





Literature Review

Bibliometric Analysis of Language Learning in Elementary Schools: Trends and Future Research Directions

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ABSTRACT

Language learning in elementary schools is fundamental for children's literacy and communication development, yet no bibliometric study has comprehensively mapped this field. This study fills that gap by conducting a bibliometric analysis using the Scopus database with the keywords "language learning" AND "elementary school," yielding 355 documents, of which 204 articles published between 2004 and 2024 were analyzed following PRISMA procedures. Data were processed using Bibliometrix (R) and VOSviewer to examine publication trends, citations, and keyword networks. The results show a significant rise in publications since 2015, driven by global agendas such as SDG 4, the expansion of digital and mobile learning, and national policies emphasizing literacy. Keyword mapping revealed three dominant clusters: language learning and development linked to motivation and anxiety; child development and primary education, highlighting the role of developmental psychology; and language learning disorders, linguistics, and writing, underscoring inclusivity and technical aspects. Recent trends further indicate growing interest in vocabulary acquisition, technology-based pedagogy, and problem-solving approaches. This study offers novelty as the first bibliometric mapping of language learning in elementary schools, providing a holistic overview of research growth, thematic focus, and directions for future inquiry in digital pedagogy, inclusivity, and international collaboration.

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1. INTRODUCTION

Bibliometric analysis is a very important tool in understanding the development and dynamics of research in a particular field (da Silva et al., 2018; Singh et al., 2023; Taimour & Trzcielinski, 2021). In the context of language learning in elementary schools, this analysis is very relevant for identifying emerging research trends and mapping the direction of future research. Language learning in elementary schools plays a crucial role in shaping children's language skills (Duarte, 2012; Gharaibeh & Alhassan, 2023; Kostas, 2021; Magno et al., 2024), which will influence their communication abilities in everyday life. Therefore, it is important to understand how research in this field has evolved over time. By using a bibliometric approach,

researchers can explore information about publications, citations, and topic focus in research related to language learning at the elementary level. This not only provides deeper insights into how theories and practices in language teaching evolve but also identifies areas that require further research. Therefore, a bibliometric analysis of language learning in elementary schools offers a clear picture of current trends and future research directions, which will be highly valuable for both academics and education practitioners.

Research on language learning in elementary schools has shown significant improvement (Gouviás & Alexopoulos, 2018; Martín-Monje et al., 2016; Takeuchi, 2021; Younes et al., 2023), especially with the emergence of various new approaches and methods in language teaching. Over the past few decades, there has been a major shift in the way language learning is taught in elementary schools, with the increasing use of technology in the teaching and learning process. In addition, many studies have begun to focus on the application of digital-based learning methods, such as applications and online platforms that support children's language skills. The application of this technology aims to increase student engagement in the learning process and provide a more interesting and interactive learning experience. Research on bibliometric analysis of language learning in elementary schools aims to identify and map the development of these topics, as well as provide more detailed information on areas that are increasingly developing in this field of research. As attention to technology-based language learning grows, this bibliometric analysis becomes increasingly important for guiding future research. By understanding existing publication and citation patterns, researchers can more easily determine the direction to take to continue developing and improving the quality of language learning in elementary schools.

The importance of conducting bibliometric analysis in language learning research in elementary schools lies not only in its ability to map research trends but also in its contribution to determining the direction of future research. Through this analysis, we can identify the topics most frequently discussed in scientific publications and study their impact on the development of theory and practice in language learning. Furthermore, bibliometric analysis enables researchers to understand how certain topics gain attention among academics, as well as the extent of their influence in the field of education. This is crucial for helping to determine research priorities for the future, as well as fostering further collaboration within the scientific community.

Previous researchers have conducted bibliometric analyses on language learning. For example, Hajar & Karakus (2025) focused on language learning strategies, Rahman et al., (2024) focused on the use of artificial intelligence (AI) in language learning, and Karakaya & Bozkurt (2022) focused on the use of mobile-assisted language learning (MALL) in language learning. In previous studies, no bibliometric analysis has been conducted to map research on language learning in elementary schools. Therefore, this article aims to address this urgency by conducting a bibliometric analysis on language learning in elementary schools. Based on this, the research questions to be answered in this analysis are: (1) How many relevant publications are there each year on language learning in elementary schools? (2) How many citations are there each year for research on language learning in elementary schools? (3) What are the main trends in research on language learning in elementary schools? By answering these questions, it is hoped that this study can contribute significantly to directing research in the field of language learning in elementary schools, as well as enriching knowledge about how these trends develop over time.

2. METHOD

This research design uses bibliometric analysis to analyze trends and directions in research on language learning in elementary schools. The advantage of bibliometric analysis is its ability to provide a comprehensive overview of developments in a field of research, including publication patterns, citations, and relationships between frequently emerging topics (Luthfiyah, 2025; Widyarningsih et al., 2025). Using this method, researchers can map the distribution of research topics, identify important contributions in the field, and identify emerging research trends over a specific period.

