2022. However, there was a slight decline in 2023, with 232 publications. This trend suggests that while the interest in flipped learning has been increasing, there might be factors affecting its growth in the most recent year. The overall increase in publications reflects the growing recognition and exploration of flipped learning as an effective educational approach in EFL settings.

Citation Numbers

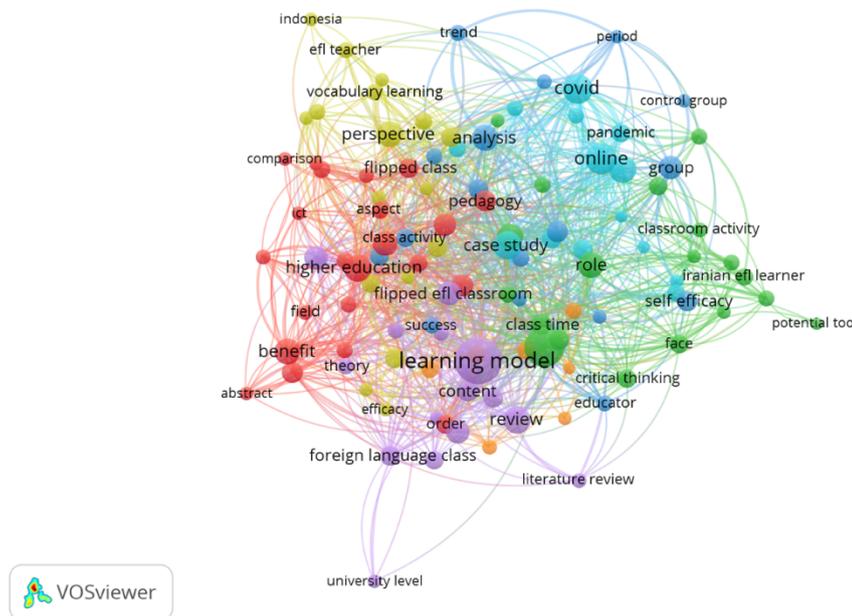
Cites	Authors	Title	Year
560	T Tang, AM Abuhmaid, M Olaimat...	Efficiency of flipped classroom with online-based teaching under COVID-19	2023
502	Z Turan, B Akdag-Cimen	Flipped classroom in English language teaching: a systematic review	2020
464	M Bond	Facilitating student engagement through the flipped learning approach in K-12: A systematic review	2020
336	CK Lo, KF Hew	A comparison of flipped learning with gamification, traditional learning, and online independent study: the effects on students' mathematics achievement and cognitive ...	2020
304	B Mandasari, AY Wahyudin	Flipped classroom learning model: implementation and its impact on EFL learners' satisfaction on grammar class	2021
291	R Fisher, A Perényi...	The positive relationship between flipped and blended learning and student	2021

		engagement, performance and satisfaction	
260	DCD van Alten, C Phielix, J Janssen, L Kester	Self-regulated learning support in flipped learning videos enhances learning outcomes	2020
225	E Namaziandost, F Çakmak	An account of EFL learners' self-efficacy and gender in the Flipped Classroom Model	2020
200	B Birgili, FN Seggie, E Oğuz	The trends and outcomes of flipped learning research between 2012 and 2018: A descriptive content analysis	2021
184	FJ Hinojo Lucena, J Lopez Belmonte...	Academic effects of the use of flipped learning in physical education	2020
163	D Zou	Gamified flipped EFL classroom for primary education: Student and teacher perceptions	2020
160	ME Parra-González, J Lopez Belmonte...	Active and emerging methodologies for ubiquitous education: Potentials of flipped learning and gamification	2020
149	M Webb, E Doman	Impacts of flipped classrooms on learner attitudes towards technology-enhanced language learning	2020
147	MRA Chen, GJ Hwang	Effects of a concept mapping-based flipped learning approach on EFL students' English speaking performance, critical thinking awareness and speaking anxiety	2020
145	A Andujar, MS Salaberri-Ramiro, MSC Martínez	Integrating flipped foreign language learning through mobile devices: Technology acceptance and flipped learning experience	2020



This table shows the top 15 papers sorted by citation count. The most cited paper has 560 citations, focusing on the efficiency of flipped classrooms during COVID-19. Other highly cited papers cover topics like systematic reviews of flipped learning, student engagement, and comparisons with traditional learning methods.

