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Tracing the Evolution of Artificial Intelligence in English Teaching: A Bibliometric Analysis

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Abstract
Amid the accelerating integration of Artificial Intelligence (AI) into English teaching, existing research remains fragmented and lacks a holistic understanding of the field's evolution. To address this gap, the present study offers a pioneering bibliometric analysis that integrates performance analysis with science mapping to systematically outline the research landscape of AI in English teaching. Specifically, it seeks to answer four research questions concerning publication trends, highly cited documents, influential contributors and dominant research themes. Drawing on data extracted from the Scopus database spanning 1982 to 2025, screened in accordance with the PRISMA methodology, and analysed using VOSviewer, Biblioshiny, and Bibliomagika. The study identifies a sharp increase in publication activity in recent years, although citation growth has remained comparatively moderate. Seminal contributions, such as Hsu (2017) and influential source titles like *Computers and Education*, are found to play pivotal roles in shaping the field. In terms of geographical distribution, China emerges as the most prolific and internationally collaborative contributor. Further analysis reveals a discernible shift from conventional AI-assisted tutoring systems towards more interactive, adaptive, and personalised learning environments, accompanied by increasing interdisciplinary integration. By offering a comprehensive synthesis among the earliest in this research domain, the study not only deepens understanding of AI's pedagogical potential but also provides valuable insights and strategic directions for future empirical research and practical applications across diverse educational contexts.

Key words: Artificial intelligence, bibliometric analysis, English teaching, performance analysis, science mapping

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Introduction

Artificial Intelligence (AI) has become a transformative force across diverse sectors, including healthcare, finance, and education. In the field of education, AI has demonstrated the potential to enhance teaching effectiveness by increasing usability, perceived usefulness, and learning outcomes. Given that English remains the dominant language in global education and academia (Albeihi & Rice, 2025), the integration of AI into English teaching is particularly significant. Among various applications in language education, the use of AI in writing instruction has been shown to improve students' writing performance and foster greater learner autonomy (Alshehri, 2025). It also supports the development of learning materials, enables student-centred instruction, and optimises teaching practices (Mulyani et al., 2025). Given the global prominence of English as a widely taught subject, integrating AI into English teaching presents valuable opportunities for achieving more efficient learning experiences (Hang et al., 2024).

Despite the increasing applications of AI in language education, the comprehensive review of research on English teaching remains limited. In response to this gap, this study conducts a bibliometric analysis using a refined search strategy to trace the evolution of AI in English teaching. Bibliometric analysis is a quantitative approach to analysing scientific publications, aimed at identifying trends, research clusters, and collaboration networks. According to Ellegaard and Wallin (2015), "Bibliometric methods or 'analysis' are now firmly established as scientific specialities and are an integral part of research evaluation methodology especially within the scientific and applied fields" (p. 1809). Within the framework of bibliometric analysis, science mapping and performance analysis represent two complementary methodological approaches. Science mapping is a spatial technique that visually represents the relationships among disciplines, fields, specialities, and individual papers or authors, where their relative positions and proximities on the map intuitively reflect the strength of their connections (Small, 1999). Performance analysis is applied as a standard practice to evaluate the contributions of authors, institutions, countries, and journals (Donthu et al., 2021). Therefore, this study conducts a bibliometric analysis to provide a holistic overview of AI research in English teaching, offering valuable insights into its intellectual landscape and future directions. To achieve this, the study aims to answer the following research questions (RQs):

RQ1: What are the status and trends of publications regarding AI in English teaching?

RQ2: What are the highly cited documents in AI in English teaching research?

RQ3: Who are the influential contributors to AI in English teaching research in terms of authors, countries, and source titles?

RQ4: What are the key themes in AI in English teaching research?

By systematically addressing these questions, this study contributes to a deeper understanding of the evolving research landscape, guiding future academic inquiry and practical applications in AI-driven English language education. Unlike previous studies that have mainly focused on tools, pedagogical strategies, or short-term outcomes, this study adopts a bibliometric approach that integrates both science mapping and performance analysis to offer a more

comprehensive perspective on the development of AI in English teaching. By examining publication trends, identifying influential contributors and highly cited documents, and uncovering major themes, the study provides a structured and data-driven landscape of the field. This dual-method approach serves not only as a demonstration of research productivity but also as a visualisation of intellectual structures and thematic connections. In doing so, the study contributes to a more systematic understanding of how AI has been applied in English teaching and indicates key directions for future research.

