Mapping the Landscape of School Leadership on Transformational, Instructional, and Distributed Leadership Styles of School Heads

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DOI: https://doi.org/10.47772/IJRISS.2026.100700479

Received: 17 July 2026; Accepted: 22 July 2026; Published: 05 August 2026

ABSTRACT

This bibliometric study mapped the field of school leadership, focusing on transformational, instructional, and distributed school leadership. Using the PRISMA Framework, 968 Scopus-indexed documents published from 1942 to 2026 were identified, screened, and analyzed. The study identified publication trends, the most cited authors and journals, country contributions, and emerging themes. Keyword analysis was also employed to identify keyword patterns. The findings showed a steady increase in publications on educational leadership, particularly a marked rise in publications from 2016 to 2025, indicating growing global interest in school leadership, especially transformational, instructional, and distributed school leadership. These three themes were strongly linked to teacher motivation, quality instruction, collaboration, and school improvement. The findings also indicated strong international collaboration, with growing contributions from Asian countries and emerging themes such as teacher well-being, ethical school leadership, and the professional development of school leaders. The findings had implications for future research and had the potential to inform policymakers, educational stakeholders, and practicing school leaders about what research revealed regarding transformational, instructional, and distributed school leadership. In particular, the findings served as a comprehensive synthesis of prevailing trends and themes, highlighting potential areas for future research. More humanistic and integrated approaches to school leadership emerged, emphasizing leadership practices that were collectively enacted within schools.

Keywords: School leadership, Transformational, Instructional, Distributed Leadership

INTRODUCTION

In school settings, educational leadership played a crucial role in enhancing school effectiveness, teachers' performance, and students' academic achievement. School heads managed and supervised teachers, set school goals, developed work plans, and oversaw learning-friendly environments where shared responsibility and continuous improvement were practiced. Findings from previous studies also indicated that teachers' motivation and job satisfaction were influenced by school leadership practices, which in turn affected overall school performance (Hallinger, 2016; Leithwood et al., 2020). Effective educational leadership therefore served as a catalyst and a powerful determinant in fostering productive and supportive teaching and learning environments that enabled schools to achieve their goals and objectives.

This study explored the role of transformational leadership in school improvement. Existing research suggested that educational leaders who adopted transformational leadership styles motivated teachers to work toward school improvement goals through various motivational mechanisms (Leithwood et al., 2020; Nguyen et al., 2022). In doing so, school heads fostered teacher growth and organizational development, encouraging teachers to enhance their instructional practices, which in turn improved student learning outcomes. Teachers who were supported to reach their full potential by leaders who inspired professional growth and collaborative practice contributed to the development of high-performing school environments.

Instructional leadership was a critical component of school improvement efforts and focused on enhancing the quality of teaching and learning within schools. School heads managed curriculum implementation, monitored instructional processes in classrooms, and provided support for teachers in developing more effective instructional strategies (Hallinger, 2016; Turkoglu & Cansoy, 2020). By emphasizing instructional improvement, school heads strengthened teacher competence and enhanced students' academic achievement. Teaching remained at the center of school improvement initiatives, with the goal of fostering teacher expertise while ensuring that students achieved academic success.

Distributed leadership shifted the focus of school leadership from formal leadership positions, such as principals and other members of the management team, to a collaborative approach in which leadership was shared among teachers and school leaders through their daily practices and interactions, thereby promoting shared responsibility and collective decision-making (Harris, 2017). By emphasizing distributed leadership, teachers were positioned as active agents of school improvement, encouraging their participation in and commitment to decisions related to teaching and learning while strengthening the school's capacity for sustainable improvement (Spillane & Diamond, 2019). This leadership approach fostered teamwork and supported sustained school improvement by cultivating a shared sense of responsibility for student success.

A growing body of research attested to the significance of effective leadership in schools. However, most studies conducted in this area focused on individual leadership styles of school leaders without examining how transformational, instructional, and distributed leadership were practiced simultaneously within schools. Moreover, a paucity of studies examined the combined effects of these integrated leadership practices on teacher performance, collaboration, instructional improvement, and overall school improvement. This study therefore aimed to examine how school heads practiced transformational, instructional, and distributed leadership and how these leadership practices shaped the school climate to enhance teacher effectiveness and support school improvement.

This bibliometric study reviewed existing research on the leadership styles of school administrators, particularly those who practiced transformational, instructional, and distributed leadership. Specifically, the study analyzed previous scholarly works to provide a comprehensive understanding of these leadership approaches, identify research trends and emerging themes, and offer greater clarity regarding their contributions to effective school leadership and school improvement.

Objectives of the Study

This study aimed to conduct a comprehensive bibliometric analysis of research on the leadership styles of school heads, with particular emphasis on transformational, instructional, and distributed leadership in educational settings.

Specifically, the study aimed to:

1. Analyze the annual scientific production, average citations per year, three-field plots, the most relevant sources, the most productive authors, source local impact, the most cited countries, and other relevant bibliometric characteristics of research on the leadership styles of school heads.

2. Analyze keyword patterns to identify trending topics related to school leadership and school improvement.

3. Identify and establish relationships among the major research themes associated with transformational, instructional, and distributed leadership in schools.

4. Determine future research directions concerning transformational, instructional, and distributed leadership in educational practice.

REVIEW OF RELATED LITERATURE

Research on school leadership gained momentum because of its recognized significance to school effectiveness, teacher practices, and student learning outcomes. School leaders were expected to supervise teachers, articulate and translate a shared vision into practice, and create school environments that supported high-quality teaching and learning. Effective school leadership practices motivated teachers, encouraged collaboration, and contributed to school improvement. Transformational, instructional, and distributed leadership emerged as prominent leadership approaches in recent years. These approaches were found to positively influence school culture and educational outcomes (Moloto et al., 2025; Turkoglu & Cansoy, 2025). Within the context of an evolving educational system, this special issue sought research and best practices that examined effective school leadership approaches and investigated how these practices supported effective school management as well as teaching and learning processes.

Transformational Leadership in Schools

Transformational leadership was widely recognized for its ability to inspire teachers and promote positive change within schools. This leadership style focused on motivating teachers through a shared vision, intellectual stimulation, and professional support. According to Moloto et al. (2025), principals who practiced transformational leadership encouraged teachers to actively participate in school improvement initiatives and innovations in teaching practices. Similarly, Kilinç et al. (2023) highlighted that transformational leadership strengthened teachers' commitment and fostered collaborative professional relationships within schools. These leadership practices helped create a positive school climate in which teachers felt empowered and motivated to enhance their teaching performance. Synthesizing these findings, transformational leadership was viewed as a critical leadership approach that enabled school heads to inspire teachers, promote professional growth, and encourage collective efforts toward achieving school goals.

