International Journal of Assessment Tools in Education
2023, Vol. 10, No. 3, 496–506
https://doi.org/10.21449/ijate.1278728
Published at https://ijate.net/ https://dergipark.org.tr/en/pub/ijate *Research Article*

A bibliometric journey into research trends in curriculum field: Analysis of two journals

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ARTICLE HISTORY

Received: Apr. 7, 2023
Revised: Aug. 18, 2023
Accepted: Aug. 24, 2023

Keywords:
Bibliometric analysis, Co-occurrence analysis, Curriculum studies, Democratic curriculum reform.

Abstract: The field of curriculum is characterized by its porous and evolving boundaries, which are influenced by ongoing shifts in sociological, technological, scientific, and political domains. Given this dynamic context, the field necessitates continuous advancements to address these evolving trends. Consequently, its scope and prevailing research foci are subject to change, thereby shaping curricular adaptations. The primary objective of this study is to delineate the contemporary scope of curriculum studies by examining prevailing topics of discourse. Research articles published in two selected journals—Curriculum Inquiry and Journal of Curriculum Studies—were analyzed to achieve this. These journals were chosen for their alignment with the study's objective and were employed as primary data sources. A bibliometric analysis was conducted on data harvested from these publications, utilizing descriptive statistics through the Web of Science (WoS) system as an initial analytical step. Subsequently, VOSviewer software was employed for advanced bibliometric analyses. The study's findings offer both visual and descriptive insights into how the thematic focus within curriculum studies has shifted over time. Notably, recent discussions within the field underscore the exigency for democratic curriculum reforms. Moreover, the issues addressed by the selected journals closely align with current societal challenges.

1. INTRODUCTION

The relentless advancements in technology, science, and communication necessitate an urgent global recalibration of educational paradigms for nations. This imperative arises from the recognition that formal education remains the most productive conduit for disseminating knowledge and skills that can mitigate societal stagnation. Unlike incidental, informal education which occurs ubiquitously in social interactions (Dewey, 2004), formal education is often institutionalized in schools. In these settings, curricula serve as the operative mechanisms for instructional delivery (Oliva, 1997). Therefore, the dynamism of curricula becomes a pivotal factor in shaping and advancing societal progress (Kaya, 2018).

“The education system is a social institution which should be expected to change along with other institutions. It would be more surprising, not to say disturbing, if the education system were to stand still while all else changed” (Kelly, 2004, p.1). In other words, education “does not possess a reality apart from the time, place, and mores in which it exists” (Ornstein &

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e-ISSN: 2148-7456 /© **IJATE** 2023

Hunkins, 2004, p. 133), so "it is important to continuously reappraise and revise existing curricula" (Ornstein & Hunkins, 2004, p. 150).

Many scholars and professionals in the world of education such as Dwayne Heubner has "ascribed ambiguity and a lack of precision to the term curriculum, therefore as highlighted by Elizabeth Vallance, "the curriculum field is by no means clear; as a discipline of study and as a field of practice, curriculum lacks clean boundaries" (as cited in Oliva, 1997). While this fluidity enriches the curriculum landscape, it simultaneously poses challenges for researchers seeking to precisely delineate its scope. The singular certainty regarding curriculum studies is its pressing need for constant revision to accommodate emergent global trends. The primary objective of this research is to scrutinize contemporary topics within curriculum studies with the aim of defining its evolving scope. A quintessential approach to conceptualizing a field of study involves systematically examining related scholarly output, as each discipline is responsible for periodically reassessing its contributions (Staton-Spicer & Wulff, 1984). Echoing the assertions by Cohen, Manion, and Morrison (2007), analyses of research within a given discipline provide invaluable insights for aspiring scholars in that field. Moreover, understanding the current landscape and prevailing research trends offers distinct advantages for scholars, not only in guiding their research trajectories but also in enhancing their academic publishing endeavors (Lee et al., 2009). Studies that map out these research trends effectively serve as pivotal benchmarks for future scholarly undertakings within the field (Chang et al., 2010).

2. METHOD

There are many ways such as literature review, content analysis, meta-analysis, meta-synthesis etc. to analyze the research trends in a field. These analysis methods can include a limited quantity of research studies, so bibliometric analysis was utilized as it can be used to analyze huge numbers of research studies conducted in a field (Zupic & Cater, 2015). It can be used to find out and understand the relationships between studies (Zupic & Cater, 2015); the trends, status, and possible gaps in a particular field (Romanelli et al., 2018); and the content of a particular domain (Fahimnia et al., 2015; Hallinger & Suriyankietkaew, 2018). Bibliometric studies also help journal editors review past publications, devise new policies, and make decisions (Zupic & Cater, 2015).

