

RESEARCH ARTICLE

Open Access

An examination of social studies education research: A bibliometric analysis

Sıla Demireğen^{*1}  and Erdi Erdoğan² 

¹ Institute of Social Sciences, Kırıkkale University, Kırıkkale, Türkiye.

² Department of Social Studies Education, Faculty of Education, Kırıkkale University, Kırıkkale, Türkiye.

Abstract

Social studies have an integrated and interdisciplinary structure. Due to its inclusion of different disciplines and the presentation of their integration, this special field requires a specific analysis to examine its own subjects, methods, and trends. The wide range of social studies compared to other fields and their intense collaboration with other disciplines have led to many bibliometric studies in the literature being inadequate or limited. This research aims to reveal the current state, research trends, prominent topics, conceptual structure, and future directions of social studies research in the field of education over the past 20 years through visual mapping. In the study, the bibliometric analysis method was used, and the data were obtained from the Web of Science database. In this context, English articles published between 2002 and 2022 in journals indexed in the Social Sciences Citation Index (SSCI) within the scope of social studies education research were analysed. In the analysis of the data, the Bibliometrix package supported by R Studio software and the Biblioshiny interface were utilised. Based on the analysis of the 569 data obtained, the findings revealed that social studies education research is predominantly conducted as research articles, with an annual growth rate of 7.31%. The most productive year recorded was 2021. It has been determined that the journal Theory and Research in Social Education is the most published and cited journal, and according to Bradford's law, it also occupies a core area, making it the most influential journal in the field. Concepts such as citizenship education, identity, history education, and social justice have been the most frequently used keywords, with citizenship-related concepts particularly coming to the forefront since 2016.

Keywords: Social studies, social studies education, bibliometric analysis, biblioshiny.

Introduction

With its historical roots dating back to the early 20th century, social studies is a field of study that emerged in the United States to promote social cohesion through democratic means. (Fallace, 2009). In the United States, within the context of social and economic change, the social studies course has been seen as a means to ensure social cohesion among individuals with different cultural backgrounds as a result of intense migration movements from rural to urban areas and from the continents of Africa and South America to the United States (Öztürk, 2015). Therefore, the desire to cultivate citizens who can make informed decisions in the public sphere has been a primary goal of social studies. Levstik and Tyson (2008) emphasised that social studies is a complex and challenging field, while also predicting that this field will always remain dynamic. This definition stems from the fact that social studies play a critical role in understanding social

*Corresponding Author: silademiregenn@gmail.com

Received 10.12.2024

Revised 01.03.2025

Accepted 20.05.2025

events and processes and constitute a comprehensive educational field that brings together various disciplines. The National Council for the Social Studies [NCSS] (2023) states that social studies is a field that prepares students for local, national, and global citizenship by examining individuals, communities, systems, and their interactions over time and space. Therefore, the expectation of raising active and conscious citizens is placed upon social studies education. The goal of providing individuals with the necessary intellectual and practical competencies to fulfil their social responsibilities, by relating them to various disciplines, assigns a remarkable mission to the field of social studies.

The primary objectives of social studies education are to ensure that individuals are aware of the past and present as citizens of the society in which they live, to raise young individuals who can make well-structured and informed decisions for themselves, and to instil citizenship competence in them. (NCSS, 1994). However, it is aimed to impart many important skills to students in social studies classes, ranging from democratic citizenship to cultural understanding, and from addressing social issues to critical thinking. (Levstik & Tyson, 2008). In this context, social studies education serves as a guide by harmoniously presenting information, much like an orchestra (Kılıçoğlu, 2015). NCSS (2010) emphasises that social studies is a field formed by the combination of social sciences and humanities aimed at providing citizenship competence. It encompasses disciplines such as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, natural sciences, and even mathematics. In addition, many skills and values that overlap with the relevant fields are also included within the scope of social studies. For example, critical thinking skills have been integrated into the social studies curriculum by utilising the disciplines of philosophy, sociology, and psychology. In this way, individuals are supported in acquiring active citizenship skills and finding solutions to social problems through the development of critical thinking abilities (Özensoy, 2019, p. 110). In this context, several questions are being raised regarding which teaching-learning approaches effectively convey the intended values and skills, how successful they are, and which areas they focus on more. To obtain answers to these important questions, a comprehensive literature review of social studies education research is necessary. Although there are studies in the literature on various aspects of social studies, it is observed that a comprehensive overview of the entire field of social studies remains lacking, without distinguishing between its subfields. This gap has led researchers to capture a comprehensive 20-year overview of the field of social studies.

Social studies research and bibliometric analysis

Although it is easy to access scientific research through national and international databases today, it is pretty challenging to gain a comprehensive view of social studies in a single frame because the areas of interest are often limited independently. Because, as mentioned above, social studies aim to educate individuals as democratic and active citizens by combining numerous disciplines and fields of study into a single pot. In addition, the fact that research has been conducted for many years and the high number of social studies education research in the field literature also make it difficult to see the entirety of the research in the field. Again, the continuous updating of the content in the field of social studies education (for example, the prominence of research on instructional technologies) necessitates the creation of a holistic picture. To address this issue, the number of bibliometric studies has been increasing rapidly in

recent years. Bibliometric analysis, as a technology-driven methodology, retrieves data from databases and utilises algorithms and quantitative approaches within software to systematically manage, organise, analyse, and present bibliometric data objectively (Sun et al., 2024). From this perspective, the bibliometric method differs from literature reviews. Because in bibliometric analysis, the fundamental characteristics of the dataset are revealed with strong evidence, going beyond merely superficially analysing a limited number of studies (Donthu et al., 2021). Thus, valuable data for researchers is generated by revealing the evolution of disciplines, changes in research focuses, and future predictions through a bibliometric approach.

As in many fields, bibliometric studies targeting different areas are also observed in educational research. For example, Doğru et al. (2019) examined studies in the field of sustainable development and education by utilising bibliometric analysis in their research. Similarly, Gülmez et al. (2020) used bibliometric analysis in their research to reveal the general status of Turkey-based studies published in internationally indexed education journals, utilising bibliometric analyses and visual maps. Yeşiltaş & Yılmaz (2021) analysed media literacy studies in education using bibliometric methods. Wang & Jia (2023) are also among those who preferred bibliometric analysis in their study on teachers' critical thinking skills. In social studies education, numerous studies have been conducted on various teaching methods, values, and skills. Sönmez (2020) presented a case study utilising bibliometric analysis of articles related to social studies education in his work. Eryılmaz et al. (2021) employed a bibliometric analysis in their study to evaluate the literature on social studies education in Turkey. Dere & Ateş (2021) conducted a bibliometric study on literacy skills in social studies education. Palaz (2022) examined the international research articles of Turkish academics on social studies education through a bibliometric analysis. Yeşiltaş & Akcan (2022) used this method to analyse studies related to project-based learning in social studies education. Yeşiltaş & Cantürk (2022) conducted a bibliometric analysis study on the use of games in social studies education. As can be seen from the relevant studies presented above, it is evident that bibliometric analyses have been conducted across various disciplines and subject areas within the field of social studies. Despite all this, the holistic picture of social studies research in the field of education remains unclear. This situation creates a significant deficiency in revealing the historical evolution of the field and making projections for the future.

This research aims to contribute to the existing research gap in the literature, which is currently lacking a bibliometric analysis study on the current state and prospects of social studies education research in the international literature. In the study, social studies were examined as a whole through a bibliometric analysis that describes the development of the field within itself and attempts to predict its future, with social studies being as comprehensive as possible and their subgroups visible through a single lens. Thus, the aim was to conduct a comprehensive analysis and reveal the 20-year development and change in social studies. In this context, the questions the research seeks to answer are as follows:

1. What is the current situation in social studies research in the field of education over the past 20 years (annual scientific production, influential authors and countries, etc.)?
2. What are the research trends and prominent topics in social studies conducted in the field of education over the past 20 years?
3. What is the conceptual structure of social studies research conducted in the field of education, and what could future directions be?

Method

In this study, bibliometric analysis was used to examine the changes, developments, and trends in social studies education research over time. Since the 1960s, the bibliometric method has been widely used to examine the scientific development of various study disciplines (Pritchard, 1969). Bibliometric analysis involves the quantitative analysis of characteristics such as authors, subjects, publication information, and cited sources of publications, allowing for an investigation into how the scientific communication process unfolds with the obtained bibliometric data (Güzeller & Çeliker, 2018). Rehn et al. (2014) emphasise that bibliometrics is an analytical method for weighing the qualitative characteristics of science, such as quality, with a quantitative measurement. Primarily through bibliometric mapping, it becomes possible to visualise the most productive authors, institutions, and countries in a discipline, thereby distinguishing the trend of literature production over time (Jing et al., 2024). In the literature review, no extensive analysis of social studies research in the field of education has been found. Therefore, bibliometric analysis was employed to gain a comprehensive view of this field. To conduct the bibliometric analysis, the Biblioshiny interface in the R Studio program, developed by Massimo Aria, was utilised. Biblioshiny is a web-based graphical interface supported by Bibliometrix. (Aria & Cuccurullo, 2017). Thanks to this package, popular topics, key and pioneering researchers in the literature, and research trends have been identified, allowing for a comprehensive view of the social studies education that the research aims to encompass. Thus, the historical evolution and future projections of social studies research in the field of education have been intended to be revealed.

