Bibliometric Analysis of Social Studies Learning Models in Elementary Schools from 2014 to 2024

Dimas Satrio Wibowo[1,*], Muhroji[1]
[1]Elementary School Teacher Education, Faculty of Teaching and Education, Universitas Muhammadiyah Surakarta, Jawa Tengah, Indonesia

Article Info

ABSTRACT

Purpose of the study: This study aims to map and analyze publication trends related to Social Studies (IPS) learning models at the elementary school level using bibliometric data from the Scopus database covering the period 2014–2024.

Methodology: This study employs a qualitative bibliometric method with four stages: Identification, Screening, Eligibility, and Inclusion. Data were retrieved from the Scopus database using the keywords TITLE-ABS-KEY("social sciences") AND TITLE-ABS-KEY("learning model") AND TITLE-ABS-KEY("primary school"). Analysis tools used include Microsoft Excel and VOSviewer version 1.6.19.

Main Findings: Publication trends fluctuate over the years with an increase in 2024. Scientific articles are the dominant document type (73.3%), and social sciences are the most frequently studied field (53.6%). Spain ranks first in publication and citation counts. Keyword co-occurrence analysis reveals "curriculum," "education," and "social sciences" as the most connected terms.

Novelty/Originality of this study: This study provides the first bibliometric mapping of a global study on social studies learning models at the elementary level using Scopus data. This study advances new insights on understanding through publication trend patterns by identifying so as to support future policymaking, curriculum planning, and research direction in primary education. This study is used to recommend the development of social studies learning models that are relevant to 21st-century needs, such as the integration of digital literacy, collaboration, and project-based learning.

Corresponding Author:
Dimas Satrio Wibowo,
Department of Elemtary School Teacher Education, Faculty of Teaching and Education, Universitas Muhammadiyah Surakarta, Jl. A. Yani, Mendungan, Pabelan, Jawa Tengah 57162, Indonesia
Email: a510210182@student.ums.ac.id

1. INTRODUCTION

Social Studies (IPS) learning in elementary education integrates various branches of social sciences to promote students' understanding of societal dynamics, norms, and values. This interdisciplinary approach equips students with knowledge and skills to interpret and respond to social phenomena, while fostering critical thinking, social awareness, and civic engagement [1]-[3]. Social Studies offers a comprehensive understanding of various social and cultural phenomena in society, enabling students to grasp the relationships between different aspects of human life from multiple, mutually supportive scientific perspectives. In primary education, IPS functions not only to transfer knowledge but also to cultivate responsible citizenship through contextual understanding of social issues [4], [5]. Through this approach, individuals are encouraged to develop critical analytical thinking capacities and to participate actively in multiple social dynamics occurring in society [6]-[8].

In the context of social studies education, the most fundamental aspect is preparing students with knowledge that enables them to integrate well into the community environment [9]-[11]. Through an in-depth analysis of various aspects of social sciences, IPS education helps build awareness of social responsibility, understand the importance of prevailing norms in society, and encourages individuals to comprehend and practice these values in their daily lives [12], [13]. Moreover, social studies also inspire individuals to continue innovating, addressing various social challenges, and actively participating in various activities oriented towards progress and sustainable development [14], [15]. Therefore, in social studies education, a learning process is needed that can facilitate students in developing their critical thinking skills, according to their respective educational levels [16]-[18].

Although numerous efforts have been made in the application of social studies education, other literature studies suggest that obstacles exist in learning social studies within educational institutions, resulting in a gap between theory and reality in the field. Many studies focus solely on measuring cognition but overlook affective and psychomotor values, even though in social studies education, the collaboration of the three fundamental sciences should be balanced. In addition, the specification of local and cultural contexts is often overlooked, so most research on developing social studies education tends to ignore the development of learning that incorporates cultural nuances tailored to the specific conditions of their respective regions [19]-[21]. Based on this, an in-depth analysis is needed to identify and evaluate the field of social studies education.

Bibliometric analysis is an effective and systematic method for identifying and evaluating research trends across various scientific fields. By using this method, researchers can understand existing research patterns, measure researcher productivity, and evaluate the extent to which scientific contributions influence the development of a particular field of study [22]-[24]. One of the main advantages of bibliometric analysis is its ability to process and evaluate data from various publication sources with a structured approach [23], [25]. Through this approach, data can be analyzed to identify relationships between authors, institutions, countries, or research themes that frequently appear in related studies. Relevant information can then be extracted to provide comprehensive insights into current research trends, patterns, and directions.

