



Bibliometric analysis: Economics curriculum development in the 21st century 2015-2024

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ABSTRACT

Economic curriculum development is a crucial aspect in the effort to improve the quality of education and prepare future generations to face various challenges in the 21st century. A good curriculum is designed to achieve the desired cognitive, affective, and psychomotor educational goals. This study aims to identify publications related to economic curriculum development and describe the characteristics of this research. The bibliometric Analysis method was used in this research. The results showed that the number of publications containing economic curriculum development in the 21st Century increased yearly from 2015 to 2022 and decreased from 2023 to 2024. The number of documents that contain this is still relatively small, with two papers by Budiwati. At the same time, the authors with the most citations with two citations are Budiwati and Dahlan. INA-Rxiv holds the top position as the publisher with the most four documents. New themes that emerged in this field were "development", "learning" and "curriculum".

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ABSTRAK

Pengembangan kurikulum ekonomi merupakan aspek penting dalam upaya meningkatkan kualitas pendidikan dan mempersiapkan generasi mendatang untuk menghadapi berbagai tantangan di abad ke-21. Kurikulum yang baik dirancang untuk mencapai tujuan pendidikan yang diinginkan, baik dalam aspek kognitif, afektif, maupun psikomotor. Tujuan dari penelitian ini adalah untuk mengidentifikasi publikasi yang terkait dengan pengembangan kurikulum ekonomi dan mendeskripsikan karakteristik penelitian tersebut. Metode yang digunakan dalam penelitian ini adalah Analisis Bibliometrik. Hasil penelitian menunjukkan bahwa jumlah publikasi yang mengandung pengembangan kurikulum ekonomi di abad ke-21 mengalami peningkatan setiap tahun dari 2015 sampai tahun 2022, dan mengalami penurunan pada tahun 2023 sampai tahun 2024. Jumlah dokumen yang membahas topik ini masih relatif sedikit, dengan 2 dokumen yang ditulis oleh Budiwati, sedangkan penulis dengan kutipan terbanyak dengan 2 kutipan adalah Budiwati dan Dahlan. INA-Rxiv menempati posisi teratas sebagai penerbit dengan jumlah dokumen terbanyak, yaitu 4 dokumen. Tema baru yang muncul di bidang ini adalah "pengembangan", "pembelajaran", dan "kurikulum".

Kata Kunci: analisis bibliometrik; kurikulum ekonomi; pengembangan kurikulum

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INTRODUCTION

The civilization of the 21st century demands adjustments in education to prepare students with skills and knowledge relevant to the changing world. The speed of change has added urgency to equip students with lifelong learning skills for the 21st-century context. In addition to the 4Cs: critical thinking, creative thinking, communicating, and collaborating, skill requirements among employees have expanded to include 1) information, media, and technology skills; 2) life and career skills; and 3) learning and innovation skills (Dey, 2024; Saleem et al., 2024).

Rapid changes in the world of work and technology require students to be flexible and adaptable. Students must have a strong understanding of science and technology, including using hardware, software, and digital tools to learn, collaborate, and innovate (M. U. Lubis et al., 2023). This turmoil of change has led to significant changes in educational institutions. It is necessary to update the curriculum to meet the demands of the times and provide students with digital and technological literacy skills (Wahyudiono, 2023). The resulting curriculum emphasizes incorporating technology, developing skills for the 21st era, and project-focused learning (L. A. Lubis et al., 2024).

Curriculum development is a crucial aspect of improving the quality of education and preparing future generations to face the challenges of globalization. The curriculum is implemented with new learning approaches emphasizing students' mastery of vital 21st-century skills (Akhmad, 2023). A good curriculum is designed to achieve the desired educational goals in the cognitive, affective, or psychomotor domains. A curriculum with a global orientation pays attention to national or local perspectives and incorporates global insights. The curriculum aims to develop students' ability to think globally, which means students can present information from various sources and utilize it productively. In addition, incorporating character values into the learning process is also structured following established procedures so that moral and ethical values are not eroded by the times (Yulianti et al., 2023).

Curriculum development must emphasize the principles of inclusive, sustainable education and developing 21st-century skills (Rini et al., 2023). It must refer to specific principles. These principles become guidelines, standards, considerations, or regulations that form the basis for the formation of the curriculum (Marzuqi & Ahid, 2023). However, certain limitations can affect curriculum selection, so this needs to be considered in the fundamental development of the curriculum.

The curriculum is a crucial element in education and teaching, where the educational process can only run effectively with a well-structured curriculum. The curriculum is a guideline that directs the teaching and learning process and determines subject matter, learning objectives, teaching methods, and evaluation (Arifin & Rizaldy, 2023; Sulangasih et al., 2023). The government's curriculum changes occasionally, and they have a strong basis and precise objectives (Sari, 2022). The curriculum is available at all levels of education, tailored to the characteristics of each education unit, regional potential, and the needs of students (Ramadhan et al., 2023). This is done continuously to improve, enhance, and develop the quality of education in Indonesia. The changes are also directed to support the realization of the "Generasi Emas 2045" in Indonesia's agenda, which aligns with the changing dynamics of the fluctuating global economy.

