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TRENDS IN ARTIFICIAL INTELLIGENCE-INFUSED ENGLISH LANGUAGE LEARNING: A COMPREHENSIVE BIBLIOMETRIC AND CONTENT REVIEW

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Abstract. *Notwithstanding the increase in research on artificial intelligence-infused English language learning, several issues remain inadequately addressed. Thus, this paper provides a systematic review and analyzes previous studies to pinpoint fruitful knowledge gaps and outline approaches for future research directions. Two approaches, bibliometric and descriptive content analysis, were employed in this study. Firstly, we extracted data for bibliometric analysis from the Scopus database, covering publications from 1996 to 2024. The findings show that the topic peaked in 2024, with 107 articles published. China was the most cited country, with 1.215 citations, and the most productive country, with 327 articles. The International Journal of Emerging Technologies in Learning published the majority of the articles. The research theme evolved to emphasize English learning and student involvement through mobile learning. We applied descriptive content analysis to selected papers published between 2014 and 2024. Theoretically, the findings suggest that addressing knowledge gaps can enhance the integration of artificial intelligence in English language learning. Empirically, the mixed studies used descriptive statistics collected through observation and questionnaires, with a medium sample size selected through*

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random sampling, a commonly used research design. These approaches can potentially expand the scholarly literature on this subject.

Keywords: *AI-driven language instruction, English foreign language learning, Knowledge mapping, Literature review, Pedagogical strategies.*

1. INTRODUCTION

Artificial intelligence (henceforth AI) has been increasingly integrated into educational settings in recent years (Afzaal et al., 2024; Akhmadieva et al., 2024), including English language learning (Hockly, 2023; X. Zhang & Umeanowai, 2024). This growing use of AI in language education represents a shift towards more flexible and customized learning environments, which enhance language learning to better meet students' needs (Király, 2024). As a 'rising star' in the field of technology-enhanced language learning, numerous studies have reported the positive impact of AI on improving English language competence. For instance, AI writing tools like ChatGPT can assist students in creating content and offer recommendations for improved sentence structures and word choices (Algaraady & Mahyoob, 2023; Yan, 2023). Similarly, in terms of enhancing speaking competence, AI's role in speaking activities has been shown to increase students' speaking skills (Fathi et al., 2024; Mohamed & Alian, 2023; Yang, 2024). In other words, AI-infused English language learning has the potential to significantly boost students' language skills and contribute to better learning outcomes (Al-Smadi et al., 2024; X. Huang et al., 2023; Su et al., 2023).

Moreover, in the context of learning outcomes, English language learners' attainment is closely linked to their involvement and motivation. As Ebadi & Amini (2024), Jin et al. (2023), Liang et al. (2023), and C.-Y. Wang & Lin (2023) emphasize that AI-facilitated English language learning enhances students' involvement and participation by allowing them to control their own learning pace, thereby improving their language skills. This finding aligns with a study by Utami et al. (2023), which found that learners are motivated and encouraged by AI-enhanced English language learning. In a nutshell, AI-infused English language learning not only has the potential to improve student's language skills and learning outcomes but also makes the learning process more enjoyable, easier, and more efficient (Chu et al., 2022; Gayed et al., 2022; Hew et al., 2023; Jeanjaroonsri, 2023).

Additionally, as an adaptive system, AI offers direct assessment and correction, which influence language attainment and specific language competencies (Chen et al., 2024). For example, ChatGPT, an AI-powered tool, can generate grammatically correct phrases to help students create well-structured writing. This AI tool can understand user queries and provide appropriate responses (Younis et al., 2023). This is consistent with a study by Schmidt-Fajlik (2023), which found that ChatGPT significantly contributes to correcting students' micro skills development, such as grammar. Through personalized assessment, AI creates a unique learning environment that is tailored to individual needs.

However, despite extensive research highlighting the benefits of AI in English language learning, gaps remain in our understanding of its long-term effectiveness, the challenges associated with its use, and the holistic integration of AI tools across diverse educational contexts. This review paper addresses these gaps by providing a structured bibliometric analysis and a comprehensive review of existing literature, offering insights to

guide future research in AI-infused English language learning. Firstly, it includes a bibliometric analysis of yearly publications, identifying the most productive and influential countries, relevant publication outlets, the most cited articles, commonly used keywords, and the thematic evolution in AI-infused English language learning. Secondly, a comprehensive review of selected papers is conducted, focusing on research topics, methods and designs, research approaches, sample selection methods and sizes, research tools, and data analysis techniques. Finally, bibliometric and descriptive content analyses are employed to highlight valuable insights, address existing knowledge gaps, and guide future research in AI-infused English language learning.

