p-ISSN: 2829-8411
e-ISSN: 2829-8403

Jurnal Inovasi dan Teknologi Pendidikan
JURINOTEP
Vol. 4, No.3 Januari, 2026 hal. 669-678
Journal Page is available to http://jurinotep.lppmbinabangsa.ac.id/index.php/home

A BIBLIOMETRIC ANALYSIS: TRENDS IN THE USE OF EDPUZZLE IN EDUCATION USING VOSVIEWER

Reyma Nabilla Gunawan[1], Indah Khoerunnisa[2], Fadil Firdian[3]
[123]Universitas Lampung
reymanabilla@gmail.com[1], indahkhoerunnisa@fkip.unila.ac.id[2], fadilfirdian@fkip.unila.ac.id[3]

Article Info

Article History
Received: 14-11-2025
Revised: 04-12-2025
Accepted: 31-01-2026

Kata kunci:
bibliometric, VOSviewer, Edpuzzle, education, Google Scholar.

Abstract

Edpuzzle merupakan salah satu platform video interaktif yang paling banyak digunakan dan memiliki berbagai manfaat dalam bidang pendidikan. Studi ini bertujuan untuk melakukan analisis bibliometri berkaitan dengan penelitian Edpuzzle dalam bidang pendidikan menggunakan aplikasi VOSviewer. Data dikumpulkan dari database Google Scholar menggunakan aplikasi Publish or Perish. Terdapat 200 artikel terkait yang dipublikasikan dari 2019 hingga 2024 dengan tren riset yang meningkat setiap tahunnya, publikasi maksimal berjumlah 46 artikel yang diterbitkan pada tahun 2023 dan 2024. Pemetaan secara visual menunjukkan ada 56 term berkaitan dengan topik yang terbagi menjadi 7 klaster dengan jumlah term yang berbeda-beda. Review ini dapat digunakan sebagai referensi ketika akan melaksanakan riset dengan topik terkait.

Edpuzzle is one of the most widely used interactive video platforms that provides many benefits in the field of education. This study aims to perform bibliometric analysis related to the research of Edpuzzle in education using VOSviewer. The data were collected using Publish or Perish from Google Scholar database. The result found that there were 200 articles related published in the range from 2019 to 2024 which the research trend tends to be increased every year with maximum publications is 46 articles published in 2023 and 2024. Mapped visualization shows there are 56 terms related to the theme which divided into 7 clusters with various number of terms. This review can be used to be a reference for researchers when conducting the research related to the topic.

INTRODUCTION

The development of digital technology has significantly impacted education, particularly in the adoption of interactive media-based learning strategies. Interactive video technology has been shown to increase student participation, deepen conceptual understanding, and create more engaging learning experiences (Mayang *et al*., 2021; Wati *et al*., 2024). One widely used platform in this context is Edpuzzle, which allows teachers to add quizzes, narration, and reflections directly into instructional videos (Ramasany *et al*., 2022; Firmansyah, 2023). By integrating visual content with formative assessment, Edpuzzle has proven to support more effective feedback processes for students

(Kholid *et al*., 2024; Mayang *et al*., 2021The platform also aligns with active learning approaches such as the flipped classroom and problem-based learning, which emphasize critical thinking skills development and learner autonomy (Wati *et al*., 2024; Firmansyah, 2023). As demand for digital learning increased in the post-pandemic era, analyzing trends in Edpuzzle use becomes important to understand the trajectory of instructional innovation across educational levels (Ramasany *et al*., 2022; Kholid *et al*., 2024).

Previous studies indicate Edpuzzle's effectiveness in improving learning outcomes and student engagement across contexts. Mayang *et al*. (2021) found that a problem-based learning model supported by Edpuzzle can develop students' critical thinking skills. Wati *et al*. (2024) reported that Edpuzzle-based interactive videos create active and enjoyable learning environments at the elementary level. In language learning contexts, Kholid *et al*. (2024) showed Edpuzzle can improve listening skills and comprehension of digital communication contexts. Firmansyah (2023) added that e-worksheets supported by Edpuzzle significantly improved students' mathematics achievement Ramasany *et al*. (2022), similarly affirmed that integrating interactive visual elements via Edpuzzle can boost learning motivation and make instruction more effective. Overall, these studies confirm Edpuzzle's role in optimizing video-based interactive learning across subjects and educational levels.