Given the rapid changes in global economic dynamics, the urgency of developing an ideal curriculum for learning economics in the 21st century is significant (Majdi et al., 2023). Economic curriculum development is urgently essential due to the competitive business education sector. The curriculum development and review process demands agility to adjust to the evolving attributes of graduates while fulfilling the mission of the Institute (Dey, 2024). The basis of curriculum development should be a clear and bright foundation that is responsive, flexible, and relevant according to the times' needs, ensuring accuracy in achieving educational goals without political interference (Mulia et al., 2023).

The economics curriculum must continue to evolve to be relevant to global economic conditions. The networked economy, globalization, increasing migration demand, and technology and generation-driven factors influence market dynamics, demanding urgent attention to emerging international and local economic, environmental, and social issues with a renewed focus on ethics and governance (Dey, 2024). These changes in dynamics require efforts to internationalize curricula that can keep up with the industrial situation with the difficulties and demands of the sector and strengthen students' digitalization capabilities (Şimşek & Kalıpçı, 2023). This includes an understanding of economic principles, data analysis, problem-solving, and management skills essential in various economic professions for students to have an accurate and necessary knowledge of facing challenges in the real world.

This realization requires the role of educators in designing and implementing various activities as part of the school curriculum concerning the new student-centered policy (Dang et al., 2023). Educators must interpret the curriculum decentralization policy in light of their previous experiences, learner-centered teaching philosophy, limited autonomy over curriculum and instruction, and the school's structural and cultural conditions that facilitate collaboration and professional development. These factors contribute to effectively implementing a media and ICT-based curriculum (Dang et al., 2023; Grgic, 2023; So et al., 2024). Educators can adapt centralized curricula and resources systematically, deliberately, and productively through professional development support, as in decentralized countries (Nalbantoğlu & Bümen, 2024). Therefore, this massive development in education has become an essential role for teachers, especially with the emergence of various creative and interactive learning media, which have become an essential support in the teaching-learning process and play an essential role in school curriculum development.

Previous research on curriculum development indicates that curriculum innovation and adaptation to contemporary needs are essential for enhancing the relevance and quality of graduates (Nurkihin & Setiaji, 2024). Meanwhile, the benefits of integrating technology into the economics education curriculum are that it enhances learning interactivity and helps students understand complex economic concepts through simulations and other digital tools (Rozeqqi, 2024). These studies underscore that a curriculum responsive to technological advancements and industry demands can provide a more relevant and applicable learning experience, better-preparing graduates to face challenges in the workforce.

Additionally, curriculum plays a strategic role in determining the quality of education, thereby requiring a strong foundation to adapt to social changes and technological demands (Rosmana et al., 2022). Meanwhile, the importance of a psychological basis in developing a 21st-century curriculum that accommodates psychomotor skills, enabling students to be more globally competitive in the information age (Yusuf, 2019). Similarly, a global perspective in the economics curriculum is important to prepare students with 21st-century competencies, such as innovation and technological literacy (Majdi et al., 2023). These studies illustrate that a comprehensive foundation in curriculum development is essential for creating future-oriented education.

Based on the above explanation, this research aims to identify literature related to economics curriculum development in the 21st century and describe the distinctive features of the research. The bibliometric analysis method was applied in this study to investigate the characteristics of publications addressing economics curriculum development in the 21st century, along with associated factors, and to evaluate the evolving research trends in this field. This study offers the advantage of providing a comprehensive overview of the trends, patterns, and contributions of research related to economics curriculum development on a global scale over the past nine years. Additionally, this analytical technique can identify the development and direction of research in this field, thereby offering a meta-analytical perspective that can enrich our understanding of how the economics curriculum evolves to meet the changing demands of the 21st century. The implications of this research serve as a strategic guide for educational institutions in designing an economics curriculum that is relevant, responsive to industry needs, and aligned with global

standards. Additionally, this study can assist other researchers in identifying research gaps in economics curriculum development and provide a solid foundation for more adaptive and innovative economic education policies capable of addressing the challenges of the 21st century.

LITERATURE REVIEW

Curriculum

The curriculum is the primary foundation of the educational system, governing the planning, objectives, content, and teaching methods to achieve desired educational outcomes (Hildayati & Mayasari, 2023; Lestari, 2018). As outlined in Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional, the curriculum functions as a set of plans and arrangements regarding objectives, content, learning materials, and methods used as guidelines for implementing teaching and learning activities to achieve specific educational goals. The curriculum not only serves as a technical guide but also plays a strategic role in shaping students' character and competencies, ensuring that the learning process at each educational level aligns with the national education vision and mission (Hildayati & Mayasari, 2023; Mulia et al., 2023). Each component is designed to align with the Standard Nasional Pendidikan (SNP) so that the implemented curriculum can deliver optimal results in students' cognitive, affective, and psychomotor aspects, in line with contemporary development and needs (Yusrie et al., 2022).