Instructional Leadership in Schools

Instructional leadership focused primarily on improving teaching and learning processes within schools. School heads who practiced this leadership approach emphasized curriculum implementation, classroom monitoring, and the professional development of teachers. (Turkoglu and Cansoy, 2025) explained that instructional leadership was closely associated with teachers' professional learning and instructional improvement. In addition, previous studies showed that school leaders who actively supported instructional activities enhanced teaching strategies and facilitated the achievement of academic goals. Silva et al. (2023) also emphasized that leadership practices supporting curriculum development and instructional innovation contributed to improved educational outcomes. When synthesized, these studies highlighted that instructional leadership played a vital role in strengthening instructional quality by guiding teachers and maintaining a strong academic focus within schools.

Distributed Leadership in Schools

Distributed leadership gained attention as a collaborative leadership approach that encouraged shared responsibilities among school leaders, teachers, and other stakeholders. Rather than concentrating leadership authority solely on the school head, this approach promoted collective participation in decision-making and school management. Alene (2023) found that distributed leadership enhanced teacher involvement in school governance and supported stronger collaboration among staff members. Similarly, Le et al. (2024) reported that distributed leadership practices improved teacher collaboration and contributed to a more supportive school culture. These studies suggested that when leadership responsibilities were shared, schools were able to better utilize the skills and expertise of teachers. Furthermore, distributed leadership strengthened teamwork, promoted shared accountability, and supported sustainable school improvement.

The reviewed literature highlighted the importance of transformational, instructional, and distributed leadership in influencing teacher performance, school culture, and organizational effectiveness. Although many studies examined these leadership styles in educational settings, there remained a need to systematically analyze the

development and research trends of these leadership approaches within the field of school leadership. Therefore, the present study sought to analyze scholarly publications to identify research patterns, major contributors, and thematic developments related to these leadership styles. Through bibliometric analysis, the study provided a clearer understanding of how research on school leadership had evolved and contributed to the advancement of knowledge in educational leadership.

METHODOLOGY

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework was widely used to organize the systematic identification of studies, report the screening process, and document the studies selected for systematic reviews. The framework provided a transparent approach to literature selection by clearly outlining the steps involved in the study selection process. These steps included the identification of relevant studies, the initial screening to remove ineligible studies, a subsequent eligibility assessment, and the final inclusion of studies that met the established review criteria. The use of the PRISMA framework enhanced the clarity, transparency, and reliability of the literature selection process (Page et al., 2021).

To address the first research question, the researcher used the PRISMA framework to identify and select relevant articles for the bibliometric analysis. Through the application of PRISMA, the researcher systematically filtered publications that focused on school leadership, particularly transformational, instructional, and distributed leadership. The framework supported the researcher in organizing and synthesizing the available evidence to map the research trends, thematic developments, and scholarly contributions within the field of educational leadership.

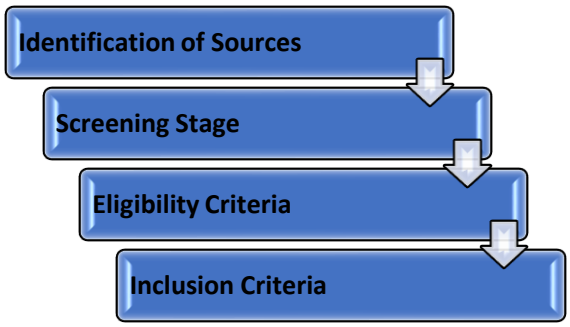


Figure 1. PRISMA Flow Diagram

Identification of Sources

The sources for this study were identified and retrieved from the Scopus database. A total of 968 documents were collected, comprising 968 citations, 3,458 references, and 968 abstracts. These documents were published across 421 sources between 1942 and 2026. Of the 968 documents, 378 were journal articles, 8 were books, 15 were book chapters, and 13 were conference proceedings, while the remaining documents consisted of other publication types indexed in Scopus. The identified publications demonstrated substantial growth over time, providing a strong basis for the systematic bibliometric analysis of research trends, thematic developments, and knowledge gaps in the field. The annual publication output increased at an average growth rate of 2.51%.

Screening Stage

The screening process involved the use of bibliometric methods to filter an initial set of 968 publications. First, duplicate records were removed, followed by a screening of titles and abstracts to identify studies related to school leadership, particularly transformational, instructional, and distributed leadership. This process identified 431 document sources that were assessed for eligibility to inform the bibliometric analysis. The screening procedure ensured that the selected literature was relevant to the research questions and enhanced the accuracy, rigor, and reliability of the study.

Eligibility Criteria

This review focused on studies examining transformational, instructional, and distributed leadership as practiced by school heads, including their experiences, effects, challenges, and facilitators of implementation in public and private elementary and secondary schools in the Philippines and other countries. The review included both qualitative and quantitative studies published in peer-reviewed journals. Studies that did not have full-text versions or did not adequately discuss transformational, instructional, or distributed leadership were excluded from the review. The reviewed articles were published between 1942 and 2026.

Inclusion Criteria

This review specifically explored transformational, instructional, and distributed approaches to leadership among school administrators and school heads. It focused on published studies conducted in the Philippines while also examining studies from other countries. A bibliometric approach was used to conduct a quantitative analysis of the literature, providing an overview of research trends, authorship and collaboration patterns, citation performance, and the major themes identified in the existing body of literature. The integration of local and international studies revealed common trends, best practices, innovative strategies, and country-specific contexts. Overall, the review provided a comprehensive synthesis of key themes, research trends, and knowledge gaps that served as a foundation for future research and informed effective educational leadership practices worldwide.

Data Analysis

This study undertook a bibliometric analysis to provide a quantitative assessment of research trends, authorship patterns, and emerging themes in school leadership. By evaluating a range of bibliometric indicators, including publications, citations, and co-authorship networks, the study mapped the structure, relationships, and scholarly influence of the selected literature. The analysis complemented the systematic review by revealing patterns of knowledge production and dissemination among authors, institutions, and countries. Using this methodology, the study identified research trends and emerging themes related to transformational, instructional, and distributed leadership, while also mapping collaboration patterns among researchers and across research clusters. The synthesis provided a systematic and objective overview of the field, facilitating the identification of research gaps, highlighting areas for future investigation, and identifying emerging priorities in school leadership research.