However, studies specifically examining bibliometric trends of Edpuzzle usage in education remain limited. Most prior research focuses on pedagogical effectiveness within particular subjects, without exploring publication patterns, author collaborations, or research direction over time (Wati *et al*., 2024; Mayang *et al*., 2021; Firmansyah, 2023). Therefore, this study aims to analyze publication trends and research patterns related to Edpuzzle use in education based on Google Scholar data for 2019–2024. The analysis seeks to identify dominant topics, temporal publication distribution, and the most influential authors and institutions. This study not only provides an empirical overview of Edpuzzle research development but also offers guidance for researchers and practitioners

in optimizing interactive video media for future learning (Mayang *et al*., 2021; Wati *et al*., 2024; Firmansyah, 2023).

METHOD

The data for this study were collected from articles indexed in Google Scholar. Google Scholar was chosen for its open access and broad coverage, allowing comprehensive data collection compared to subscription databases such as Scopus or Web of Science (Mayang *et al*., 2021; Wati *et al*., 2024; Firmansyah, 2023). The researchers used the Publish or Perish (PoP) software to retrieve bibliometric data from Google Scholar. The search employed the keywords "Edpuzzle" and "Education," aligned with the study's focus on Edpuzzle usage trends in education (Ramasany *et al*., 2022; Kholid *et al*., 2024).

Searches were limited to publications from 2019 to 2024 to include only articles relevant to that period. The Publish or Perish search returned 200 articles with a total of 5,626 citations, an average of 937.67 citations per year and 28.13 citations per article. Other bibliometric indicators included an h-index of 33, g-index of 71, and hI-norm of 24, with an average of 2.43 authors per article. These metrics reflect substantial growth in Edpuzzle related research over the six-year period (2019–2024) (Mayang *et al*., 2021; Wati *et al*., 2024; Ramasany *et al*., 2022).

The collected data were exported in .ris and .csv formats for further bibliometric analysis. VOSviewer was used to visualize author collaboration networks, keyword distributions, and research trends by publication year. Visualization included three map types network visualization, overlay visualization, and density visualization to identify topic interrelations and the developmental direction of Edpuzzle research in education (Firmansyah, 2023; Kholid *et al*., 2024; Wati *et al*., 2024). Irrelevant terms and duplicate keywords were removed during visualization to ensure representative mapping results.

RESULTS AND DISCUSSION

A. Search Results

Publish or Perish searches on the Google Scholar database retrieved 200 articles on the topic of Edpuzzle in education, published between 2019 and 2024. The total citation count across these articles was 5,626, averaging 937.67 citations per year and 28.13 citations per article. The articles averaged 2.43 authors per paper, with an h-index of 33, g-index of 71, hI-norm of 24, and hA-index of 18. Table 1 lists several representative articles used in the VOSviewer analysis.

B. Publication Growth of Edpuzzle Research in Education

Publication growth is summarized in Table 2. There were 198 (note: table reports 198) articles recorded with an average annual publication of 33. The minimum annual publications were 10 in 2019, and the maximum was 46 publications in 2023 and 2024. These figures indicate an upward trend in publications year by year.

Figure 1 shows that publications rose from 2019 to 2021, followed by a decline in 2022. In 2023, publications resumed growth to peak levels and remained stable in 2024. Overall, research activity shows an increasing trend with stability during the last two years.