Bibliometric analysis is a statistical tool used to map the state of scientific knowledge, helping to identify important information needed for research purposes, opportunities, and strengthening research or scientific publications[24], [26]. Bibliometric analysis can be concluded as a systematic search to identify trend patterns that have the potential to discover research aligned with developments [27], [28]. The shift in the educational paradigm towards a student-centered learning approach also reflects the need to adjust the learning process to the characteristics and needs of students. This approach encourages students to become active participants in learning, allowing them to explore social studies concepts in a more in-depth and contextual manner. In this framework, bibliometric analysis plays a crucial role in identifying the most effective and relevant learning models, as well as in understanding how these approaches are implemented in classroom practice [29], [30].

However, to date, there have been minimal bibliometric studies that specifically focus on the social studies learning model at the elementary school level. Most similar studies tend to focus on secondary or higher education, or address specific models without conducting a thorough mapping of global trends in the field of basic social studies. The urgency of this research lies in the need for structured empirical data that can serve as the basis for informed educational decision-making, curriculum development, and capacity building for teachers in selecting and implementing social studies learning models that align with the demands of 21st-century learning. This study presents a novel approach to mapping global publication trends related to the social studies learning model in elementary schools from 2014 to 2024, based on data from Scopus. It employs a bibliometric approach that has not been widely carried out specifically at the primary education level. Visualization of the relationship between keywords, author collaboration networks, and document distribution by field of study and country adds value in producing a comprehensive picture of the direction of research development in this field.

This study aims to map and analyze scientific publications related to the social studies learning model at the elementary school level, using the Scopus data-based bibliometric method, from 2014 to 2024. This research is expected to make a significant contribution to providing a scientific basis for relevant and contextual education policy-making, curriculum design, and follow-up research. Based on the bibliometric mapping of publications from 2014 to 2024, this study formulates five research questions that reflect the direction, gaps, and global publication patterns related to Social Studies learning models in primary schools.

First, what are the global publication trends on Social Studies learning models at the elementary level over the past decade? This question is addressed through an analysis of document distribution, which reveals a fluctuating trend with a notable increase in publication volume in 2024. Second, what types of documents are most common in this body of research? The data indicates that journal articles dominate, accounting for 73.3% of the total, suggesting that most research in this area is shared through peer-reviewed scientific articles rather than books or conference proceedings. Third, which fields of study are most frequently linked to research on Social Studies learning models in primary education? The analysis reveals that social sciences are the most represented discipline (53.6%), followed by other fields such as humanities, environmental science, and

psychology, highlighting the interdisciplinary nature of Social Studies. Fourth, which countries, authors, and institutions are the most significant contributors to this field, and how are they connected through citation and bibliographic coupling networks? Bibliographic coupling analysis highlights Spain as the top contributor in terms of both publications and citations, followed by the United States and Germany. Several documents also indicate a strong coupling strength, despite low citation counts, suggesting the existence of emerging yet potentially underrecognized scholarly communities. Fifth, what are the most common keywords, and how have their usage patterns changed? The co-occurrence analysis reveals that "curriculum," "education," and "social sciences" are the most interconnected keywords, despite their limited frequency, suggesting a need to expand the terminology and refine research focus areas in future studies.

2. RESEARCH METHOD

This research employs a qualitative approach using the Bibliometric method, which consists of four key stages: "Identification, Screening, Eligibility, and Inclusion" [31], [32]. The bibliometric method allows for a systematic and objective mapping of scientific publications, particularly in understanding patterns of authorship, keyword usage, citation networks, and thematic developments. As a non-intervention method, bibliometric analysis is particularly useful for synthesizing large volumes of data from reputable scientific databases such as Scopus.
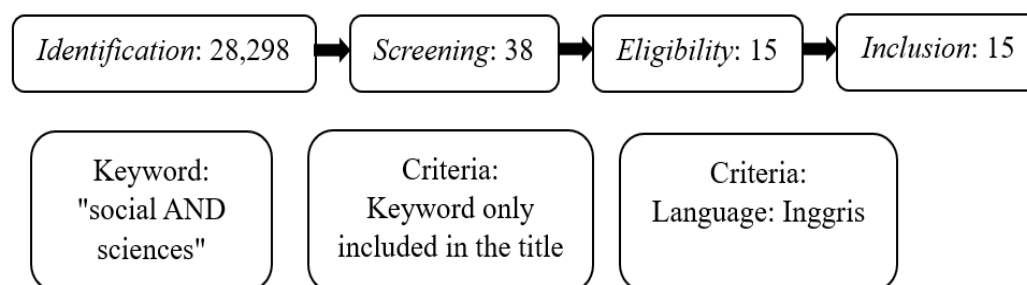