RESULTS

This bibliometric analysis examined the growth, interactivity, and co-occurrence trends of 968 documents drawn from 421 sources, mainly scholarly journals and book chapters. The analysis reported a 2.51% annual increase in school leadership (Donthu et al., 2021; Aria & Cuccurullo, 2017). The average age of the 968 retrieved documents was 8.14 years, with an average of 16.65 citations per document. The total number of references was 6,687, reinforcing the findings about the research's influence (Zupic & Čater, 2015; Kumar et al., 2022).

The content analysis revealed 611 "Keywords Plus" for search queries and 1,937 author-supplied keywords, indicating that topics in transformational, instructional, and distributed school leadership continued to dominate scholarly discourse. The findings showed that 2,048 authors from 57 countries were involved in school leadership research, with 190 single-authored papers, an average of 2.65 co-authors per document, and 13.64% of collaborations undertaken between authors living outside of countries where the primary language was spoken (Aria & Cuccurullo, 2017; Donthu et al., 2021). While the majority of the 968 papers were journal articles (854), school leadership research was also disseminated through book chapters (50), conference papers (27), and book reviews (24) (Kumar et al., 2023; Singh & Sharma, 2020).

The results from the bibliometric analysis demonstrated a continuous growth of school leadership literature and its implications. The analysis of journal articles provided evidence of the global relevance and collaboration occurring within this field of research. Although numerous keywords and document types were incorporated

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume X Issue VII July 2026

within the analysis, high levels of citation were observed throughout the literature. The findings from the analysis could be used to identify current and emerging trends, as well as gaps and research opportunities related to transformational, instructional, and distributed school leadership within global contexts.

Annual Scientific Production

The bibliometric data study showed an elevated surge in school leadership research, particularly in transformational, instructional, and distributive leadership. According to the available bibliometric data, academic production increased from 48 articles in 2016 to 127 in 2025 (Donthu et al., 2021; Kumar et al., 2023). The main publication peaks registered were 71 articles in 2019, 75 in 2020, 84 in 2023, 113 in 2024, and 127 in 2025. The increased academic production was associated with the global spotlight on school leadership and school improvement, as well as the increased cooperation between countries and institutions (Aria & Cuccurullo, 2017; Singh & Sharma, 2020).

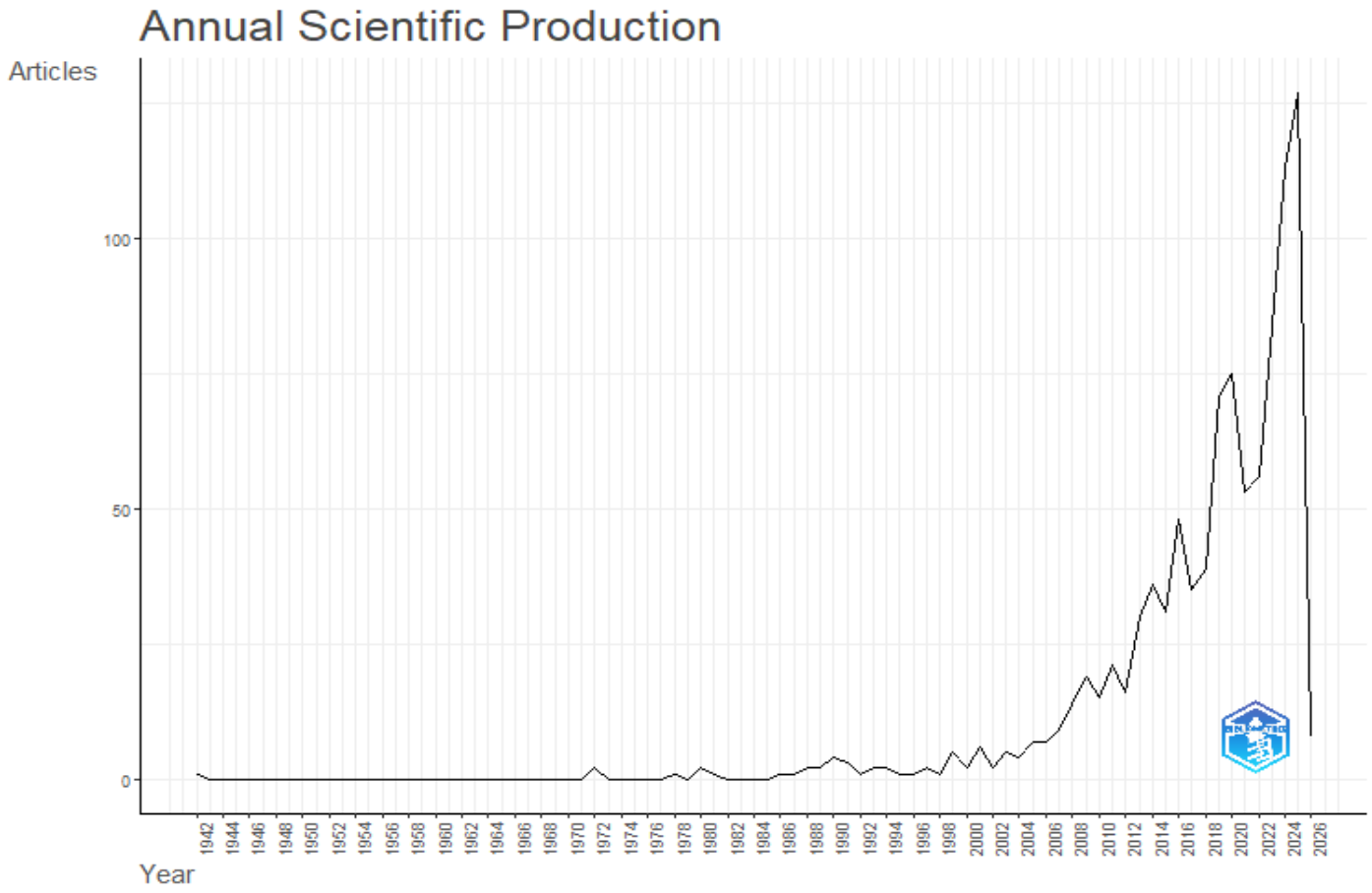


Figure 1. Annual Scientific Production

Interestingly, despite the explosive growth, there were only 8 articles in 2026. This was probably because it was only a partial year, and we had to wait a few more months to see if any more articles had been published and indexed. This growth in publications was consistent with the trend in educational research studies generally, including those that adopted a bibliometric approach (Kumar et al., 2022; Donthu et al., 2021). There was evidence of a shift in school leadership research, with many studies investigating the various leadership effects on teaching outcomes, how policies were implemented, and the management of schools here and abroad.