Table 1. Sample Edpuzzle–related Articles

No	Penulis	Judul	Tahun	Jumlah sitasi
1.	P Iyer *et al.*	*Impact of COVID-19 on dental education in the United States.*	2020	780
2.	M Bond	*Schools and emergency remote education during the COVID-19 pandemic: A living rapid systematic review.*	2021	444
3.	BL Moorhouse, KM Wong	*Blending asynchronous and synchronous digital technologies and instructional approaches to facilitate remote learning.*	2022	323

4.	B Birgili *et al*.	*The trends and outcomes of flipped learning research between 2012 and 2018: A descriptive content analysis.*	2021	276
5.	H Crompton *et al*.	*Learning with technology during emergencies: A systematic review of K-12 education.*	2021	248
6.	D Zou	*Gamified flipped EFL classroom for primary education: student and teacher perceptions.*	2020	217
7.	MK Afify	*Effect of interactive video length within e-learning environments on cognitive load, cognitive achievement, and retention of learning.*	2020	194
8.	MJ Jardinez, LR Natividad	*The Advantages and Challenges of Inclusive Education: Striving for Equity in the Classroom.*	2024	156
9.	J Whalen	*K-12 teachers' experiences and challenges with using technology for Emergency Remote Teaching during the Covid-19 pandemic.*	2021	116
10.	S Setiyani *et al*.	*Improving Student's Mathematical Problem Solving Skills through Quizizz.*	2020	109

Table 2. Publication Development of Edpuzzle Research in Education

Year	Number of Publications
2019	10
2020	21
2021	40
2022	35
2023	46
2024	46
Jumlah	198
Rata-rata	33

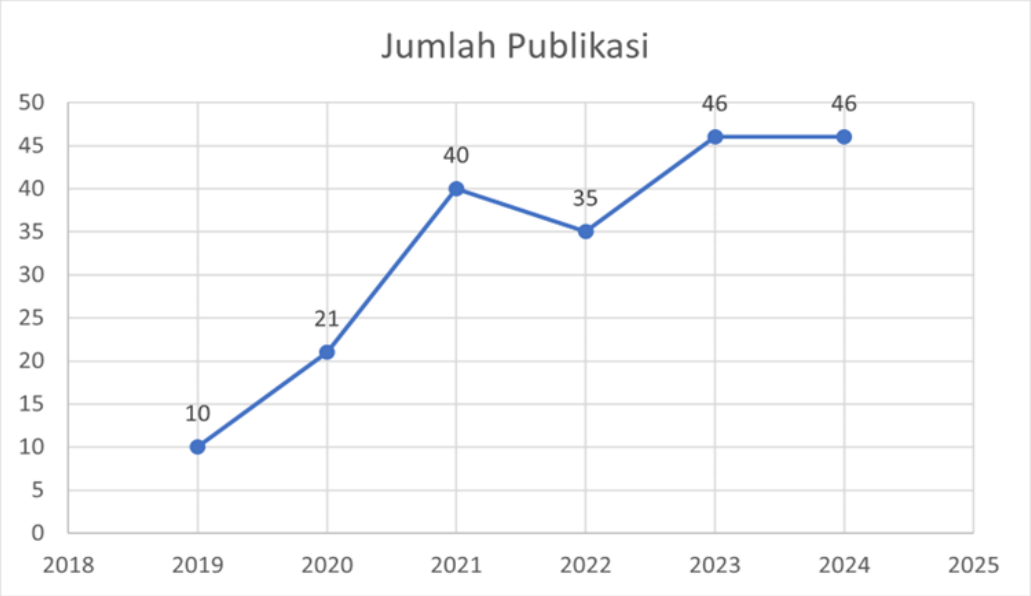

Figure 1. Research Trends on the Use of Edpuzzle in Education

C. *Topic Area Visualization Using VOSviewer*

Computational mapping from the collected articles using VOSviewer identified 56 related items divided into seven clusters:

(i) Cluster 1 (red, 12 items): edpuzzle app, edpuzzle system, example, flipped classroom, grade, information, interactive video, lesson, skills, student, study, teaching.

(ii) Cluster 2 (green, 10 items): activity, analysis, challenge, covid, distance, education, kahoot, paper, teacher, technology.