Specific Research Topics



Based on the visualization data above, the authors found some specific topic related to Flipped learning Classroom bellow.

Flipped Learning in EFL/ESL Contexts:

The implementation and impact of flipped learning in English as a Foreign Language (EFL) or English as a Second Language (ESL) classrooms have become focal points in recent educational research. Many studies highlight how flipped learning models have been adapted to suit the unique challenges and demands of language acquisition. Researchers have explored the effects of this pedagogical approach on various language skills, such as reading, writing, speaking, and listening. Studies often demonstrate that flipped learning fosters greater learner engagement, motivation, and positive attitudes toward language learning, as it allows students to interact with course content at their own pace outside of class, freeing up in-class time for interactive activities that reinforce language skills. This approach has shown particular promise in developing communicative competence, as it provides students with more opportunities for meaningful language use and practice within the classroom environment.

Flipped Learning Strategies and Models:

Research on flipped learning in EFL/ESL contexts has also delved into the various strategies and models used to implement this instructional approach effectively. Papers in this area discuss how educators integrate technology, such as Learning Management Systems (LMS), video lectures, and online quizzes, to deliver content outside of class. Additionally, collaborative learning techniques, where students work together on problem-solving tasks or projects during class time, are commonly highlighted as key components of successful flipped classrooms. Other studies explore how flipped learning is combined with traditional pedagogical approaches, such as task-based learning or communicative language teaching, to enhance the overall effectiveness of language instruction. These models are often tailored to specific classroom contexts, taking into account factors such as class size, student proficiency levels, and available resources.

Flipped Learning Effectiveness

The effectiveness of flipped learning in improving student learning outcomes is a significant focus of research within the EFL/ESL domain. Numerous studies have evaluated the impact of flipped classrooms on academic achievement, cognitive development, and affective factors such as student motivation and self-efficacy. Findings frequently suggest that students in flipped classrooms outperform their peers in traditional settings, particularly in terms of language acquisition and retention. The increased engagement and active participation that flipped learning encourages are often cited as key reasons for these improved outcomes. Moreover, flipped learning is found to cater to diverse learning styles, allowing students to take

control of their learning process, which can lead to more meaningful and lasting language learning experiences.

Flipped Learning Perceptions and Experiences

Understanding the perceptions and experiences of both students and teachers regarding flipped learning is crucial for assessing its practical application in EFL/ESL settings. Research in this area reveals a generally positive reception of flipped learning, with students appreciating the flexibility and autonomy it offers. However, some studies also highlight challenges, such as students' initial resistance to the increased responsibility for their own learning and the need for adequate preparation before class. Teachers, on the other hand, often express enthusiasm for the interactive nature of flipped classrooms but may also face difficulties in designing and managing this instructional approach, particularly when it comes to creating high-quality pre-class materials and ensuring that all students are adequately prepared for in-class activities.

Flipped Learning in Specific Language Skills

A subset of the literature focuses specifically on the impact of flipped learning on the development of particular language skills. For instance, some studies investigate how flipped learning enhances writing skills, providing students with more opportunities to draft, revise, and receive feedback on their work. Others examine its effects on speaking skills, where the increased in-class time for oral practice leads to greater fluency and confidence. Research on listening and grammar skills also points to the benefits of flipped learning, with students having more time to absorb and process content at their own pace before applying it in class. These targeted studies underscore the adaptability of flipped learning in addressing specific language learning needs, making it a versatile tool in the language instructor's repertoire.

Flipped Learning and Technology

The role of technology in the implementation of flipped learning is a recurring theme in the literature. Studies often explore how various digital tools, such as video platforms, interactive quizzes, and online discussion forums, are used to facilitate the flipped classroom model. The integration of technology not only supports the delivery of content outside of class but also enhances the interactive nature of in-class activities. Moreover, research highlights the importance of technological literacy among both teachers and students in ensuring the successful adoption of flipped learning. The effective use of technology is seen as a critical

factor in maximizing the benefits of this approach, enabling more personalized and efficient learning experiences that cater to individual student needs.