To obtain relevant data, this study used the Scopus database with the keywords “language learning” AND “elementary school,” which yielded 355 publications. The selection of the Scopus database for bibliometric analysis is based on its extensive and multidisciplinary coverage, encompassing numerous reputable international journals, conference proceedings, and books that have undergone rigorous selection, thereby ensuring the quality of the analyzed publications (Baas et al., 2020; Maral, 2024). Additionally, Scopus provides rich metadata such as titles, authors, affiliations, keywords, citations, and collaboration networks, which are crucial for various types of bibliometric analysis, including citation analysis, co-authorship analysis, and keyword co-occurrence (Hassan & Duarte, 2024; Klarin, 2024; Kleminski et al., 2020). Data obtained from Scopus also supports analysis tools such as VOSviewer, Bibliometrix (R), and CiteSpace, enabling more accurate visualization of research trends and mapping of scientific networks.

Figure 1 shows the study identification flow through the Scopus database following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) principles. After 355 documents

were obtained from the Scopus search results, two documents were deleted due to duplication, leaving 353 documents. The next stage was screening, where 124 documents were eliminated because they did not meet the criteria based on year (2004-2024), document type (article), source type (journal), and language (English), leaving 229 documents. Screening continued by excluding 25 documents that were not relevant to the elementary school context or did not have clear methods, resulting in 204 documents. Next, in the eligibility stage, 204 documents passed the eligibility criteria for analysis. Finally, in the included stage, all 204 documents were included in the bibliometric analysis.

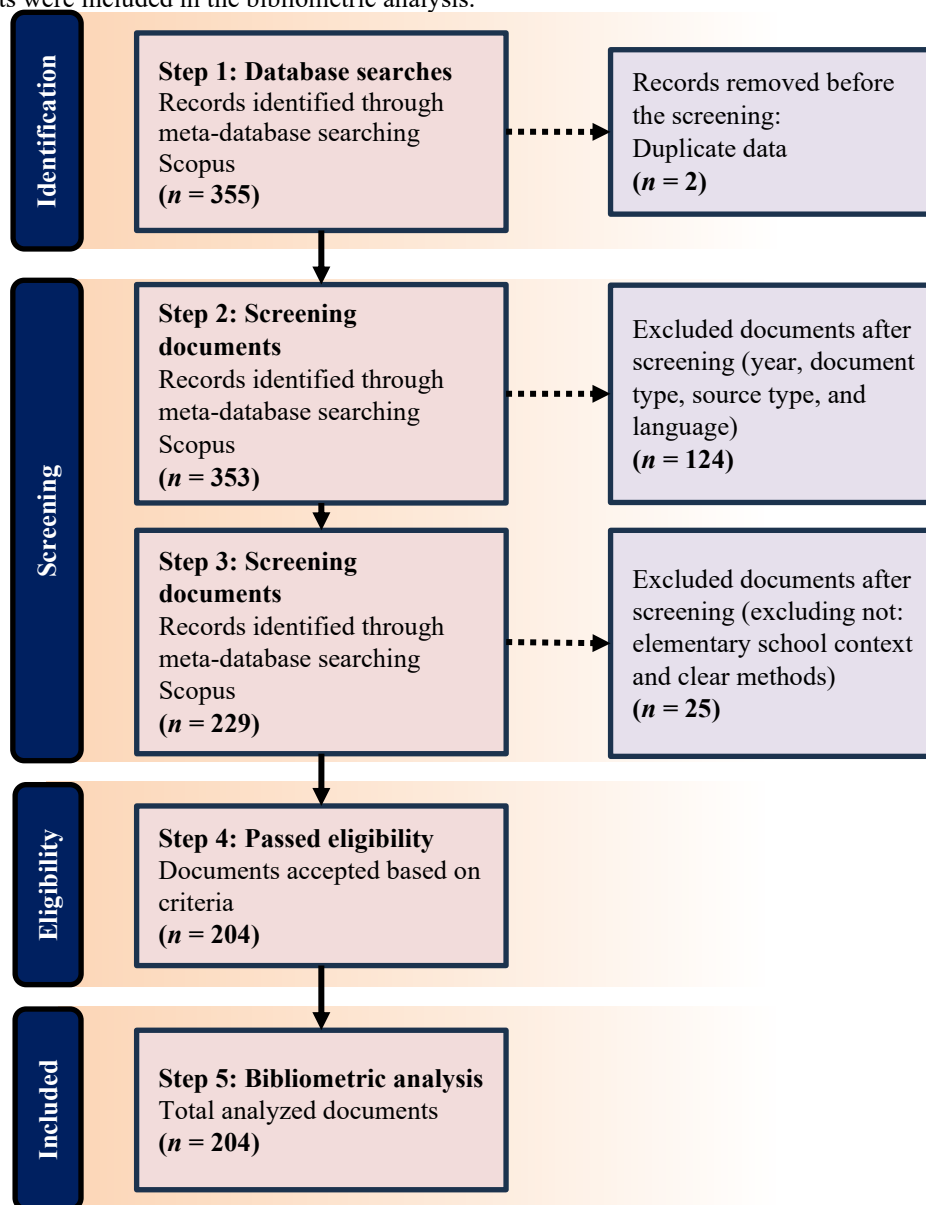


Figure 1. The process of identifying the documents analyzed in this study

Data analysis was conducted using bibliometric software such as Bibliometrix, which is an R package, and VOSviewer, both of which can map relationships between publications, identify major topic trends, and calculate bibliometric metrics such as citations and annual publications. This analysis aims to answer the research questions. Through these tools, the data obtained will be analyzed to determine how research has developed, identify emerging topics, and provide insights into the future direction of research in the field of language learning at the elementary school level.