2.1. Data Collection

There are two main approaches while preparing data set in bibliometric analysis: searching by using selected keywords or phrases and then identifying studies on detailed readings, which is generally used in studies that focus on a specific subject, while the second approach is to select one or more journals and include all the studies published here or the studies determined as a result of the examinations in the analysis (Zupic & Cater, 2015). The second approach was adopted in this study by selecting two journals publishing research about education and curriculum field.

As shown in Table 1, the selection process started with the analysis of journals relevant to the "curriculum" keyword in the master journal list in WOS database, which is "the most common source of bibliographic data" (Zupic & Cater, 2015, p.14). The search was refined to only the journals indexed in Social Sciences Citation Index. After analyzing their aims and scopes, two out of six journals were selected: Curriculum Inquiry [CI] and Journal of Curriculum Studies [JCS] as they focused on general issues in education related to the curriculum field rather than a specific topic included by other journals such as "Language, culture and Curriculum" or "Medical Education". The main aim of selected journals, on the other hand, was to publish research dealing with contemporary issues, problems, topics and trends in education specifically related to the curriculum field (CI, 2023; JCS, 2023). Both journals are published

by Taylor & Francis, while The Ontario Institute for Studies in Education, in Canada collaborates with Taylor & Francis for publishing CI.

Table 1. *Criteria for selection process of the journals and publications.*

Criteria	Value
1. Data Source	1. WOS Database
2. Search Terms	2. "Curriculum"
3. Selected Journals	3. *Curriculum Inquiry* and *Journal of Curriculum Studies*
4. Citation Index	4. SSCI
5. Document Type	5. Articles and Review Articles
6. Excluded Documents	6. Correction, Addition, Letter, Proceeding Papers, Discussion, Bibliographical-Item, Item about an individual and Note
7. Number of Articles	7. 2484 (CI:895; JCS:1589)

The Web of Science (WoS) Core Collection database was accessed upon selecting the target journals. The initial search query consisted of the Boolean expression "Curriculum Inquiry" AND "Journal of Curriculum Studies" specified within the "Publication Title" field. This preliminary search yielded a corpus of 3,901 documents. Articles published in the year 2023 were subsequently omitted, given that the year was not yet complete, to ensure data validity. After that, additional filtering was conducted to exclude specific document types, namely "Correction," "Addition," "Letter," "Proceeding Paper," "Discussion," "Biographical-Item," "Item About an Individual," and "Note." Following these refinements, a final dataset comprising 2,484 articles, spanning the years 1998 to 2022, remained available for analysis.

As a matter fact, two journals were analyzed individually first, but the analysis resulted in similar topics leaving no room to discuss the field much. When the two were combined; however, the analysis resulted in a vivid journey of curriculum field as portrayed in the discussion part.

2.1. Data Analysis

Data pertaining to the temporal distribution, geographic origin, contributing authors, and affiliating institutions of studies published in the selected journals were subject to descriptive statistical analysis via the Web of Science (WoS) platform. Subsequently, bibliometric evaluation was conducted using VOSviewer software. Among various bibliometric analysis methods—such as citation analysis, co-citation analysis, bibliographic coupling analysis, and co-author analysis—co-occurrence analysis was specifically chosen in alignment with the study's objective: to scrutinize contemporary topics within the curriculum field with the intent to delineate its scope. Co-occurrence analysis involves linking keywords that appear concurrently in a document's title, abstract, or keyword list (Zupic & Cater, 2015). This method was employed to identify thematic clusters, emerging trends, and salient topics relevant to the curriculum field. The underlying rationale for utilizing co-occurrence, or co-word analysis, is the presupposition that frequent co-occurrence of terms within a corpus implies thematic or conceptual relatedness (Zupic & Cater, 2015). In summary, this refined bibliometric methodology aimed to answer the following research question:

- What are the prevailing trends and topics in the field of curriculum studies?

3. FINDINGS

3.1. Descriptive Findings

Figure 1 outlines the annual distribution of articles published in the selected journals. The data reveal that the inaugural year, 1998, saw the publication of over 40 articles, establishing a foundational volume of work. Subsequent observations confirm that the annual count of published articles has consistently remained above this initial threshold of 40. Additionally, the figure indicates periodic fluctuations in the annual publication rate, culminating in a zenith in the year 2019. Post-2019, however, the data exhibit a discernible downward trend in the number of articles published in these academic outlets.