Literature Review

This section examines the evolution of AI in English teaching, from its early formation to its recent rapid development. The latter represents the latest advancements and directions in the field and is composed of two key aspects: opportunities and limitations, and emerging trends and the key gap.

Early Formation

As noted by McCarthy et al. (2006), the 1955 Dartmouth proposal laid the foundational framework for AI as a scientific discipline, defining its core objectives and methods. In the early 2000s, research began to explore educational applications, as seen in Kanda et al. (2004), who demonstrated that AI-powered interactive robots, designed with social behaviours and real-time feedback, could enhance learner engagement in English teaching. While promising, this work focused more on engagement than on measurable learning gains or linguistic development. Chapelle and Chung (2010) turned attention to assessment, showing that AI could increase efficiency in large-scale language testing, yet they were also concerned about the alignment of automated scores with human judgments and the uncertainty of generated feedback. Zawacki-Richter et al. (2019) later mapped the broader landscape of AI in education, identifying four key application areas: profiling and prediction, assessment and evaluation, adaptive systems and personalisation, and intelligent tutoring systems. Although comprehensive, their framework remained general and not specifically tailored to English teaching. Overall, these studies suggest that before 2020, research on AI in English teaching was theoretically underdeveloped and practically insufficiently explored.

Recent Advancement

Opportunities and Limitations

Educators identify 2020 as a key turning point marked by the rise of generative AI, which has spurred both educational innovation and pedagogical implications (Bretan, 2024). Recent research presents a complex picture of AI's role in English teaching, highlighting both opportunities and limitations. For instance, Zhang and Cao (2022) explored an AI-based system in English teaching and found that it could provide real-time feedback and personalised instruction through student feature recognition. To the contrary, Celik et al. (2022) identified that AI in English

teaching faces challenges related to technical, educational, and ethical considerations. Expanding the focus to a more institutional level, Gusman et al. (2024) demonstrated how AI could enhance classroom management, facilitate personalised learning, and improve access to educational resources. Nonetheless, their study did not explore how such improvements affect learners with diverse backgrounds or examine prolonged educational influence. Collectively, these studies underscore both the instructional potential of AI and the need for more context-aware research that bridges the gap between innovation and effective teaching practice.

Emerging Trend and the Key Gap

Recent studies have proved growing evidence of the effectiveness of AI in English teaching, suggesting an increasing momentum in this field. For example, Mugableh (2024) found that learners using ChatGPT-generated exercises achieved significantly greater vocabulary gains than those using traditional materials, suggesting AI's potential in enhancing vocabulary acquisition. Similarly, Shin and Choi (2025) found that adjusting AI chatbot interactions to learner levels and tasks can enhance vocabulary and grammar study. However, there is a limited systematic and integrative analysis concentrated on this field. Although Fu et al. (2024) provided a meta-review of AI in education and offered an overview of technological integration, their analysis lacked specific insights into English teaching. Furthermore, Al Nafjan and Mohammed (2024) narrowed the focus to the particular ChatGPT, but approached it from a linguistic rather than pedagogical perspective, thereby overlooking broader applications in English teaching. Additionally, Zhang and Umeanowai (2025) conducted a bibliometric analysis of AI in EFL teaching, but their use of an overly broad search query compromised the precision and reliability of their findings. Collectively, these studies demonstrate that while efforts have been made to map AI's role in language-related domains, they either lack pedagogical specificity, focus too narrowly on one tool or subfield, or suffer from methodological limitations. This highlights a critical gap in this area: the need for a more focused, contextually grounded, and methodologically rigorous bibliometric research. To address this gap, this study conducts a refined bibliometric analysis of AI in English teaching, aiming to outline a clear and comprehensive research landscape.

Method

This section is presented in two parts: data collection and data cleaning and harmonisation.

Data Collection

For this bibliometric analysis, data were collected from the Scopus database, ensuring a comprehensive and high-quality dataset. As illustrated in Figure One, this approach followed the PRISMA method (Moher et al., 2009) to maximise coverage of relevant studies and avoid omissions, while ensuring the rigour and reliability of the research through precise keyword design and subsequent screening. By systematically retrieving relevant publications from 1982 to 2025, yielding 453 records that were carefully screened for relevance. The key challenges encountered

included handling variations in terminology and ensuring the inclusion of diverse yet relevant studies. To maintain data reliability, all retrieved records were cross-checked to confirm their alignment with the research scope.