Research on transformational, instructional, and distributed leadership practices had grown significantly since 2016 in terms of global and local research activity. The findings revealed an upward trend in research on school leadership and its relationship to educational outcomes, with the potential to grow even further. The findings outlined the bibliometric patterns of school leadership research, which would enable the identification of gaps and areas for collaboration, as well as inform future research agendas.

Average Citations Per Year

The bibliometric data indicators showed that this analysis examined trends in the production and citation impact of school leadership research, specifically focusing on transformational, instructional, and distributed school leadership. Early publications in the field were sporadic, with little more than one publication per year. This growth was often slight, with few citations. However, the 1990s and early 2000s saw an increase in the number of publications, including seminal works such as a 1996 publication with 117 citations per article and a 2003 publication with 179.4 citations per article (Aria & Cuccurullo, 2017; Donthu et al., 2021).

Compared to 2016, when 48 scientific articles were published, there was a remarkable increase to 127 articles in 2025. Although MeanTCperArt increased over the period, it decreased over time due to the recency of the publications (Kumar et al., 2022; Kumar et al., 2023). The most notable MeanTCperArt was 39.21 in 2016, while it significantly decreased to 1.71 in 2025. Generally, MeanTCperYear tended to stabilize over time, and, in this study, MeanTCperYear for recent publications was gaining citations globally (Singh & Sharma, 2020; Donthu et al., 2021).

The dataset built on early work in the area of school leadership. The last decade, however, experienced a massive increase in the number of publications on the topic. Global as well as local scholarly interest in how transformational, instructional, and distributive approaches to school leadership shaped school outcomes grew exponentially (Aria & Cuccurullo, 2017; Kumar et al., 2023).

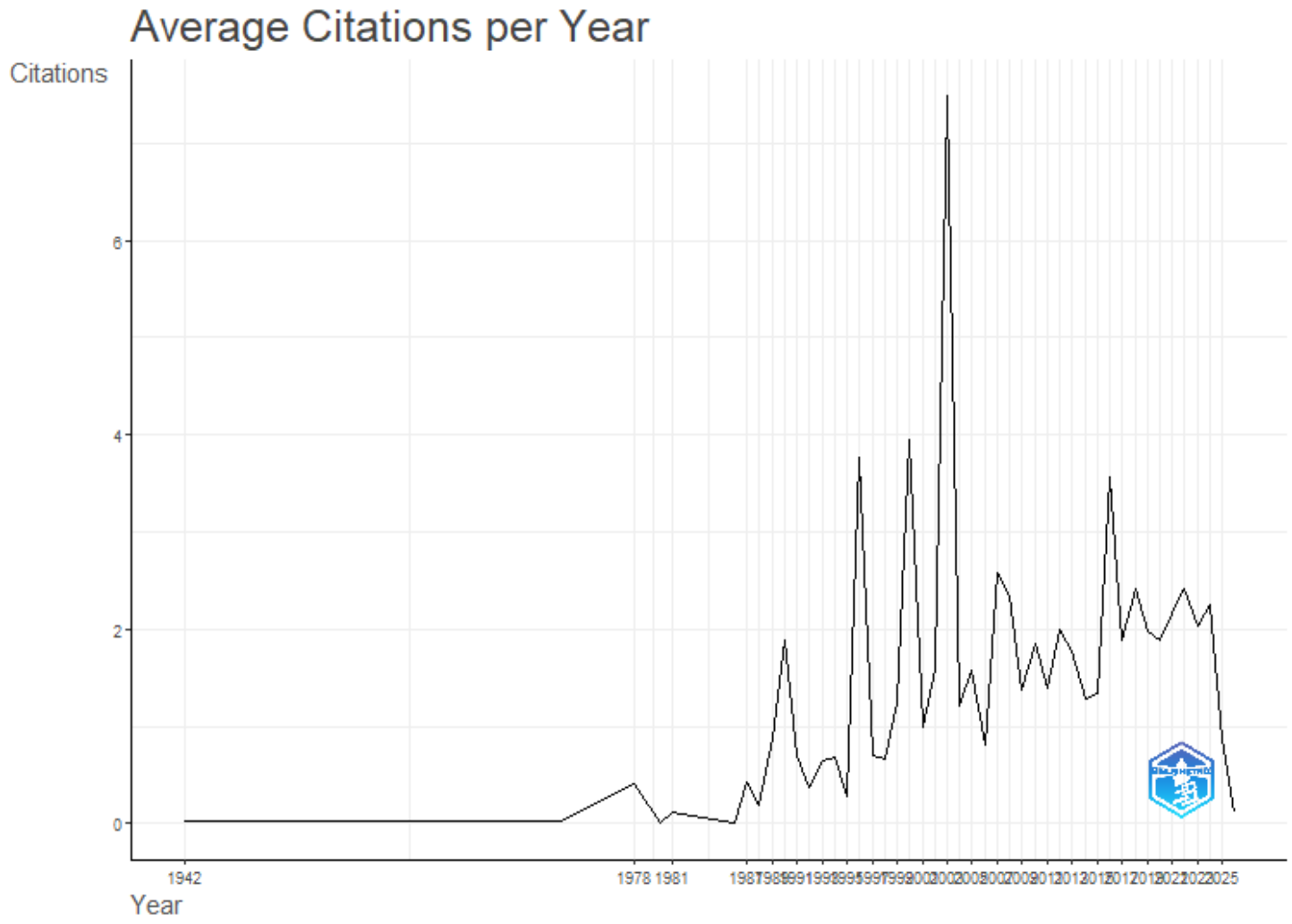


Figure 2. Average Citations per Year

School leadership research had come a long way since the days of Harold Spears' 1942 study of the superintendent of schools in New York City. Over time, the field grew in terms of the scope and depth of knowledge that was studied. Research on school leadership increased in volume and became an international field with contributions from researchers in most parts of the world. The period 2016–2025 had the highest volume of output within this research domain. However, the average citation score per article decreased during the most recent period. Although there was little time for the most recent studies to have garnered citations, the trends in output and citation scores provided opportunities to map the field, identify gaps and emerging trends, and explore research-related issues with the goal of moving school leadership research toward evidence-based best practices.

Life Cycle-Annual Publications

This study provided the first-ever bibliometric analysis of school leadership research focusing on transformational, instructional, and distributed school leadership practices, with school heads as the focal point. School leadership research, although being reported since the 1940s, witnessed an increase in the volume of publications, particularly from the 1990s onward. The few publications reported during the early years of the research stream (1942–1980s) averaged 1–2 publications per year, with very low levels of citations. However, the volume of publications and the citation impact increased in the following decades, reaching a zenith with the landmark studies of 1996 (MeanTCperArt = 117) and 2003 (MeanTCperArt = 179.4) (Aria & Cuccurullo, 2017; Donthu et al., 2021).