Figure 1. *Distribution of publications by year.*

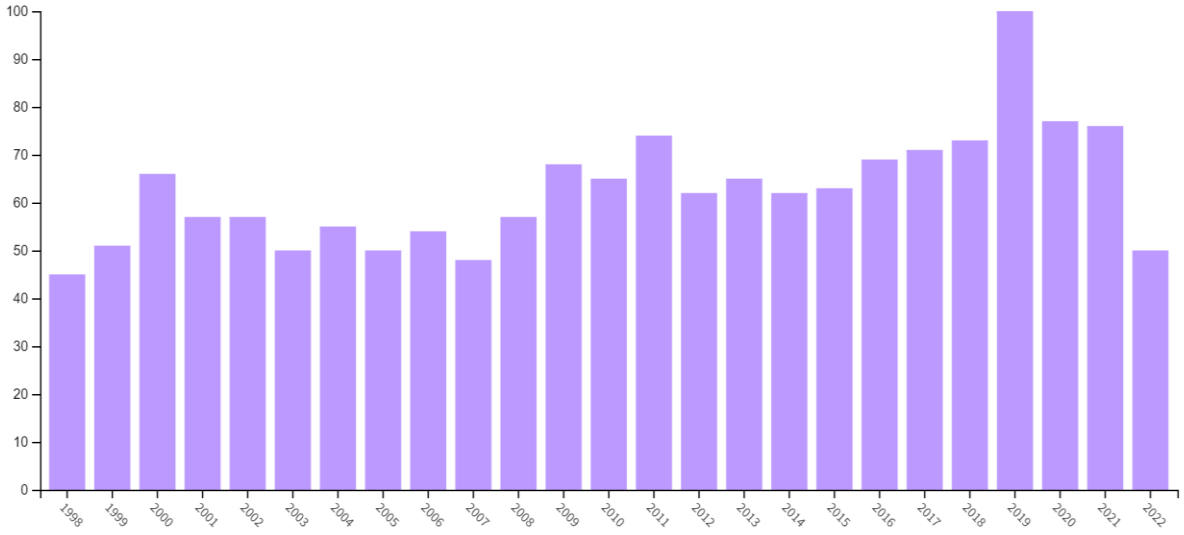


Figure 2 presents the distribution of papers published by countries. As seen, USA has been the most productive country dealing with issues touched upon by these journals. Almost half of the papers belong to USA. The other finding points to contributions from Canada and some countries in Europe and Asia. Still, it is not possible to talk about a global contribution.