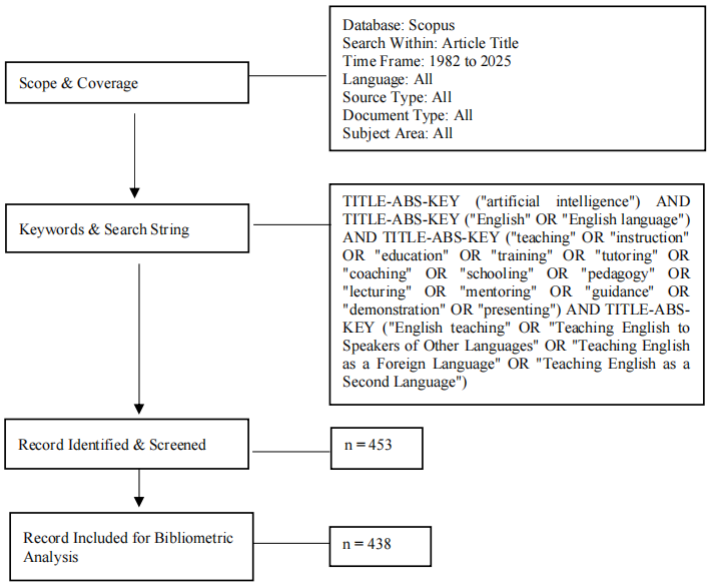


Figure 1. A Flow diagram of the search strategy adapted from Moher et al. (2009)

Data Cleaning and Harmonisation

To ensure data accuracy, a rigorous cleaning process was conducted, removing 15 irrelevant records and refining 438 valid entries. Inconsistencies and duplicates in author names and affiliations were resolved using OpenRefine (Ahmi, 2023) and manual verification. Missing or incomplete metadata was carefully reviewed and standardised to maintain data integrity. For this study, VOSviewer (Van Eck & Waltman, 2010), Biblioshiny (Aria & Cuccurullo, 2017) and Bibliomagika (Ahmi, 2024) were employed. VOSviewer facilitated keyword mapping, Biblioshiny provided advanced bibliometric insights, and Bibliomagika enhanced data visualisation and trend detection. OpenRefine was also used for data preprocessing, ensuring consistency and accuracy in author names, affiliations, and metadata.

Results

In this study, the combination of performance analysis and science mapping helps to visualise research trends and relationships while assessing the impact of key contributors, offering a clearer picture of the field's development. Specifically, performance analysis examines publication status and trends (RQ1), highly cited articles (RQ2), and the most influential authors, countries and source titles (RQ3). Science mapping focuses on collaboration networks (RQ3), key research themes (RQ4), and topic evolution through co-occurrence analysis and thematic mapping (RQ4). Together, these methods provide a comprehensive view of AI in English teaching research.

Performance Analysis

Main Information

As presented in Table One, this bibliometric analysis covers 438 publications from 1982 to 2025, contributed by 704 authors. Among them, 230 papers have been cited, accumulating 1875 total citations, with an average of 4.28 citations per paper and 8.15 per cited paper. The h-index is 18, while the g-index is 33, reflecting the impact and influence of the research. The dataset spans 44 citable years, with citations recorded over 43 years, and the citation sum within the h-core is 1340, indicating the concentration of citations within the most influential works.

Table 1. *Main information of publications*

Main Information	Data
Start Year	1982
End Year	2025
Total Publications	438
Number of Contributing Authors	704
Number of Cited Papers	230
Total Citations	1,875
Citation per Paper	4.28
Citation per Cited Paper	8.15
Citation per Author	2.66
Citation sum within h-Core	1,340
Citable Year	44
h-index	18
g-index	33
Publication Years	1982 - 2025
Citation Years	43

Publication Trend

As is shown in Table Two, from 1982 to 2025, a total of 438 publications were recorded, with 704 contributing authors and 230 cited papers, accumulating 1,875 citations. The average citation per publication (C/P) is 4.28, while the average citation per cited paper (C/CP) is 8.15. Similarly, according to Figure Two, the data reveal a steady rise in publications, particularly after 2020. Citations, however, exhibit a fluctuating trend, with major peaks in 2021, 2022, and 2024. It indicates that while publication numbers have surged in recent years, citation counts have not kept pace, suggesting that newer research is still accumulating impact.