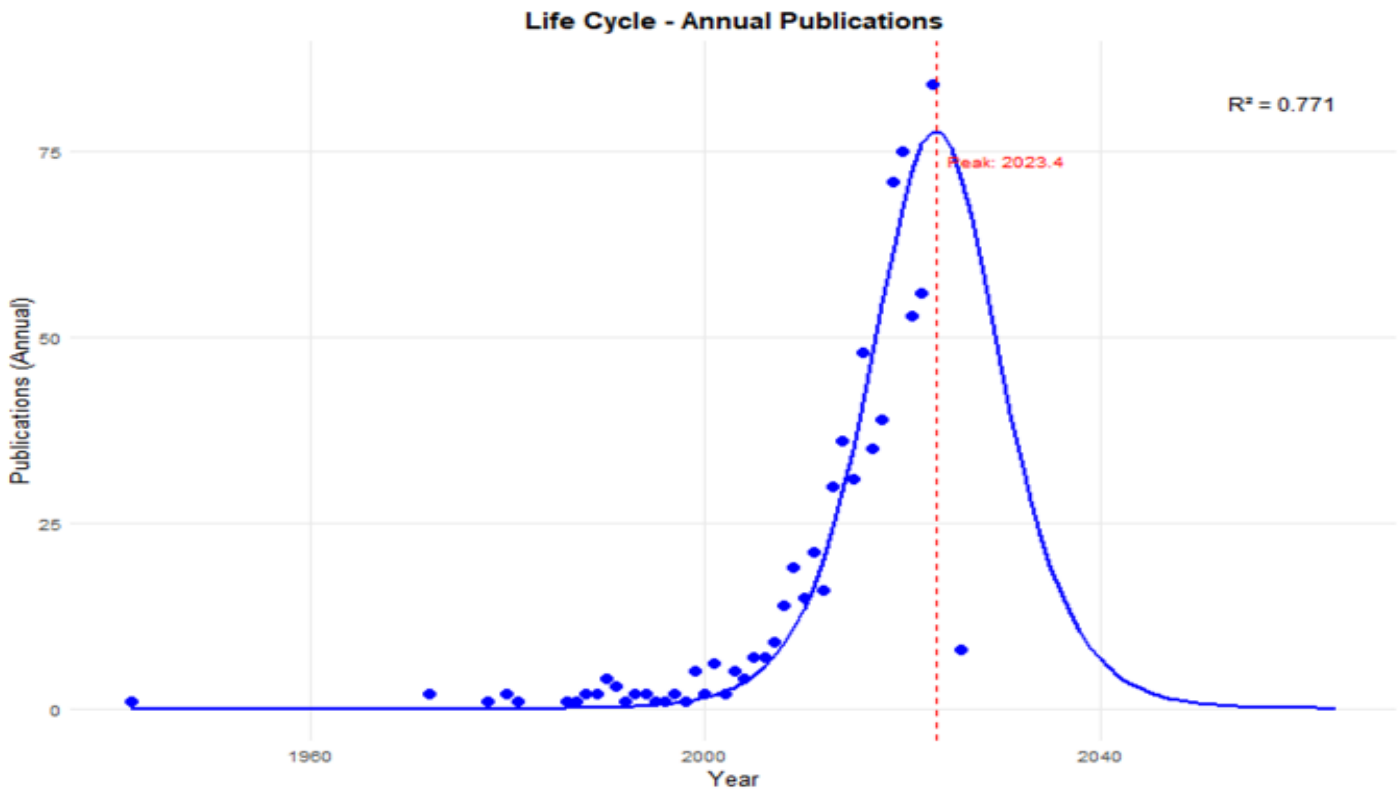


Figure 3. Life Cycle-Annual Publications

The dataset for 2016–2026 clearly indicated a manifold increase in global scholarly output in the area of digital payments. Annual publication increased from 48 articles in 2016 to 127 articles in 2025 (Kumar et al., 2022; Singh & Sharma, 2020). A similar increase was observed in terms of authors (21 authors in 2016 to 231 authors in 2025) and countries (7 countries in 2016 to 34 countries in 2025). It was interesting to observe that although total citations increased from 2016 to 2025, mean total citations per article decreased from MeanTCperArt = 39.21 in 2016 to 1.71 in 2025. This decrease was consistent with the "citation lag," wherein citations were received by recent research over time; hence, recent research received fewer citations during the initial years of publication (Kumar et al., 2023; Donthu et al., 2021).

