Teacher Performance and Learning Media Innovation: A Literature Review

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ABSTRACT

This study aimed to analyze the relationship between teacher performance and innovation in learning media and identify emerging research trends. Using the Systematic Literature Review (SLR) method, this study examines 500 articles from the Scopus database. It employs a bibliometric approach with VOSviewer to map concept relationships, publication patterns, and research gaps. The findings indicate that innovations in learning media, such as blended learning, digital technology, and interactive methods, significantly enhance teaching effectiveness and teacher motivation. Additionally, publication trends have shown a significant increase since 2019, reflecting growing academic interest in this topic, particularly in developed countries such as Spain, the United Kingdom, and the United States, as well as in developing nations like Indonesia and Malaysia. The main limitation of this study is that it exclusively relies on data from the Scopus database, thus excluding studies from other sources. Future research is recommended to explore the implementation of learning innovations in various educational contexts further and conduct a more in-depth analysis of the factors influencing their success.

Keywords: *Teacher performance; Innovation in learning media; education*

INTRODUCTION

In the constantly changing field of education, teacher effectiveness becomes crucial in raising student accomplishment and learning quality (Erlia, 2021; Rizman Pido et al., 2023; Yuliansyah & Herman, 2023). In conformity with (Herodotou et al., 2019; Lin et al., 2023; Suyo-Vega et al., 2024) the role of a teacher is not limited to teaching content; they also need to possess pedagogical skills that enable them to implement innovative teaching initiatives. However, in contrast, according to (Sukirman et al., 2022) developing and implementing innovation in the learning media is one approach to improving teacher productivity. This innovation entails the application of interactive methods, multimedia-based teaching, and digital technology customized to students' unique characteristics and requirements (Cheng et al., 2009; Q. Liu et al., 2020).

In conformity with (Ghernaout, 2018; Ma & Li, 2021; Manggala et al., 2024) innovative learning media allows educators to present material more dynamically and engagingly, increasing student engagement and motivation. Furthermore, incorporating technology into the learning process also offers the flexibility necessary

to align it with the evolving world (Akram et al., 2022; Sangiuliano Intra et al., 2023). However, today (Kao et al., 2023; Santaolalla et al., 2020) teacher proficiency in designing, implementing, and evaluating learning media innovation is essential for its successful implementation.

Recent research has confirmed that innovation in learning media plays a substantial role in enhancing teachers' performance and students' learning outcomes. Susanty et al. (2025) indicate that digital competence, creativity in learning, and collective work motivation positively impact teacher performance, which is directly reflected in the quality of student learning. Additionally, the research conducted by Murni et al. (2023) has shown that implementing comprehensive training in the development of innovative learning media can improve the teacher's capacity to present material more engagingly and interactively, thereby increasing the student's engagement in the learning process. Several obstacles have emerged during the implementation of this innovation, such as the loss of rationality and the transition from traditional teaching methods to more innovative ones. From this hypothesis, improving the efficacy of teaching and learning is contingent upon advancing educational media innovation.

Although various previous studies have examined the relationship between teacher performance and learning media innovation, most still focus on empirical studies with quantitative or qualitative approaches without systematically analyzing developing research trends. Aside from that, a few studies use the Systematic Literature Review (SLR) method with article sources from trustworthy databases like Scopus and bibliometric methods with the Vosviewer app to show how this topic has changed over time. To do this, the study uses SLR by looking at 500 scientific articles from the Scopus database to find research gaps, trends, and gaps in the research on teacher productivity and new educational media. The SLR method was chosen because it offers a more organized and fact-based look at the changing issues, adding more value to the conversation about the research topic.

The primary objective of this research is to address the question, "What is the relationship between teacher productivity and learning media innovation based on the results of the study?" In order to answer the question above, this study uses the Systematic Literature Review (SLR) method to look at the content of articles from the Scopus database. Additionally, the bibliometric analysis utilizes the Vosviewer application to document this area's concept, research trajectory, and study findings. With this framework, the study hopes to give a fuller picture of how productive teachers are and how new educational media are used. This will then be used as a guide for future studies looking into a more specific part of the field. In addition, the research question can also guide educators in developing strategies for enhancing teacher competencies through more effective and sustainable learning innovations

METHOD

This study employs the Systematic Literature Review (SLR) methodology to identify, evaluate, and analyze current studies related to teacher performance and

educational media innovation. This method was selected because it can provide systematic guidance for the development of research in this field and identify issues that require further investigation.