Data source

One of the most crucial stages in a bibliometric study is determining the dataset. The Web of Science database was accessed on September 13, 2023, to collect data for the study. Since social studies research is multidimensional, only the Web of Science database has been centred on the study. To obtain the data, the combination of "social studies" (Title) OR "social studies" (Abstract) OR "social studies" (Author Keywords) was used. Hence, an effort was made to prevent data loss. After the search, the dataset obtained was filtered by the research area "educational research," and additionally, publications under the "publication type" heading were filtered to include "article" and "review article." In the Web of Science Core Collection, the Social Science Citation Index (SSCI) was preferred. Since examining 20 years ensures a healthy outcome and WoS scans sources after 2000 more accurately, articles from the years 2002-2022 have been selected. Finally, "English" was selected from the "language" category, resulting in 929 raw data points from the research conducted. After obtaining the raw data, the dataset was downloaded and stored in the WoS database with the Bibtext file extension. Subsequently, the dataset was subjected to BiblioShiny automation and individual review by researchers.

Data extraction

After accessing the dataset, the data cleaning process was initiated, and an examination and evaluation were conducted to filter out irrelevant studies. As a result of the researchers' reviews, 610 out of 929 studies were selected as relevant data. Among the articles identified as irrelevant are those that are not directly related to social studies education; do not contain the subject of social studies, use social studies materials merely as a tool for the research, and thus do not have any impact on the research outcome. However, despite the presence of the concept of "social studies" in the abstract, title, or keywords, studies that do not contain any information about

social studies in the content (for example, those presenting examples or providing information from the literature review) have also been identified as irrelevant. Finally, despite being filtered through Web of Science, the data types "early access," "proceeding paper," and "book chapter" encountered in the dataset have also been classified as irrelevant. After the irrelevant data mentioned above was removed from the dataset, the remaining data was analysed. During the data analysis process, the data was first transferred to the Biblioshiny interface in BibTeX file format. The studies were filtered once again by year and document type in the Biblioshiny interface. After all the procedures, 569 data points were selected for analysis. Detailed information about the data extraction process is presented in Figure 1.

Figure 1 Data extraction process¹

Findings

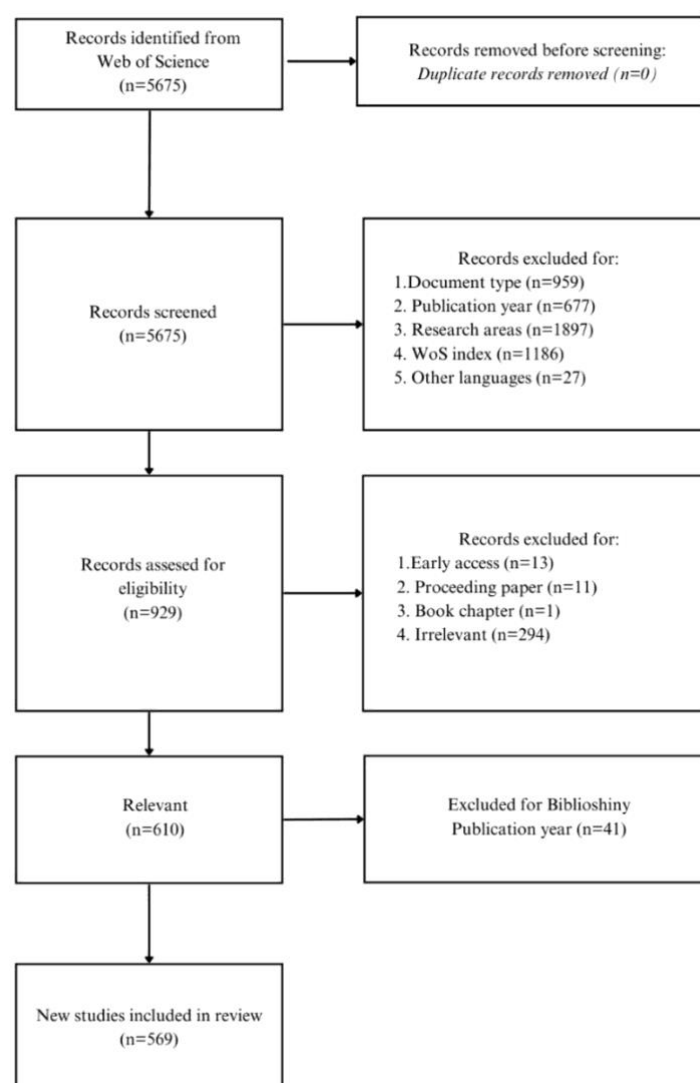


Table 1. Basic information about the data

¹ In the visualisation of the data extraction process, the PRISMA Flow Diagram has been utilised. <https://www.prisma-statement.org/prisma-2020-flow-diagram>.

Description	Results	Description	Results
Timespan	2002-2022	KEYWORDS	
Sources	133	Author's Keywords (DE)	1329
Documents	569	Keywords Plus (ID)	703
Annual growth rate %	7.31	AUTHORS	
Document average age	7.7	Authors	877
Average citations per document	14.3	Authors of single-authored documents	201
References	24553	AUTHORS COLLABORATION	
DOCUMENT TYPES		Single-authored documents	243
Article	554	Co-authors per document	2.11
Review article	15	International co-authorship %	6.151

According to the basic data presented in Table 1, it has been determined that 569 articles were published in 133 journals between 2002 and 2022, and these articles received an average of 14.3 citations. In the dataset, alongside 15 review articles, 554 research articles have been observed, indicating that researchers predominantly work with research articles. However, it has been determined that the annual growth rate of the research is 7.31%. Out of the 569 articles in the dataset, 243 were conducted by a single author, while the remaining 326 were written in collaboration with multiple authors. In this case, the average number of co-authors per article in the dataset is 2.11.

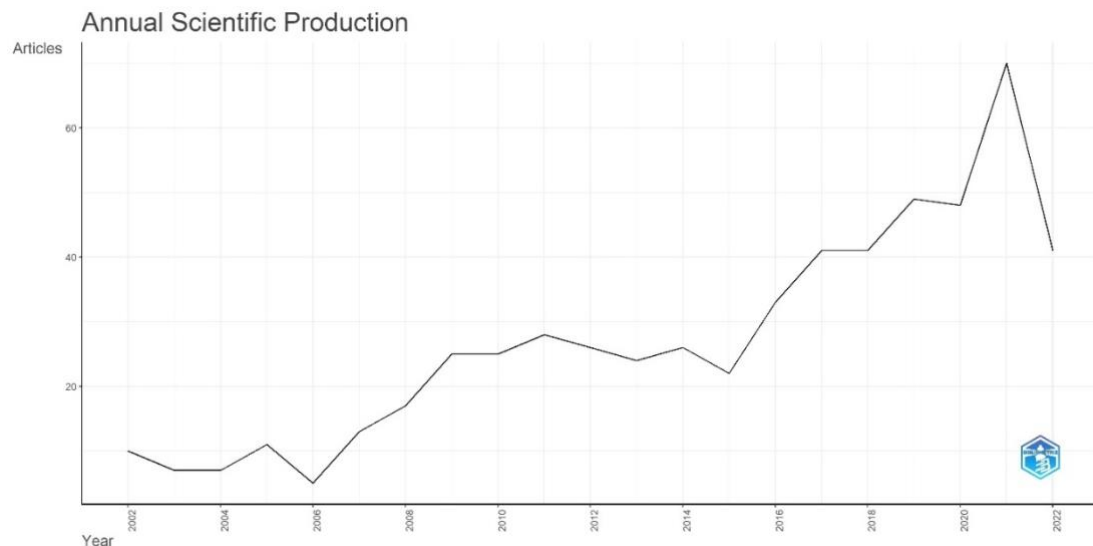


Figure 2 Annual scientific production

Figure 2 shows the distribution of published studies related to social studies education by year. When examining the WoS database, it is observed that a total of 569 articles related to social studies education have been published. While the number of studies increased steadily until 2021, a significant rise in articles written in the field of social studies education occurred in 2021, with 70 studies published. It is possible to establish a connection between the remote continuation of education resulting from the COVID-19 pandemic in 2020 and the productivity of the authors. Taking into account the research and writing process, it can be said that the authors spent the pandemic period productively, and their articles published in 2021 made that year the "most productive year." By 2022, just as in 2017-2018, with 41 published articles, the number indicates that authors were less productive with the return to face-to-face education compared to the previous year. Two key turning points accelerated the increase in production levels in 2017, 2018, and 2022. The first of these occurred during the three years from 2006 to 2009, when production increased fivefold. Production, which continued at the same level until 2015,

experienced a leap between 2015 and 2017, nearly doubling.