3. RESULTS AND DISCUSSION

This discussion will cover four main points related to the results of the bibliometric analysis of language learning in elementary schools. First, general data on this topic will be presented to provide an

initial overview of the development and relevance of research in the field of language learning in elementary schools. Second, the number of publications relevant to this topic each year will be analyzed to see how research in this field has developed over time. Third, the number of citations each year will be discussed, indicating the influence and contribution of this research to the field of education. Finally, the main trends that have emerged in language learning research in elementary schools will be discussed to understand the direction of current research and the potential for future research.

3.1. Main Information

Figure 1 shows various bibliometric information that provides a comprehensive overview of research conducted between 2004 and 2024 related to language learning in elementary schools. During this 20-year period, there were a total of 131 relevant sources, with 204 articles recorded. This figure indicates a significant annual growth rate of 17.46%, indicating a continuous increase in the number of publications on this topic. The research involved 515 authors, with 52 of them being sole authors who contributed independently. However, international collaboration in this research was relatively low, with only 8.824% of documents involving authors from outside the country of origin of the main author.



Figure 1. Main information

In addition, the average number of authors per document is 2.81, indicating that most studies were conducted in collaboration between two or more authors. In terms of references used, this study cited a total of 9,022 references, reflecting the breadth of literature used in this research. The average age of published documents is 7.24 years, indicating that most of the research discussed is relatively recent. Finally, the average number of citations per document is 18.89, indicating that each published document has received significant attention from the scientific community. This data provides valuable insights into trends, collaboration, and the influence of research in the field of language learning in elementary schools over the past two decades.

3.2. Number of Publications Each Year

Figure 2 shows a graph depicting annual scientific production in the form of the number of articles published from 2004 to 2024 related to the topic of language learning in basic education. This graph illustrates significant fluctuations in the number of articles published each year, with a steady upward trend since around 2015. At the beginning of the period, the number of articles published was very low, with fewer than five articles per year in the early years. However, starting in 2015, there was a sharp increase, reflecting growing interest and research output in this field.

These findings can be linked to a number of factors that explain why the trend in research publications on language learning in primary education shows a significant increase after 2015. First, the emergence of various global agendas related to basic literacy, such as the 2030 Sustainable Development Goals (SDGs), particularly the fourth goal on quality education, has encouraged many countries, including developing countries, to strengthen research in literacy and language learning. This aligns with the findings of previous studies indicating that integrating the SDGs into English Language Teaching (ELT) content fosters critical thinking, empathy, and student engagement, thereby enhancing language skills (Azizah et al., 2025; Farida & Chowdhury, 2025; Shahjalal, 2025). Research in language contexts has a strong connection to the SDGs (Yusuff et al., 2024), making it logical that many researchers focus on language learning to support the achievement of SDG objectives. Second, the development of digital technology and mobile learning since the mid-2010s has opened up new opportunities in language learning research at the elementary level, prompting many researchers to explore the integration of digital media, interactive applications, and game-based learning to improve students' literacy skills. The past few decades have shown that research on the use of technology in learning has increased significantly (Martin et al., 2011; Ross et al.,

2020; Winn, 2002). This trend in research is in line with language learning research, where some researchers have explored the use of technology in language learning (Binod, 2015; Chun et al., 2016; Lai et al., 2016; Power & Shrestha, 2010; Shohel & Power, 2010; Sinha, 2022). Third, national education policies in various countries that place language proficiency as a core competency in elementary schools have also triggered increased interest in research, both in the context of curriculum development, innovative pedagogy, and literacy assessment. For example, Bangladesh has a policy requiring students from elementary school to learn foreign languages, especially English (Chowdhury & Kabir, 2014; M. M. Rahman et al., 2019). Fourth, the increasing openness of international scientific publications through large databases such as Scopus has encouraged more researchers from various parts of the world to publish their research results, contributing to a surge in the number of articles. Thus, this increase in publications is not a coincidence, but a reflection of a combination of global policy incentives, advances in educational technology, changes in pedagogical paradigms, and ease of access to international scientific forums.