Figure 1. Alur proses seleksi artikel

The article selection process in this study follows four stages of the PRISMA flow, namely identification, screening, feasibility, and inclusion as shown in Figure 1. This study uses a bibliometric approach to map the characteristics of publications and research trends related to the Social Science (IPS) learning model at the elementary school level. The data is collected from the Scopus database because it is considered one of the most comprehensive and curated scientific databases. The search process was conducted on April 20, 2025, using a combination of the keywords TITLE-ABS-KEY("social sciences") AND TITLE-ABS-KEY("learning model") AND TITLE-ABS-KEY("elementary school") for the publication year range between 2014 and 2024. The initial search results yielded 28,298 documents.

Data filtering is carried out systematically following the PRISMA flow, which consists of four stages. At the identification stage, all documents are collected. The screening stage is carried out by limiting the documents to those that include keywords in the title and fall within the field of education category, resulting in 38 papers remaining. Two main tools were used for analysis: Microsoft Excel for tabulating publication and citation trends, and VOSviewer (version 1.6.19) for mapping co-authorship networks, keyword co-occurrence, and bibliographic coupling. VOSviewer was selected for its ability to generate bibliometric visualizations and link strength metrics between authors, institutions, and keywords.

Although the study adopts a bibliometric qualitative framework, each variable analyzed in this research is conceptually defined to ensure clarity and consistency. The publication trend variable refers to the number of documents published annually, providing an overview of the temporal growth or decline in scholarly interest. The document type variable is categorized into forms such as journal articles, book chapters, and conference papers, reflecting the modes of academic dissemination. The field of study variable is determined based on Scopus subject area classifications, which indicate the disciplinary context of each publication. The keyword frequency variable is identified through the repetition of author-supplied keywords, with only those appearing at least twice being included in the co-occurrence analysis. Finally, bibliographic coupling and keyword co-occurrence are assessed through total link strength, which measures the degree of connection among documents, authors, and countries based on shared references and keyword usage. These operational definitions guide the structure of analysis and support the interpretation of bibliometric patterns in the selected literature.

Instrument validation and reliability in bibliometric studies rely on the robustness of the database (Scopus), the objectivity of the inclusion criteria, and the transparency of the keyword-based filtering process. The use of VOSviewer ensures reliability through the application of standardized algorithms for clustering and calculating link strength.

3.   RESULTS AND DISCUSSION

The research findings acquired from the Scopus database concerning the volume of articles from 2014 to 2024. The results of the distribution are illustrated in Figure 1. The Scopus database documented a total of two articles in 2014. It can be observed that there was a significant decline in 2015-2016, as only one document was published in 2015 and no documents were published in 2016. Between 2017 and 2023, a total of 2 documents were published. In 2024, there was an increase with a total of 5 documents published (Sánchez-Ibáñez et al., 2021).
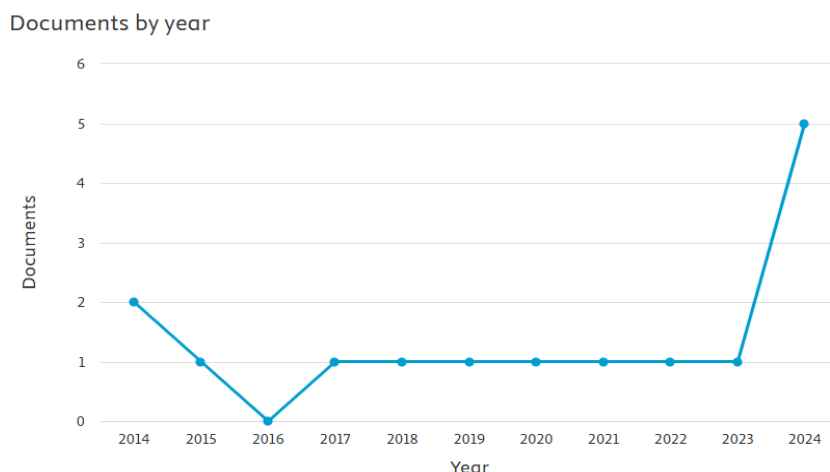