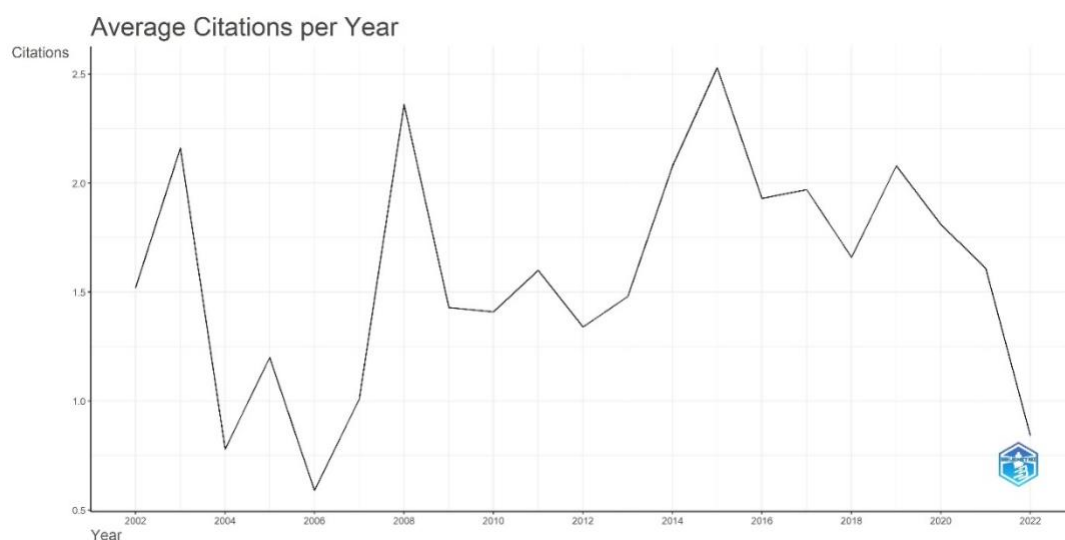


Figure 3 Average citations per year

When examining Figure 3, which shows the average citation counts from 2002 to 2022, it is observed that the year with the highest average citations at the beginning of the time period is 2003. The study titled "Vocabulary tricks: Effects of instruction in morphology and context on fifth-grade students' ability to derive and infer word meanings," written by Baumann et al. (2003), received the highest engagement that year. Following the decline in citation numbers from 2007, there was a significant increase in the average citation count in 2008. This suggests that the interest in social studies education research peaked during this period, and the subsequent years' studies made significant contributions to the literature. The studies that "Developing citizens: The impact of civic learning opportunities on students' commitment to civic participation" (Kahne & Sports, 2008) and "Using the technological, pedagogical, and content knowledge framework to design online learning environments and professional development" (Doering, et al., 2009) are proper examples of this. As of 2014, it has been observed that the average citation rate in subsequent years was high. Notably, the year 2015 had the highest citation rate during this time period. It is possible to infer that the studies conducted during these years were prominent, garnered interest in the field of social studies education, and that the rapid accumulation of research over the years has led to this finding. For example, the study "A contextual game-based learning approach to improving students' inquiry-based learning performance in social studies courses" (Hwang et al., 2015) has guided many subsequent studies. As we approach the present, an inevitable decline in citation numbers has been observed. The reason for this may be the significantly higher number of articles published in recent years compared to previous years, allowing researchers to access a greater variety of sources for citations, or it may take time for published studies to receive citations.

Table 2 Most cited papers

Authors	Title	Research Foci	Journal	GC	LC
Kahne, Sporte (2008)	Developing Citizens: The Impact of Civic Learning Opportunities on Students' Commitment to Civic Participation	Impact of specialized civic education opportunity on students' civic engagement commitments	American Educational Research Journal	265	9
Saye, Brush (2002)	Scaffolding critical reasoning about history and social issues in multimedia-supported learning	Design learning environments to support problem-based social studies and develop critical	Educational Technology Research	203	0

	environments	reasoning			
Baumann, Edwards, Bolland, Olejnik & Kame'enui (2003)	Vocabulary Tricks: Effects of Instruction in Morphology and Context on Fifth-Grade Students' Ability to Derive and Infer Word Meanings	Comparison of the effects of textbook vocabulary teaching integrated into social studies textbooks and the effects of morphemic and contextual analysis teaching	American Educational Research Journal	132	6
Vaughn, Swanson, Roberts, Wanzek, Stillman-Spisak, Solis & Simmons (2013)	Improving Reading Comprehension and Social Studies Knowledge in Middle School	The effectiveness of a teacher-implemented experimental practice for content learning and reading comprehension in social studies course	Reading Research Quarterly	128	0
Hwang, Chiu & Chen (2015)	A contextual game-based learning approach to improving students' inquiry-based learning performance in social studies courses	Developing a contextual educational computer game to enhance students' learning performance through inquiry-based learning strategy	Computers & Education	125	1
Meyer, Bromley & Ramirez (2010)	Human Rights in Social Science Textbooks: Cross-national Analyses, 1970–2008	Examining the rise of human rights themes in secondary school social science textbooks worldwide since 1970	Sociology of Education	124	7
Doering, Veletsianos, Scharber & Miller (2009)	Using the Technological, Pedagogical, and Content Knowledge Framework to Design Online Learning Environments and Professional Development	Examining the change in social studies teachers' TPACK metacognitive awareness after participating in a professional development program on the use of online learning environments	Journal of Educational Computing Research	119	1
Brown & Brown (2010)	Strange Fruit Indeed: Interrogating Contemporary Textbook Representations of Racial Violence Toward African Americans	Examining the construction of knowledge about racial violence and African Americans in the United States	Teachers College Record	107	21
Calderón (2014)	Speaking back to Manifest Destinies: a land education-based approach to critical curriculum inquiry	Examining how settler colonialism is shaped in the social studies curriculum	Environmental Education Research	104	4
Nussbaum & Edwards (2011)	Critical Questions and Argument Stratagems: A Framework for Enhancing and Analyzing Students' Reasoning Practices	Examine the concepts of <i>critical questions</i> (from D. N. Walton, 1996) and <i>integrative and refutational argument stratagems</i> as an approach to teaching argumentation and critical thinking.	Journal of the Learning Sciences	99	3

*GC: Global citations, LC: Local citations; ** Ranking is based on global citation.

Table 2 has been created based on the number of citations of the articles within the dataset. Global citation (GC) shows the total number of citations of the article recorded in the WoS database, while local citation (LC) represents the number of citations within the dataset. Upon examining the table, it is noteworthy that the most impactful articles in terms of GC and LC differ significantly from one another. The reason for this may be that social studies have an interdisciplinary structure. For example, the most influential article in terms of GC is the study titled "Developing citizens: The impact of civic learning opportunities on students' commitment to civic participation", published by Kahne and Spote (2008). However, this study has received only six citations within the dataset. The dataset represents the entirety of social studies education research. In this case, although the article was written in the context of citizenship, it is interesting to other citizenship-themed publications globally; however, the number of local citations it receives is low due to the distribution of studies in other fields within the dataset. As another example, in terms of GC, the study "Improving reading comprehension and social studies knowledge in middle school", published by Vaughn et al. in 2013, has received no local citations, even though these authors are included in the analysis of the most influential authors. (Table 3 here). The study titled "Strange fruit indeed: Interrogating contemporary textbook representations of racial violence toward African Americans," published by Brown & Brown (2010), has received

the highest number of local citations. In this case, it can be said that the studies in the dataset are also predominantly related to race.

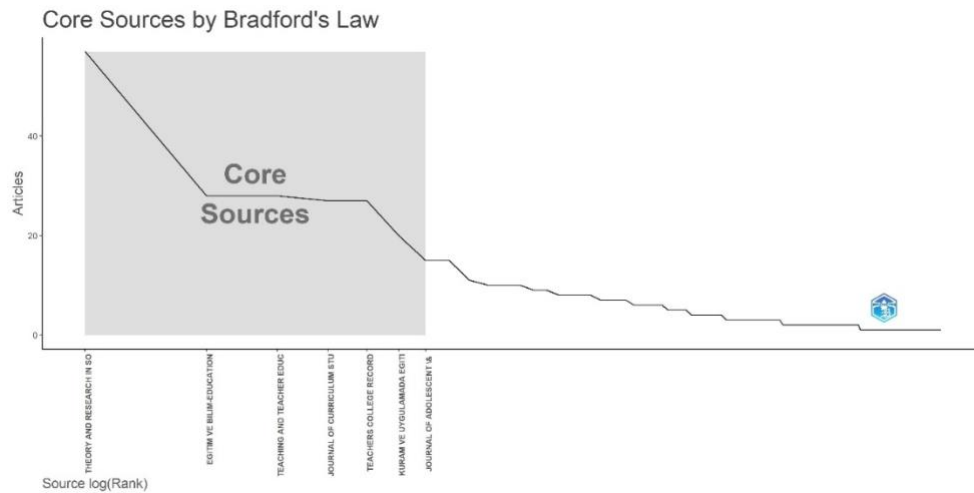


Figure 4 Core source by Bradford's Law

In bibliometric analyses conducted to understand and interpret the literature accurately, various metrics and laws are employed to measure scientific performance. One of these is Bradford's law. Developed by Samuel C. Bradford, this law is based on the explanation of the distribution of journals into regions due to the concentration of significant publications in a subject or field in a few journals. According to Bradford's law, the most fundamental and highly cited journals in a discipline are located in the core region. In contrast, in the spread region, there are broader distributions, more specific studies, and journals with fewer citations. In Figure 4, 7 journals from the dataset are located in the core area. Theory and Research in Social Education, by being in the core zone according to Bradford's law, proves to be a leading journal in social studies education research. The Turkish-origin journals Education and Science and Educational Sciences: Theory & Practice, being located in the core region, demonstrate Turkey's global significance in the field of social studies education.