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume X Issue VII July 2026

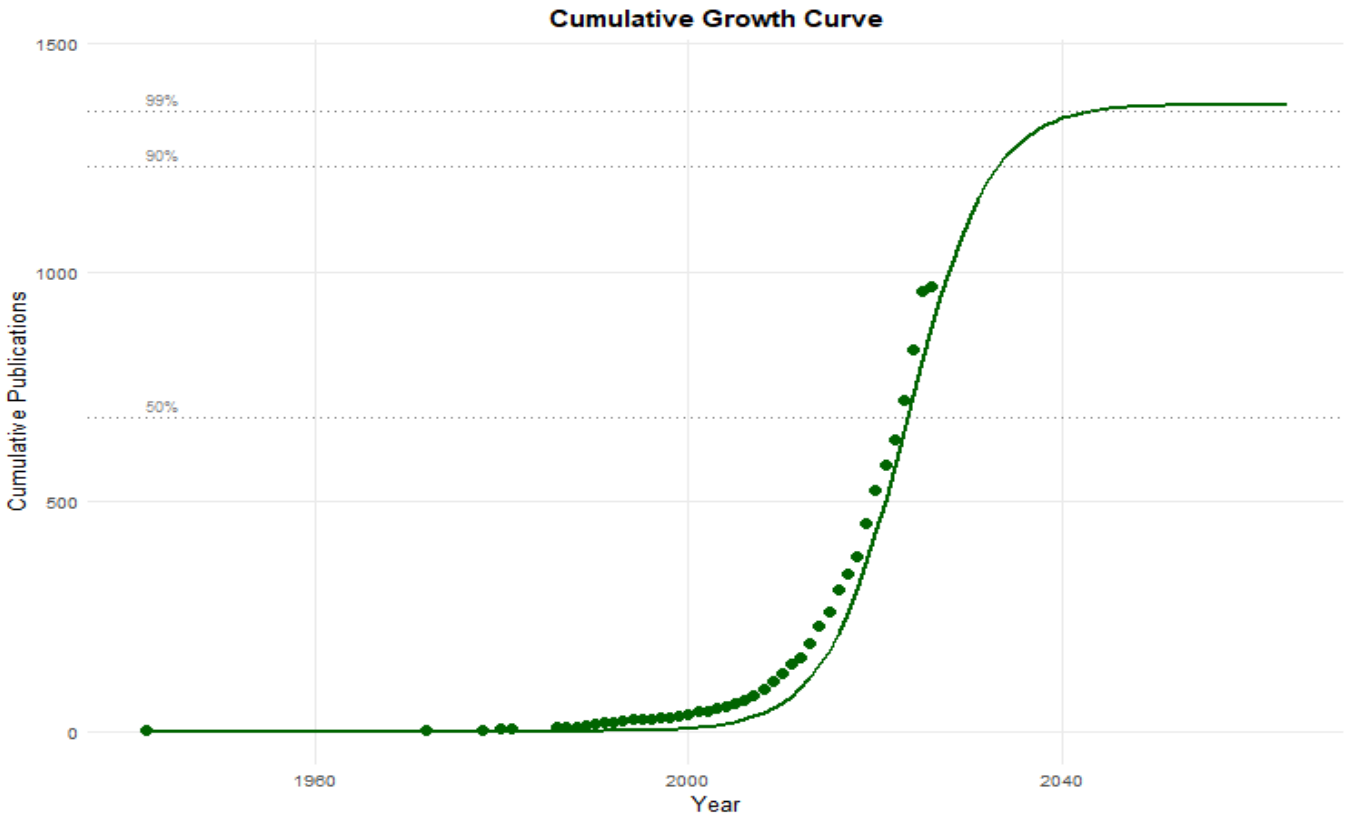


Figure 4. Cumulative Growth Curve

The cumulative trend of school leadership publications was modelled using the two logistic growth parameters K and tm, which revealed that the field is nearing saturation with a predicted total of approximately 1,366 publications by 2064. The predicted peak year for annual publications is 2023 with a corresponding range of 77–127 annual publications. The subsequent annual growth rate was predicted to decrease or decline, (Aria & Cuccurullo, 2017; Kumar et al., 2023).

The residual plots display yearly variations, due to a host of global, educational, and paradigmatic events and shifts in academic activity. However, despite these variations, the model fits quite well, accounting for 77% of the variance in the trend of publications over the years.

The results of a comprehensive bibliometric study of school leadership research from 45 countries and represents an update of the 2006 School Leadership & Management study. The last decade has witnessed an explosive growth in school leadership research, with trends moving increasingly towards transformational, instructional and distributed school leadership. Although recent articles have a low citation impact because of their age, they have been cited frequently by recent studies indicating the foundational nature of their ideas and concepts. The findings suggest a logistic growth profile and in the coming decades the field of educational leadership will mature and reach a plateau of publication growth. These findings are intended to assist current and future research as well as inform the practice of school leadership and educational policy-making. They also highlight the need for scholars from around the world to work collaboratively on important problems and issues in educational leadership studies.

Three Field Plots

The Three-Field Plot illustrated the intellectual structure of school leadership research by showing the relationships among highly cited references, influential authors, and major research themes. The findings indicated that foundational studies on transformational, instructional, and distributed leadership strongly shaped the development of the field. Key authors contributed significantly to understanding how leadership practices influenced teacher motivation, instructional improvement, collaboration, and school effectiveness. The dominant

keywords, including distributed leadership, transformational leadership, instructional leadership, school improvement, and teacher self-efficacy, reflected the growing focus on collaborative and teacher-centered approaches. The analysis showed that school leadership research had evolved from traditional leadership models toward integrated approaches emphasizing shared responsibility, professional growth, and sustainable school improvement.