The literature review process uses keywords related to special education learning media. These keywords are then matched to the context of teacher productivity and new educational media. The primary data in this study is sourced from reputable databases, such as Scopus, to ensure the quality of the analyzed articles. The research process employs the PRISM protocol through the following steps:
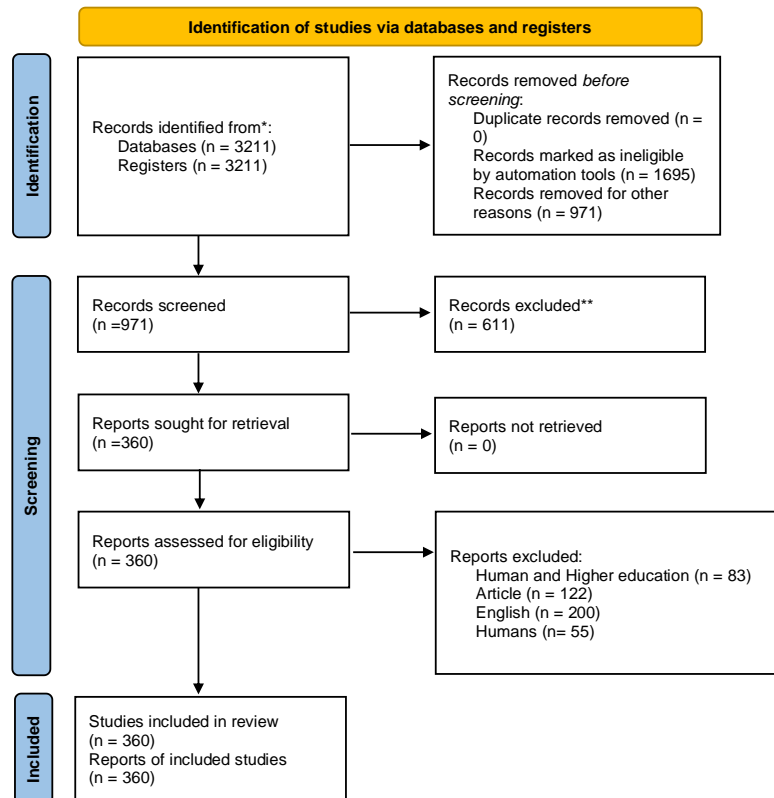

Figure 1. Grafik protocol prisma

This investigation used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol. Implementing the PRISMA process involves several primary steps. The first step is article identification, which involves selecting relevant articles based on the keywords defined in the Scopus database. Screening (Selection) – The article is initially selected based on the inclusion and exclusion criteria to ensure that it is in accordance with the research objective. Quality evaluation refers to articles that have undergone a more thorough evaluation process to ensure the quality and relevance of the data. The subsequent analysis includes articles that satisfy all research criteria.

Once the article selection process is complete, the next step is data analysis. This study conducts a content analysis of the article selected to address the primary research question: "What is the relationship between teacher productivity and educational media innovation based on the results of the existing research?" Additionally, statistical

analysis is implemented through the Vosviewer application to establish the relationship between the hypothesis, research trajectory, and the significance of the experiment. With this framework, the research should give us a better idea of how teacher jobs are changing and how new educational media are being used, along with valuable suggestions for more research to be done in the future.
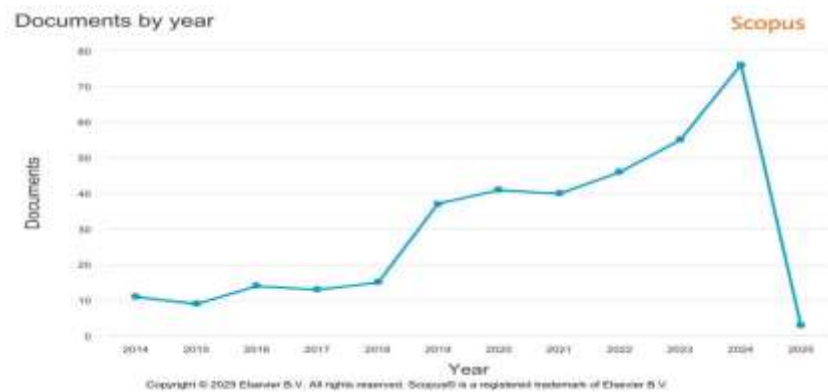
FINDINGS AND DISCUSSION

Figure 2. Publication trends in the study of special education learning media

This graph indicates the publication trend in the Scopus database regarding teacher productivity and educational media innovation from 2014 to 2025. In general, the number of publications has experienced a significant increase, particularly since 2019, which has prompted an increase in academic interest in this field. From 2014 to 2018, the number of publications was relatively low, fluctuating only 10 to 15 per year. This trend is expected to continue from 2019 to 2021, with the highest number of publications expected to reach 40 in 2019, indicating a growing interest in this topic.