Figure 2. Document Distribution

Distribution of publications by document type

Figure 2 illustrates the distribution of various document types pertaining to the IPS learning model. Data from the Scopus site indicate that articles are the predominant document type, accounting for 73.3% of the total over the past 11 years, with 11 documents. The book chapter is in second place, based on percentage (6.7%), with a total of 1 document. In third place are conference papers (6.7%), with 1 document, errata (6.7%), with 1 document, and errata (1.1%), with 1 document.
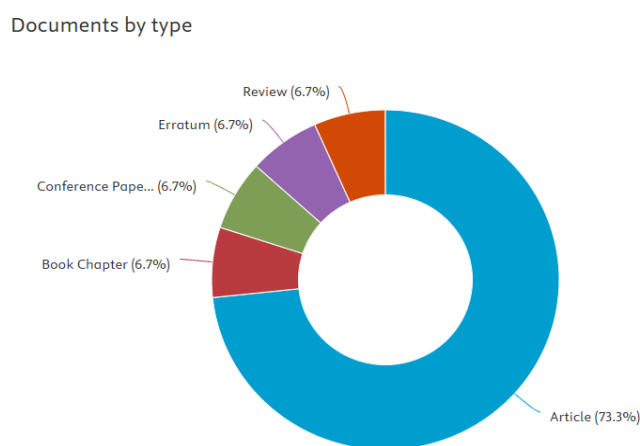

Figure 3. Distribution of publications

Distribution of publications by field of study

Figure 3 illustrates the dispersion of fields of study. The distribution results of articles published from 2014 to 2024 revealed several fields of study that emerged based on the keywords used. Of the various fields of study that most frequently appear in the social science learning model, the total percentage (53.6%) with 15 documents represents the most researched field of study in the published documents. Next, the field of arts and humanities (7.1%) 2 documents, decision science (7.1%) 2 documents, environmental science (7.1%) 2 documents, psychology (7.1%) 2 documents, business management and accounting (3.6%) 1 document, computer science (3.6%) 1 document, econometrics and finance (3.6%), energy (3.6%) 1 document and others (3.6%) 1 document.
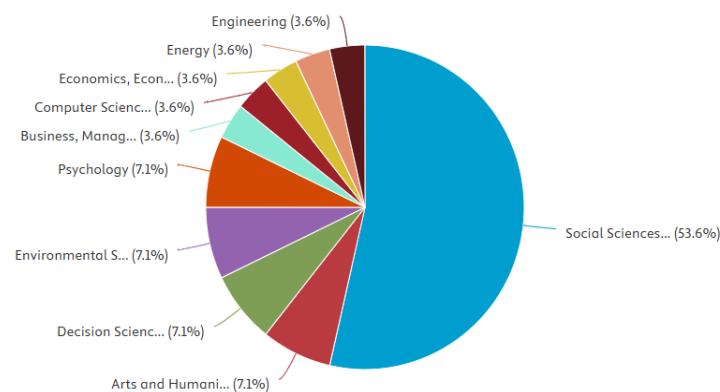
Figure 4. Distribution by subject

Bibliographic Coupling Analysis

The bibliographic coupling results by document inform writers about the quantity of documents with the most connections. As illustrated in Figure 5, a total of 59 documents were identified with at least one citation. However, after excluding those without overall link strength, only 13 papers remained for analysis. The document with the highest total link strength (12) yet 0 citations was followed by another document with 9 link strength and 9 citations. Meanwhile, the most cited document had 24 citations. Authors listed within these documents may be interpreted as sharing a common set of references, indicating a strong degree of bibliographic coupling.
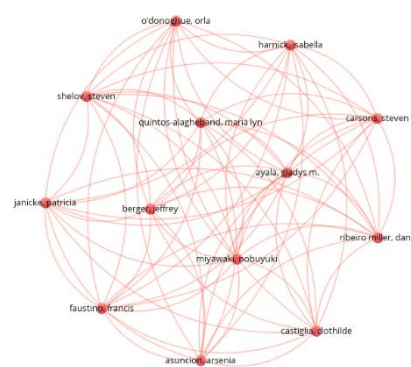