Curriculum development is a crucial aspect of education, as it plays a role in aligning learning materials with the advancement of knowledge and societal needs (Sitopu et al., 2022). Curriculum development is a holistic process that realizes national education policies consistent with national education's direction, goals, and strategies (Sitopu et al., 2022). According to Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional, the curriculum is designed to 'develop the potential of students' to become individuals who are faithful, productive, and competitive. Therefore, curriculum development is urgently necessary for creating a future generation of excellence.

The flexibility granted to each school to adapt the curriculum allows for adjustments to meet the unique needs of students, regional characteristics, and the resources available within each educational environment. Schools do not merely implement the national curriculum uniformly but can make relevant modifications to ensure that learning is more contextual and meaningful (Nasyirwan, 2015). The school committee, consisting of representatives from various stakeholders such as teachers, parents, and community leaders, strategically aligns the curriculum with Standar Kompetensi Lulusan (SKL) and Standar Isi (SI) that have been established. This means that, in addition to meeting national standards, schools can also integrate relevant local values and cultural wisdom (Nasyirwan, 2015). The guidelines from Badan Standar Nasional Pendidikan (BNSP) serve as a reference to ensure adjustments remain within the established national framework. Therefore, in developing a curriculum that references SKL and SI, schools are expected to provide a more optimal learning experience that aligns with the developmental needs of students, thereby supporting the achievement of more equitable and relevant educational quality across regions.

Economic Education

Economics education holds a strategic role in shaping students' understanding of economic concepts and issues in the 21st century. This education is expected to equip students with the skills to identify, understand, and analyze economic problems, enabling them to provide solutions within relevant social contexts (Rohmah, 2020). It encourages students to develop financial literacy and creative thinking skills relevant to the dynamics of the modern economy. Additionally, students can become more critical of economic issues at both local and global levels, ultimately allowing them to make positive contributions to

society (Zubaidah, 2016). Thus, 21st-century economics education encompasses integrating life skills that can prepare students to become adaptive and innovative individuals.

Implementing 21st-century economics education integrates technology and project-based or case-study learning methods (Kahar et al., 2021). This approach makes economics education encompass theoretical aspects and practical understanding relevant to preparing students to face global challenges. Studies show that 21st-century skills-based learning can help students develop a deeper understanding of economic concepts and enhance their competitiveness in the workforce (Mishra & Kereluik, 2011). Through this approach, 21st-century economics education equips students with relevant skills for navigating dynamic economic developments.

Teaching strategies, methods, and media aligned with the times are crucial in supporting students' understanding of economics. Teachers act as facilitators who assist students in using technology to explore economic issues, solve problems, and collaborate in various activities (Pare & Murniarti, 2024; Zebua, 2023). When teachers can create an interactive and enjoyable learning environment, students feel more comfortable and engaged in the learning process (Zebua, 2023). Additionally, a creative approach by teachers in selecting appropriate methods and media can enhance student engagement and help them more easily master economic concepts (Rozeqqi, 2024). A close teacher-student relationship can also foster active student participation, ensuring they do not feel pressured when studying economic topics that might have previously seemed challenging.

21st-Century Economics Curriculum Development

The 21st-century curriculum is an educational approach focused on developing students' critical, creative, communicative, and collaborative skills, known as the '4C' skills (critical thinking, creativity, communication, and collaboration) (Arifin & Mu'id, 2024; Dewi, 2019). This curriculum prepares students to face global challenges and rapid technological changes (Liesa-Orús et al., 2020). This curriculum's learning is student-centered and emphasizes digital literacy and adaptive problem-solving skills (Arifin & Mu'id, 2024). The 21st-century curriculum aims to cultivate learners with the ability to think critically and creatively, equipping them with skills relevant to the demands of the times (Dewi, 2019).

The 21st-century curriculum policy is integrated into regulations outlined in Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional dan Peraturan Menteri Pendidikan dan Kebudayaan Nomor 22 Tahun 2016 tentang Standar Proses Pendidikan Dasar dan Menengah. According to this law, education aims to 'develop students' potential to become individuals who are faithful and devoted to God Almighty, of noble character, healthy, knowledgeable, capable, creative, independent, and responsible democratic citizens'. This demonstrates that the 21st-century curriculum emphasizes academic aspects, character development, and social skills relevant to contemporary demands and the workforce's needs.

Implementing the 21st-century curriculum is expected to incorporate interactive, collaborative, and technology-based learning approaches (Dewi, 2019). This curriculum emphasizes integrating critical thinking, problem-solving, collaboration, communication, and digital literacy skills within the learning process (Arifin & Mu'id, 2024; Dewi, 2019). The development of this curriculum is oriented toward fostering creativity and adaptability in students, making them more competitive and innovative across various fields (Dewi, 2019). Thus, the 21st-century curriculum focuses on academic content mastery and teaching students essential life skills and competencies relevant to the demands of the 21st century.

Curriculum development is essential in economics education to align teaching materials with modern skill requirements, given the rapid changes in the fields of economics and technology (Dewi, 2019). The curriculum must be designed to help students understand economic concepts relevant to current global conditions and support critical thinking, analytical skills, and problem-solving abilities (Yusuf, 2019;

Nurkhin & Setiaji, 2024; Niswatin, 2021; Rosmana et al., 2022). According to Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional, the curriculum should be structured to prepare students to adapt competently to social, technological, and global market changes. This approach enables students to master skills that meet global competency standards while remaining relevant to Indonesia's socio-economic context in the 21st century (Arifin & Mu'id, 2024; Majdi et al., 2023; Rozeqqi, 2024).