Exponential growth occurred from 2022 to 2024, culminating in 2024 with over 70 million documents, driven by the increasing demand for educational innovation. However, in 2025, the number of publications will experience a dramatic decline, which is likely due to the lack of timely data. This increase in the volume of publications suggests that the discussion regarding teacher productivity and educational media innovation is increasingly becoming the primary focus of academic exploration. Since 2019, London has advocated for exploring innovative teaching methods and the role of teachers in the response to educational system changes.

The 2024 publication date indicates that the field of research is becoming increasingly complex, while the likelihood of its completion in 2025 is uncertain due to data insufficiency. This trend indicates that research in this field is still evolving and has a significant opportunity for further exploration.
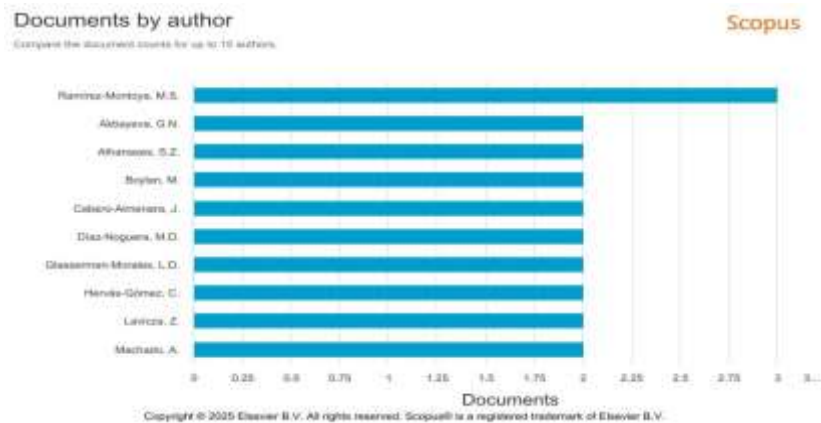
Figure 3. Media Author in Special Education Learning Media Studies

This graph illustrates the number of publications based on teacher productivity and educational media innovation articles, as indexed in the Scopus database. This graphic includes up to 10 primary authors who have contributed significantly to the field. Ramírez-Montoya, M.S. is a researcher with the highest number of publications, surpassing other authors, according to the data provided. In addition, several other authors, including Akbayeva, G.N., Athanasess, S.Z., Boylan, M., Cabero-Almenara, J., Díaz-Noguera, M.D., Glasserman-Morales, L.D., Hervás-Gómez, C., Lavicza, Z., and Machado, A., have a relatively high number of publications, each surpassing two volumes.

This indicates that research on teacher effectiveness and media innovation in education is increasingly receiving interest from various academic disciplines. In the volume of publications, Dominasi Ramírez-Montoya, M.S., indicates that this research significantly impacts the development of literature in this field. In addition, the ambivalence of several authors with a relatively small number of publications undermines the existence of a significant interest in this topic and the increasing academic collaboration. This suggests that research on enhancing teacher productivity and implementing learning media innovation in education will continue to evolve as a significant field of study.
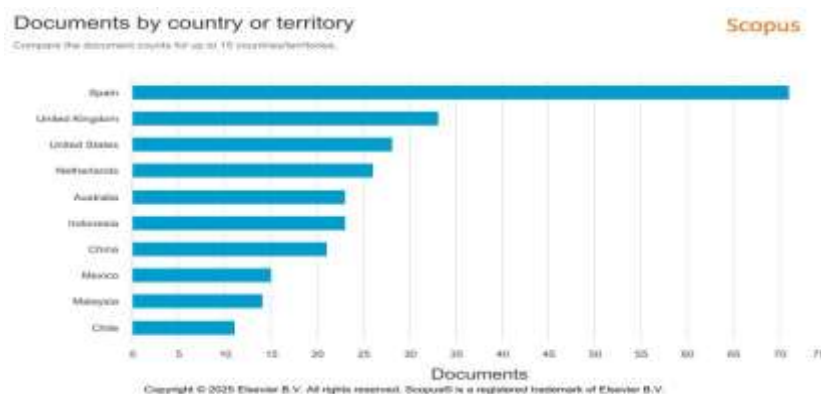

Figure 4. Countries in Special Education Learning Studies

This article distributes publications related to teacher education and media innovation based on the countries included in the Scopus database. The results of the analysis indicate that Spain has a large number of publications, which emphasizes the country's academic dominance in the field of study. The United States and the United Kingdom take the second and third positions, respectively, acknowledging the significant contribution of the second nation's educational institutions to developing related research.