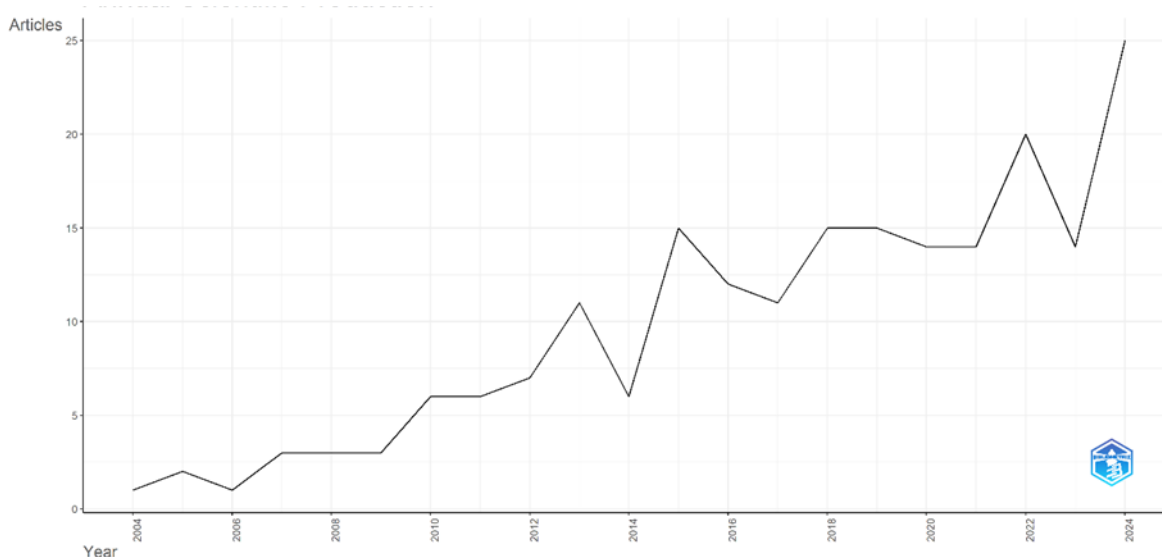


Figure 2. Number of Publications Each Year

Specifically, in 2022 and 2023, the graph shows a sharp increase in the number of articles published, reaching more than 20 articles per year. The highest peak in 2024 indicates a significant research boom, which may be due to the latest trends or the need to further explore various aspects of language learning at the elementary level. This graph provides a clear picture of how scientific production in this field has grown rapidly in recent years and highlights the importance of ongoing research in the field of language education.

3.2.1. Tren Topik

Figure 3 illustrates the trends of the most frequently discussed topics in research on language learning in elementary schools during the period from 2005 to 2019. Each term displayed in the graph represents a topic that frequently appears in publications, with the size of the circle indicating its frequency of occurrence. One of the most dominant topics is “learning,” which appears frequently in publications year after year. The topics “reading” and “language” also show high frequencies, with their sizes increasing over time, indicating that these two topics have become increasingly central to language learning research, particularly after 2013.

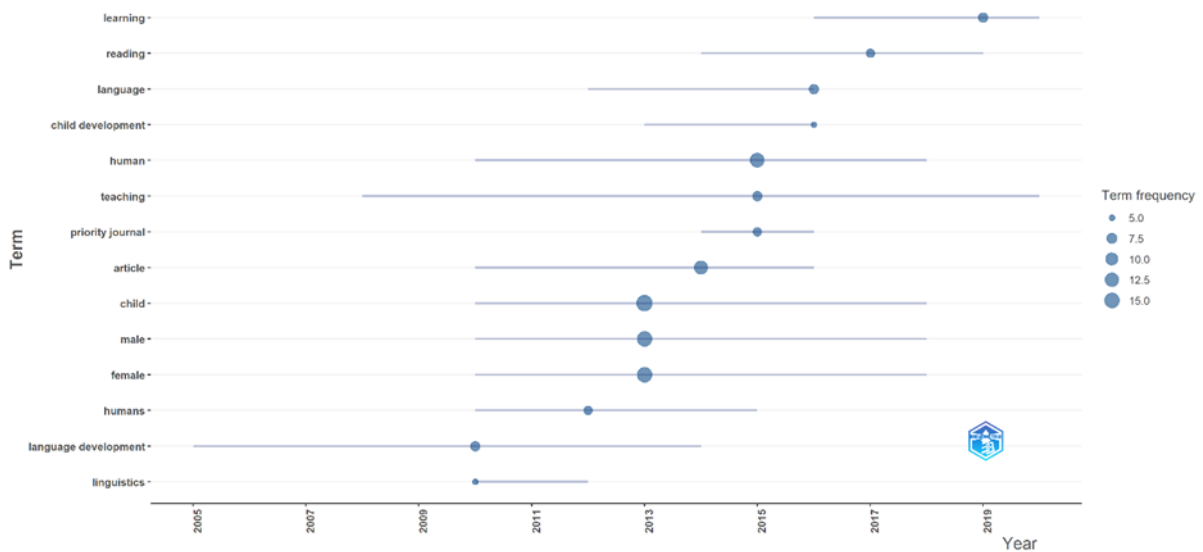


Figure 3. Trend Topics

In addition, the topics “child development” and “language development” also experienced an increase in frequency, reflecting a growing interest in how child development relates to their language abilities. This topic has become increasingly important in the context of language learning in elementary schools because both are seen as the main foundations for shaping children's literacy and communication skills from an early age. Research in child development confirms that elementary school age is a critical period for language acquisition, during which children's cognitive, social, and emotional abilities develop rapidly and interact with each other in the learning process. As awareness of the importance of early literacy grows, researchers and educators are paying greater attention to language learning strategies that not only train reading and writing skills but also support children's holistic development, including social-emotional development, critical thinking, and cross-context communication skills (Alam et al., 2022; Manalo & Sheppard, 2016). This may indicate that there is more research exploring the relationship between cognitive development and language learning in children. Previous research has shown that language stimulation in children predicts their cognitive performance (NICHD, 2000). Furthermore, Hossain found that children's development is greatly influenced by their language abilities (Hossain et al., 2024). The development of educational technology and global demands for 21st-century literacy have further strengthened the relevance of this study, making research on child development and language development in language learning in elementary schools increasingly prominent and prioritized in both academic and educational policy circles.