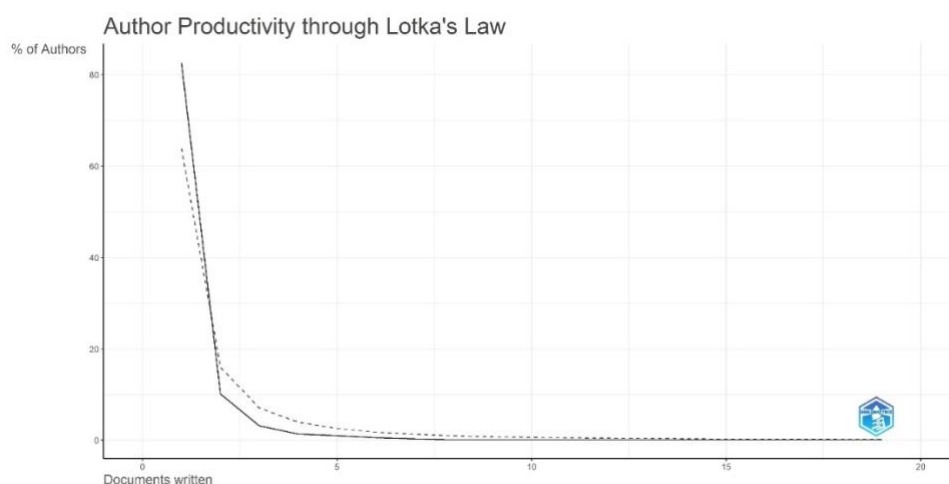


Figure 5 Author productivity through Lotka's Law

Lotka's Law reveals the frequency distribution of scientific productivity among authors in a specific field. (Lotka, 1926). According to this law, the analysis presented in Figure 5 shows that a significant portion of the productivity in the mentioned field consists of 1 author with 19

publications, one author with 15 publications, one author with 11 publications, one author with 10 publications, one author with nine publications, and one author with eight publications. The contributions of pioneers in the field of social studies education to the literature are presented in this graph. However, there are only 725 authors with one publication, 89 authors with two publications, 28 authors with three publications, 12 authors with four publications, 9 authors with five publications, 5 authors with six publications, and 3 authors with seven publications. As can be seen, the number of authors who can publish multiple works is small, while productivity decreases significantly after seven publications. Among the 877 authors, 725 authors with one publication each constitute 82.66% of the authors in the dataset. Assuming there are new researchers in the field, this rate may provide a positive result regarding the prevalence of studies conducted in the field of social studies education. According to the analysis, 82.66% of the authors in the dataset contributed to the field with only one publication each, revealing the productivity level of the majority of authors in the literature. In addition, the fact that a small number of authors have specialised in the field and produced a large number of publications is significant evidence that the diversity in the field of social studies has not been fully realised and that a large portion of researchers have not continued their contributions to the field of social studies education.

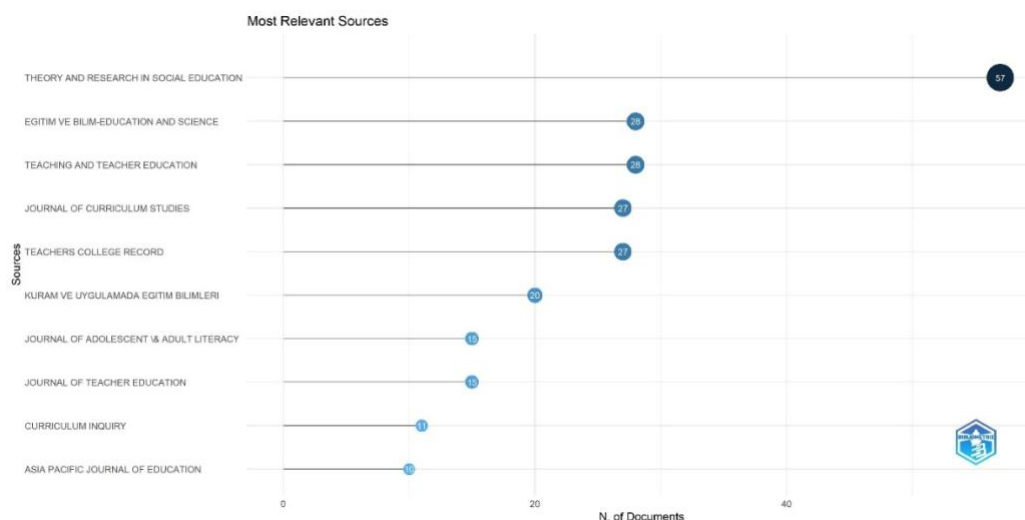


Figure 6 Most relevant sources

In Figure 6, the top 10 journals in the field of social studies education are presented. Upon examining the figure, the leading journals in the field of social studies education become apparent. In the 20 years, the journal with the most articles, totalling 57, has been "Theory and Research in Social Education". This journal is a leading publication in social studies education research, featuring extensive and comprehensive studies in the field. In the figure, alongside Turkish-origin journals such as "Education and Science" and "Educational Sciences: Theory & Practice", it is noteworthy to mention that the "Education and Science" journal ranks second, immediately following the pioneering journal Theory and Research in Social Education. With other journals focusing on specific areas, it will be noticed that the number of articles is lower. For example, journals such as "Teaching and Teacher Education," "Journal of Curriculum Studies," "Teachers College Record," and "Journal of Teacher Education" are likely to be ranked lower because they have hosted significant studies related to teacher education, development, and curriculum. Another journal that publishes on specific topics is the "Journal of Adolescent & Adult

Literacy," which focuses on adolescent and adult literacy. In this case, articles related to literacy skills within the scope of social studies education have found their place in this journal. By evaluating the subject focuses and contributions to the literature of each journal, the importance in the field of social studies education can be understood.

Table 3 Influential authors

Author	Institution	NP	H-Index	G-Index	M-Index	TC
Vaughn Sharon	University of Texas Austin	19	10	19	.714	469
Wanzek Jeanne	Vanderbilt University	15	9	15	.750	413
Roberts Greg	University of Texas Austin	11	7	11	.583	296
Swanson Elizabeth	University of Texas Austin	10	7	10	.636	249
Ciullo Stephen	Texas State University System	9	6	9	.500	123
Conklin Hilary Gehlbach	DePaul University	7	6	7	.375	88
De La Paz Susan	University of Maryland College Park	6	6	6	.273	100
Mastropi-eri Margo	George Mason University	6	6	6	.273	188
Sim Jasmine B.-Y.	Nanyang Technological University	8	6	8	.353	94
Fall Anna-Mari	University of Texas Austin	7	5	7	.455	139

*NP: Number of papers, TC: Total citations. (Note: Ranking is based on the H-index of authors)

Table 3 presents the number of publications, H-index, M-index, G-index, and total citation counts of the most influential authors in the research dataset. Vaughn Sharon is the most influential author in the dataset, with 19 articles, an h-index of 10, and a total of 469 citations. With a significantly high number of citations compared to the authors following her, Wanzek Jeanne (H-index = 9, TC = 413) ranks second, followed by Robert Greg (H-index = 7, TC = 269) and Swanson Elizabeth (H-index = 7, TC = 249). In this table, which lists the top 10 most influential authors, it is noteworthy that 9 authors are from the USA, while only one author from Singapore has made it onto this list.

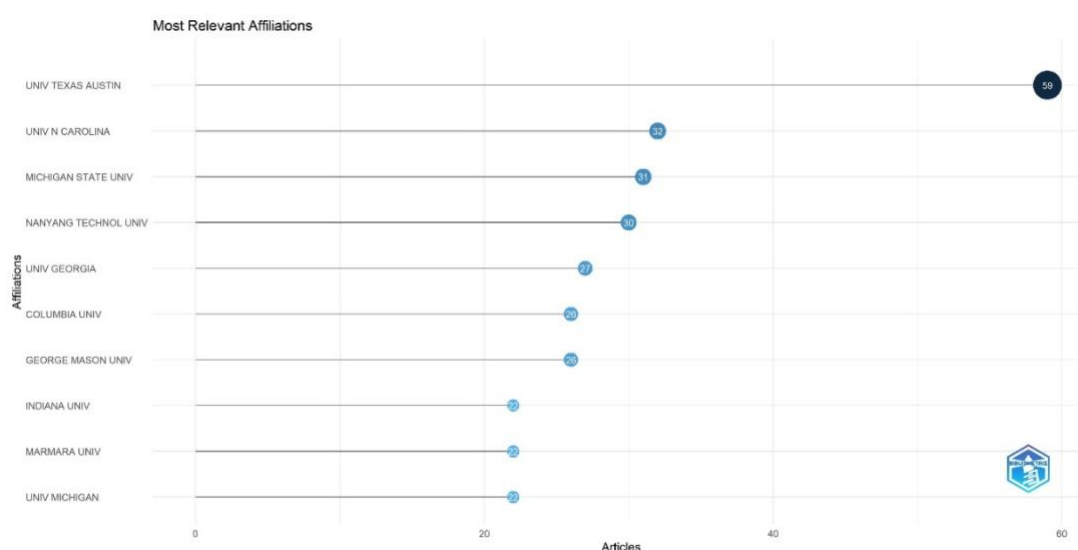


Figure 7 The most relevant institutions

Figure 7 shows the most influential institutions in social studies education research. The University of Texas at Austin ranks first with 59 publications. With publication numbers very close to each other, "North Carolina University" has 32 publications, "Michigan State University" has 31 publications, and "Nanyang Technology University" has 30 publications, making them the most relevant institutions in the field of social studies education. However, with 27 publications, the University of Georgia ranks 5th, while Columbia University and George Mason University follow with 26 publications each. In the graph of the 10 most relevant connections in the field of social studies education, Indiana University, Marmara University, and the University of Michigan occupy

the last three positions, each with 22 publications. The fact that many of the most influential authors are affiliated with the University of Texas at Austin lends support to this analysis. Additionally, it is noteworthy that Marmara University from Turkey has made it onto the list of institutions dominated by the United States.