Figure 2. *Distribution of publications by countries.*

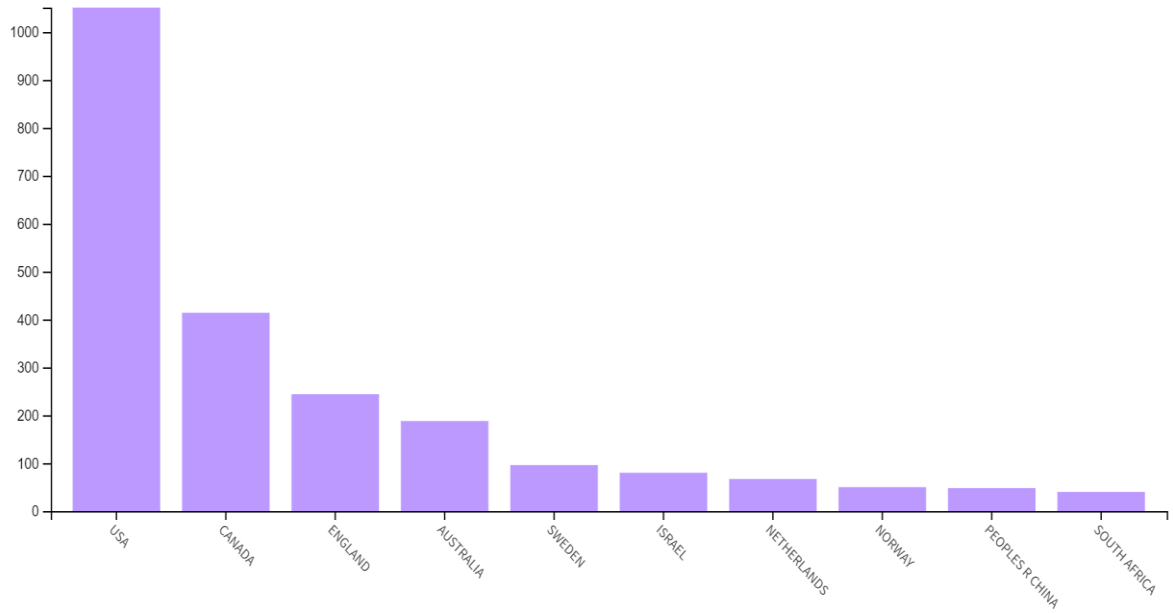


Figure 3. *The most productive authors.*

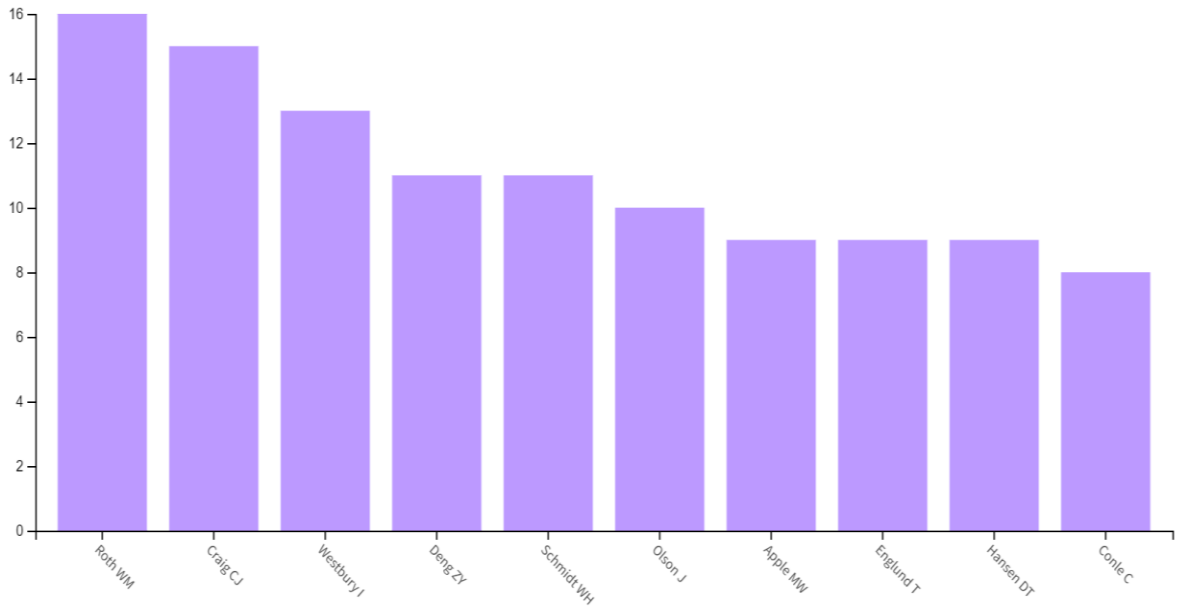
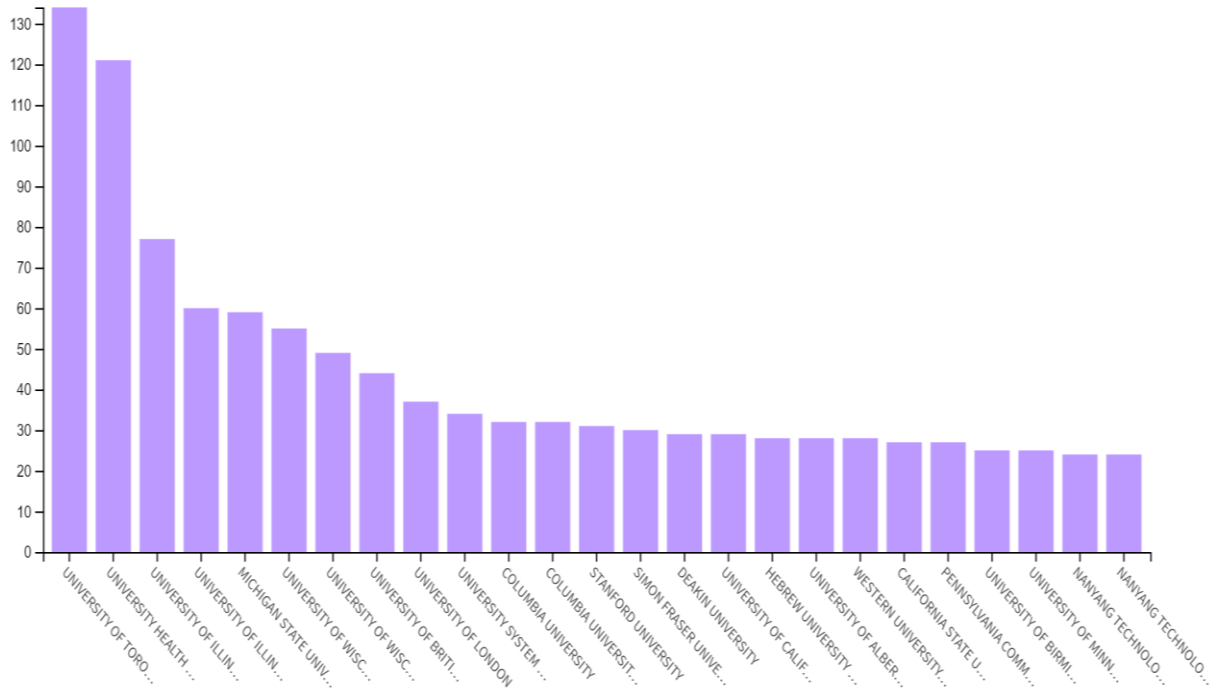