Table 2. *Publication by Year*

Year	TP	NCA	NCP	TC	C/P	C/CP	*h*	*g*	*m*
1982	1	3	1	8	8.00	8.00	1	1	0.023
2000	1	3	1	10	10.00	10.00	1	1	0.038
2009	2	6	1	3	1.50	3.00	1	1	0.059
2010	3	5	1	1	0.33	1.00	1	1	0.063
2011	1	1	0	0	0.00	0.00	0	0	0.000
2013	2	3	1	1	0.50	1.00	1	1	0.077

2014	1	1	1	1	1.00	1.00	1	1	0.083
2015	2	3	0	0	0.00	0.00	0	0	0.000
2016	1	3	1	2	2.00	2.00	1	1	0.100
2017	11	16	8	146	13.27	18.25	5	11	0.556
2018	5	7	3	7	1.40	2.33	2	2	0.250
2019	13	25	12	224	17.23	18.67	6	13	0.857
2020	42	58	28	171	4.07	6.11	7	11	1.167
2021	92	132	58	697	7.58	12.02	13	24	2.600
2022	99	148	65	386	3.90	5.94	11	15	2.750
2023	54	86	23	122	2.26	5.30	6	9	2.000
2024	94	172	24	94	1.00	3.92	5	8	2.500
2025	14	32	2	2	0.14	1.00	1	1	1.000
Total	438	704	230	1875	4.28	8.15	63	101	1.432

Note: TP=total number of publications; NCA=Number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.
Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024)

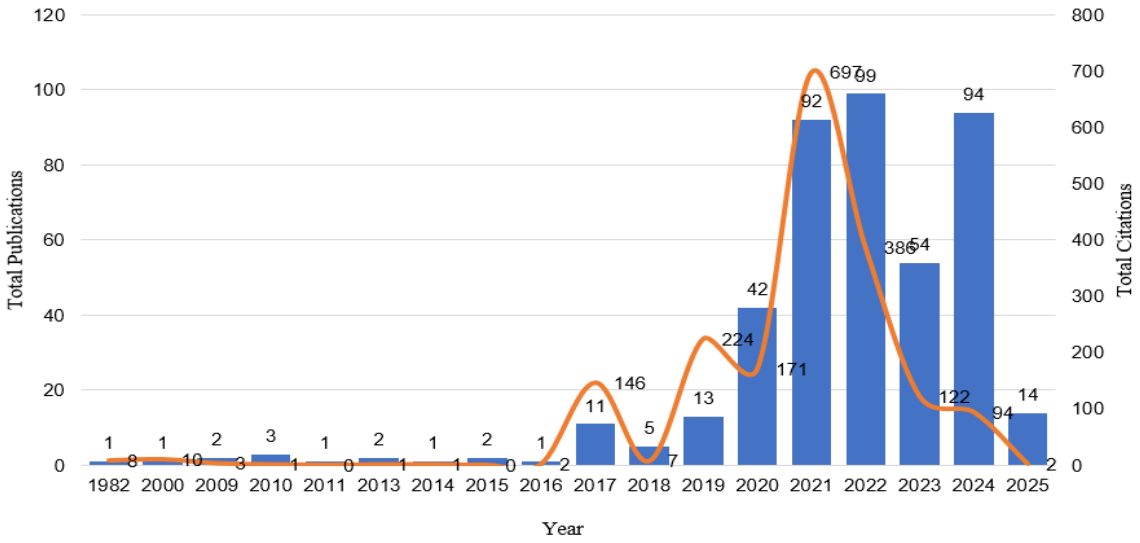


Figure 2. Total citation trend

Most Highly Cited Documents

Table Three lists the most cited article on AI in English teaching with citations as a key indicator. The most cited article in the literature is Hsu (2017), with 233 citations and an average citation rate of 25.89 citations per year. This study explores how self-directed and task-based augmented reality (AR) games impact English vocabulary learning, cognitive load, anxiety, and effectiveness. Other influential articles were Wilson & Czik (2016), You et al. (2006), Song & Song (2023) and Redondo et al. (2020). These highly cited articles explore various AI-driven approaches to English language learning, such as AR, robotics, and intelligent tutoring systems.