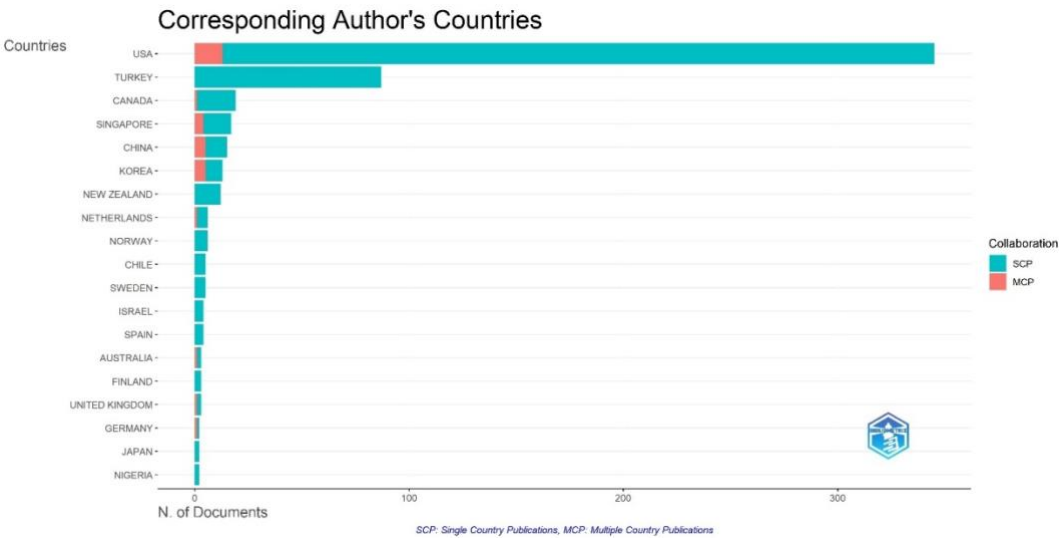


Figure 8 The most relevant countries

In Figure 8, the data regarding the authors' countries have been subjected to two different evaluations based on MCP (Multiple Countries Publication) and SCP (Single Country Publication) values. The table shows the cases where the stakeholders of joint publications are from the same country or different countries, as well as the countries from which the researchers in the dataset originate. Social studies education research is primarily conducted collaboratively by researchers from the same country. The number of studies conducted collaboratively by researchers from different countries is relatively low. For example, the United States, with 345 articles, is the country that has produced the most publications within the entire dataset. However, only 3.76% of these articles are collaborative works by researchers from different countries. Many other countries have been able to publish in the field of social studies education by collaborating only with researchers from their own country. For example, all 87 publications in the dataset of Turkey, the country with the second most publications, were conducted by authors from the same country. However, although international interaction is important, there is no clear evidence that it directly affects the success of the publication. A good example of this is the study "Developing citizens: The impact of civic learning opportunities on students' commitment to civic participation" (Kahne & Spote, 2008), which is the most cited high-interaction work in the dataset, and the authors of this study are from the same country.

Country Scientific Production

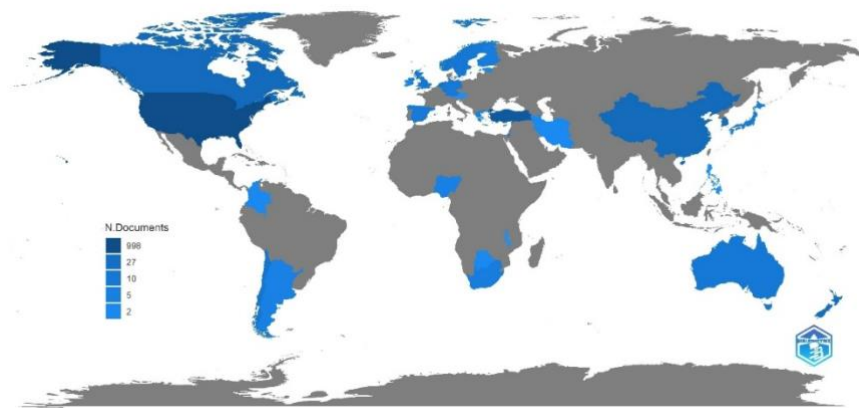


Figure 9 Scientific productions of countries

Figure 9 shows the distribution of social studies education research by country. The United States (n=345), where the field of social studies originated, is indicative of the continued centrality of social studies. In the next position, Turkey (n=87) ranks among the highly productive countries. Following Turkey, Canada (n=19), Singapore (n=17), China (n=15), South Korea (n=13), New Zealand (n=12), the Netherlands (n=6), Norway (n=6), and Chile (n=5) come next. As a result of this data and as seen in the map, studies on social studies education in American and Asian countries are more intense compared to other continents.

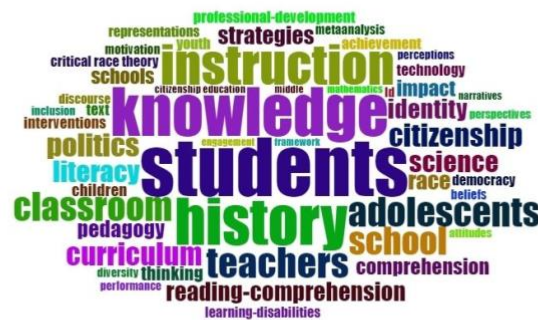


Figure 10 Wordcloud

The word cloud in Figure 10 presents a graph, where keywords in the articles are sized according to their frequency of repetition. Since the keyword "education" (f: 105) has a high repetition frequency, the area it occupies in the figure is larger than the others. Therefore, it has been excluded from the figure. The most notable keywords in the figure, with the highest frequencies, are "students" (65), "knowledge" (54), "history" (52), and "instruction" (45). After these keywords, the concepts of "teachers," "adolescents," "classroom," and "school" have notable and significant frequencies of repetition. In terms of frequency, the keyword "students" is used more often than the keyword "teachers," indicating that studies conducted with students are more numerous than those conducted with teachers. The frequent repetition of the keyword "history" alongside fundamental education-related terms such as teacher, student, adolescents, class,

school, knowledge, and instruction underscores the importance of the field of history in social studies education research. Along with these, it is important that the concepts of "citizenship," "politics," "identity," and "race" are also among the frequently used keywords. The United States, where social studies originated and has contributed the most to social studies education research (see Figure 9), is likely to have studies focusing on these areas due to the coexistence of different cultures, identities, and races. The keyword "literacy" in the figure, with its 24 occurrences, also demonstrates the relationship between social studies and literacy. The keywords in the word cloud with low frequency and small font size represent studies that have recently gained popularity or are beginning to lose significance in the literature. For example, the concept of "meta-analysis" began to gain popularity in social studies education research, particularly between 2015 and 2016, and has continued to the present day.

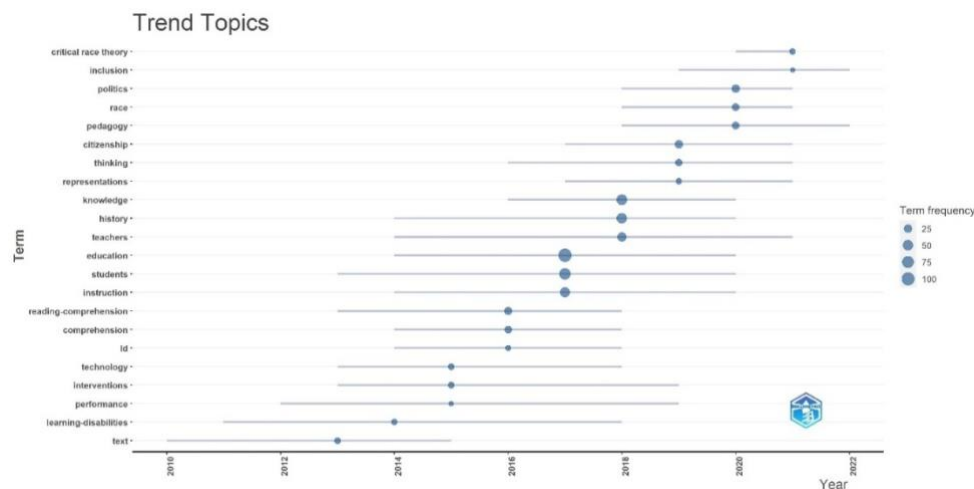


Figure 11 Trend topics

The trend topics analysis in Figure 11 has been created based on the changes in keywords, titles, and abstracts over the years. Thus, with the figure, it is possible to observe how the literature has evolved over the years, which topics have emerged in specific years, and the corresponding research areas. For this graph, it has been ensured that the key concepts obtained from the abstract, title, and keywords (Keyword Plus) appear at least 3 times each year and have a minimum repetition frequency of 10. In 2017, it was observed that the concept of "education" peaked with a total of 105 repetitions, while the concept of "students" came to the forefront (f: 65). It is noteworthy that the concept of "knowledge," which appeared a total of 54 times, peaked in the year 2018. The prominence of the concept of "race" in 2020 (f: 20) and its transformation into the concept of critical race theory in 2021 (f: 12) illustrates a specific development in the field of social studies. The concept of "citizenship," which gained prominence in 2019, is particularly notable in social studies education, with a total of 26 mentions. It is also noteworthy that the field of "history," which is one of the cornerstones of social studies education, has maintained its popularity over the years (f: 52).