2. METHODS

Method

This study employed a couple of main approaches—bibliometric and descriptive content analysis—to pinpoint knowledge gaps and guide future research on AI-infused English language learning. The bibliometric analysis provided a broad view of research developments over time, assessing trends and patterns through a quantitative examination of bibliographic components in academic lectures (Donthu et al., 2021; Mayr et al., 2018). This approach allows for a systematic, numeric overview of research progress (Zupic & Čater, 2015). To complement this, descriptive analysis was employed to delve into thematic patterns in AI-infused English language learning research. Focusing on frequency and percentage trends without drawing causal conclusions (Dinçer, 2018). Together, these approaches provided a comprehensive perspective on research direction, methodologies, and topics in the field.

Data collection technique

For the bibliometric analysis, keywords such as “artificial intelligence or AI” and “English learning” were used to gather data from Scopus in the social sciences area, producing 325 documents as of December 2024. This quantity met the minimum threshold of 200 documents for valid bibliometric analysis (Rogers et al., 2020). The analysis spanned from 1996 to 2024, allowing for nearly three decades of perspectives on advancement in AI applications in English language learning. The framework of preferred reporting items for systematic reviews and meta-analysis (henceforth PRISMA) facilitated the systematic collection and organization of data for the descriptive content analysis. The PRISMA approach, as outlined by Page et al. (2021), ensure the study’s methodological rigor, enhancing replicability and consistency in research outcomes. PRISMA’s four-phase flow diagram (see Figure 1) guided the data identification, screening, eligibility, and inclusion stages.

The initial search using the keywords ‘’artificial intelligence” or “AI,” and “English learning” identified 683 documents across titles, abstracts, and keywords. During the screening, inclusion criteria were applied to filter results to papers written in English, published in academic journals within the time frame of 2014-2024, and in the social sciences area. This refined the dataset to 325 articles suitable for further analysis. During the eligibility phase, titles and abstracts were reviewed for relevance to the study’s objectives, yielding 106 papers focused on AI applications in English language learning. A final sorting based on a full-text review led to a set of 48 studies for in-depth analysis.

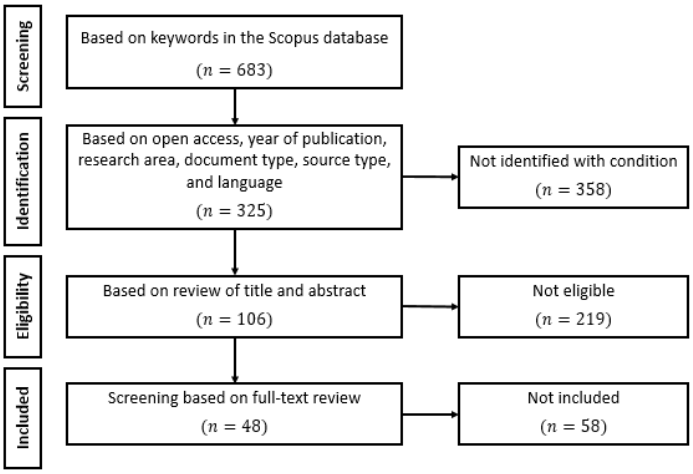

Figure 1. PRISMA's four-phase flow diagram for the study selection process

Data analysis technique

For the bibliometric analysis, the study employed Bibliometric software within Rstudio, particularly the biblioshiny program, a user-friendly bibliometric analysis tool. Bibliometric analysis quantitatively assesses publication and citation data, providing insights into influential researchers, main frameworks, and patterns within the field (Aria & Cuccurullo, 2017). This allowed a structured mapping of AI-driven English learning research trends, highlighting prominent authors, publication outlets, and thematic trends. In contrast, descriptive content analysis involves categorizing and summarizing content from selected articles to pinpoint recurring themes. Bırgın & Peker's (2021) framework guided the categorization process, classifying articles by author, publication year, methodology, topic, sample size, research tools, and analysis techniques. Microsoft Excel facilitated this data organization, sorting content according to predefined parameters, and a frequency analysis provided insight into the prevalence of specific themes.

3. RESULT AND DISCUSSION

The current investigation was intended to rigorously examine and analyze past literature to pinpoint knowledge gaps and provide methods to facilitate future studies on integrating AI into English language learning. We employ bibliometric analysis to uncover the yearly publication, nation, citations by publication outlets and country, and keywords frequently employed in AI-infused English language learning research. Then, a descriptive analysis was done using the trusted database Scopus (Baas et al., 2020; Pranckutė, 2021) to bring out many details about the study of AI-infused English language learning, such as research topic, research method and design, research approach followed by design, sample selection method and sample size, research tools, and data analysis technique.