Figure 3 and 4 present findings on the most productive authors and institutions contributing to these journals. As seen in Figure 3, the most productive author was V.M. Roth, while the most productive institution was University of Toronto. It is possible to talk about contributions from various institutions, most located in USA.

Figure 4. *The most productive institutions.*

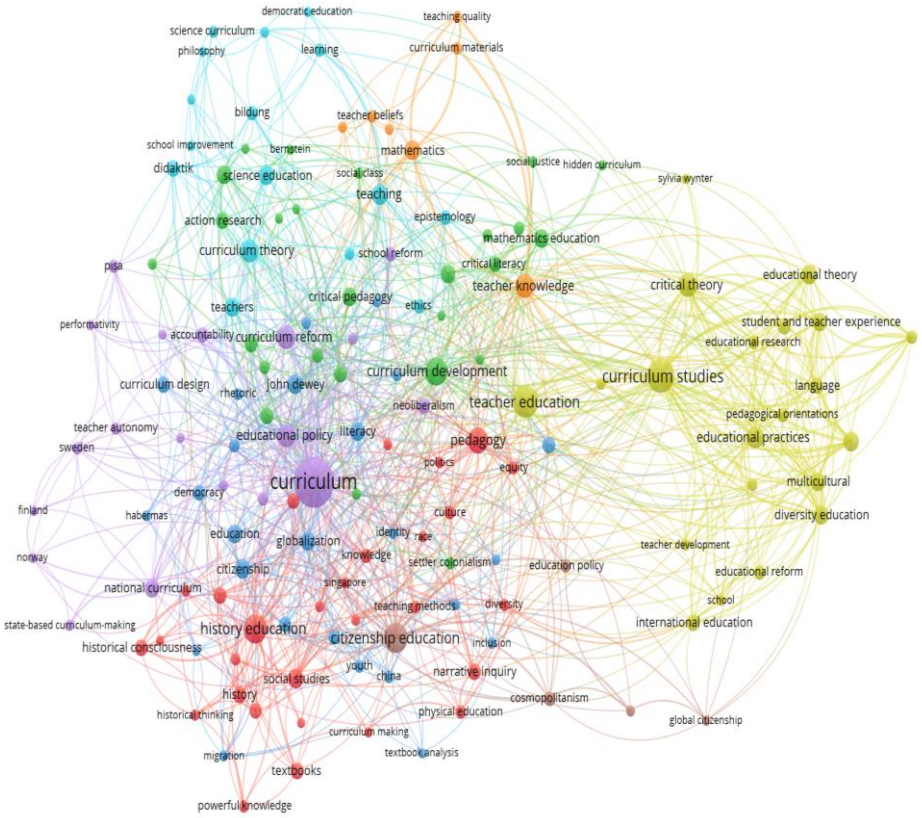


3.2. Research Trends and Current Topics in Curriculum Field

Figure 5 presents the keywords used by the papers published in these journals. The minimum occurrence of the words was set to 5. The most noticeable finding as seen in the figure is that the most frequently used keywords look bigger than the less frequently used ones. The figure shows 9 clusters (red, blue, orange, brown, yellow, green, purple, turquoise and red). These

clusters mean that these words are interrelated. The occurrence of these related words and concepts in these clusters is presented in Table 2.