Meanwhile, terms such as “teaching,” “article,” “human,” and “priority journal” show an increase in frequency over time, but not as much as some of the main topics mentioned earlier. Topics such as “male” and “female” also indicate attention to gender differences in research, although their frequency is relatively lower than that of other topics. Overall, this graph provides a clear picture of how research trends in language learning in elementary schools have developed, as well as the topics that have been the main focus of studies in this field for more than a decade. This phenomenon is in line with Vygotsky's constructivist theory, which emphasizes the importance of social and cultural interactions and the role of teachers in building children's language development, making issues related to teaching practices and gender factors increasingly relevant to study (Maflah Alharbi, 2023; Syomwene, 2016). Additionally, in line with Piaget's cognitive development theory, the elementary school age is the concrete operational stage where children begin to think logically, so research on language learning strategies must integrate cognitive, social, and cultural development aspects comprehensively (Ghazi & Ullah, 2015).

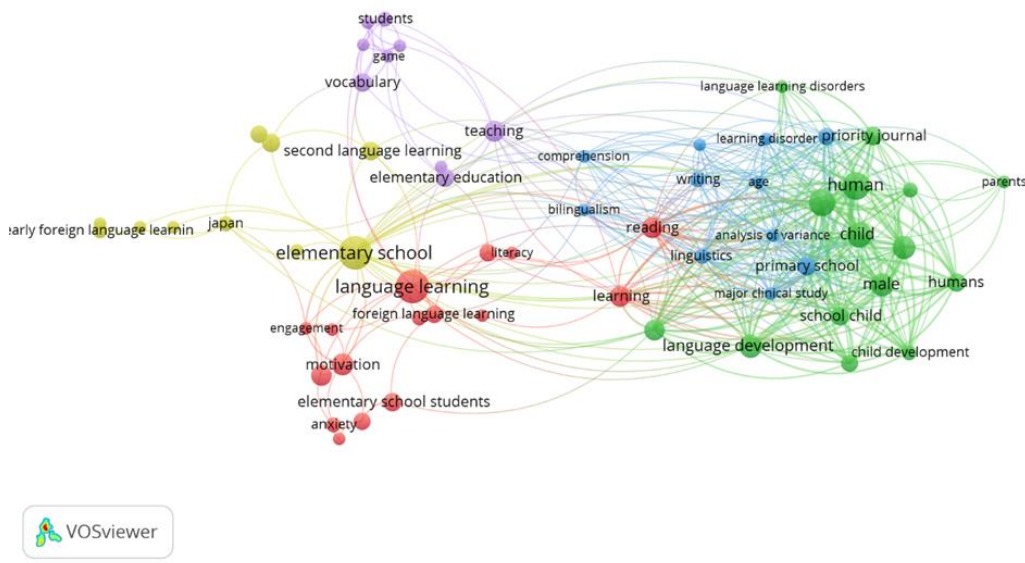


Figure 4. Visualization of keyword networks

In addition, Figure 4 shows the results of visualizing a network of keywords relevant to research on language learning in elementary schools, generated using the VOSviewer tool. This network illustrates the relationships between various terms that frequently appear in publications related to the topic. Larger keywords indicate higher frequency of occurrence, while the connections between keywords are depicted by lines linking them, indicating the strength of the relationship between the terms.

In general, several main topic clusters are visible in this network. The red cluster in the center highlights terms related to “language learning,” “elementary school,” and “language development,” which are the primary themes of this study. This group also includes topics such as “motivation,” “anxiety,” and “elementary school students,” indicating that the research often focuses on psychological and motivational aspects of language learning at the elementary level.

On the other hand, the green group at the top right shows a connection to concepts more related to child development and linguistic studies, such as “child,” “human,” “primary school,” and “child development.” This indicates that research often involves studies on how factors related to child development influence language learning. Meanwhile, the blue group in the upper left corner is more focused on issues related to language learning disorders, such as “language learning disorders,” as well as more technical topics such as ‘linguistics’ and “writing.”

Overall, this visualization shows how various topics related to language learning in elementary schools are interconnected, with a strong focus on language development, psychological factors, and child development within the context of elementary education. Research in this field continues to evolve, encompassing diverse perspectives ranging from cognitive aspects to challenges related to language disorders.