By introducing innovative pedagogical methods, they aim to enhance engagement, personalisation, and learning outcomes, while also addressing key educational challenges.

Table 3. *Top 5 highly cited articles*

Authors	Title	Source Title	Cites	Cites per Year
Hsu (2017)	Learning English with Augmented Reality: Do learning styles matter?	*Computers and Education*	233	25.89
Wilson & Czik (2016)	Automated Essay Evaluation Software in English Language Arts Classrooms: Effects on Teacher Feedback, Student Motivation, and Writing Quality	*Computers and Education*	179	17.9
You et al. (2006)	A Robot as a Teaching Assistant in an English Class	*Proceedings - Sixth International Conference on Advanced Learning Technologies, ICALT 2006*	113	5.65
Song, C., & Song, Y. (2023)	Enhancing Academic Writing Skills and Motivation: Assessing the Efficacy of ChatGPT in AI-assisted Language Learning for EFL Students	*Frontiers in Psychology*	104	34.67
Redondo et al. (2020)	Integration of Augmented Reality in the Teaching of English as a Foreign Language in Early Childhood Education	*Early Childhood Education Journal*	90	15

Most Influential Authors

Table Four highlights the top influential authors based on TC, with D. Praveen Kumar, Sun Zhuoming, and Anbarasan Murugesan leading at 241 citations each, indicating their significant impact in the field. Most authors derive their influence from a single highly cited paper (TP and NCP = 1), while Li Xiaoguang and Shah Nazir stand out with multiple publications and higher *h* and *g* indices, reflecting broader influence. Authors primarily originate from China, India, and Pakistan, showcasing their academic prominence. Shah Nazir also demonstrates sustained impact with the highest *m*-index (0.6). Overall, the table underscores the influence of key researchers through both singular and multiple impactful works in the field.

Table 4. *Top 10 influential authors*

Full Name	Current Affiliation	Country	TC	TP	NCP	C/P	C/CP	*h*	*g*	*m*
D. Praveen Kumar	Hindustan Institute of Technology & Science	India	241	1	1	241	241	1	1	0.2
Sun Zhuoming	Harbin Engineering University	China	241	1	1	241	241	1	1	0.2
Anbarasan Murugesan	Sri Sairam Institute of Technology	India	241	1	1	241	241	1	1	0.2
Durbadal Mandal	National Institute of Technology	India	100	1	1	100	100	1	1	0.143
Bin Yi	Huizhou University	China	100	1	1	100	100	1	1	0.143
Li Xiaoguang	Taiyuan University	China	58	2	1	29	58	1	2	0.111

Zou Shuli	Huanghuai University	China	57	1	1	57	57	1	1	0.111
Lu Xiaoxia	Xi'an University	China	49	1	1	49	49	1	1	0.143
Shah Nazir	University of Swabi	Pakistan	48	3	3	16	16	3	3	0.6
Huang Suo	Hunan Urban Construction College	China	45	1	1	45	45	1	1	0.2

Most Productive Countries

As is shown in Table Five, China leads overwhelmingly in TC with 1629, far surpassing other countries, highlighting its dominant influence. India follows with 384 but has relatively low TP and NCA, indicating a concentrated impact. China's dominance in TC is driven by three key factors: a significantly higher paper output (TP=382), extensive international collaboration boosting citations (NCA=590, NCP=209), and consistently strong research quality (C/P=4.26, C/CP=7.79). Saudi Arabia and Pakistan show high C/P, suggesting strong average influence. The UK, Malaysia, and the US have moderate TC but relatively high TP, implying broader but less-cited research output. Overall, China dominates both in quantity and impact, while some countries, like Pakistan and Italy, achieve high per-paper influence despite lower total citations.