The bibliometric study depicted in Figure 2 shows a significant increase in the number of articles on AI-infused English language learning since 2017. There was a decrease in 2019, but the next year experienced a significant increase. In 2024, there were 107 papers on AI-infused English language learning. The National Central University from Taiwan is the most highly productive institution on this topic, with 10 articles. Gwojen Hwang is the author with the greatest quantity of publications on this subject, with 6 articles. The International

Journal of Emerging Technologies in Learning, with 30 published articles between June 2014 and July 2023, is the most significant publication outlet. Table 1 details the top ten affiliations, publication outlets, and authors.

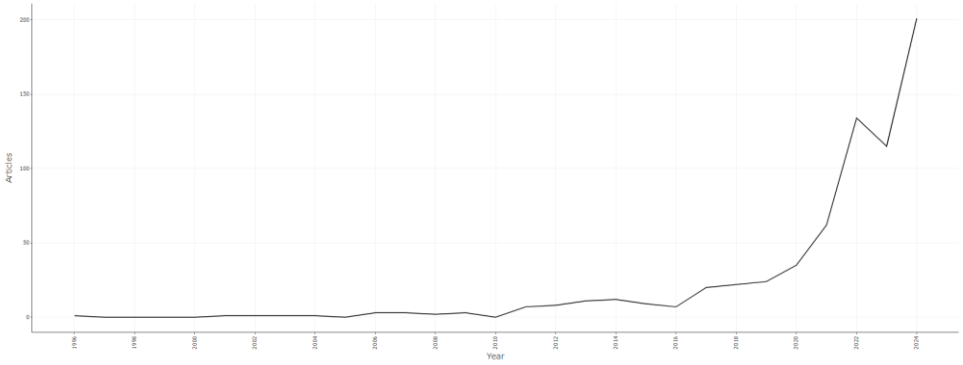

Figure 2. The yearly trend of publication outputs

Table 1. Publication resumes on ai-infused English language learning research

Classification	The Ten Foremost Publications
Affiliations	National Central University (10); National Taiwan Normal University (9); National Taiwan University of Science and Technology (7); Chinese University of Hongkong (6); The Education University of Hongkong (6); University of Macau (6); Universiti Sains Malaysia (5); The University of Hongkong (5); Central China Normal University (5); Beijing Language and Culture University (5)
Publication outlets	International Journal of Emerging Technologies in Learning (30); Education and Information Technologies (16); Computer Assisted Language Learning (11); Interactive Learning Environments (9); System (8); Sustainability Switzerland (7); Cogent Education (6); Forum for Linguistic Studies (6); Educational Technology and Society (5); International Journal of Human-Computer Interaction (5)
Authors	Gwojen Hwang (6); Zhonggen Yu (5); Bin Ai (4); Nian Shing Chen (3); Ali Derakhshan (3); Jonchao Hong (3); Tingchia Hsu (3); Wuyuin Yuin Hwang (3); Juhee Lee (3); Benazir Quadir (3)

This evidence reveals that the research on that topic is hot and interesting due to AI's pedagogical impact. As strengthened by numerous studies (Fathi et al., 2024; Hmoud et al., 2024; W. Huang et al., 2022; Jeon, 2023; Kohnke, 2023; Lubis et al., 2024; Z. Wang, 2022), AI is fruitful in enhancing English competence effectively, increasing students' learning attention, and mediating students' interaction, engagement, and outcome.

In terms of productive and influential countries, the blue area in Figure 3 shows the geographical distribution of publication outputs by country and identifies the nations that conduct AI research in English learning. The deeper shade of blue denotes a higher level of AI research in English learning by the respective nation. Table 2 provides an additional description of the country's publication output data. China had the highest production over time among all of the nations (Guo et al., 2024; Yuan & Liu, 2025), specifically between the time frames of 2015 and 2024, with 327 articles, as shown in Table 2.