Curriculum development is based on the critical analysis of economics teachers who identify issues in teaching practices and seek relevant, real-life solutions by applying economic principles. This requires economics teachers to be innovative, creative, and professional in enhancing the 21st-century economics curriculum for greater effectiveness (Niswatin, 2021). This approach combines centralized and decentralized models, where policies from education authorities are integrated with input from teachers directly involved in the teaching process (Fatmawati et al., 2021). This curriculum development framework also enables educators to collaborate with education practitioners, stakeholders, and school principals to adjust curriculum components related to economics materials needing updates (Fatmawati et al., 2021). Thus, the economics curriculum developed can improve students' abilities to face modern economic challenges with a deep understanding and practical skills.

METHODS

This research uses bibliometric analysis techniques of visualization and analysis as a quantitative method by utilizing evaluative and descriptive approaches. Bibliometric analysis is a quantitative method to analyze bibliographic data in publications, such as journal articles or conference proceedings. This analysis aims to uncover emerging trends and identify potential challenges in understanding the dynamics of the studied research field. Additionally, this analysis employs techniques such as publication burst detection and timeline analysis. This method involves collecting bibliographic data, such as author, journal, year of publication, number of citations, and statistical techniques used to analyze and interpret the data. This study utilizes data from publications over the past 10 years (2015-2024) and is analyzed using the VOSviewer application, featuring three types of visualizations: network, overlay, and density. The indicators used in this bibliometric analysis include the number of publications, the number of citations, and the total link strength among the displayed objects.

Bibliometric research goes through five stages. In the initial stage, keyword identification is carried out, where researchers focus on the intended topic. This research centers on keywords related to the topic of economic curriculum development. In the second stage, the researcher filtered the search results by focusing solely on the specified keywords and utilizing the Dimensions database. In the third stage, the search results were manually selected using the VOSviewer application to refine the data as necessary. In the fourth stage, statistics were compiled, and data was categorized based on topic descriptions, including visualizations across various bibliographies of countries, institutions, journals, publications, and authors. In the fifth stage, the researcher carried out data interpretation in narrative analysis and critically explained the research findings based on the selection and visualization results using the VOSviewer application, which illustrates the data as a map of variables related to keywords and has the potential for further development.

VOSviewers is excellent bibliometric software for creating knowledge-mapping networks based on various units of analysis. This study uses the VOSviewer version 1.6.19 application for bibliometric mapping. VOSviewer helps analyze and build bibliometric mapping. It has text-mining capabilities make it possible to build and display visualizations of relationships or networks in citations or article citations.

RESULTS AND DISCUSSION

Results

The bibliometric analysis process started using VOSviewer to generate visualizations depicting the number of documents and connections from various sources, including countries, institutions, journals, authors, and keyword co-occurrences. The database used encompassed 22,823 publications related to economic curriculum development, utilizing full-text data. Then, the scope was narrowed to publications based on their titles and abstracts for relevance in economic curriculum development, covering 102 publications. The next thing to do is to download the 102 publications and save them into RIS and CSV file formats. The results can be shown in the table and figure below.

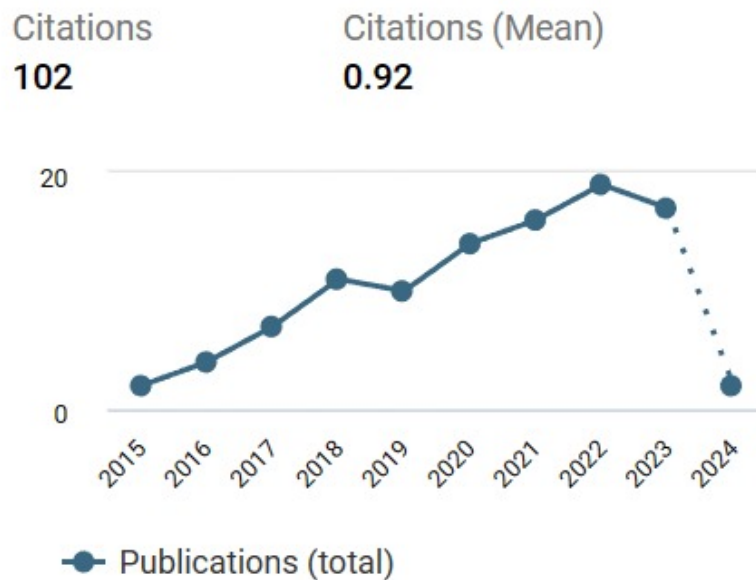


Figure 1. Publications Related to Economics Curriculum Development
 Source: *Dimensions AI 2024*

Table 1 and **Figure 1** show publications relevant to economic curriculum development. In 2015, 2 articles were published, representing 2%. In 2016, 4 articles were published, accounting for 4%. In 2017, there were seven articles with a percentage of 6.8%. In 2018, 11 articles were published, totaling 10.7%. In 2019, there were ten articles, making up 10%. In 2020, 14 articles were published, representing 13.7%. In 2021, there were 16 articles, totaling 15.6%. In 2022, 19 articles were published, accounting for 18.6%. In 2023, there were 17 articles, totaling 16.6%. In 2024, only two articles were published, making up 2%. Based on this data, a significant increase in the number of publications occurred from 2019 to 2022. However, there was a decline in 2024, with only two publications. Researchers use the number of publications and documents to rank institutions and journals, making these publications a crucial area of focus.