(iii) Cluster 3 (blue, 10 items): development, distance education, edpuzzle platform, experience, feature, implementation, mathematics, process, use, web.

(iv) Cluster 4 (yellow, 9 items): edpuzzle, educator, instruction, instructor, participant, platform, quiz, role, video.

(v) Cluster 5 (purple, 6 items): advantage, assessment, course, engagement, impact, learning.

(vi) Cluster 6 (cyan, 5 items): application, class, flipped classroom model, ICT, tool.

(vii) Cluster 7 (orange, 4 items): edpuzzle application, effect, effectiveness, research.

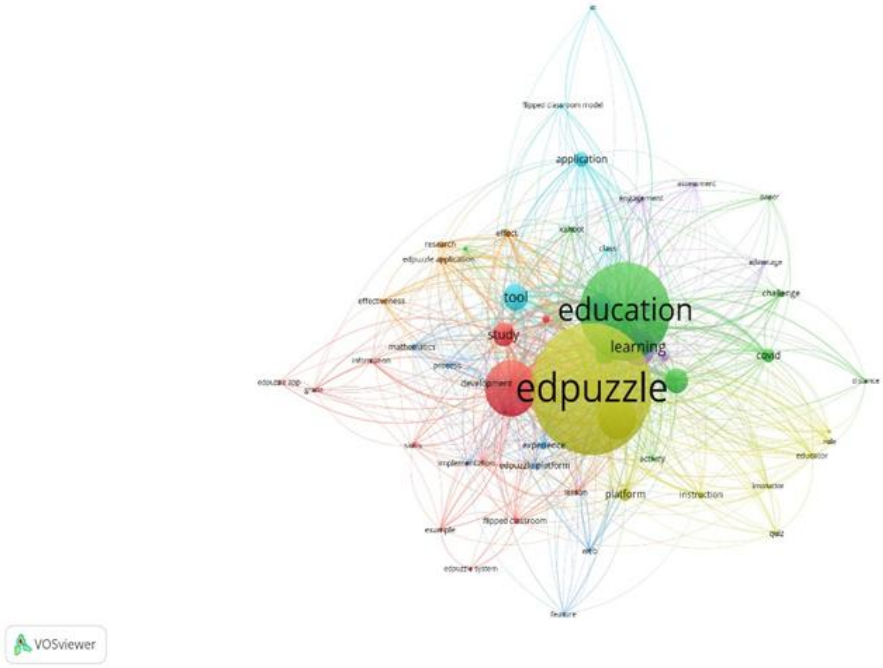

Figure 2. *(Network visualization)* shows relationships among terms as interconnected networks; closer proximity indicates stronger links.