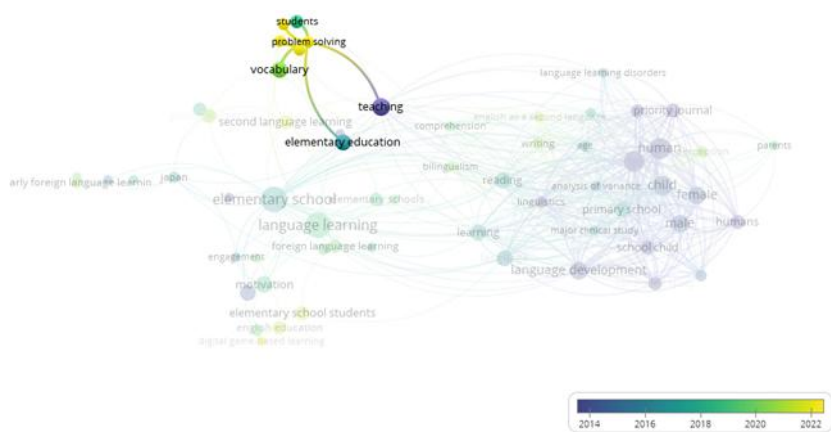


Figure 5. The development of keyword networks in recent years

Figure 5 shows a visualization of the keyword network in the development of research on language learning in elementary schools, organized based on temporal developments from 2014 to 2022. The use of VOSviewer in this visualization allows us to see the relationships between various topics that appear in scientific publications and how they develop over time. Each keyword in this image is connected by lines that represent the relationship between terms that frequently appear together in research. The colors of the keywords and the lines connecting them indicate the time of publication, with a color gradient that changes from green (2014) to purple (2022), providing an overview of how certain topics gained or lost attention during that period.

Overall, we can see an increase in attention to topics such as “language learning,” “elementary school,” and “language development,” which appear with greater intensity in the middle of the visualization, especially in recent years (2019-2022). These topics are related to major research on language learning at the elementary school level. One important development that can be observed is the emergence of the keyword “vocabulary,” indicating that in recent years, research has increasingly focused on vocabulary development in language learning at the elementary level, particularly in relation to more technology-based teaching methods. The topics “students,” “problem solving,” and “teaching” also show increased attention, which may reflect greater interest in innovative approaches to language teaching, such as problem-solving and student engagement in the learning process.

On the other hand, keywords that appear in blue and were more dominant in previous years, such as “child development,” “human,” and “primary school,” indicate that these topics have long been important areas of focus in research in this field. Overall, this visualization reflects how the focus of research has changed over time, with increasing attention to elements such as technology-based teaching, vocabulary development, and more interactive and problem-solving-based learning methodologies. By using color gradients to indicate time, this image also provides clear insights into the direction of evolving research, as well as showing how certain topics become more dominant in research over time.

4. RECOMMENDATION FOR FUTURE RESEARCH

Given the identified research trends—particularly the surge in publications since 2015, the low rate of international collaboration (8.824%), and the increasing focus on themes such as vocabulary development, problem-solving, and technology-based pedagogy—future research should prioritize cross-national comparative studies to investigate how different educational policies and cultural contexts shape the implementation and effectiveness of these emerging, technology-driven teaching models. Furthermore, while the keyword analysis highlights a growing interest in psychological factors like motivation and anxiety, future studies could employ longitudinal and mixed-methods designs to move beyond identification and explore the causal mechanisms through which these factors interact with specific instructional strategies to influence long-term language development and literacy outcomes in elementary students, thereby directly contributing to the global agenda for quality education (SDG 4).

5. CONCLUSION

Based on the results of a bibliometric analysis of research on language learning in elementary schools, it can be concluded that this field has shown significant development over the past two decades. From 2004 to 2024, there has been a steady increase in the number of publications, with an annual growth rate of 17.46%. This indicates that the topic of language learning at the primary education level is increasingly attracting the attention of researchers, in line with the growing need for educational innovation and the development of early childhood literacy skills. Collaboration between authors is also quite high, although international collaboration is still relatively low. The average number of citations per document, which reached 18.89, indicates that this topic has a significant scientific influence in the academic community.

Annual analysis shows that a surge in publications began in 2015, peaking in 2024. This may have been triggered by advances in educational technology and increased awareness of the importance of early language acquisition. Although the number of publications has increased, the pattern of citations per year tends to fluctuate. Some years, such as 2006 and 2017, show a spike in citations, but the trend is generally moderate in the following years. This indicates that the academic impact of research in this field is spread evenly and does not depend on a specific period.

In terms of topic trends, some of the most prominent and continuously developing terms include “learning,” “reading,” “language,” “child development,” and “language development.” These topics reflect a shift in focus from conventional teaching approaches to more complex and multidisciplinary approaches, such as vocabulary development, problem-solving, and technology-based approaches. Keyword network visualization shows that the terms “elementary school” and “language learning” are at the center of various

topic relationships, indicating integration between linguistic aspects, child development, and teaching strategies.

Overall, this study indicates that language learning in elementary schools is a dynamic field with evolving research trends. Future focus appears to be increasingly directed toward the use of technology, psychology-based approaches, and the development of teaching models that are responsive to student needs. These findings are expected to serve as a foundation for formulating future research directions and supporting the development of more effective and adaptive language education policies.