Table 1. Publications Related to Economics Curriculum Development

No.	Year of Publication	Number of Publications	Percentage
1.	2024	2	2%
2.	2023	17	16,6%
3.	2022	19	18,6%
4.	2021	16	15,6%

No.	Year of Publication	Number of Publications	Percentage
5.	2020	14	13,7%
6.	2019	10	10%
7.	2018	11	10,7%
8.	2017	7	6,8%
9.	2016	4	4%
10.	2015	2	2%
Total		102	100%

Source: Data processed by the author 2024

All documents obtained related to economic curriculum development were published in Indonesia because the keywords used were in Indonesian, indicating that this research remains focused on the local context. This reflects a high interest in improving Indonesia's economic curriculum to address educational needs and relevant economic developments at the national level. Furthermore, citation documents indexed in Dimension AI mainly refer to journals published by educational institutions or universities, highlighting the important role of educational institutions in supporting ongoing curriculum research.

The ranking of these journals based on the number of documents found provides insights for researchers and education policymakers regarding each journal's contribution to disseminating related research. This grouping also enables an in-depth analysis of publication patterns and frequently raised themes, enhancing inter-institutional collaboration and strengthening the quality of economic curriculum development. With a more comprehensive understanding of this document distribution, stakeholders can make more informed decisions to improve the quality of economic education in Indonesia.

Table 2. Number of Economic Curriculum Development Documents 2015-2024

No.	Publisher Name	Number of Documents
1.	INA-Rxiv	4
2.	Gorga Journal of Fine Arts	2
3.	Journal of Competitiveness	2
4.	Curriculum Innovation	2
5.	LITERACY-Journal of Education	2
6.	Madrasah	1
7.	SOSIO DIDAKTIKA Social Science Education Journal	1
8.	AL-IHKAM Journal of Law & Social Institutions	1
9.	Codification	1
10.	SOCIETY	1
11.	AL-Ulum	1

Source: Dimension AI 2024

Based on **Table 2**, the number of documents related to economic curriculum development is displayed. The search results on Dimensions AI reveal that INA-Rxiv is the journal with the highest number of publication documents. Publications published by INA-Rxiv have four documents, followed by the Gorga Journal of Fine Arts, Journal of Competitiveness, Curriculum Innovation, and LITERACY-Journal of Education, with two documents each. Based on this description, publications on economic curriculum development are still relatively few in Indonesia, so this focus and scope are very suitable for more

research. In addition, documents related to economic curriculum development are very suitable to be published in the journals listed in Table 2, so this information is very relevant for researchers who want to publish their research results following the focus and scope above.

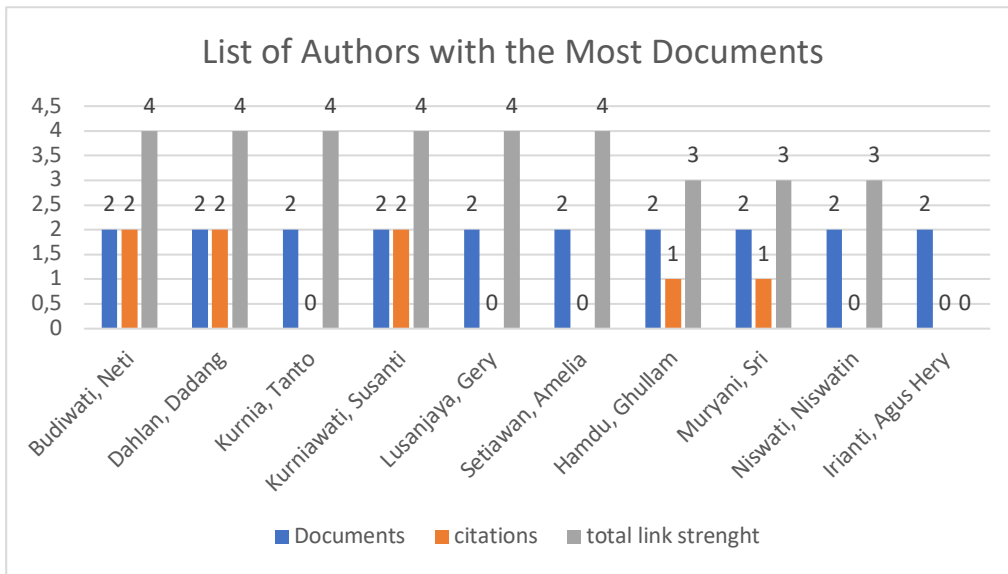


Figure 2. List of Authors with the Most Documents
 Source: *Dimensions AI 2024*

The distribution of most documents and citations written by the author can be seen in **Figure 2**. This shows that Budiwati, Neti and, Dahlan, Dadang have a total of 2 documents and two citations. The number of researchers interested in researching economic curriculum development is still very small, so it requires stimulation for other researchers to research this topic. Publications related to the development of the economic curriculum from 2015 to 2024 are still very minimal, so this topic is very suitable for further study for researchers who want to take the focus and scope.