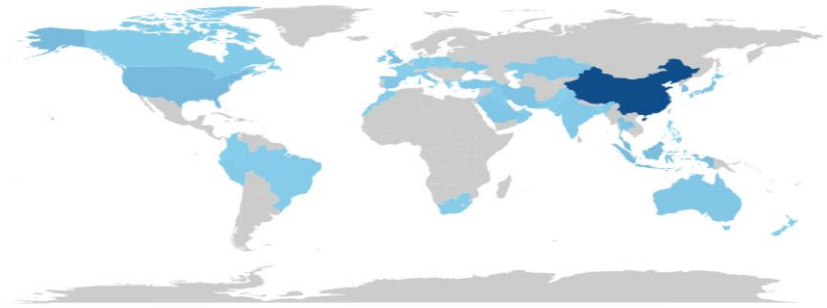

Figure 3. The geographical distribution of publication outputs by country

Table 2. The geographical distribution of publication outputs by country

Country	*f*	%	Country	*f*	%	Country	*f*	%
China	327	38.61	Kazakhstan	12	1.42	Cyprus	3	0.35
Malaysia	52	6.14	India	11	1.30	Ecuador	3	0.35
USA	48	5.67	Canada	9	1.06	Poland	3	0.35
Indonesia	39	4.60	Iraq	9	1.06	Slovakia	2	0.24
South Korea	34	4.01	Czech Republic	**8**	0.94	Bangladesh	2	0.24
UK	31	3.66	Peru	7	0.83	Jordan	2	0.24
Hongkong	31	3.66	Oman	7	0.83	Netherlands	2	0.24
Thailand	28	3.31	Italy	5	0.59	Israel	2	0.24
Japan	27	3.19	Brazil	5	0.59	Germany	1	0.12
Iran	25	2.95	Greece	5	0.59	Marocco	1	0.12
Saudi Arabia	20	2.36	South Africa	4	0.47	France	1	0.12
Australia	18	2.13	Philippines	4	0.47	Ireland	1	0.12
Spain	17	2.01	Pakistan	3	0.35	New Zealand	1	0.12
Turkey	16	1.89	Singapore	3	0.35	Kuwait	1	0.12
Ukraine	14	1.65	Colombia	3	0.35	United Arab Emirates	1	0.12

Beyond China, several other nations have made substantial strides in using AI to enhance English language learning, leveraging AI's potential across various language education areas. The United States, for example, is a leader in AI-based language education, consistently at the forefront of developing tools like automated writing evaluations, intelligent tutoring systems, and personalized learning platforms to support English learners (X. Huang et al., 2023; Li et al., 2024; X. Zhang & Umeanowai, 2024). In Europe, countries like the UK actively encourage investment in AI-driven learning technologies (X. Zhang & Umeanowai, 2024). Southeast Asian nations, such as Indonesia, also have high hopes for AI in language education, using AI tools for feedback, student engagement, and personalized instruction while being mindful of privacy and dependency concerns (Khoudri et al., 2024). These countries strive to enhance educational quality, support autonomous learning, and raise overall English proficiency—mirroring a growing global trend toward integrating AI in English language education.

The number of citations is a significant indicator for evaluating the worth and impact of research articles (Atayero et al., 2018). As well, quotations are utilized as a gauge of impact (Zupic & Čater, 2015). The most influential countries and their respective total number of citations dealing with AI-infused English learning research are visualized in Figure 4. China demonstrated the greatest citation number, totaling 1215, followed by Hongkong and Iran, with 261 and 238, respectively.

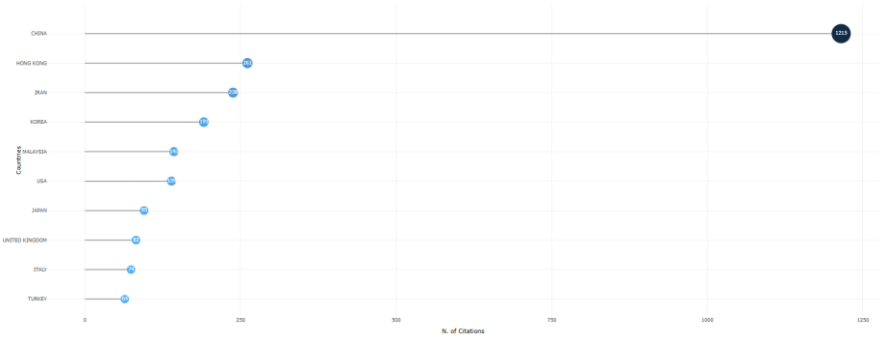

Figure 4. Most influential countries and their respective total number of citations

The International Journal of Emerging Technologies in Learning is the most pertinent outlet for research on AI in English learning, as can be seen in Figure 5. This journal focuses on promoting innovative ideas and research developments in the realm of applied technology within the field of education. 30 papers about AI in English learning were acquired from this source.