Table 5. *Top 10 influential countries by TC*

Country	TC	TP	NCA	NCP	C/P	C/CP	*h*	*g*	*m*
China	1629	382	590	209	4.26	7.79	18	40	1.059
India	384	8	19	5	48.00	76.80	4	8	0.571
Saudi Arabia	91	8	16	6	11.38	15.17	6	8	1.200
Pakistan	48	3	4	3	16.00	16.00	3	3	0.600
United Kingdom	29	3	4	3	9.67	9.67	2	3	0.500
Malaysia	27	3	4	2	9.00	13.50	2	3	0.500
United States	26	3	4	2	8.67	13.00	2	3	0.286
Italy	16	1	1	1	16.00	16.00	1	1	0.167
Vietnam	15	3	5	3	5.00	5.00	2	3	0.286
Thailand	14	1	1	1	14.00	14.00	1	1	0.143

Most Influential Source Titles

As illustrated in Table Six, the dataset reveals a stratified landscape of the academic influence of this research. *Computers and Education* emerges as the undisputed leader, with 1,208 citations across 12 papers (C/P=100.67) and scholarly participation (NCA=40, NCP=12), highlighting its strong scholarly impact and potential for collaborative research. Meanwhile, source titles like *Higher Education Policy* (C/P=390) and *Multiliteracies for a Digital Age* (C/P=315) exemplify single-study dominance, achieving exceptional impact through groundbreaking theoretical contributions but failing to sustain follow-up research.

Table 6. *Top 10 influential source titles*

Source Title	TC	TP	NCA	NCP	C/P	C/CP	*h*	*g*	*m*
Computers and Education	1208	12	40	12	100.67	100.67	11	12	0.846
Higher Education Policy	390	1	1	1	390.00	390.00	1	1	0.071
Resuscitation	351	2	8	2	175.50	175.50	2	2	0.100
Multiliteracies for a Digital Age	315	1	1	1	315.00	315.00	1	1	0.045
Frontiers in Psychology	240	8	22	8	30.00	30.00	6	8	0.375
Journal of Advanced Nursing	238	1	1	1	238.00	238.00	1	1	0.048
Computer Assisted Language Learning	203	7	21	7	29.00	29.00	6	7	0.375
American Journal of Education	166	1	4	1	166.00	166.00	1	1	0.077
IEEE Transactions on Learning Technologies	142	4	13	4	35.50	35.50	3	4	0.333
Social Development	141	1	2	1	141.00	141.00	1	1	0.050

Science Mapping

Collaboration Countries

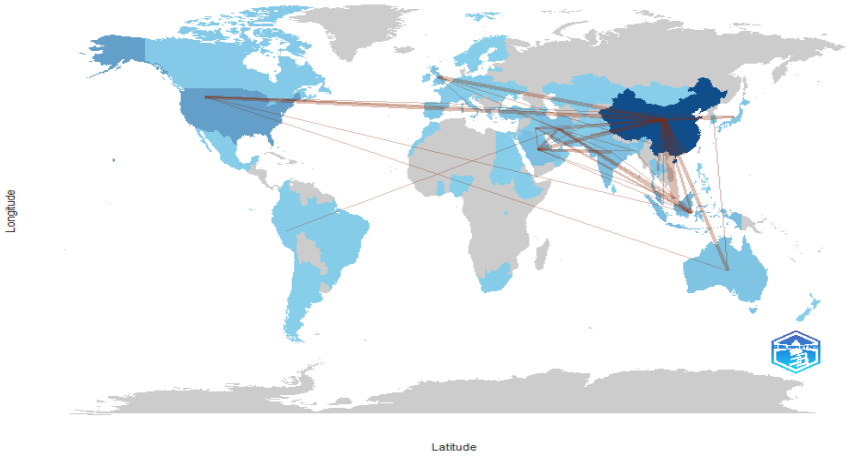


Figure 3. Worldwide scientific production and collaboration

As depicted in Figure Three, the collaboration network forms a global research network, with China as a key hub (Darkest colour), indicating its leading role and extensive partnerships. Collaboration is strongest (Thick connecting lines) in North America, Europe, and Southeast Asia. Overall, China is the central hub of global scientific collaboration, exerting significant influence in Asia and parts of Europe and North America. The United States has a broad but relatively dispersed network of collaborations, lacking a highly concentrated research group. Intra-Asian cooperation is strengthening, with particularly close academic ties among Southeast Asian countries. Europe maintains stable but low-frequency collaborations, primarily among neighbouring nations. Meanwhile, participation from Middle Eastern and South Asian countries is increasing, whereas African and South American collaborations remain limited, presenting substantial growth potential.