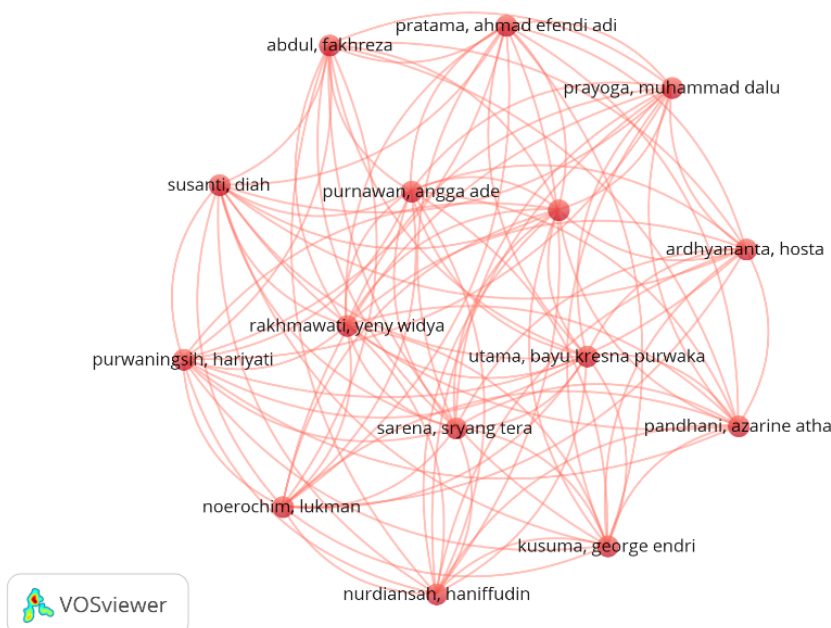


Figure 3. Network visualization between authors
 Source: *Research 2024*

Figure 3 visually depicts the relationship between the authors, represented by the connecting lines that link them in the network and the spheres that represent each author. This visualization reflects the connection or correlation between authors on publications related to economic curriculum development. The number of authors analyzed was 268 documents or all existing authors, while the authors who wrote two documents were ten authors. Based on the figure above, 15 authors show relationships between other authors.

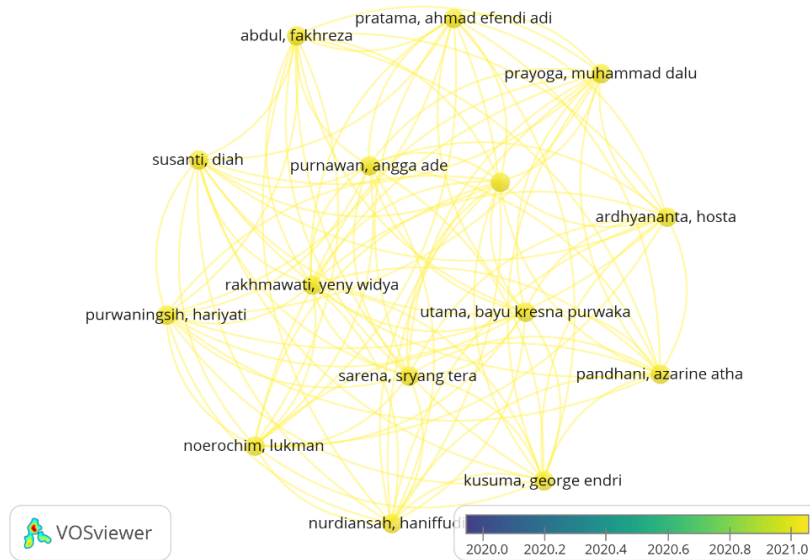


Figure 4. Overlay Visualization Between Authors
Source: Research 2024

The overlay visualization displays information or time sequence of research publications. **Figure 4** explains that there are apparent color differences in the visualization. Each color represents a year, with dark colors indicating older publications while light colors indicate newer publications. The overall publication shows a yellow color that the publication is in the latest year around 2021 with 15 authors, namely Susanti, D., Abdul, F., Prayoga, M., Pratama A., Ardhyananta, H., Pandhani, A., Kusuma, G., Nurdiansah, H., Noerochim, L., Purwaningsih, H., Utama, B., Sarena, S., Purnawan, A., Rakhmawati, Y., Rohmanudin, T. The connecting lines that synergize with each other show the relationship or collaboration between authors with the same number of publications, which can be seen from the consistency of the circles in the author's overlay visualization.