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REFERENCES

- Alam, M. I., Mansur, M., & Barman, P. (2022). Early childhood development in Bangladesh and its socio-demographic determinants of importance. *Early Child Development and Care*, 192(12), 1901–1920. <https://doi.org/10.1080/03004430.2021.1951260>
- Azizah, N. L., Mustofa, A., & Retnaningdyah, P. (2025). Sustainable development in english language teaching: Prevailing trends, challenges, and outcomes. *Education and Human Development Journal*, 10(1), 1–16. <https://doi.org/10.33086/ehdj.v10i1.6763>
- Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, 1(1), 377–386. https://doi.org/10.1162/qss_a_00019
- Binod, M. (2015). Innovative ways of English language teaching in rural India through Technology. *International Journal of English and Literature*, 6(2), 38–44. <https://doi.org/10.5897/ijel2014.0686>
- Chowdhury, R., & Kabir, A. H. (2014). Language wars: English education policy and practice in Bangladesh. *Multilingual Education*, 4(1), 1–16. <https://doi.org/10.1186/s13616-014-0021-2>
- Chun, D., Kern, R., & Smith, B. (2016). Technology in language use, language teaching, and language learning. *The Modern Language Journal*, 100(S1), 64–80. <https://doi.org/10.1111/modl.12302>
- da Silva, F. F., Filser, L. D., Juliani, F., & de Oliveira, O. J. (2018). Where to direct research in lean six sigma? *International Journal of Lean Six Sigma*, 9(3), 324–350. <https://doi.org/10.1108/IJLSS-05-2017-0052>
- Duarte, D. (2012). *Universidade de Aveiro Departamento de Química*. 1–42.
- Farida, N., & Chowdhury, N. M. (2025). Curriculum Reformation by Implementing the Sustainable Development Goals (SDGs): The Case of dhaka university english department. *International Journal of Educational Reform*. <https://doi.org/10.1177/10567879251363199>
- Gharaibeh, M., & Alhassan, A. A. (2023). Role of teachers in teaching Arabic letters to young children of UAE: Exploring criteria of Arabic letters teaching. *Cogent Education*, 10(1). <https://doi.org/10.1080/2331186X.2023.2191392>
- Ghazi, S. R., & Ullah, K. (2015). Concrete Operational stage of piaget's cognitive development theory: An implication in learning general science. *Gomal University Journal of Research*, 31(1), 78–89. <https://doi.org/http://gujr.com.pk/index.php/GUJR/article/view/326>
- Gouvias, D., & Alexopoulos, C. (2018). Sexist stereotypes in the language textbooks of the Greek primary school: a multidimensional approach. *Gender and Education*, 30(5), 642–662. <https://doi.org/10.1080/09540253.2016.1237620>
- Hajar, A., & Karakus, M. (2025). Five decades of language learning strategy research: a bibliometric review and research agenda. *The Language Learning Journal*, 53(2), 220–249. <https://doi.org/10.1080/09571736.2024.2361145>
- Hassan, W., & Duarte, A. E. (2024). Bibliometric analysis: A few suggestions. *Current Problems in Cardiology*, 49(8), 102640. <https://doi.org/10.1016/j.cpcardiol.2024.102640>
- Hossain, S. J., Hamadani, J. D., Tofail, F., Fisher, J., Rahman, M. A., & Rahman, S. M. (2024). Factors associated with children's cognitive, language, and motor development in deprived urban settings in Bangladesh. *Child: Care, Health and Development*, 50(1), 1–12. <https://doi.org/10.1111/cch.13225>
- Karakaya, K., & Bozkurt, A. (2022). Mobile-assisted language learning (MALL) research trends and patterns through bibliometric analysis: Empowering language learners through ubiquitous educational technologies. *System*, 110(September), 102925. <https://doi.org/10.1016/j.system.2022.102925>
- Klarin, A. (2024). How to conduct a bibliometric content analysis: Guidelines and contributions of content co-occurrence or co-word literature reviews. *International Journal of Consumer Studies*, 48(2), 1–20. <https://doi.org/10.1111/ijcs.13031>
- Kleminski, Rajmund, Kazienko, Przemyslaw, & Kajdanowicz, Tomasz. (2020). Analysis of direct citation, co-citation and bibliographic coupling in scientific topic identification. *Journal of Information Science*, 48(3), 349–373. <https://doi.org/10.1177/0165551520962775>
- Kostas, M. (2021). Discursive construction of hegemonic masculinity and emphasised femininity in the textbooks of primary education: children's discursive agency and polysemy of the narratives. *Gender and Education*, 33(1), 50–67. <https://doi.org/10.1080/09540253.2019.1632807>
- Lai, C., Shum, M., & Tian, Y. (2016). Enhancing learners' self-directed use of technology for language learning: the effectiveness of an online training platform. *Computer Assisted Language Learning*, 29(1), 40–60. <https://doi.org/10.1080/09588221.2014.889714>
- Luthfiyah, I. (2025). Literature Review Trends and Directions in Online Learning Research in Physics and Astronomy Education : A Bibliometric Analysis. *UEJTL: Universal Education Journal of Teaching and Learning*, 2(1), 10–22. <https://doi.org/10.63081/uejtl.v2i1.41>
- Mafлах Alharbi, J. (2023). Insight into the Role of interaction in language acquisition: Vygotsky's interactionist theory of language. *Arab World English Journal*, 14(2), 281–294. <https://doi.org/10.24093/awej/vol14no2.20>
- Magno, J. M., Indal, R. S., Chavez, J. V., Garil, B. A., & Delos Reyes, R. B. (2024). Alternative teaching strategies in learning filipino language among dominant english speakers. *Forum for Linguistic Studies*, 6(4), 404–419. <https://doi.org/10.30564/fls.v6i4.6742>
- Manalo, E., & Sheppard, C. (2016). How might language affect critical thinking performance? *Thinking Skills and Creativity*, 21, 41–49. <https://doi.org/10.1016/j.tsc.2016.05.005>
- Maral, M. (2024). A bibliometric analysis of global research on education in the Scopus database, 2013–2022. *Global Knowledge, Memory and Communication*. <https://doi.org/10.1108/GKMC-01-2024-0039>
- Martin-Monje, E., Elorza, I., & Riaza, B. G. (2016). Technology-Enhanced language learning for specialized domains: Practical