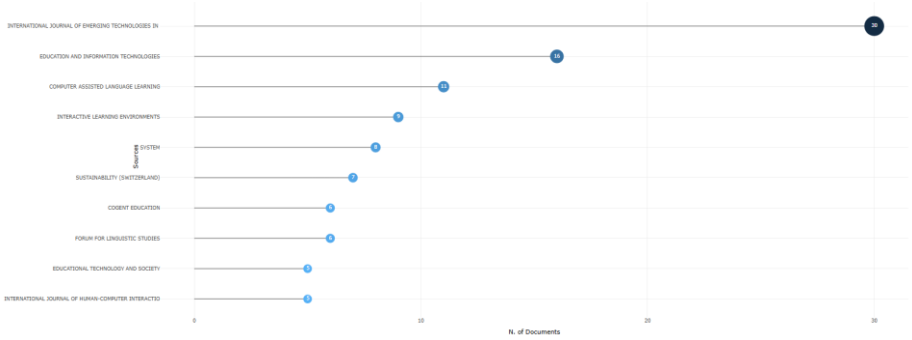

Figure 5. The distribution of pertinent publication outlets

Ting-Chia Hsu's work (Hsu, 2017), entitled "Learning English with Augmented Reality: Do learning styles matter?" published in the Computers and Education journal, was a citeable article with 225 citations. Figure 6 displays the distribution of citable articles. It means that the article is the most influential. As stated by Atayero et al. (2018), citation count is a crucial metric for assessing the value and influence of research articles. Also, as confirmed by Zupic & Čater (2015), quotations are used as a measure of influence.

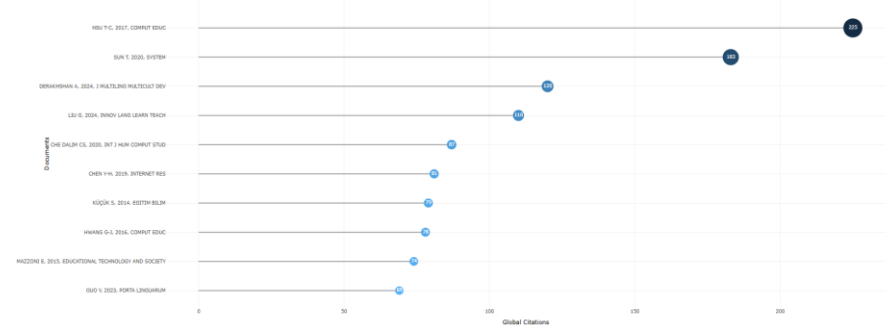

Figure 6. The distribution of citable articles

Regarding the co-occurrence results, the analysis displayed that there are two main clusters, namely English learning and artificial intelligence. As can be seen in Figure 7, there is a link between the keywords frequently employed by the author. It can highlight the main trends in the research on AI-infused English language learning, such as gamification, mobile

learning, intelligent tutoring systems, and computer-human interaction. For instance, studies that discussed the main trends in that topic include Bang (2024), Matsuda et al. (2020), S Wahyuni & Etfita (2019), and Sri Wahyuni & Etfita (2023).

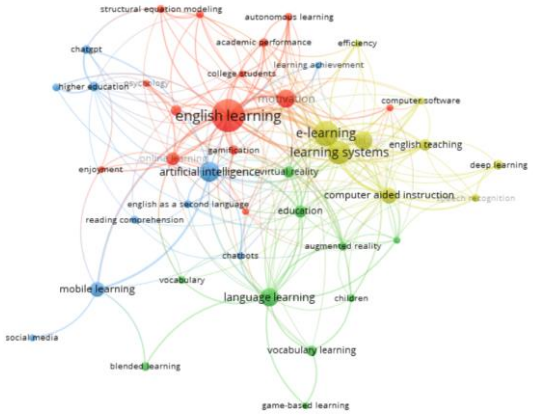

Figure 7. Network visualization of author's keywords

Based on the link analysis of these common keywords, the main research topics in AI-infused English language learning can be identified. In addition, keywords can be used to pinpoint evolutionary themes. By examining this evolutionary concept, we can uncover insights regarding the progression of keywords in AI-enhanced English language learning. Figure 8 displays a thematic evolution map generated by bibliometrics illustrating the progression of keywords in AI in English learning throughout time. The map was constructed by analyzing two time periods: 1996-2018 and 2019-2024. From 1996 until 2018, topics such as artificial intelligence, learning achievement, mobile learning, and vocabulary acquisition were distinct from the theme of English learning. Between 2019 and 2024, there is a connection between learning English and student involvement through mobile learning.