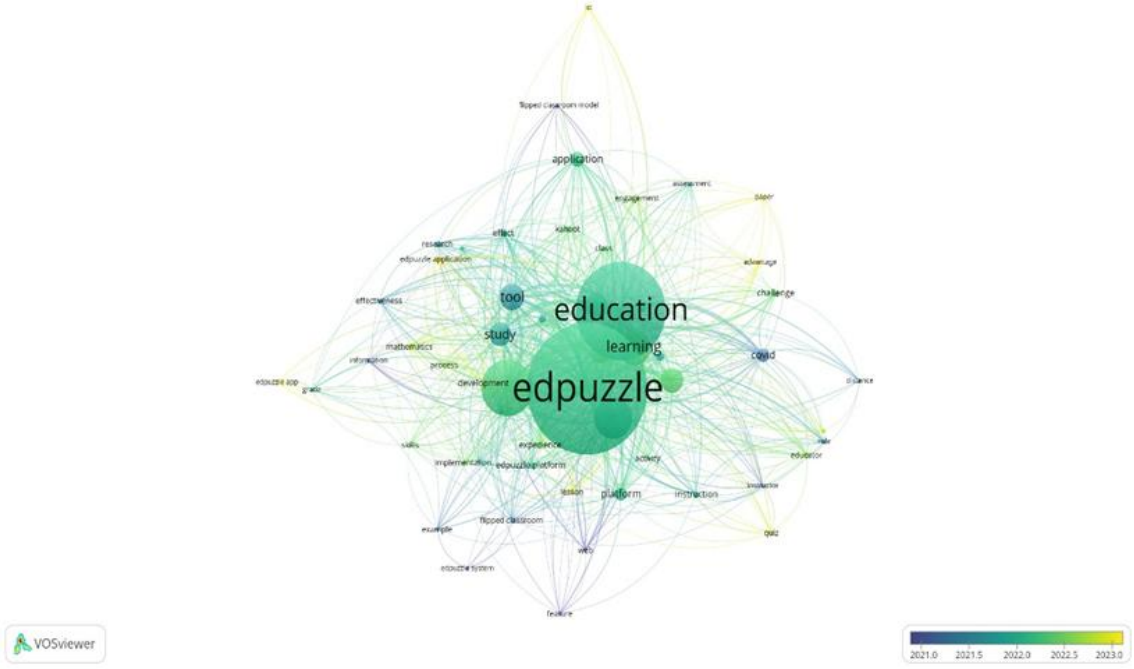

Figure 3. *(Overlay visualization)* highlights the temporal emergence of research terms, indicating most Edpuzzle studies occurred from 2021 to 2023.

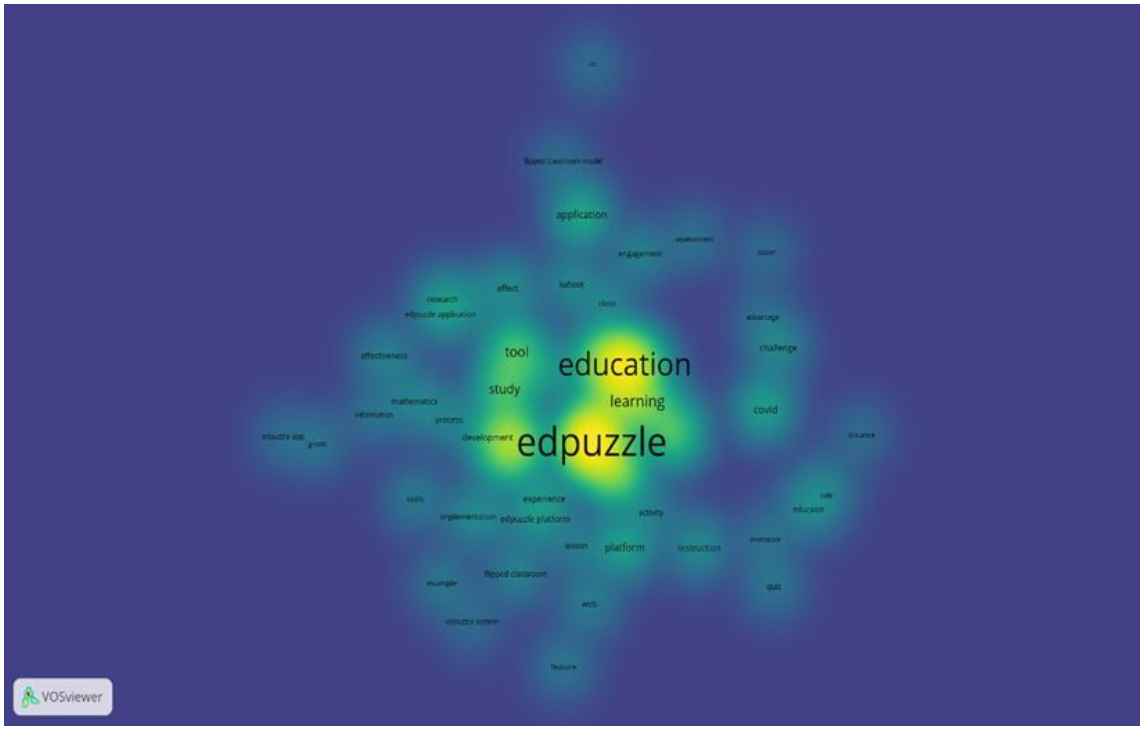

Figure 4. *(Density visualization)* uses color intensity and circle diameter to show term frequency; brighter yellow and larger circles indicate more frequently studied terms. Terms such as "edpuzzle," "education," and "learning" appear with relatively high frequency.