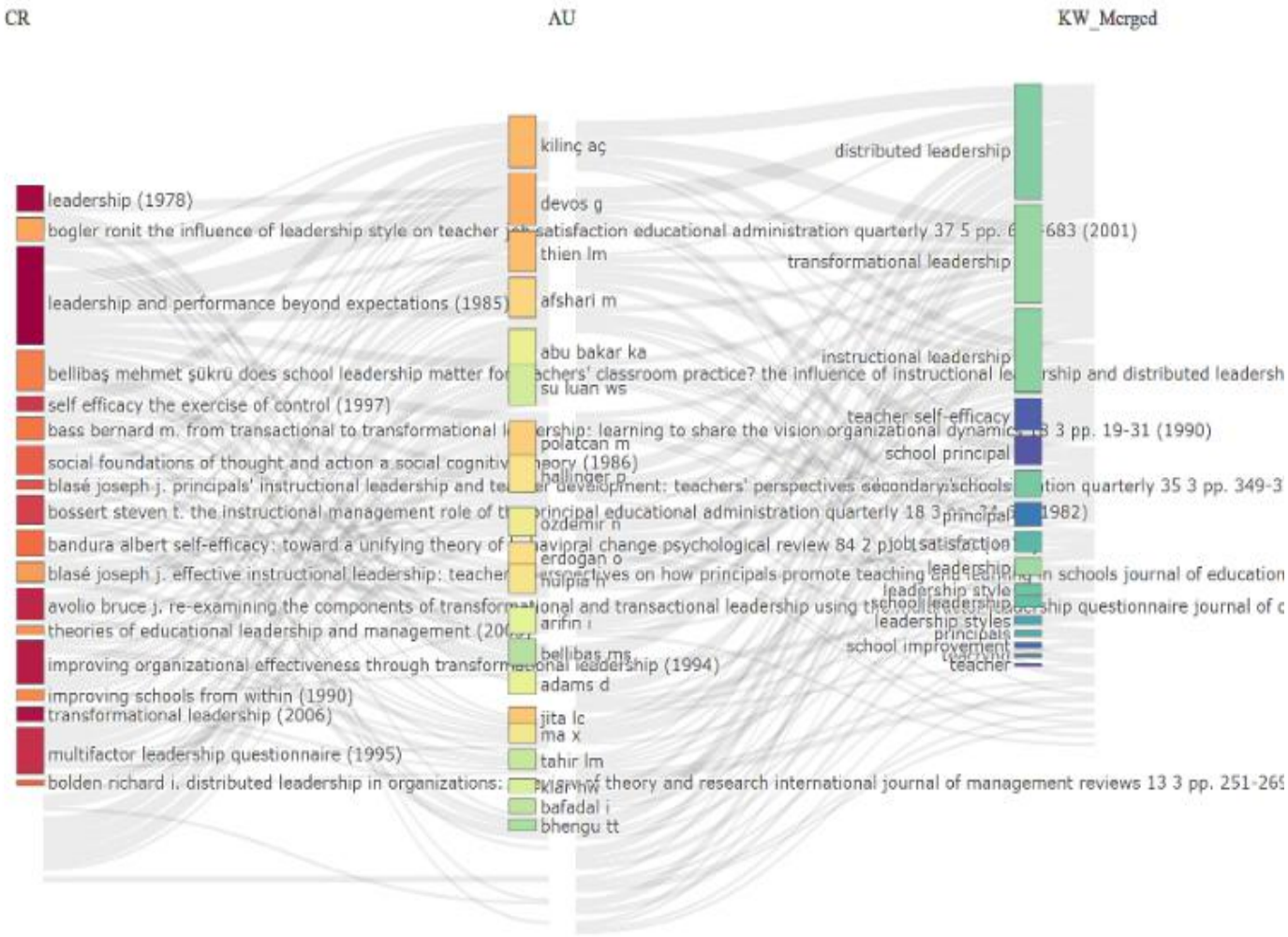


Figure 5. Three Field Plots

Most Relevant Sources

The distribution of articles from 1942 to 2026 showed that most publications were concentrated in a small number of specialized journals focused on educational leadership, administration, and school management, while some studies also appeared in interdisciplinary journals related to psychology, social sciences, and educational technology.

The data indicated that the largest share of publications came from leading journals in educational leadership. *Educational Management Administration and Leadership* had the highest number of articles (56), followed by *Journal of Educational Administration* (37) and *Educational Administration Quarterly* (28). These journals served as key platforms for research on leadership practices, policy, and school governance, highlighting the strong connection between the research topic and educational leadership studies (Hallinger & Wang, 2016).

Other important sources included *International Journal of Leadership in Education*, *NASSP Bulletin*, and *International Journal of Educational Management*. These journals emphasized leadership styles, policy implementation, and management strategies in educational institutions. Their presence reflected global research trends that recognized leadership as a critical factor in improving school effectiveness and organizational performance (Leithwood et al., 2020).

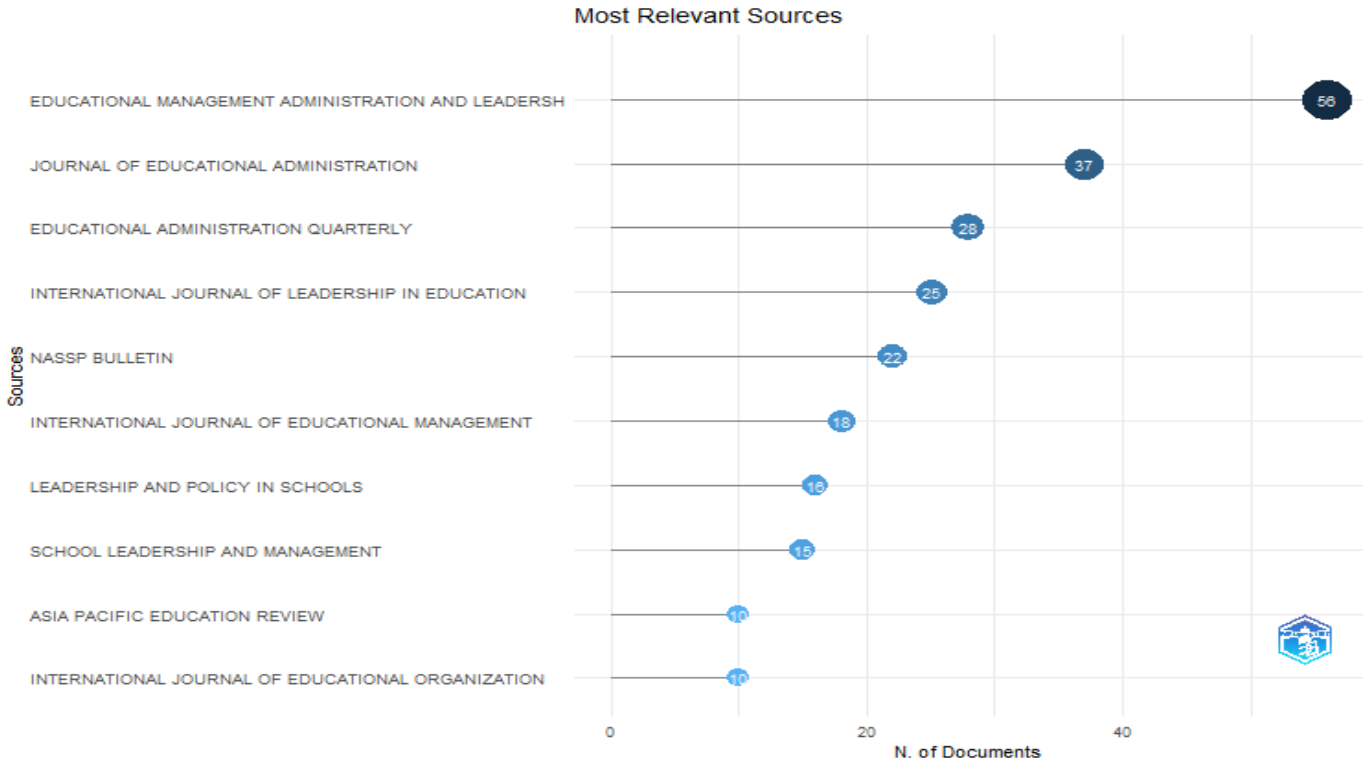


Figure 6. Most relevant Sources

The data further revealed growing interdisciplinary and international engagement within the database. Many of the journals for which we recorded papers were owned and published by Frontiers, specifically in subjects such as Psychology, Sustainability and Technology, Pedagogy and Education. This reflected the expanding scope of research into educational leadership and how it addressed a variety of issues in today's educational environment, from teacher development and classroom practice to whole organization improvement and wider educational policy (Bush, 2020; Harris & Jones, 2018).

Notably, a number of national journals, as well as cross-border scholarly publications, increasingly reported research findings from around the world. There were also recent developments reported in regional journals such as *Asia Pacific Education Review* and *South African Journal of Education*. The field increasingly addressed issues of leadership from a variety of educational systems and cultural contexts (Gumus et al., 2018).

Research on this topic was largely concentrated in a handful of educational leadership and administration journals that represented a focus on educational management. However, articles also appeared in a wide array of interdisciplinary and international journals. These data showed a strong, core base of research related to educational leadership, while the field also expanded its scope through interdisciplinary and international scholarly activity.

Sources Local Impact by H-Index

The research on educational leadership was concentrated in a handful of high-impact journals. Three journals that focused on educational administration—*Educational Administration Quarterly*, *Educational Management Administration and Leadership*, and *Journal of Educational Administration*—had the highest h-index of 22. The journal with the most total citations (TC = 3328) was *Educational Administration Quarterly*, which published

the least number of articles (NP = 28) among the top-cited journals. This was congruent with the findings of Hallinger (2019), who reported that the studies published in this journal tended to have the highest academic impact and the most citations in educational leadership research.