- applications and mobility. *Technology-Enhanced Language Learning for Specialized Domains: Practical Applications and Mobility*, 33, 1–285. <https://doi.org/10.4324/9781315651729>
- Martin, S., Diaz, G., Sancristobal, E., Gil, R., Castro, M., & Peire, J. (2011). New technology trends in education: Seven years of forecasts and convergence. *Computers and Education*, 57(3), 1893–1906. <https://doi.org/10.1016/j.compedu.2011.04.003>
- NICHD. (2000). The relation of child care to cognitive and language development. *Child Development*, 71(4), 960–980. <http://www.jstor.org/stable/1132337>
- Power, T., & Shrestha, P. (2010). Mobile technologies for (English) language learning: An exploration in the context of Bangladesh. *Proceedings of the IADIS International Conference Mobile Learning 2010*, 61–68.
- Rahman, A., Raj, A., Tomy, P., & Hameed, M. S. (2024). A comprehensive bibliometric and content analysis of artificial intelligence in language learning: tracing between the years 2017 and 2023. *Artificial Intelligence Review*, 57(4). <https://doi.org/10.1007/s10462-023-10643-9>
- Rahman, M. M., Islam, M. S., Karim, A., Chowdhury, T. A., Rahman, M. M., Seraj, P. M. I., & Singh, M. K. M. (2019). English language teaching in Bangladesh today: Issues, outcomes and implications. *Language Testing in Asia*, 9. <https://doi.org/10.1186/s40468-019-0085-8>
- Ross, S. M., Morrison, G. R., & Lowther, D. L. (2020). Educational technology research past and present: balancing rigor and relevance to impact school learning. *Contemporary Educational Technology*, 1(1), 17–35. <https://doi.org/10.30935/cedtech/5959>
- Shahjalal, M. (2025). The necessity of blended learning materials in higher secondary level for efl learners to implement sdg 4 in bangladesh. *Journal of Arts and Linguistics Studies*, 3(1), 1489–1504. <https://doi.org/10.71281/jals.v3i1.286>
- Shohel, M. M. C., & Power, T. (2010). Introducing mobile technology for enhancing Teaching and Learning in Bangladesh: Teacher perspectives. *Open Learning*, 25(3), 201–215. <https://doi.org/10.1080/02680513.2010.511953>
- Singh, P., Gargi, B., Trivedi, V., Thapliyal, A., & Semwal, P. (2023). Global research progress on reproductive behavior and ethnobotany of the Saussurea genus: Literature review-based-bibliometric analysis. *Ethnobotany Research and Applications*, 26. <https://doi.org/10.32859/era.26.25.1-15>
- Sinha, K. K. (2022). Role of modern technology in teaching and learning the english language in indian educational institutions. *Indonesian Journal of English Language Studies (IJELS)*, 8(2), 19–30. <https://doi.org/10.24071/ijels.v8i2.4713>
- Syomwene, A. (2016). Vygotsky's social development and interaction theory: Implications to the teaching of the english language curriculum in Kenya. *European Journal of Education Studies*, 1(2), 149–158. <https://doi.org/10.46827/ejes.v0i0.52>
- Taimour, & Trzcielinski, S. (2021). Agile enterprise and opportunity recognition in SMEs: A concise bibliometric analysis. *European Research Studies Journal*, XXIV(Special Issue 5), 48–63. <https://doi.org/10.35808/ersj/2703>
- Takeuchi, M. A. (2021). Geopolitical configuration of identities and learning: Othering through the institutionalized categorization of “English Language Learners.” *Cognition and Instruction*, 39(1), 85–112. <https://doi.org/10.1080/07370008.2020.1825438>
- Widyaningsih, M., Robandi, B., & Mudzakir, A. (2025). Bibliometric: The role of science learning on student motivation in moral education. *UEJTL: Universal Education Journal of Teaching and Learning*, 2(1), 1–9. <https://doi.org/10.63081/uejtl.v2i1.39>
- Winn, W. (2002). Research into practice: Current trends in educational technology research: the study of learning environments. *Educational Psychology Review*, 14(3), 331–351. <https://doi.org/10.1023/A:1016068530070>
- Younes, R., Salloum, S., & Antoun, M. (2023). The effects of language and home factors on Lebanese students' mathematics performance in TIMSS. *Large-Scale Assessments in Education*, 11(1). <https://doi.org/10.1186/s40536-023-00180-w>
- Yusuff, A. A., Kareem, S., & Oloko, M. J. (2024). The structure of the language of Sustainable Development Goals (SDGs). *Fountain University Journal of Arts and Humanities*, 1(1), 1–13. <https://upgrade.fountainjournals.com/index.php/fujah/article/view/784/412>