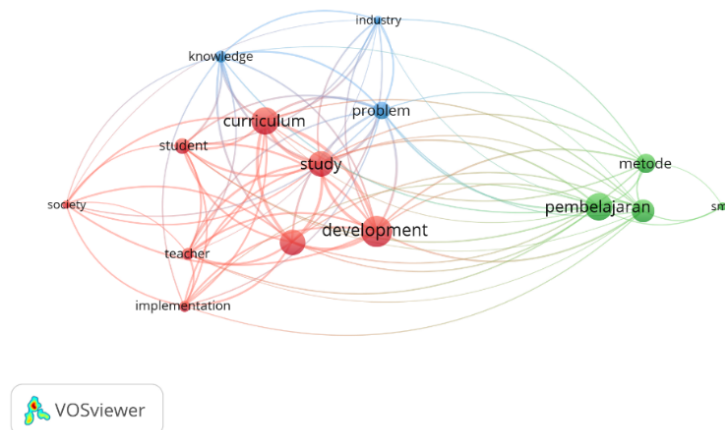


Figure 5. Network Visualization of Shared Keyword Occurrence
Source: Research 2024

Co-occurrence analysis aims to illustrate the bibliometric relationship between keywords in a visual form in **Figure 5**. Keywords used in co-occurrence analysis can be similar and compatible with the topic but not identical. In contrast, various keywords are used to understand the research mapping of the discipline (Marino-Romero et al., 2024). The figure above shows a network visualization of shared keywords with a minimum of 15 words. The network visualization shows the keywords researchers use related to economic curriculum development. The most used keywords are "curriculum", "development" and "learning" which is seen from the circle drawn on the keyword. The circles illustrated on these keywords, the larger the circle is an indicator of the most used keywords, while the smaller the circle means that the keywords are used less often.

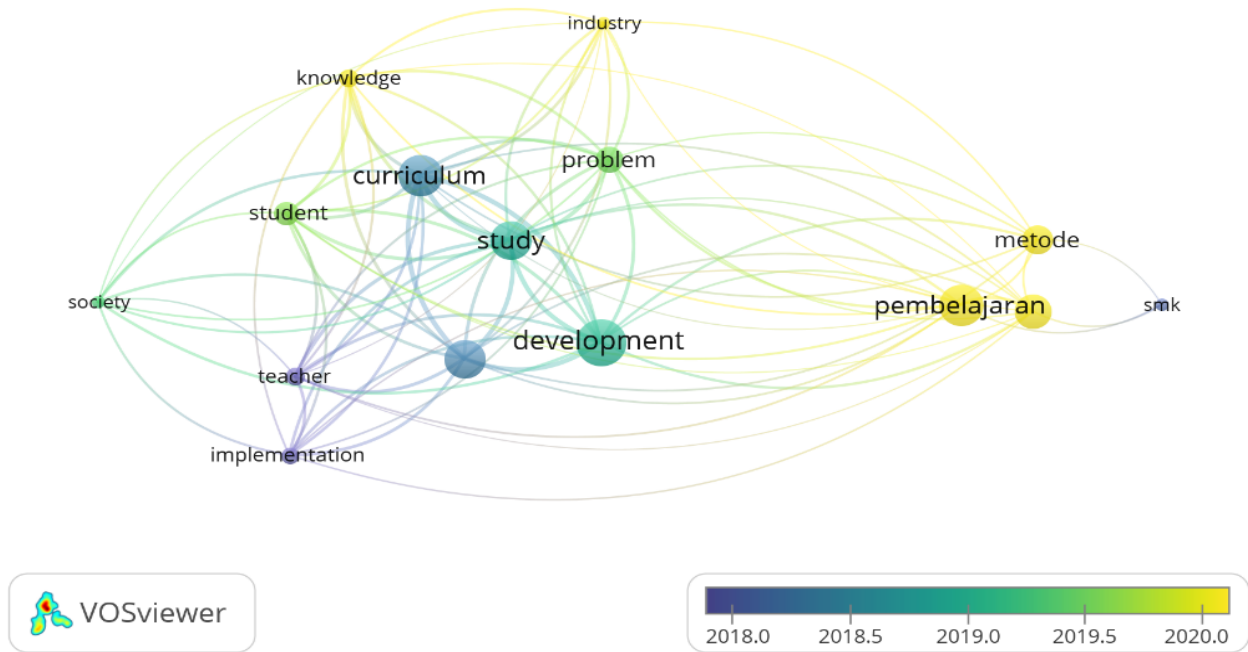


Figure 6. Overlay of Shared Keyword Visualization according to Publication Year
Source: Research 2024

The overlay visualization is used to show the evolution of research and analyze the distribution of publication years of various research keywords. **Figure 6** shows the distribution of keywords based on their year of publication. The symbols are differentiated in multiple colors, from the lightest to the darkest. The overlay visualization displays the chronology of time on the publication of research results from researchers. Based on the picture above, the keyword visualization has different color contrasts. Each color represents a year, where the darker color indicates that the publication year is getting older until it refers to a lighter color that displays a contraction in the more recent publication year. The yellow visualization will represent the most recent publication year or the current trend of the existing year range, 2019.5-2020. Then, purple represents the oldest or most past year of the existing year range, i.e., 2018-2018.5. The other colors will represent the years between the most recent and oldest years. So, this color change indicates a change in terms within a certain period by illustrating that the keywords that have become new themes in publications that are currently trending are referring to the words "learning", "method", "model", "knowledge", and "industry".