Figure 2. Author Collaboration

A complementary analysis was conducted to investigate the bibliographic coupling by publication year. As illustrated in Figure 6, documents published in the same year (2024) are represented by the same color. This visualization facilitates the identification of temporal publication patterns within the network.
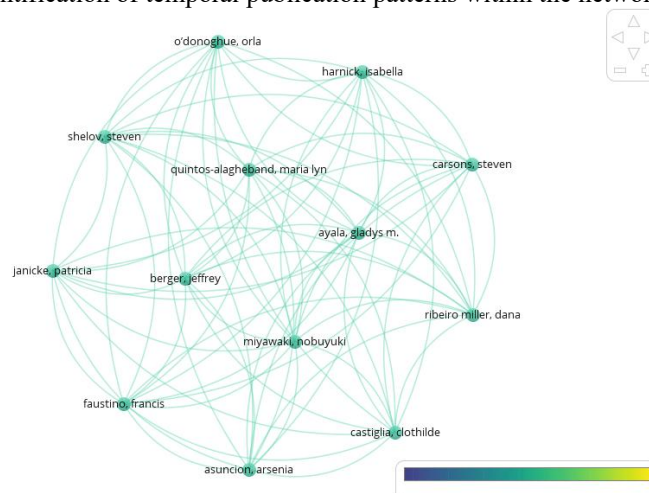

Figure 3. Author Collaboration

Bibliographic coupling by countries

Based on the analysis results, countries within the network that share similarities concerning the elementary school learning model can be identified in Figures 6 and 7. The data selection process was conducted based on a minimum of two documents and thirty-nine citations from each country. All three identified countries satisfy the requirements. The graphic displays the network outcomes. Spain ranks highest, with 3 documents and 39 citations, followed by the United States, with 3 documents and 7 citations, and Germany, with 2 documents and 11 citations.

Figure 4. Pattern of Countries

Analysis of co-occurrence of author keywords

This co-occurrence analysis will provide words that commonly appear in published publications. Figure 8 illustrates that each term utilized by the writers is interconnected, indicating that the shown keywords have been concurrently included in a published work. The criterion for data selection is the presence of at least two co-occurring keywords. Consequently, only 3 out of 70 keywords were identified. Curriculum, education, and social sciences are the most frequently appearing keywords, each appearing 2 times with a total link strength of 3. However, for social science, the total strength is 2. Based on the overlay visualization, it is known that in 2019 a purple line appeared indicating the last used keyword, which is social science. And the yellow line represents the keywords used in 2018, which are education and curriculum.
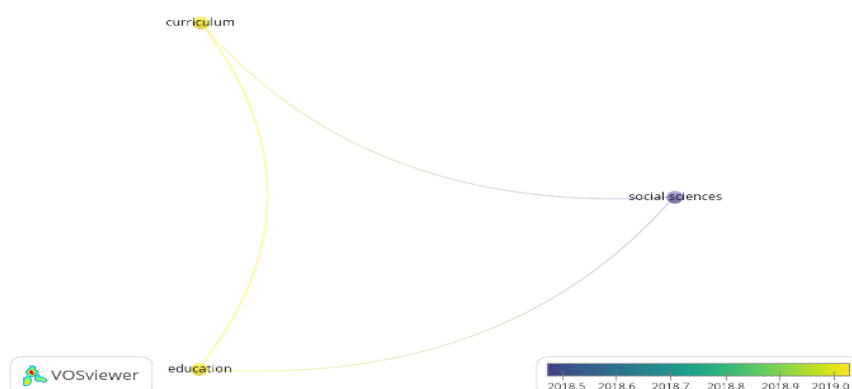

Figure 5. Trend about Social sciences

The research findings on elementary school learning models are categorized by year, country of origin, affiliation, document type, and bibliographic coupling, encompassing co-occurrence analysis, sources, documents, and keyword co-occurrence analysis utilized in the relevant research outcomes. The Scopus platform was selected due to its status as the largest and most comprehensive research database [33]-[35]. Scopus asserts the existence of 76 million entries about accessible and cited publications [36]-[38].

The data acquired from the Scopus site pertains to the number of publications from 2014 to 2024. The Scopus database documented a total of two articles in 2014. It can be observed that there was a significant decline in 2015-2016, with only one document published in 2015 and no documents published in 2016. Between 2017 and 2023, a total of 2 papers were published. In 2024, there was a 5% increase in the number of published documents. In Scopus data, the type of document related to publication documents is dominated by articles, with a percentage of 73.3% [39]. This is associated with the main criteria for writing scientific articles that are easy to publish while considering writing ethics for a broad audience with a substantive knowledge background [40],

[41]. The choice of articles as a medium for disseminating research findings is deemed reliable due to the adherence to established publication criteria [42], [43].