AI-driven advancements in English language learning have grown from simple tools, like chatbots and vocabulary drills, into adaptive systems that comprehensively support language acquisition (Al-khresheh, 2024; Winaitham, 2022). Initially, AI offered basic, repetitive exercises, but newer systems are highly personalized, using real feedback, gamification, and engaging storylines to boost motivation and participation (Chandra et al., 2024; Wei, 2023). Today's programs focus on linguistic proficiency and learner autonomy, leveraging intelligent tutoring systems that adapt material and difficulty levels based on performance (Al-khresheh, 2024; Khiem et al., 2024). Emerging technologies, including augmented and virtual reality, are poised to transform language learning further by enabling contextual, immersive practice in simulated environments (Khasawneh, 2024; Yun et al., 2024). These innovations reflect a shift from behaviourist to social constructivist educational approaches, showcasing AI's progression from a supporting tool to a dynamic, interactive element in both individual and group language learning experiences (X. Wang et al., 2023; Wei, 2023).

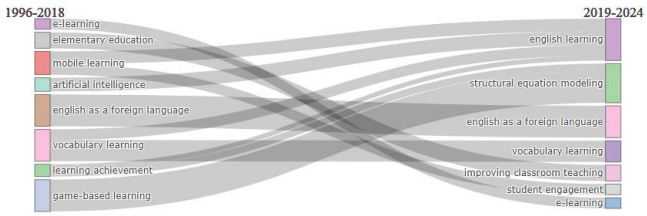

Figure 8. Thematic evolution

A comprehensive literature review is useful for detecting knowledge gaps in AI research in English language learning, aiding prospective scholars in determining a suitable course of action. We analyzed descriptive information from articles published between 2014 and 2024 and identified 13 themes in research on AI-infused English language learning. The research focus is more clearly seen in Figure 9. Most AI-infused English language learning focuses on the utilization of AI as a learning medium to improve English competence, especially in productive skills like speaking and writing (Al-Smadi et al., 2024; Fathi et al., 2024). According to X. Zhang & Umeanowai (2024), AI has huge potential for integration into English language learning. Consequently, to optimize or maximize the student's learning outcome, AI should be applied through structured or systematic methods or approaches designed by educators or researchers and, in terms of its application, should be considered stipulated by stakeholders (Bittencourt et al., 2023; Divekar et al., 2022; Liang et al., 2023). To sum up, as widely investigated across the world over the last decade, future studies must focus on developmental studies on infusing AI with a particular method or learning model.

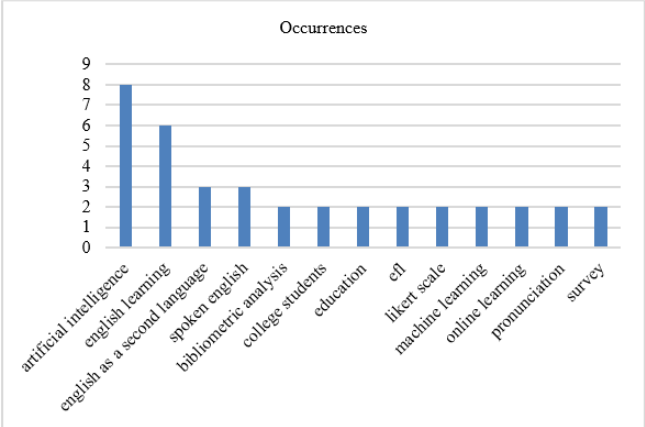

Figure 9. Distribution of research topics

Moreover, the research design was found to be varied, referring to the descriptive content analysis. Figure 10 displays a treemap visualizing the methodology and structure of artificial intelligence research in English language acquisition conducted by scholars between 2014 and 2024. As stated Ivanova et al. (2024) and K. Zhang & Aslan (2021), the research design is the most significant feature because it is part of the research framework and serves as a guide for researchers before beginning scientific work. The analysis signifies that the researcher most frequently utilized the mixed research approach. The mixed research approach encompassed sequential explanatory, quasi-experimental, case

study, and pilot study in its design. Sequential explanatory was the most commonly utilized research approach, at about 42.11%. Qualitative design ranks second with developmental study and document analysis approaches. The third rank of research methods used in published articles was the quantitative approach with experimental, quasi-experimental, and correlational study designs. Table 3 displays the distribution of study designs utilized in entirely published studies.