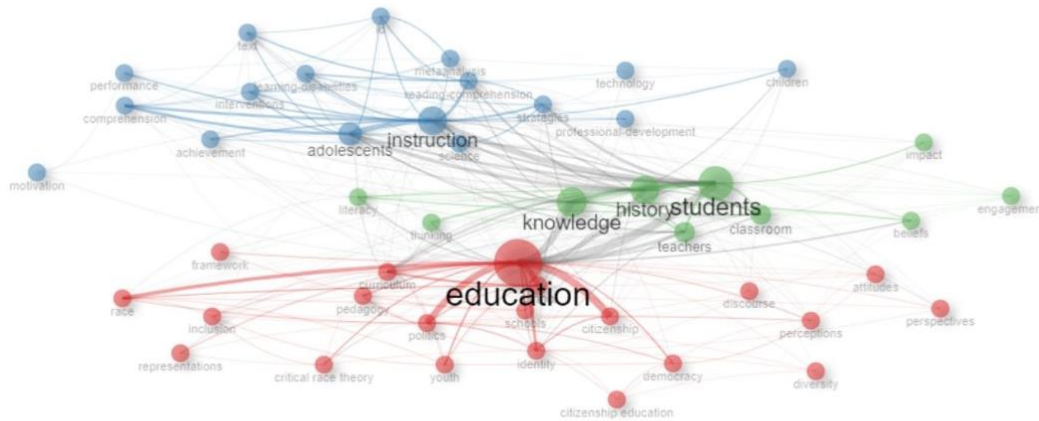


Figure 12 Co-occurrence network

Various names, including co-word analysis, co-occurrence analysis, or co-word network, refer to the co-occurrence network shown in Figure 12. This analysis has visualised the keywords used together in research by transforming them into a network map through connections and nodes. Nodes of the same colour represent a cluster; the sizes of the nodes indicate the frequency of use of key concepts. The proximity of nodes within the same cluster indicates the frequency of their co-occurrence, whether it is low or high. In the figure, three clusters are observed. Among these, the concept of "education" is dominant in the red cluster, and the concepts it is connected to, such as "curriculum," "pedagogy," "citizenship," "attitudes," and "politics," are important components of this cluster. In the green cluster, although there is no single dominant concept, the concepts of "students," "knowledge," and "history" are the fundamental structures that make up this cluster. The blue cluster centres around the concept of "instruction," revealing the connections between the concepts of "adolescents," "comprehension," "achievement," "interventions," and "motivation." When the analysis is examined, the red cluster is more centred around the concept of education, particularly the social studies curriculum content; the green cluster focuses on the concepts of students and knowledge, emphasising the intensity of studies based on relationships, beliefs, thoughts, and influences within the context of students, teachers, and classrooms. In contrast, the blue cluster shows the concepts that are generally measured or applied to the sample group in the research.

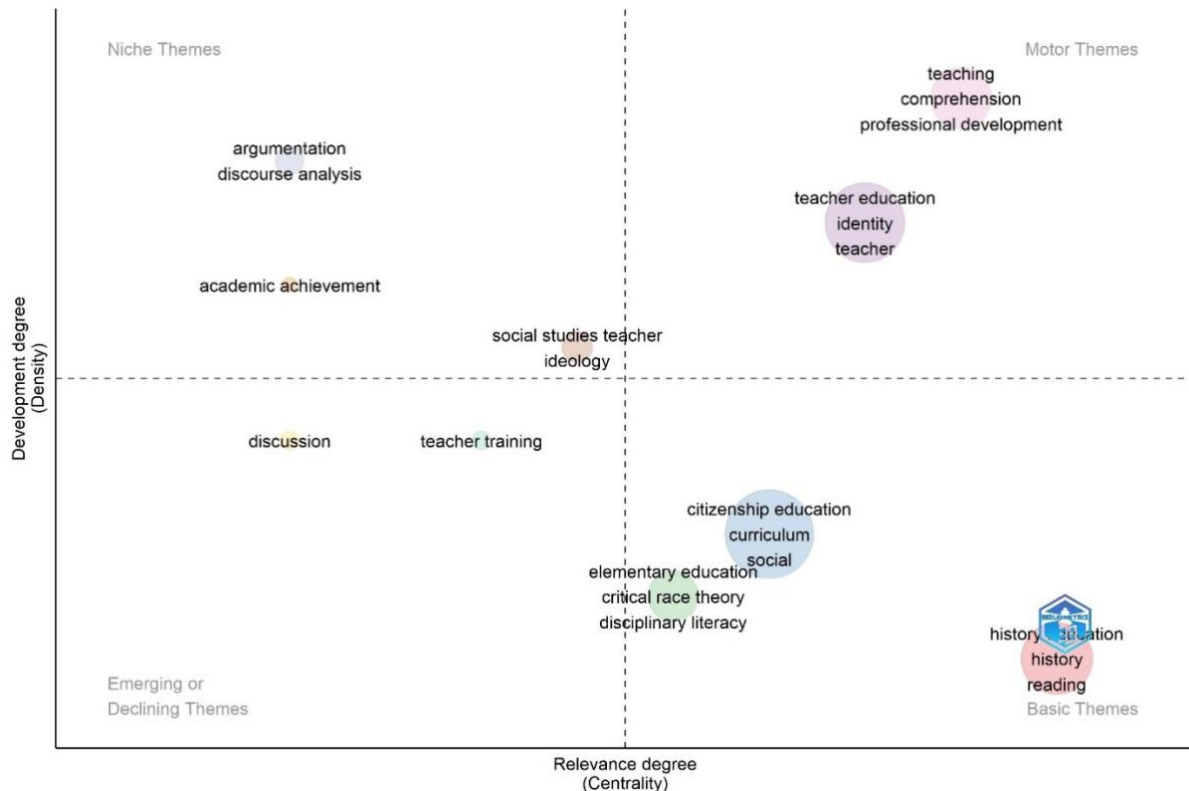


Figure 13 Thematic map

Figure 13 illustrates the thematic status of social studies research over the past 20 years on a map with axes representing "Density" and "Centrality". Since the terms "social studies," "social studies education," and "education" are the most frequently repeated concepts in the field, it was ensured that a more reliable dataset was obtained by removing them before creating a thematic map. By selecting Author's Keyword, min cluster frequency: 10, number of labels: 3 and clustering algorithm was set as Walktrap. In the axes of the figure, the upper and right areas are positive, while the lower and left areas are negative. For example, "Motor Themes," located in the upper right quadrant, assumes the value of prevalence/density due to its position in the positive part of the density axis, and the value of centrality/relevance due to its position in the positive part of the centrality axis. In this case, it can be said that the motor themes are both central and widespread in the field of writing, thus they are solid themes.

When examining the thematic map, it is observed that the core themes in social studies education research are grouped into two clusters. Among these, "teaching," "comprehension," and "professional development" represent the frequently preferred themes in the field. In contrast, the concepts of "teacher education," "identity," and "teacher" represent the motor themes with fewer studies compared to the other cluster. In this case, it can be said that numerous studies have examined the concepts of teaching, comprehension, and professional development in the field; however, studies centred on teacher education, identity, and teachers are more prevalent than those on these other topics. In the figure, the top left corner is referred to as "Niche Themes," and this area occupies the positive part of the density axis, gaining a "prevalence/density" value while occupying the negative part of the centrality axis, losing a centrality/relevance value. In this case, the concepts of "argumentation," "discourse analysis," "academic achievement," "social studies teacher," and "ideology" are present and widely used in

the literature. However, they are often distant from one another. "The themes of 'Argumentation,' 'discourse analysis,' and 'academic achievement,' although not directly related to social studies education, are highly preferred in the field. The "Emerging or Declining Themes" located in the lower left corner remain on the negative side of both the density and centrality axes. Based on the values they receive, both their prevalence and density, as well as their centrality and relevance, are low, indicating that the concepts here are either emerging or disappearing/lost themes. The "discussion" and "teacher training" themes in Figure 13 are an example of this. Concepts under the name "Basic Themes," which receive negative values on the density axis, indicating they are no longer common or less frequently used, and positive values on the centrality axis, indicating they still hold significance in the literature, are located in the bottom-right corner of the map. The themes here are concepts related to the motor themes located in the upper right corner. Upon examining the thematic map, it is observed that the fundamental concepts are grouped into three clusters. The cluster containing the concepts of "history education," "history," and "reading" has become the theme with the highest relevance to social studies education research on the thematic map; however, these concepts are no longer studied as frequently as they were before. However, the cluster of "citizenship education," "curriculum," and "social," as well as the cluster of "elementary education," "critical race theory," and "disciplinary literacy," have remained relevant but have been less frequently studied as basic themes.