Figure 5. *Co-occurrence of keywords.*



As seen in Figure 5 and Table 2, the terms most prevalently appearing across the examined papers include “curriculum” with a frequency of 107 occurrences, followed by “curriculum studies” (*f*=49), “teacher education” (*f*=42), “citizenship education” (*f*=36), “history education” (*f*=34), “curriculum development” (*f*=33), and “pedagogy” (*f*=27), among others. These findings suggest a semantic alignment with core issues in the field of curriculum studies.

Table 2. *Clusters of the words in publications.*

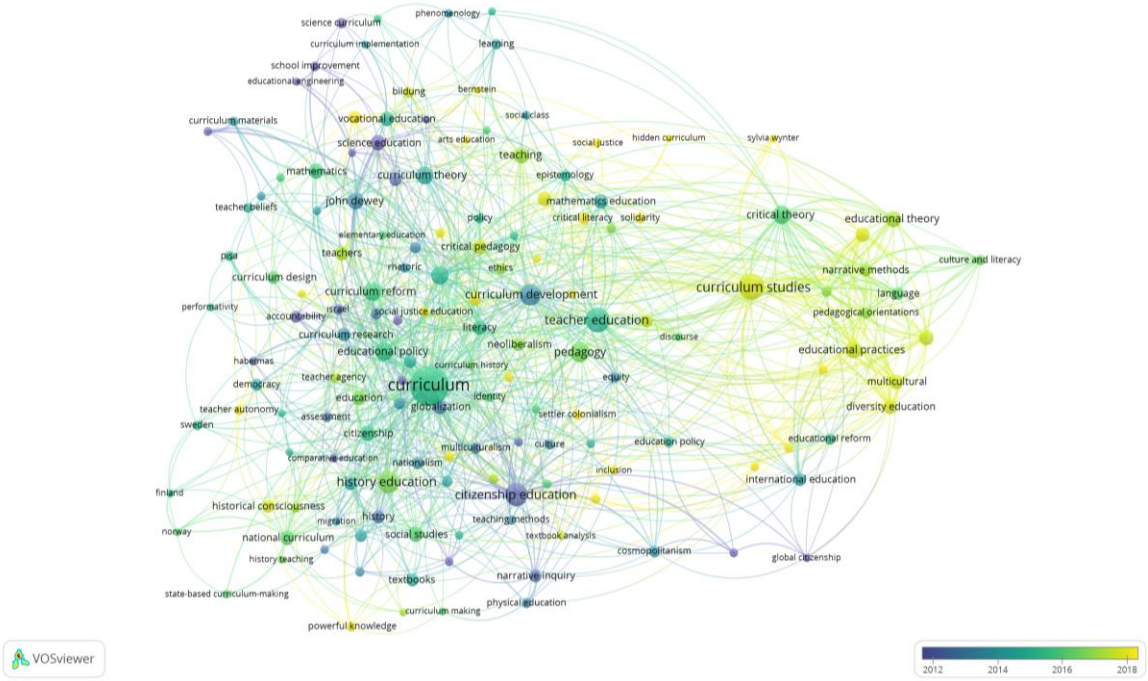
Clusters	Words (occurrence [*f*])
1st Cluster (Green)	Action research (11), agency (7), black feminism (5), critical literacy (10), critical pedagogy (14), curriculum change (12), curriculum development (33), curriculum research (13), ethnography (5), environmental education (9), hermeneutics (6), hidden curriculum (5), higher education (14), mathematics education (15), secondary education (12), settler colonialism (7), social justice (6), social justice education (8), social studies education (6), solidarity (8), student participation (5), teacher education (42), teaching methods (7), vocational education (14).
2nd Cluster (Purple)	Assessment (8), curriculum (107), accountability (10), Canada (6), comparative education (6), critical discourse analysis (10), curriculum reform (24), educational policy (23), Finland (5), national curriculum (15), history of education (6), neoliberalism (11), Norway (5), performativity (5), PISA (8), school reform (9), state-based-curriculum making (6), Sweden (7), teacher agency (7), teacher autonomy (7), teacher education curriculum (6), teacher professionalism (5).
3rd Cluster (Red)	Curriculum design (11), citizenship (16), conflict (5), democracy (10), discourse analysis (6), globalization (14), historical consciousness (12), historical thinking (7), history curriculum (10), history (11), history education (34), history teaching (5), history instruction (12), migration (6), powerful knowledge (7), secondary school curriculum (7), social studies (5), south Africa (6), textbooks (11), youth (7)