Co-occurrence Network

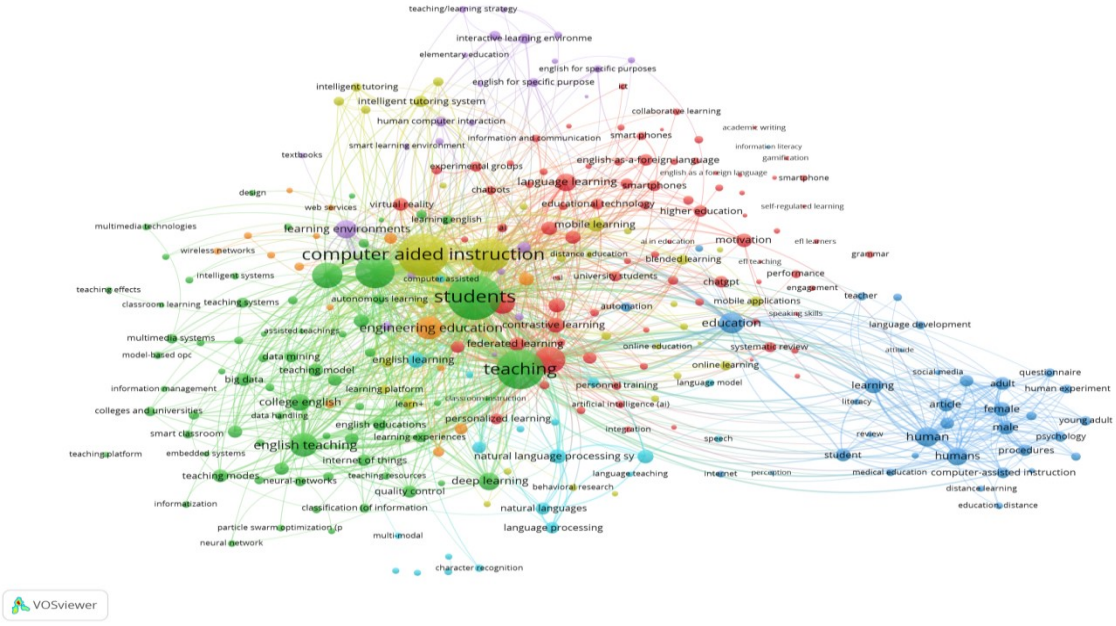


Figure 4. The network visualisation of co-occurrence

Co-occurrence in this study refers to the frequency with which two or more keywords appear together in a given dataset, indicating their relationship and thematic connection. In generating the map, this study used the full counting method, setting 5 as the minimum number of keyword occurrences. Out of 4,606 keywords, 285 met the threshold, with a maximum keyword length of 30.

As shown on the left side of Figure Four, the colours represent 7 distinct clusters, each reflecting a key research focus. Links indicate co-occurrence relationships, where stronger connections reflect frequent associations between keywords. Node size represents keyword frequency, with larger nodes highlighting major themes. The 7 clusters identified are: AI & Education Technology (Green), Learning Systems & Pedagogical Approaches (Yellow), Human Factors & Psychology (Red), Digital & Online Learning (Blue), Language Learning & Teaching (Orange), AI-driven Computational Approaches (Light Blue), and Higher Education & Institutional Contexts (Purple). These clusters offer valuable insights into the evolving landscape of educational research, emphasising the interplay between AI, pedagogy, human learning, and institutional frameworks.

Core Themes

Figure Five represents the thematic maps. It highlights distinct research trends in education. Motor Themes (Top-Right) are central and well-developed, with topics like English teaching and motivation remaining key research focuses. Niche Themes (Top-Left) show strong development in AI and machine learning but have limited integration into mainstream education. Emerging or Declining Themes (Bottom-Left) suggest a decline in traditional English language teaching as

modern approaches gain traction. Basic themes (Bottom-Right) serve as foundational yet evolving areas, with technologies such as ChatGPT and generative AI shaping the future of research. Themes crossing the centerline, such as higher education and E-learning, indicate persistent relevance while continuously adapting to technological advancements.