The author's keyword co-occurrence analysis reveals that the most prevalent keywords in the same cluster are "curriculum," "education," and "social sciences." These results suggest that the study domains associated with the keywords used from 2014 to 2024 can be delineated. The keywords identified in the Scopus database mapping results can provide academics with insights to inform future research trends [44]-[46]. This research aims to investigate disciplines centered on inquiry-based learning, specifically within primary education. The mapping findings depicted in the picture indicate that the predominant keywords in 2018 were "curriculum" and "education." Social sciences, featured in published papers on learning models, are among the keywords expected to emerge in 2019. Emerging issues in the educational sector have prompted numerous educators to adopt and integrate learning models into creative teaching practices [47], [48]. Learning models that provide students with experiences to enhance their understanding of content through systematic stages [49]-[52].

Several methodological and scope-related limitations limit this study. The research team used only the Scopus database as a source, which excluded potential publications indexed in Web of Science, ERIC, or national repositories. The study selected articles written exclusively in English and published between 2014 and 2024, which restricted the inclusion of research in local languages or from non-indexed journals. The analysis employed a quantitative bibliometric tool (VOSviewer), which focused on co-occurrence and coupling metrics, rather than exploring the pedagogical content or theoretical contributions of the articles. These limitations reduce the generalizability of findings and emphasize the need for triangulation in future bibliometric reviews.

This study provides empirical evidence to support decision-making in curriculum development and teacher training. The dominance of keywords such as "curriculum," "education," and "social sciences" indicates that scholars prioritize themes related to instructional design and educational integration in Social Studies learning. The identification of countries such as Spain and the United States as leading contributors reflects global disparities in publication intensity and collaboration. The visual mapping of bibliographic networks facilitates international academic cooperation, thereby strengthening pedagogical innovation and policy alignment across diverse contexts.

This implication contributes to the broader goal of developing evidence-based and globally responsive Social Studies instruction at the elementary level. Future studies should expand the scope of bibliometric data sources and integrate qualitative analysis methods. Researchers can leverage additional databases such as the Web of Science, DOAJ, ERIC, and national repositories to gain more comprehensive insights. Based on the existing findings, the implications of this study are to open up educational insights and views for teachers as well as that future studies must apply a content-based approach to re-examine the model used so as to be able to improve educational performance. Another implication for other researchers is to be able to explore comparative bibliometric mapping between the primary and intermediate levels or analyze the gap between research publication trends and classroom instructional needs so as to help the world of education be tested and up-to-date in the context of 21st century skills and to form cross-national collaborations that can increase the capacity of educators to adapt effective instructional models across different education systems.

The novelty of this study is that it provides the first bibliometric mapping of global studies on social studies learning models at the elementary level using Scopus data. This study advances new insights into understanding through publication trend patterns by identifying them to support policymaking, curriculum planning, and future research directions in elementary education. This study is used to recommend the development of social studies learning models that are relevant to 21st-century needs, such as the integration of digital literacy, collaboration, and project-based learning.

4. CONCLUSION

This bibliometric analysis concludes that research on Social Studies learning models in primary education has shown fluctuating but overall increasing attention over the past decade, with a notable rise in 2024. The dominance of the "social sciences" field and the high proportion of journal articles reflect the academic significance and interdisciplinary nature of this topic. Spain emerges as the leading country in terms of publication and citation counts. Meanwhile, the co-occurrence of keywords such as "curriculum," "education," and "social sciences" indicates shared thematic priorities across studies. These results suggest that global research is increasingly focused on curriculum-based approaches in Social Studies, providing a strategic entry point for aligning policy, teaching, and research in elementary education. Theoretically, this study adds to the growing body of literature that organizes global discussions on instructional models in civic and social education, particularly by identifying patterns of collaboration, keyword changes, and country-level research output. Practically, the bibliometric insights can help curriculum developers, teacher trainers, and policymakers understand dominant themes and gaps, supporting evidence-based decisions in shaping Social Studies teaching. However, the study has limitations due to the scope of the Scopus database, the use of English-only documents, and reliance on author-provided metadata, which may exclude relevant research from non-indexed or non-

English sources. Future research should expand the analysis by incorporating other databases, such as Web of Science, and conducting comparative bibliometric mapping across different regions. Additionally, examining how learning models are applied in classroom practice across different cultural contexts is recommended. Researchers should also explore the skills developed through Social Studies, the role of technology-enhanced media, and the integration of local wisdom to enrich culturally responsive teaching.

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