Table 2. *Continues.*

4th Cluster (Blue)	Actor-network theory (6), arts education (5), Bernstein (5), China (7), civic education (7), early childhood education (11), education (14), elementary education (6), funds of knowledge (6), identity (7), inclusion (6), Israel (8), literacy (15), moral education (6), multiculturalism (9), nationalism (10), recontextualism (5), rhetoric (7), social class (6), textbook analysis (5).
5th Cluster (Turquoise)	Bildung (9), curriculum implementation (5), curriculum theory (22), democratic education (5), didactic (5), educational change (5), educational engineering (5), epistemology (9), ethics (9), John Dewey (20), learning (8), phenomenology (6), philosophy (5), policy (7), school improvement (7), science education (17), science curriculum (8), teachers (15), teaching (18).
6th Cluster (Yellow)	Critical theory (24), culture and literacy (8), curriculum studies (49), diversity education (14), educational practices (19), educational reform (9), educational research (8), educational theory (18), gender issues in education (7), international education (11), language (11), multicultural (14), narrative methods (12), pedagogical orientations (9), school (6), socio-political conditions (17), student and teacher experiences (15), Sylvia Wynter (5).
7th Cluster (Red)	Culture (8), curriculum history (6), curriculum making (5), discourse (6), diversity (7), equity (7), knowledge (9), multicultural education (6), narrative inquiry (12), pedagogy (27), physical education (8), politics (6), race (6), Singapore (6), teacher development (6).
8th Cluster (Orange)	Curriculum materials (7), mathematics (16), mathematics curriculum (6), professional development (6), teacher beliefs (7), teacher knowledge (24), teaching quality (6)
9th Cluster (Brown)	Citizenship education (36), cosmopolitanism (9), education policy (8), European citizenship (6), global citizenship (5).

Figure 6 offers a temporal visualization of shifting research foci. Circa 2012, scholarly output predominantly centered on the theme of "citizenship education," incorporating sub-topics such as "global citizenship," "European citizenship," and "globalization." Subsequent focus transitioned towards "curriculum development" around 2014. The ensuing period, circa 2016, witnessed an emergent interest in themes including "teacher education," "curriculum theory," and specific analyses of "national curricula in Nordic countries." Most recently, the prevailing research trends around 2018 have emphasized issues like "critical pedagogy," "diversity education," and "multicultural education," collectively underscoring the imperative for democratic inclusivity within the curriculum.

Figure 6. *Co-occurrence of keywords between 2012-2018.*



4. DISCUSSION and CONCLUSION

Nothing is stable in the world, and everything is prone to change. In this respect, knowledge about any field, including curriculum, will always be open to change and challenge. Based on the hot topics discussed in the world of education, the scope of the curriculum field is expected to be upgraded to include these issues. As a matter of fact, curriculum as a field can be defined by dynamism in terms of its scope and focus which tend or are expected to change in line with specific changes brought about by time conditions. The findings of this bibliometric study managed to depict and visualize these changes over time, which can be called the journey of the curriculum field. This journey is discussed after a discussion of some descriptive findings below.

The descriptive findings indicated a decrease in the number of publications in these journals after 2019. This decrease in number might be attributed to the COVID-19 pandemic. As the COVID-19 pandemic, which "started in China in late 2019 and spread to all around the world" (Kaya, 2021, p. 302) shut the door on face-to-face education (Kaya, 2023), "most of the educational institutions were obliged to continue their education through online learning" (Kaya, 2021, p. 302). As a result, online learning has become the main research topic worldwide, which might be a reason for this decrease.

As promised, this study aimed to visualize the journey of the curriculum field over time. Time to discuss these findings now. As the research included in these journals highlighted as well, the focus of curricular studies at the beginning of the 21st century was on curricula of some nations. Especially, Nordic countries in Northern Europe such as Finland, Norway, and Sweden, and their curricula became the focus of curricular research due to their success in PISA (The Programme for International Student Assessment. The first success of the Finnish in PISA was in 2000, which was "greeted with surprise and disbelief" (Malinen et al., 2012) and identified as a "miracle" (Simola, 2005). After repetition of success in the subsequent exams; however, this success drew attention from many countries, resulting in a more detailed look at the Finnish education system, especially the Finnish Core Curriculum (Kaya, 2022). Research dealing with this issue has been included in the selected journals as well, because one of their aims was to publish contemporary issues concerning education and curriculum.