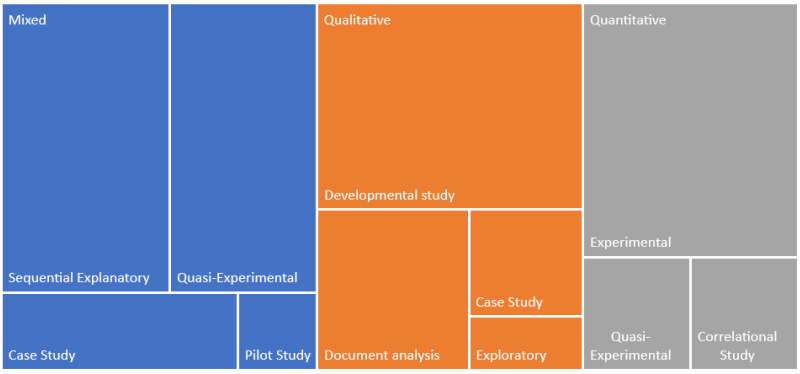

Figure 10. Treemap research approach and design

Table 3. Research method and design

Research Method	*f*	%	Research Method	*f*	%
Mixed	19	100.00	Quantitative	13	100.00
Sequential Explanatory	8	42.11	Experimental	9	69.23
Quasi-Experimental	7	36.84	Quasi-Experimental	2	15.38
Case Study	3	15.79	Correlational Study	2	15.38
Pilot Study	1	5.263	Grand Total	48	100.00
Qualitative	16	100.00			
Developmental study	9	56.25			
Document analysis	4	25.00			
Case Study	2	12.50			
Exploratory	1	6.25			

Table 4 depicts the participants or subjects of the study. The subsequent part examines three aspects: sample selection technique and sample size. It displays the number of participants from higher education involved in research on AI-infused English language learning, such as business students, college students, engineering students, nursing students, and English education students. The sample selection method consisted of 25.00% random sampling, 16.67 purposive sampling, 16.67% convenience sampling, and 4.17% cluster sampling. Researchers commonly utilize sample sizes ranging from 101 to 300 samples and 301 or above.

Table 4. Sample selection technique, population, and sample sizes

The Subject of The Study	*f*	%	The Subject of The Study	*f*	%
Sample	48	100.00	Sample Methods	48	100.00
Students (General)	29	60.42	Not Indicated	18	37.50
College Students	10	20.83	Random Sampling	12	25.00
Primary School Student	3	6.25	Purposive Sampling	8	16.67
Engineering Student	2	4.17	Convenience Sampling	8	16.67
Business Student	1	2.08	Cluster Sampling	2	4.17
English Education Student	1	2.08	Sample Size	48	100.00

The Subject of The Study	*f*	%	The Subject of The Study	*f*	%
High School Student	1	2.08	Not Indicated	17	35.42
Nursing Student	1	2.08	Between 101-300	11	22.92
			301 and above	9	18.74
			Between 11-100	7	14.58
			10 and below	4	8.33

This finding is strengthened by Farrelly & Baker (2023), Maphosa & Maphosa (2023), and Sajja et al. (2023), a great number of higher education institutions welcome and embrace the existence of AI to assist students' academic work. This high level of engagement reflects AI's flexibility across various fields and its capability to address diverse educational needs. For future English teachers, AI adoption can significantly enhance productivity and teaching efficiency. Studies by Ericsson et al. (2023) and Malik et al. (2023) report that AI tools can strengthen English language learning by providing customized feedback, enhancing student participation, and easing the instructional workload. Incorporating AI thus not only enhances students' learning experiences but also equips future educators with innovative methods to improve English language productivity and learning (Galindo-Domínguez et al., 2024; H. Al-khresheh, 2024). Concerning the technique of collecting sampling and the sample size, it is suggested that participant size be employed based on the research design to obtain valid results for future research.

In addition, a research instrument or data collection tool is crucial to be assessed within the research method. From the analysis results, ten types of research tools are employed to gather data on the research on AI-infused English language learning. The ten types of research instruments are documentation, interviews, observations, questionnaires, surveys, tests, and several combined research tools. Of the ten research instrument types, the researchers most frequently employ observation. To gather research data, 33.33% of researchers used observation, followed by 18.75% by questionnaire. Table 5 depicts the results of the analysis of research tools.

Table 5. Research tools

Research Tool	*f*	%
Observation	16	33.33
Questionnaire	9	18.75
Survey	8	16.67
Test	3	6.25
Interview, Questionnaire	3	6.25
Test, Survey	3	6.25
Test, Questionnaire	2	4.17
Interview	2	4.17
Test, Interview	1	2.08
Documentation	1	2.08
Grand Total	48	100.00

Lastly, this descriptive content analysis research also analyzed data analysis techniques. As can be seen in Table 6, in terms of the mixed method approach, the techniques employed are descriptive statistics, descriptive statistics with advanced further test analysis, validity and reliability, and t-test. In the quantitative research approach, data were analyzed using a t-test, factor analysis, descriptive statistics, regression analysis, and

SEM. In qualitative research, the techniques employed are categorization, descriptive, validity, and reliability, and some researchers did not include their research approach. As noted by a study (Mohammadkarimi, 2024), future researchers should employ mixed approaches in terms of tools to have a valid and reliable instrument and make sure the technique of analyzing data by combining the quantitative and qualitative techniques has a clear result.