In addition, several countries, including Australia, Indonesia, China, Mexico, Malaysia, and Chile, have many publications. In particular, Indonesia is promoting more active participation, demonstrating acquiescence to the efficiency of teacher work and implementing media learning innovations in the national education system.

This publication's distribution generally indicates that research on teacher productivity and media innovation has become a global concern, with countries in Europe and America dominating the field. Nevertheless, the increase in public awareness in developing countries such as Indonesia and Malaysia suggests that this issue is becoming increasingly important, particularly in the context of using educational technology and enhancing educational quality in many countries.
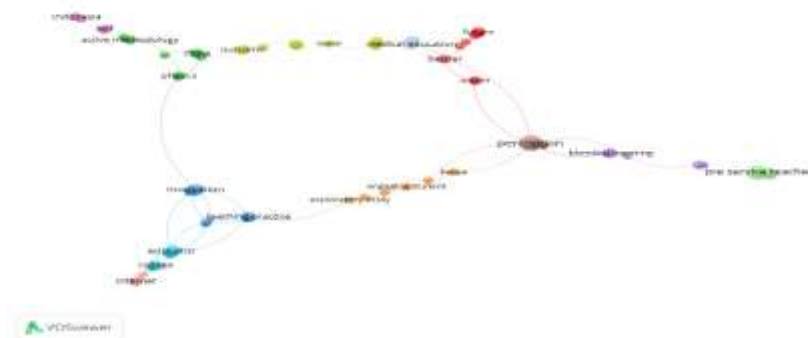

Figure 5. Visualization of Educational Network Study on Teacher Performance and Learning Media Innovation

This game provides a visual representation of the relationship between concepts in research that focuses on teacher productivity and educational media innovation, which is analyzed using VOSviewer. This term highlights the primary concept influencing various aspects of educational research and innovation.

The sole concept that dominates this paper is the hypothesis associated with pre-service teachers and blended learning. Numerous studies have examined the manner in which teachers, particularly teacher leaders, comprehend and implement innovation in the classroom, such as blended learning. In addition, teaching and motivation also occupy a critical position, as they imply that they have a kinesthetic purpose in enhancing the teacher's productivity.

The research design used to determine how practical innovations in education include ideas like active methodology, outcome, and exploratory study. Including the names of countries such as Indonesia, China, and Kenya in this list indicates that

research in this field is conducted globally from various perspectives. Additionally, the relationship between medical education, barriers, and the future indicates the availability of opportunities and resources for developing educational media innovation, particularly in the health sector. Ultimately, this demonstrates that research on teacher productivity and educational media innovation encompasses a variety of factors that influence the effectiveness of education, including method, perception, and technological advancement in various educational contexts.
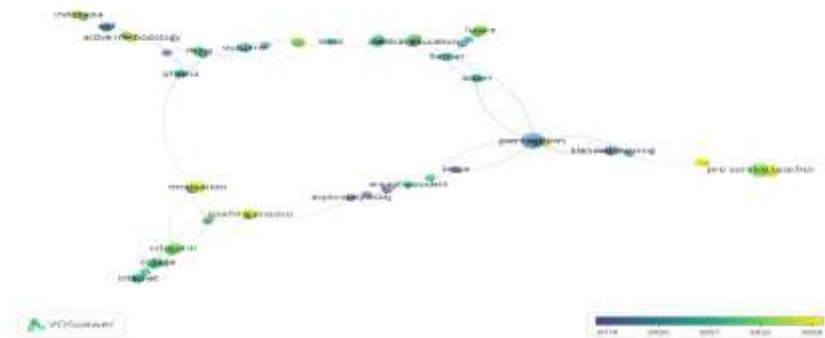

Figure 6. Overlay Visualization of Educational Study of Teacher Performance and Learning Media Innovation

VOSviewer analyzes the word network in the research on teacher productivity and educational media innovation, and this game visually represents it. The graph illustrates the temporal evolution of the research, with a progression from blue to red, indicating the period from 2019 to 2023. The primary term that dominates is perception, which is closely related to the concept of blended learning and pre-service teachers. This suggests growing research on how teachers understand and implement technologically based learning innovations. In addition, the relationship between teaching practice, motivation, and the educator indicates that teaching practice and motivation significantly impact teacher performance.