The evolving scholarly landscape has evidenced a marked pivot towards socio-political imperatives in the domains of education and curriculum studies. Notably, the thematic nucleus has coalesced around issues of inequality, encompassing multifaceted topics such as multiculturalism, feminism, black feminism, gender considerations, and diversity education. This thematic focus aligns conspicuously with the tenets of critical pedagogy, which advocates for dismantling oppressive societal structures through democratic pedagogical practices (Darder et al., 2003). Concomitant with increased global mobility and cross-border exchanges, nations have become increasingly heterogeneous, thereby necessitating curricular adaptations to cultivate national unity across ethnic, linguistic, and religious diversities. In this context, multicultural education emerges as a pragmatic instrument to achieve myriad objectives—from promoting diversity and equality to fostering mutual respect and facilitating optimal academic outcomes for all demographic groups (Levinson, 2007). Moreover, the extant literature reveals the subliminal existence of a 'hidden curriculum,' which tacitly indoctrinates students into conforming to pre-established hierarchies and power structures, including gender and economic hegemonies. Further converging with themes pertinent to critical pedagogy and critical theory, discussions related to the oppressive facets of colonialism and the instruction of history have also been underscored (McLaren, 2001). These thematic preoccupations elucidate the increasing adoption of discourse analysis as a methodological approach in these studies, possibly aiming to explicate societal mechanisms underpinning inequality. Moreover, multiple references to the pedagogical theories propounded by English sociologist Basil Bernstein—

centering on social struggle, symbolic control, and forms of power—further crystallize the thematic focus of the extant research corpus.

These concepts are also in line with the concept of Bildung by Wilhelm von Humboldt, which suggests the development of freedom and humanity in humans regardless of their status or class belonging through the teaching of content and the learning process. Humboldt defines the state within the limits that will not prevent and, on the contrary, protect the freedom that the individual needs in the process of shaping himself, because the original shaping of the individual and, therefore, the society depends on the absence of any external guiding intervention (Hotam 2019). In this sense, selection of content is of great importance. Rather than imposing one reality or one aspect of a specific content or knowledge, the individual should be allowed to create his/her own meaning out of various aspects of knowledge/content.

An additional salient observation warranting discussion pertains to the geographical distribution of contributions across countries, institutions, and authors within these journals. The data suggests a localized rather than global contribution. It is well-documented that migration trends have been accelerating, particularly toward economically developed nations such as the United States, Canada, and the United Kingdom, thereby leading to increasingly diverse and multicultural societies. These demographic shifts often intensify extant societal tensions, as evidenced by enduring racial dichotomies in these countries. Given that academic research aims to address pressing societal issues, the predominance of contributions from these nations in the journals under study could be interpreted as a response to such challenges. Another plausible explanation for this geographical concentration may reside in the location of the journals' publishers. Given these observations, it is incumbent upon journal editors to broaden their solicitation for contributions. Actively encouraging submissions from diverse geographical locations could enrich the global dataset pertaining to curriculum studies, thereby facilitating a more nuanced understanding through comparative analyses.

In summary, the thematic coherence among the studies published in these journals is indicative of an overarching consensus calling for comprehensive curricular reforms. The field of curriculum studies cannot afford to be indifferent to pressing educational challenges; rather, it bears the responsibility to acknowledge, interrogate, and articulate solutions to these issues. The exigencies of the present context compel the field to both engage proactively and respond critically. These challenges inherently fall under the purview of educational concerns and necessitate timely curricular adaptations to ameliorate them. Put succinctly, the extant research accentuates the emancipatory potential of education, achievable predominantly through curricular innovations. This emancipatory ethos echoes the democratic principles advanced by John Dewey and signals a call for democratic curriculum reform. Furthermore, it is worth noting that curriculum studies, a field rooted primarily in the 20th century, is undergoing an expansive metamorphosis. The field appears to be extending its disciplinary boundaries to encompass increasingly humanistic topics, thereby challenging its own traditional confines and aspiring toward a more inclusive, borderless scholarly landscape.

These findings are limited to data gathered from two journals, so further research can be conducted to include journals with similar aims and scopes in order to compare and contrast these findings and ultimately further define the scope of the curriculum field. In addition, most of these concepts and issues call for independent meta-studies to highlight the specifics inherent in them.

Acknowledgments

The author would like to thank the Editor and blind reviewers for their invaluable contributions.

Declaration of Conflicting Interests and Ethics

The author declares no conflict of interest. This research study complies with research publishing ethics. The scientific and legal responsibility for manuscripts published in IJATE belongs to the author.

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