The network map (Figure 2) confirms clustering of related topics; overlay maps (Figure 3) suggest the most active years for specific terms were largely 2021–2023. Density visualization (Figure 4) emphasizes frequently researched terms, showing concentration around core topics of Edpuzzle use in education.

CONCLUSION

This study conducted a bibliometric analysis of research on Edpuzzle use in education using VOSviewer. Data were collected from Google Scholar via Publish or Perish, focusing on publications from 2019 to 2024 using the keywords "Edpuzzle" and "Education." Based on the selection criteria, 200 related articles

were identified, totaling 5,626 citations, averaging 937.67 citations per year and 28.13 citations per article. Bibliometric indices included an h-index of 33, g-index of 71, and hI-norm of 24, indicating significant research growth. Publication counts increased annually, reaching a maximum of 46 articles in 2023 and 2024.

Visual mapping identified 56 terms grouped into 7 clusters with varying term counts (Cluster 1: red; Cluster 2: green; Cluster 3: blue; Cluster 4: yellow; Cluster 5: purple; Cluster 6: cyan; Cluster 7: orange). This study can serve as a reference for researchers investigating related topics, though yearly trends in Edpuzzle research may vary.

REFERENCE

Afify, M. K. (2020). *Effect of interactive video length within e-learning environments on cognitive load, cognitive achievement, and retention of learning.*

Birgili, B., Seggie, F. N., & Oğuz, E. (2021). *The trends and outcomes of flipped learning research between 2012 and 2018: A descriptive content analysis.*

Bond, M. (2021). *Schools and emergency remote education during the COVID-19 pandemic: A living rapid systematic review.*

Crompton, H., Burke, D., Jordan, K., & Wilson, S. (2021). *Learning with technology during emergencies: A systematic review of K-12 education.*

Firmansyah, R. (2023). *Penggunaan e-worksheet berbantuan Edpuzzle untuk meningkatkan hasil belajar matematika siswa.*

Iyer, P., Aziz, K., Ojcius, D. M., & Taba, M. (2020). *Impact of COVID-19 on dental education in the United States.*

Jardinez, M. J., & Natividad, L. R. (2024). *The Advantages and Challenges of Inclusive Education: Striving for Equity in the Classroom.*

Kholid, M., Rahayu, S., & Lestari, D. (2024). *Pemanfaatan Edpuzzle dalam pembelajaran bahasa untuk meningkatkan keterampilan mendengarkan dan pemahaman konteks komunikasi digital.*

Mayang, D., Sari, R., & Hidayah, N. (2021). *Model problem-based learning berbantuan Edpuzzle untuk meningkatkan kemampuan berpikir kritis siswa.*

Moorhouse, B. L., & Wong, K. M. (2022). *Blending asynchronous and synchronous digital technologies and instructional approaches to facilitate remote learning.*

Ramasany, A., Putra, W., & Rahman, M. (2022). *Integrasi elemen visual interaktif dalam Edpuzzle untuk meningkatkan motivasi belajar siswa.*

Setiyani, S., Rahmad, R., & Kusuma, A. (2020). *Improving Student's Mathematical Problem Solving Skills through Quizizz.*

Wati, S., Ningsih, D., & Laila, R. (2024). *Penerapan video interaktif berbasis Edpuzzle dalam menciptakan suasana belajar aktif di sekolah dasar.*

Whalen, J. (2021). *K-12 Teachers' experiences and challenges with using technology for emergency remote teaching during the COVID-19 pandemic.*

Zou, D. (2020). *Gamified flipped EFL classroom for primary education: Student and teacher perceptions.*