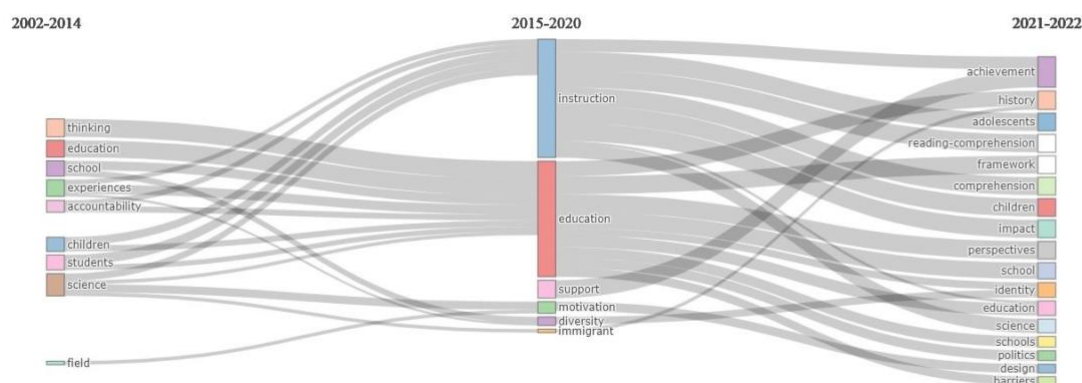


Figure 14 Thematic evolution

Figure 14 shows the thematic evolution of social studies education research in three time periods. The analysis was conducted with a minimum of 250 words and 5 cluster frequencies. Time periods have been delineated according to the years in which significant changes occurred in annual scientific production (see Figure 2). It is observed that many concepts present in the first time period have evolved into the concepts of "instruction" and "education" in the second time period. The concept of "support," which has no counterpart in the first time period, becomes evident in the second time period and evolves into the concept of "achievement" in the third time period. The transformation of "instruction" and "education" into various concepts by 2021 in the second time period suggests that the studies conducted this year focused on quite specific topics. Again, while the concept of "diversity" was studied until 2020, the transition to "identity" in 2021 suggests that diversity was recognised before multicultural themes and then evolved into identity construction.

Discussion

Future directions and limitations

This research aims to analyse the scientific production of social studies research in the field of education between 2002 and 2022 using bibliometric methods and to make predictions for future research. According to our data, scholarly interest in social studies research is on the rise, as seen by the nearly tripling of annual publications from 2015 to 2021 (70 publications in 2021 compared to only 22 publications in 2015). Palaz's (2022) bibliometric analysis of international research on social studies education, which focused on Turkey, consistently showed an increase in scientific production from 2014 to 2021. Sönmez (2020) also highlights in his study that the surge in social studies education research has occurred in recent years. Despite the swift surge in interest in social studies, the discipline remains deeply fragmented. Out of the total number of authors included in the publication collection, only a small percentage (17,34%) of authors have more than two papers. Furthermore, a significant number of the highly productive writers originate from a limited number of academic institutions, such as the University of Texas at Austin in the United States or Nanyang Technological University in Singapore. Moreover, the United States maintains a prominent position in the field of social studies, both through its own productions and its collaborations with various countries. Following that, Turkey, China, Canada, Singapore, and South Korea also rank among the countries that stand out in the field of social studies. Other similar bibliometric studies in the field have also shown that the US is the country that contributes the most (Sönmez, 2020; Dere & Ateş, 2021; Yeşiltaş & Cantürk, 2022). This finding demonstrates that the United States, as the country of origin for the field of social studies education, continues to hold significant influence and remains the leading country shaping social studies education.

According to the findings, research has primarily focused on the teaching of social studies. Research about academic accomplishment has emerged as a focal point during this process. Students, teachers, and studies at the classroom and school level constitute a significant portion of research in the field of social studies. Although history has long maintained its relationship with social studies, concepts such as citizenship, politics, identity, and race have also found a significant place in social studies education research for quite some time. Although educational and teaching efforts initially gathered various scattered activities under a single umbrella, they have now fragmented again, leading to the emergence of more specific studies. Since 2015, social studies research has incorporated the concepts of "immigrant" and "diversity". While historical studies often incorporate contemporary research on immigrants, "diversity" research has evolved into "identity" studies. Gómez-Carrasco et al.'s 2019 study highlights the prominence of studies in the fields of history and identity studies. In their systematic review on mobile learning in social studies, Diacopoulos & Crompton (2020) discovered that the majority of studies focused on the use of mobile learning in the fields of history and geography. Meunier and Lanoix's (2021) systematic review reveals that the research prioritises teachers over students, while also emphasising the inclusion of extracurricular learning methods, such as museums and heritage sites, in the research topics. In a bibliometric analysis of international research on social studies education, the most frequently used keywords were "social studies," "social studies education," "prospective social studies teachers," "academic achievement," "citizenship education," and "values education" (Palaz, 2022). In the study on social studies education in Turkey, "education," "knowledge," "motivation," and "self-efficacy" are the most intense network centres in the field.

(Eryilmaz et al., 2021; Jay, 2022) In his study on social studies teacher education research, Jay (2022) states that “inquiry” has been a significant phenomenon in research. In addition, academics use “inquiry” as a modifier, as in the terms “inquiry-based” or “inquiry-oriented.” As understood from the findings and related research, social studies education research is moving away from topics centred on fundamental disciplines and is showing a tendency towards more specific conceptual or socially relevant subject areas.

This study has several limitations in data processing and analysis due to the configuration of metadata. First, data scanning, data cleansing, and data correction were conducted prior to the analysis process. However, these processes were conducted manually, which may have resulted in errors in our analysis. The multifaceted and intricate nature of social studies education research yields numerous disparate studies related to social studies within databases. Consequently, we made selections according to the established criteria. Despite the researchers' thorough examination of the data set, this may have resulted in a limitation. Secondly, the analysis procedure used for the research only utilised the Biblioshiny interface. Biblioshiny is a robust tool; nevertheless, the ability to utilise additional software would enable us to conduct many bibliometric analyses not offered by Biblioshiny. Thirdly, we incorporated the indexes from the Web of Science Core Collection into the dataset and conducted filtering for research and review articles. The analysis did not encompass various sorts of scientific papers and other databases. Subsequent studies should encompass databases outside the WoS and various categories of scientific papers within the analytical framework.

Conclusion

This study analysed data from the WoS database to conduct an initial bibliometric analysis of the global literature on social studies research in education. This study is crucial for examining and providing a thorough overview of the evolution of this research field, along with its main contributors and their collaborations. In the research, social studies research was analysed in terms of annual scientific production, cited documents, authors, sources, countries, affiliations, keywords, research trends, and conceptual structure. In this way, the evolution of social studies research was delineated, and prospective trajectories were anticipated. Publications of research and review articles from 2002 to 2022 were obtained from the WoS database, leading to the inclusion of 569 articles in the analysis. The research yielded three essential conclusions concerning the attributes of social studies research in education.

Initially, it was determined that social studies research has had a notable upward trajectory in the scientific literature in recent years. Although there was a consistent rise from 2006 to 2009 and from 2015 to 2019, as of 2021, social studies is undergoing its most prolific phase in terms of annual scientific production. The transition to online education during the COVID-19 pandemic, which launched in 2019, introduced novel research topics in social studies education and afforded researchers greater flexibility, enabling them to dedicate more time to their studies. Secondly, the United States continues to play a pivotal role in social studies research in education and in the establishment of international research collaborations. The fundamental reason for this situation could be the birth of the social studies field in the USA, the presence of a strong institution like NCSS, and the emergence of innovative approaches to social studies, first in the USA. Thirdly, although social studies research continues to focus on academic success, it is also moving away from the shadow of independent scientific disciplines and towards concepts

that are gaining relevance in today's world. It has been concluded that concepts such as race and identity are becoming increasingly important. It is believed that the reasons behind this are the increasing visibility of cracks in the social structure and researchers placing greater importance on studies related to individual equality. In other words, it can be said that the characteristics of individual identity in the social sphere have attracted more attention from researchers.

Statement of researchers

Researchers' contribution rate statement

The authorship contribution for this paper is as follows: the first author contributed 60%, and the second author contributed 40%.

Conflict statement

The authors declare that they have no conflicts of interest.

Support and thanks

The research was conducted without any support.

References

- Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975.
- Baumann, J. F., Edwards, E. C., Boland, E. M., Olejnik, S., & Kame'enuei, E. J. (2003). Vocabulary tricks: Effects of instruction in morphology and context on fifth-grade students' ability to derive and infer word meanings. *American Educational Research Journal*, 40(2), 447–494. <https://doi.org/10.3102/00028312040002447>
- Bhardwaj, R. K. (2017). Information literacy literature in the social sciences and humanities: A bibliometric study. *Information and Learning Science*, 118(1/2), 67–89. <https://doi.org/10.1108/ILS-09-2016-0068>
- Bozdoğan, K. (2020). A bibliometric analysis of educational studies about “museum education.” *Participatory Educational Research*, 7(3), 161–179. <https://doi.org/10.17275/per.20.40.7.3>
- Bozkurt, M., Eryılmaz, Ö., & Boyraz, C. (2021). Science mapping research on citizenship education: A bibliometric review. *International Journal on Social and Education Sciences*, 3(4), 670–695. <https://doi.org/10.46328/ijonses.148>
- Brown, A. L., & Brown, K. D. (2010). Strange fruit indeed: Interrogating contemporary textbook representations of racial violence toward African Americans. *Teachers College Record*, 112(1), 31–67. <https://doi.org/10.1177/016146811011200108>
- Calderón, D. (2014). Speaking back to manifest destinies: A land education-based approach to critical curriculum inquiry. *Environmental Education Research*, 20(1), 24–36. <https://doi.org/10.1080/13504622.2013.865114>
- Demirkol, M., & Kutluca, T. (2016). Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi'nin bibliyometrik analizi [Bibliometric analysis of Dicle University Ziya Gökalp Education Faculty Journal]. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, 28, 108–118.
- Dere, İ., & Ateş, Y. (2021). Studies on literacy skills in social studies education: A systematic literature review (1996–2020). *Scandinavian Journal of Educational Research*, 67(3), 360–376. <https://doi.org/10.1080/00313831.2021.2021439>
- Diacopoulos, M. M., & Crompton, H. (2020). A systematic review of mobile learning in social studies. *Computers & Education*, 143, Article 103911. <https://doi.org/10.1016/j.compedu.2020.103911>
- Doering, A., Veletsianos, G., Scharber, C., & Miller, C. (2009). Using the technological, pedagogical, and content knowledge framework to design online learning environments and professional development. *Journal of Educational Computing Research*, 41(3), 319–346. <https://doi.org/10.2190/EC.41.3.d>
- Doğru, M., Güzeller, C. O., & Çelik, M. (2019). Geçmişten günümüze sürdürülebilir kalkınma ve eğitim alanında: Bibliyometrik bir analiz [Sustainable development from past to present in the field of education: A bibliometric analysis]. *Adıyaman Üniversitesi Eğitim Bilimleri Dergisi*, 9(1), 42–68. <https://doi.org/10.17984/adyuebd.515009>

- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Eryılmaz, Ö., Bozkurt, M., & Boyraz, C. (2021). Mapping research on social studies education in Turkey: A bibliometric review. *International Journal of Contemporary Educational Research*, 8(3), 191–205.
- Fallace, T. D. (2009). Did the social studies really replace history in the local curriculum? The case of Elyria, Ohio and the North Central States. *Theory & Research in Social Education*, 37(4), 458–483.
- Gómez-Carrasco, C. J., López-Facal, R., & Rodríguez-Medina, J. (2019). La investigación en Didáctica de las Ciencias Sociales en revistas españolas de Ciencias de la Educación. Un análisis bibliométrico (2007-2017) [Research in Social Science Didactics in Spanish Educational Science journals]. A bibliometric analysis (2007-2017)]. *Didáctica de las Ciencias Experimentales y Sociales*, 37, 67–88. <https://doi.org/10.7203/dces.37.14440>
- Gülmez, D., Özteke, İ., & Gümüş, S. (2020). Uluslararası dergilerde yayımlanan Türkiye kaynaklı eğitim araştırmalarının genel görünümü: Bibliyometrik analiz [The general view of educational research from Turkey published in international journals: A bibliometric analysis]. *Eğitim ve Bilim*, 45(206), 1–33. <http://dx.doi.org/10.15390/EB.2020.8878>
- Güzeller, C. O., & Çeliker, N. (2018). Bibliometric analysis of tourism research for the period 2007-2016. *Advances in Hospitality and Tourism Research*, 6(1), 1–22.
- Hwang, G.-J., Chiu, L.-Y., & Chen, C.-H. (2015). A contextual game-based learning approach to improving students' inquiry-based learning performance in social studies courses. *Computers & Education*, 81, 13–25. <https://doi.org/10.1016/j.compedu.2014.09.006>
- Jay, L. (2022). The disciplinary and critical divide in social studies teacher education research: A review of the literature from 2009–2019. *Theory & Research in Social Education*, 50(3), 339–374. <https://doi.org/10.1080/00933104.2022.2077156>
- Jing, Y., Wang, C., Chen, Y., Wang, H., Yu, T., & Shadiey, R. (2024). Bibliometric mapping techniques in educational technology research: A systematic literature review. *Education and Information Technologies*, 29(8), 9283–9311.
- Kahne, J. E., & Sporte, S. E. (2008). Developing citizens: The impact of civic learning opportunities on students' commitment to civic participation. *American Educational Research Journal*, 45(3), 738–766. <https://doi.org/10.3102/0002831208316951>
- Karaköse, T., Leithwood, K., & Tulubas, T. (2024). The intellectual evolution of educational leadership research: A combined bibliometric and thematic analysis using SciMAT. *Education Sciences*, 14(4), 429. <https://doi.org/10.3390/educsci14040429>
- Kılıçoğlu, G. (2015). Sosyal bilgiler tanımı, dünyada ve ülkemizde gelişimi ve önemi [Definition of social studies, its development and importance in the world and in our country]. In M. Safran (Ed.), *Sosyal bilgiler öğretimi* (pp. 3–16). Pegem Akademi.
- Levstik, L. S., & Tyson, C. A. (Eds.). (2008). *Handbook of research in social studies education*. Routledge.
- Meyer, J. W., Bromley, P., & Ramirez, F. O. (2010). Human rights in social science textbooks: Cross-national analyses, 1970–2008. *Sociology of Education*, 83(2), 111–134. <https://doi.org/10.1177/0038040710367936>
- Meunier, A., & Lanoix, A. (2021). Un champ de recherche en émergence : revue systématique des écrits scientifiques en didactique des sciences humaines au primaire au Québec (2000-2020) [An emerging field of research: A systematic review of the scientific literature on the didactics of primary school humanities in Quebec (2000-2020)]. *Revue des sciences de l'éducation*, 47(3), 138–174. <https://doi.org/10.7202/1084532ar>
- National Council for the Social Studies (NCSS). (1994). *Expectations of excellence: Curriculum standards for social studies*. National Council for the Social Studies.
- National Council for the Social Studies (NCSS). (2010). *National curriculum standards for social studies: A framework for teaching, learning, and assessment*.
- National Council for the Social Studies (NCSS). (2023, November). *National Council for the Social Studies (NCSS) has approved a new definition of social studies*. Retrieved November 12, 2023, from <https://www.socialstudies.org/media-information/definition-social-studies-nov2023>
- Nussbaum, E. M., & Edwards, O. V. (2011). Critical questions and argument stratagems: A framework for enhancing and analyzing students' reasoning practices. *Journal of the Learning Sciences*, 20(3), 443–488. <https://doi.org/10.1080/10508406.2011.564567>
- Özensoy, A. U. (2019). Eleştirel düşünme [Critical thinking]. In B. Aksoy, B. Akbaba, & B. Kılcan (Eds.), *Sosyal bilgilerde beceri eğitimi* (pp. 91–112). Pegem Akademi.

- Öztürk, C. (2015). Sosyal bilgiler: Toplumsal yaşama disiplinlerarası bir bakış [Social studies: An interdisciplinary look at social life]. In C. Öztürk (Ed.), *Sosyal bilgiler öğretimi: Demokratik vatandaşlık eğitimi* (pp. 1-31). Pegem Akademi.
- Palaz, T. (2022). Science mapping research on social studies education: A bibliometric analysis of international publications. *International Online Journal of Education and Teaching*, 9(1), 46-68.
- Pritchard, A. (1969). Statistical bibliography or bibliometrics. *Journal of Documentation*, 25(4), 348-349.
- Rehn, C., Gornitzki, C., Larsson, A., & Wadskog, D. (2014). *Bibliometric handbook for Karolinska Institutet*. Karolinska Institutet University Library.
- Saye, J. W., & Brush, T. (2002). Scaffolding critical reasoning about history and social issues in multimedia-supported learning environments. *Educational Technology Research and Development*, 50(3), 77-96. <https://doi.org/10.1007/BF02505026>
- Sönmez, Ö. F. (2020). Bibliometric analysis of educational research articles published in the field of social studies education based on the Web of Science database. *Participatory Educational Research*, 7(2), 216-229.
- Sökmen, Y., & Nağacı, A. (2020). A bibliometric analysis of the articles about value education. *International Journal of Curriculum and Instruction*, 12(2), 720-735.
- Sun, W., Ding, Y., Wang, R., Liu, Y., Wang, Y., Zhu, B., & Liu, Q. (2024). Bibliometric analysis of assessment and evaluation in higher education: 2012-2023. *Assessment & Evaluation in Higher Education*. Advance online publication. <https://doi.org/10.1080/02602938.2024.2358126>
- Vaughn, S., Swanson, E. A., Roberts, G., Wanzek, J., Stillman-Spisak, S. J., Solis, M., & Simmons, D. (2013). Improving reading comprehension and social studies knowledge in middle school. *Reading Research Quarterly*, 48(1), 77-93. <https://doi.org/10.1002/rrq.039>
- Wang, D., & Jia, Q. (2023). Twenty years of research development on teachers' critical thinking: Current status and future implications—A bibliometric analysis of research articles collected in WOS. *Thinking Skills and Creativity*, 50, 101252. <https://doi.org/10.1016/j.tsc.2023.101252>
- Yeşiltaş, E., & Akcan, C. (2022). Sosyal bilgiler eğitiminde proje tabanlı öğrenme ile ilgili araştırmalara yönelik bibliyometrik bir analiz [A bibliometric analysis of research on project-based learning in social studies education]. *Sivas Cumhuriyet Üniversitesi Eğitim Bilimleri Enstitüsü Dergisi*, 1(1), 39-49.
- Yeşiltaş, E., & Cantürk, A. (2022). Sosyal bilgiler eğitiminde oyunların kullanımına ilişkin araştırmaların eğilimleri: 1971 – 2021 [Trends in research on the use of games in social studies education: 1971 – 2021]. *Journal of History School*, 61, 4434-4466.
- Yeşiltaş, E., & Gez Çinpolat, A. (2022). Bibliometric analysis of studies on digital citizenship in education. *Cumhuriyet University Journal of Social Sciences*, 46(1), 149-158.
- Yeşiltaş, E., & Yılmaz, A. (2021). Eğitimde medya okuryazarlığı ile ilgili araştırmalara yönelik bibliyometrik bir analiz [A bibliometric analysis of research on media literacy in education]. *OPUS International Journal of Society Researches*, 18(Education Sciences Special Issue), 4903-4929.