Systematic Reviews and Meta-Analyses

A small but significant number of papers present systematic reviews or meta-analyses of the existing literature on flipped learning. These studies synthesize findings from multiple research articles, providing a comprehensive overview of the effectiveness, challenges, and best practices associated with flipped learning in EFL/ESL contexts. Meta-analyses, in particular, offer quantitative assessments of the impact of flipped learning on various educational outcomes, helping to establish its efficacy across different settings and populations. Systematic reviews also identify gaps in the literature, suggesting areas where further research is needed to fully understand the potential and limitations of flipped learning. These studies contribute to the growing body of evidence supporting flipped learning as a viable and effective instructional approach in language education.

Discussion

The findings from the bibliometric analysis of research on flipped learning in EFL classrooms reveal a clear upward trend in scholarly interest over the past few years, particularly between 2020 and 2022. The number of publications increased significantly from 188 in 2020 to a peak of 260 in 2022, indicating that flipped learning has gained substantial recognition as an effective pedagogical approach in language education. However, the slight decline to 232 publications in 2023 suggests that while the interest remains strong, there may be emerging challenges or shifts in research focus. This trend reflects not only the growing acceptance of flipped learning in educational practices but also the need for continuous exploration and adaptation of this approach in response to changing educational landscapes.

The analysis of citation data further underscores the impact and significance of flipped learning research. The most cited paper, with 560 citations, examines the efficiency of flipped classrooms during the COVID-19 pandemic, highlighting how this approach became a crucial strategy for maintaining educational continuity in unprecedented times. Other highly cited papers, such as systematic reviews and studies on student engagement, demonstrate the broad relevance and applicability of flipped learning across different educational contexts. The high citation counts indicate that these studies have provided valuable insights and have influenced subsequent research, solidifying flipped learning's role as a key topic in educational discourse.

In terms of specific research topics, the analysis revealed a strong focus on the implementation and impact of flipped learning in EFL/ESL contexts. Studies have consistently shown that flipped learning enhances various language skills, including reading, writing, speaking, and listening, by offering a more engaging and student-centered learning environment (Gustian et al., 2023; Lindeiner-Stráský et al., 2022; Riza & Setyarini, 2020). The adaptability of flipped learning to different language learning contexts and its ability to foster greater learner engagement and motivation make it a promising approach for EFL/ESL education. This adaptability is further reflected in the diverse strategies and models discussed in the literature, where educators integrate technology, collaborative learning, and traditional pedagogical methods to optimize the flipped classroom experience.

Moreover, the effectiveness of flipped learning in improving student outcomes has been a major area of investigation (Muniandy et al., 2023; Safiyeh & Farrah, 2020; Sāhebyār & Mesrābādi, 2021). The data suggests that flipped classrooms often lead to better academic performance, increased cognitive development, and higher levels of student motivation compared to traditional teaching methods. These findings highlight the potential of flipped learning to address the diverse learning needs of students, particularly in language education, where individualized and active learning opportunities are crucial for language acquisition. The positive reception of flipped learning by both students and teachers, as evidenced by studies on perceptions and experiences, further supports its continued adoption in EFL/ESL settings.

Finally, the role of technology in flipped learning cannot be overstated. The literature consistently emphasizes the importance of technological tools in delivering content and facilitating interactive in-class activities. The successful implementation of flipped learning is closely linked to the technological literacy of both teachers and students, as well as the availability of appropriate digital resources. Systematic reviews and meta-analyses within the dataset provide a comprehensive overview of these factors, offering valuable guidance for educators seeking to implement flipped learning effectively. These reviews also identify critical gaps in the existing research, suggesting areas where further investigation is needed to fully understand the potential and limitations of flipped learning in different educational contexts.

CONCLUSION

In conclusion, the bibliometric analysis of flipped learning in EFL classrooms underscores its growing prominence and effectiveness as a pedagogical approach, particularly during the challenging years marked by the COVID-19 pandemic. The steady increase in

publications and significant citation counts reflect the widespread recognition of flipped learning's potential to enhance language skills, engage students, and improve learning outcomes. The diversity of strategies, models, and technological integrations discussed in the literature highlights the adaptability and versatility of flipped learning in various educational contexts. However, the slight decline in publication numbers in 2023 suggests emerging challenges or shifts in research focus, indicating the need for ongoing exploration and adaptation of flipped learning practices. Overall, the findings affirm that flipped learning is a valuable and impactful method in EFL/ESL education, with strong evidence supporting its continued application and further study.

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