Active methodology, outcome, and exploratory study are some terms that have helped develop this new way of evaluating how well learning media works. The presence of countries such as Indonesia, China, and Kenya in this network suggests that research in this field is conducted globally with a diverse perspective.

Additionally, terms such as medical education, barrier, and future indicate the presence of challenges and opportunities in implementing educational innovation in various educational sectors. Ultimately, this visualization shows that studies on education, teacher productivity, and new educational media will keep changing. This is because many things affect how well education works in different situations.
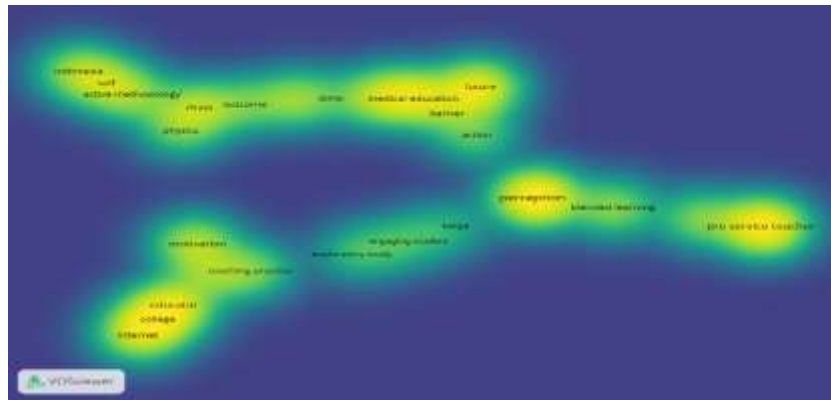
Figure 7. Visualization of Density Study on Education, Teacher Performance, and Innovation in Learning Media

We used VOSviewer to create this graph and analyze the data from the research on teacher productivity and educational media innovation. The green indicates an area with a high frequency of occurrence of the kunci word, while the red indicates an area with a higher frequency of occurrence.

In this visualization, the term "perception" has a significant meaning, as it indicates the abundance of research exploring the teacher's perspective on educational innovation. Other terms, such as blended learning and pre-service teachers, indicate a focus on integrating technology into education and developing the teacher's skills in the future.

In addition, the terms "motivation," "teaching practice," and "educator" also have a high degree of congruence, suggesting that the motivation and teaching practice aspects are the primary factors in improving teacher performance. Institutions such as the Internet and colleges demonstrate the importance of technology and education in the development of educational innovation.

The area with the highest level of significance is characterized by the terms "future," "barrier," and "medical education," which indicate the existence of concerns and the potential for educational innovation in the future. Numerous emerging nations, including China, Kenya, and Indonesia, have contributed to research from various regions with diverse perspectives. In conclusion, this image illustrates the ongoing research on teacher productivity and educational media innovation. These factors influence their effectiveness, including technological advancements, teacher motivation, and the challenges associated with modern teaching methods.

1. Publication Trends and The Increasing Relevance of Research

Based on an analysis of the publication trend from 2014 to 2025, there has been a significant increase in research on teacher productivity and educational media innovation, particularly since 2019. This expansion has increased the academic community's interest in the effectiveness of teacher productivity and the use of media innovation in the learning process. According to the Diffusion of Innovation theory (Rogers, 2003), The adoption of innovation in education is increasingly evident in the growing understanding of its potential benefits, as evidenced by the increasing volume of publications on this topic (Chen, 2024; Raman et al., 2024).

The publication of the 2019–2024 period can be attributed to the increasing demand for technologically-based educational innovation, particularly in the aftermath of the COVID-19 pandemic, which has resulted in significant changes to the teaching method (Hargreaves, 2021; Jin et al., 2021; Torres Aza et al., 2021). This discussion is in line with the research conducted by Mishra and Koehler (2006) on Technological Pedagogical Content Knowledge (TPACK), which suggests that integrating technology into education is increasingly important for enhancing teacher competencies. The significant increase in the number of publications in 2025 is not due to the researchers' lack of interest in the study but rather to the incomplete collection of new data. Academic publishing can also contribute to this issue, as ongoing research requires time before publication.

2. Academic Contribution in Learning Innovation

Ramírez-Montoya, M.S. is an academic with the highest level of contribution in this field, as evidenced by her significant role in developing educational media innovation and teacher productivity. The presence of an individual who is the subject of this research is indicated by the dominance of the subject in a particular field, as explained in the Scientific Productivity Theory by Lotka (1926). Lotka posits that most scientists are concerned with publications in a particular field (Abramo et al., 2016; Ioannidis et al., 2014; Nielsen & Andersen, 2021).