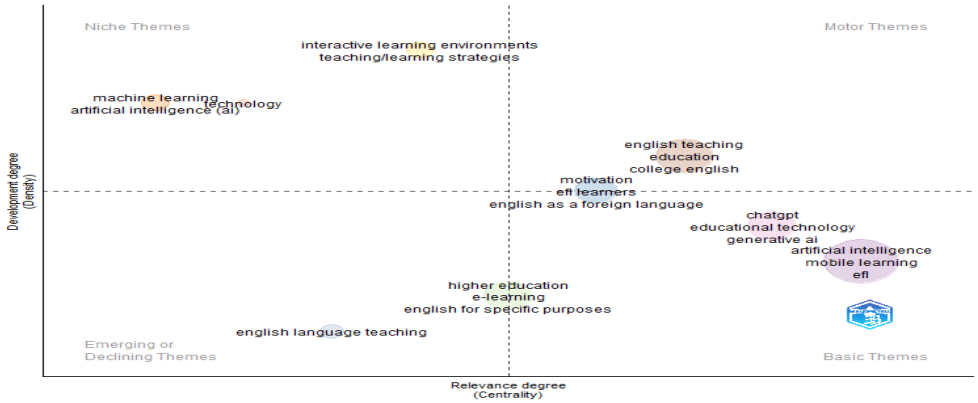


Figure 5. The thematic map

Discussion

This research reveals the current landscape of AI in English teaching by examining publication trends, identifying influential works and contributors, and highlighting key themes. First, the number of publications on AI in English teaching has witnessed a big increase recently, but citation counts are comparatively slow, indicating that newer studies are still gathering momentum. Second, the top five highly cited papers focus on innovative AI-driven methods such as AR, robotics, and intelligent tutoring systems, which enhance engagement, personalisation, and learning outcomes while dealing with educational challenges. Third, influential contributors are mainly authors from China, India, and Pakistan, with China leading both in output and international collaboration; among journals, *Computers and Education* stands out as the most impactful, alongside emerging venues like *IEEE Transactions on Learning Technologies*. Fourth, key research themes concentrate on writing feedback, adaptive learning, and intelligent assessment.

These findings reinforce established understandings while providing nuanced insights into geographic influence and thematic specificity, thereby advancing a more comprehensive and systematic perspective on AI's evolving role in English teaching. To begin with, the observed surge in publication volume, alongside comparatively slower citation growth, echoes the bibliometric trends identified by Zhang and Umeanowai (2025). However, the strict data cleaning of the present study enhances data accuracy and analytical precision. Moreover, the emphasis on AI applications facilitating learner engagement, personalisation, and improved learning outcomes aligns with Mohamed (2024), who underscores AI's capacity to deliver rapid, individualised support and elevate instructional effectiveness. In addition, the identification of key contributors extends the discourse beyond Gusman et al.'s (2024) general treatment of AI's transformative potential by presenting China's pivotal position within global collaboration networks, thereby addressing a previously underexplored regional dimension. Finally, the illustration of themes extends Zawacki-

Richter et al.'s (2019) classification by highlighting specific intersections between technological tools and pedagogical strategies. This refinement reveals a more intricate and integrated research landscape, thereby deepening scholarly understanding of AI's multifaceted impact on English language teaching.

In this way, this study provides concise, data-driven guidance by mapping dominant themes and emerging trends of AI in English teaching. The emphasis on personalised, adaptive learning underscores the value of integrating learner analytics, while the global collaboration patterns inform strategic planning and policy development. Nevertheless, a limitation of this study lies in the rapid evolution of technology, which may diminish the relevance of current findings in the near future. Given the accelerated development of AI technologies, continuous evaluation of their progress is essential to maintain the effectiveness and applicability of pedagogical applications. Future research should incorporate empirical data from varied educational contexts to validate these findings and investigate the most effective AI-driven methodologies for optimising English teaching.

Conclusion

This study provides a comprehensive bibliometric analysis of AI in English teaching by combining performance analysis and science mapping to uncover key research trends, methodological patterns, and evolving thematic directions. Collectively, these findings offer a comprehensive understanding of AI's pedagogical roles and illuminate a pivotal trend shaping future inquiry in this field. Furthermore, the results identify that AI has progressed from basic tutoring systems to highly interactive and adaptive learning environments, thereby significantly enhancing English teaching effectiveness. They also underscore AI's potential to support personalised learning, increase learner engagement, and promote interdisciplinary approaches. Moving forward, these insights offer critical guidance for educators and policymakers to implement AI-driven strategies effectively, emphasising the need for continuous assessment, strategic adaptation and proactive integration of technological advancements.

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