Discussion

The Low Trend of Publications in Economic Curriculum Development

The findings presented in the results section focus on the publication trends related to economic curriculum development research between 2015 and 2024. This analysis highlights the limited research activity on this topic, the patterns of publication trends, and their implications for future curriculum research and development. Bibliometric analysis reveals that only 102 publications were related to the economic curriculum during 2015-2024. This figure is relatively low, indicating that research remains underexplored. Although there was a significant increase in publications from 2019 to 2022, a sharp decline occurred in 2024, with only two publications recorded.

This low research trend suggests that the economic curriculum, a crucial component in preparing students for dynamic economic challenges, has not received sufficient attention from researchers and policymakers. The development of economic education curricula must formulate objectives, manage learning experiences, and conduct assessments relevantly to meet the needs of students, society, and contemporary developments (Nugroho, 2023). The lack of alignment between the curriculum and labor market demands exacerbates this situation, making the development of competency-based curricula that integrate economic values with practical knowledge increasingly urgent (Niswatin & Hasiru, 2017); Sari, 2014). To address this gap, more significant efforts are needed to encourage research in this field, particularly considering the ever-evolving demands of the 21st century.

Key Contributors and Sources of Publication

The analysis identifies INA-Rxiv as the primary contributor with four publications, followed by Gorga Journal of Fine Arts, Journal of Competitiveness, Curriculum Innovation, and LITERACY-Journal of Education, each with two publications. This distribution highlights the limited number of leading journals publishing work related to economic curriculum development. The findings indicate that economic curriculum development remains a relatively underexplored research area. The scarcity of dedicated publication platforms underscores the need for more outlets and appropriate curriculum development procedures. Curriculum development procedures in innovation management involve supervision, organization, staffing, and curriculum planning (Cantika, 2022).

The lack of curriculum development often becomes a critical issue contributing to the low quality of education at various levels. The curriculum plays a central role in creating student learning experiences (Harisnur & Suriana, 2021). However, the lack of innovation and willingness to integrate local values and labor market demands often hinders its development (Harisnur & Suriana, 2021; Huda, 2017). In Islamic education, for instance, the need to balance general knowledge with religious values is often inadequately addressed, making curriculum development a significant challenge (Munif et al, 2021). This requires more comprehensive planning, involvement of all stakeholders, and strong support from various parties, including the government and society (Harisnur & Suriana, 2021). Collaboration between researchers and academic institutions could be a strategic step to support further research in this field.

The Low Publication Trend Toward 21st-Century Skills

The co-occurrence analysis of keywords reveals that the terms "curriculum," "development," and "learning" are the most frequently used. While these keywords reflect the main focus of existing research, they also indicate a lack of diverse perspectives. There is a critical need for integrating technology into the economic curriculum, as simulations and economic software can help bridge the gap between theory and practice (Rozeqqi, 2024). The 21st-century economic curriculum must encourage students to think globally, process information effectively, and develop innovative learning skills, technological literacy, and life and

career competencies (Majdi et al., 2023). This indicates a need for further research focusing on emerging topics such as "digital economic learning," "technology integration," "technological literacy," and "21st-century skills," which currently appear to be underrepresented in research trends.

The limited output of significant research also impacts educational policy and practice. Policymakers must recognize the importance of supporting research and development in economic curricula to align with contemporary economic and social needs. That 21st-century curriculum development requires learners to engage in active and proactive learning, enabling them to master 21st-century competencies, such as communication, collaboration, critical thinking and problem-solving, creativity, innovation, and ICT literacy (Dewi, 2019; Lubis et al., 2023). These competencies demand higher-order thinking skills (HOTS). Therefore, developing a 21st-century economic curriculum is crucial to bridging the gap between research and practice, ensuring that economic education remains relevant and impactful in a rapidly changing world.

CONCLUSION

Research mapping on economic curriculum development can be seen using bibliometric analysis using the VOSviewers application. Database dimensions are based on the title and abstract for their relevance in developing the economics curriculum in 2015-2024. This research has explained the purpose of identifying the literature related to developing the economic curriculum in the 21st century to obtain trend analysis results. However, the topic is still classified as very low. A significant increase in publications occurred starting from 2019-2022. However, there was a decrease in 2024, with only two publications in that year. Publications published by INA-Rxiv have four documents, followed by Gorga Journal of Fine Arts, Journal of Competitiveness, Curriculum Innovation, and LITERACY-Journal of Education, with two documents each. The overall publication year shows that the publication trend is in the latest year, around 2021, and there is a connection between publications. The most used keywords are "curriculum", "development" and "learning" which are reviewed from the network visualization of the co-occurrence of keywords. This bibliometric analysis can help map the distribution of research topics related to economic curriculum development and as a reference for researchers who want to take this topic because there are still relatively few who study it. Therefore, researchers who want to research topics related to curriculum development can choose topics that are still not widely studied.

AUTHOR'S NOTE

The authors declare that there is no conflict of interest related to the publication of this article and emphasize that the data and content of the article are free from plagiarism.

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