In addition, the widespread distribution of publications in the academic community suggests that pursuing educational innovation has become a global priority. This is supported by the Knowledge Spillover Theory, which posits that innovation and knowledge in a particular field catalyze further research in various world regions (Qiu et al., 2017)

3. Global Contribution in the Study of Teacher Performance and Learning Media Innovation

An analysis of publication distribution by country indicates that Spain, the United Kingdom, and the United States have the highest number of publications. This necessitates a significant research focus on developing educational innovation and enhancing educational quality in the respective countries (Qiu et al., 2017).

In addition, the increasing number of publications from developing countries such as Indonesia and Malaysia suggests that the issue of media innovation in education and teacher careers is increasingly becoming a global concern. This increase can be attributed to the educational reform in the respective countries, which is increasingly promoting the use of technology in the learning process. This is consistent with the Technology Acceptance Model (TAM) developed by Davis (1989), which posits that the acceptance of technology in the educational sector is significantly influenced by the perception of its utility (Granić & Marangunić, 2019; Wong, 2015).

4. Conceptual Relationships in Research on Teacher Performance and Learning Innovation

The use of VOSviewer to visualize the word network demonstrates that the terms "perception," "blended learning," and "pre-service teacher" have a strong relationship in this study. Much research concentrates on how teachers comprehend and implement innovation in technology-based learning. This is consistent with the Constructivist theory (Piaget, 1970), which posits that learning will be more effective if students actively develop their understanding of the concepts being taught (Granić & Marangunić, 2019).

Subsequently, the terms "teaching practice" and "motivation" were coined in a dominant manner, indicating that the learning experience and the motivation factor play a critical role in enhancing the teacher's performance. This concept can be associated with the Self-Determination Theory (Deci & Ryan, 1985), which posits that intrinsic motivation has a significant impact on the effectiveness of learning and the performance of individuals in a professional context (Y. Liu et al., 2020; Wu et al., 2020).

5. Research Density and Thematic Focus

The frequency of the occurrence of the terms "perception," "blended learning," and "motivation" is high, as evidenced by the fact that numerous studies have examined the teacher's perspective on innovation and motivation in the learning process. This project is by the Pedagogical Content Knowledge (PCK) paradigm of Shulman (1986), which posits that the effectiveness of education is not solely determined by subject knowledge but also by the learning strategy employed, such as innovation in learning media (Mustafa et al., 2024).

Additionally, the presence of terms such as "barrier," "future," and "medical education" indicates that the challenges and opportunities associated with the implementation of educational media innovation are also noteworthy and warrant further exploration. This concept is related to Innovation Diffusion Theory, which posits that each technological advancement in education must endure various challenges before it can be fully realized (Access et al., 2024; Dr. Ranbir, 2024).

6. Implication and Future Research Directions

The results of this study have several significant implications, including Enhanced Teacher Competence: In accordance with the Lifelong Learning Theory (Candy, 1991), educators must continuously enhance their proficiency in utilizing technology to acclimate to the evolving educational landscape. Curriculum Integration: Drawing on Digital Learning Theory (Siemens, 2005), integrating digital learning media into the curriculum is necessary to enhance the effectiveness of learning (Chang, 2021; Yang, 2024; Zhang, 2022).

The Growing Publication Volume of Developing Countries: The increasing volume of publications from developing countries indicates that the issue of educational innovation is becoming increasingly relevant in various educational contexts. Due to this, the subsequent research can concentrate more on the challenges

and strategies for implementing innovation in countries with educational infrastructure deficits.

CONCLUSION

This study posits that teacher productivity and educational media innovation are intrinsically linked to enhancing educational efficiency. The utilization of integrated learning, digital technology, and interactive methods significantly impacts the quality of education, as demonstrated by the systematic literature review (SLR) and bibliometric analysis using VOSviewer. The increasing number of publications in recent years has underscored the increasing academic interest in this issue, whether in developed or developing countries such as Indonesia and Malaysia. However, infrastructure deficiencies, teacher fatigue, and resistance to paradigm shifts are becoming apparent in implementing educational innovation. This necessitates more intensive teacher training, technology integration into the curriculum, and global academic collaboration to facilitate educational innovation. Future research can focus more on implementing media learning innovation in various educational contexts and the factors influencing its success.

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