Table 6. Data analysis method

Research Approach	*f*	%
Mixed	19	100.00
Descriptive Statistics	7	36.84
Descriptive statistics with advanced further test analysis	10	52.63
Validity, Reliability	1	5.26
T-test	1	5.26
Qualitative	16	100.00
Categorization	6	37.50
Descriptive	1	6.25
Not Indicated	8	50.00
Validity, Reliability	1	6.25
Quantitative	13	100.00
Analysis Regression	1	7.69
Descriptive Statistics	1	7.69
Factor Analysis	1	7.69
SEM	2	15.38
T-test	8	61.54

4. CONCLUSIONS

The bibliometric' and descriptive content analysis results provide fruitful knowledge gaps and future directions in AI-infused English language learning research. The findings show that the emergence of AI has grown in the last decade across nations due to the potential of the pedagogical features offered by AI. For the sake of this research, China might serve as a starting point for this research. Research trends might help determine the theme of upcoming investigations. A comprehensive analysis was then conducted concerning the area of study and research design using the Scopus database. We recommend using the Web of Science or another reputable database to extract the documents for further studies. Furthermore, the presence of several knowledge gaps may encourage future researchers to close these gaps to enhance the dimensions of AI-assisted English language learning as well as the body of scholarly literature on the topic. Specifically, this research can be considered an essential resource for the scientific community by methodically delineating the recent developments and constraints of AI-infused English language learning studies. By pinpointing neglected domains and suggesting systematic improvements, it facilitates future multidimensional research that connects education, languages, and machine learning.

This study has several limitations that suggest directions for future research. To begin, it relied primarily on the Scopus database, which, while comprehensive, may limit the diversity of sources; diversifying to additional widely known databases such as Web of Science could provide a larger reach. Furthermore, while instructive, the geographic focus

on China limits insights into regional variances in AI use for English language acquisition; future research could benefit from a comparison approach across countries. A significant constraint emerges from the International Journal of Emerging Technologies in Learning (IJET), a prominent journal on the subject, which was excluded from the Scopus database in October 2023. Consequently, research articles from IJET published after this date were excluded from the analysis, potentially disregarding significant contributions to the area. Future research may contemplate manually incorporating articles from IJET or other pertinent publications that are no longer indexed in Scopus to address this deficiency. Finally, this study employed bibliometric and descriptive content analysis methods, which are useful for pinpointing trends but may fall short of capturing the complex educational consequences of AI.

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Conflict of interest

The authors declare no conflicts of interest.

ТЕНДЕНЦІЇ У ВИКОРИСТАННІ ШТУЧНОГО ІНТЕЛЕКТУ ДЛЯ ВИВЧЕННЯ АНГЛІЙСЬКОЇ МОВИ: КОМПЛЕКСНИЙ БІБЛІОМЕТРИЧНИЙ ТА КОНТЕНТ-АНАЛІЗ

Анотація.
Попри зростання кількості досліджень, присвячених вивченню англійської мови за допомогою інструментів штучного інтелекту, низка питань залишається недостатньо висвітленою. У цій статті проведено систематичний огляд і аналіз попередніх досліджень, щоб визначити недостатньо вивчені питання і запропонувати підходи для майбутніх досліджень. У дослідженні застосовано два підходи: бібліометричний аналіз і описовий контент-аналіз.

Дані для бібліометричного аналізу було отримано з бази даних Scopus, що охоплює публікації з 1996 по 2024 рік. Результати показують, що дослідження досягло піку у 2024 році, коли було опубліковано 107 статей. Китай виявився найбільш цитованою країною (1 215 цитувань) і найбільш продуктивною країною за кількістю публікацій (327 статей). Більшість статей було опубліковано в журналі *International Journal of Emerging Technologies in Learning*. Тематика досліджень розвивалася у напрямі акценту на вивченні англійської мови та залученні студентів через мобільне навчання.

Ми застосували описовий контент-аналіз до відібраних статей, опублікованих у період із 2014 по 2024 рік. Теоретично результати свідчать, що усунення прогалин у знаннях може сприяти кращій інтеграції штучного інтелекту у процес вивчення англійської мови. Емпірично змішані дослідження, які використовували описову статистику, зібрану за допомогою спостережень і анкет, із середніми за розміром вибірками, відібраними методом випадкової вибірки — є найпоширенішим дизайном досліджень. Ці стратегії можуть сприяти подальшому розвитку наукових досліджень на цю тему.

Ключові слова: навчання мови за допомогою ШІ, вивчення англійської як іноземної мови, картографування знань, огляд літератури, педагогічні стратегії.