In educational administration, *Journal of Educational Administration* was also highly productive and impactful, with 37 articles and an h-index of 19. The *International Journal of Leadership in Education* and the *International Journal of Educational Management*, for example, had moderate levels of impact and a steady, increasing volume of published articles since the early 2000s. This evidenced the continued growth of the field of leadership studies within different education systems around the world (Leithwood et al., 2020).

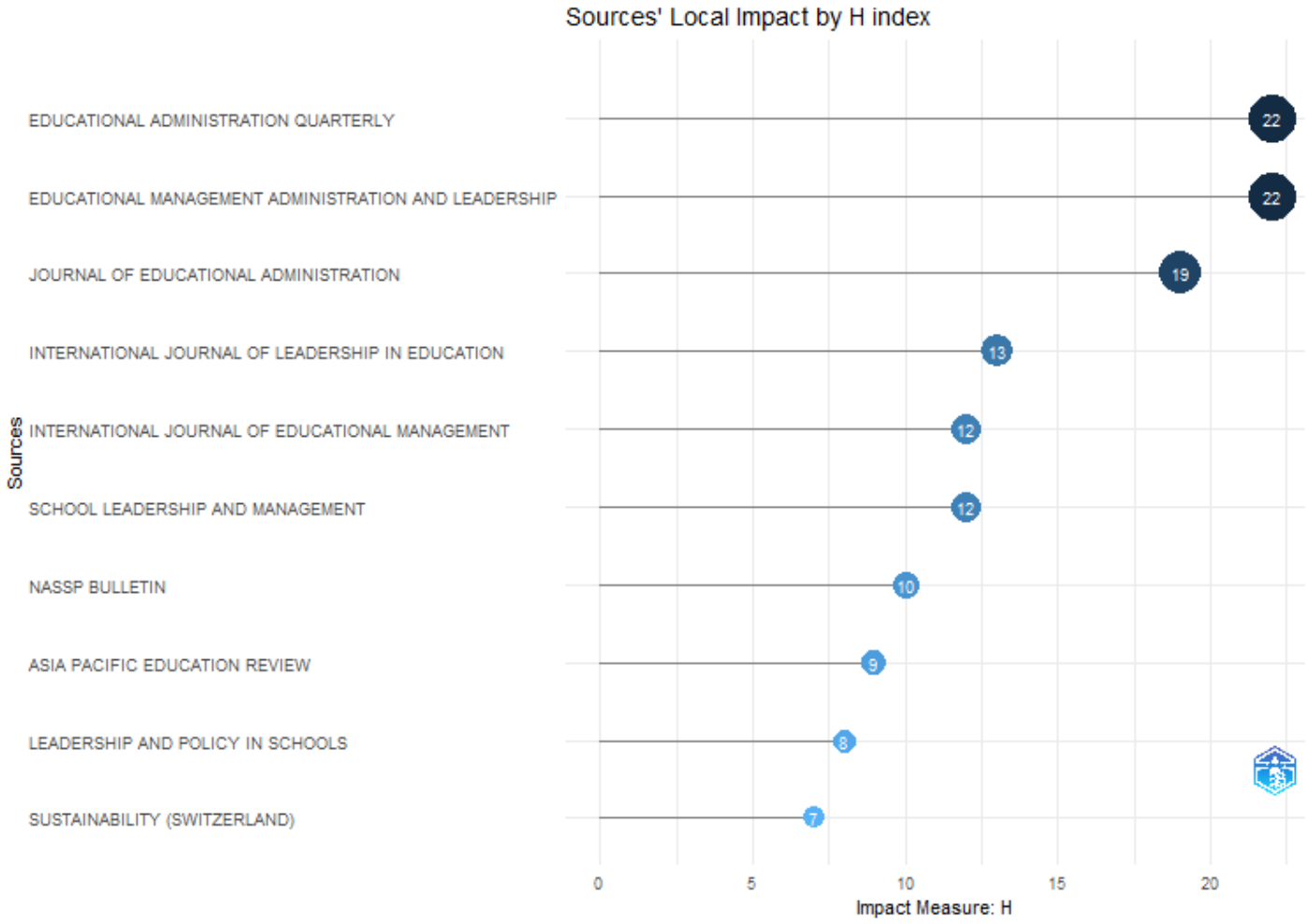


Figure 7. Sources Local Impact by H-Index

The growth of newer journals such as *Sustainability* and *Education Sciences* indicated an emerging interdisciplinary approach to educational leadership research. In recent years, much of the new research into educational leadership drew upon insights from fields such as psychology, innovative approaches, and technology-enabled learning environments (Bush, 2020). Other papers addressed issues of pedagogy, teacher workforce development, the impact of accountability reforms, and issues associated with distributed and shared leadership (Harris & Jones, 2018).

Analyzing the data indicated that educational leadership research was primarily driven by a handful of top-tier research journals with a significant level of impact. In addition, the growth of newer interdisciplinary journals and research areas indicated that educational leadership was expanding to encompass a broader educational perspective and more technology-focused research.

The data suggested that leading journals with the highest journal citation rates, including *Educational Administration Quarterly* and *Educational Management Administration and Leadership*, shaped the leadership discourse. However, an important trend in the data was the growth of emerging journals publishing research on educational leadership, as well as the increasingly global and interdisciplinary nature of this research.

Authors Local Impact by H-Index

Based on the author impact data, several scholars had elevated citation scores and significantly contributed to the area of educational leadership and/or management. The h-index value (indicated in blue), which assessed the academic output and citation frequency of authors, ranged from 7 to 10 among the most prominent contributors. According to this criterion, G. Devos emerged as the most productive scholar with the highest h-index value (10) and total citations (824). Notably, her most cited publication was published in 2009, indicating sustained scholarly impact until 2026. In terms of overall research productivity and impact, Aç. Kılınç (h-index = 7) and M. Polatcan (h-index = 7) ranked second.

Well-known researchers P. Hallinger and H. Hulpia were also represented in the dataset with TC = 549 and TC = 566 citations, respectively. Their work over time consistently contributed to knowledge building on instructional leadership and distributed leadership in schools (Hallinger, 2019; Harris & Jones, 2018). The remainder of the most represented authors, including D. Adams, M. Afshari, and M. S. Bellibaş, were less prominent but nevertheless displayed moderate levels of research productivity and some citation impact in the field of educational leadership across various countries.

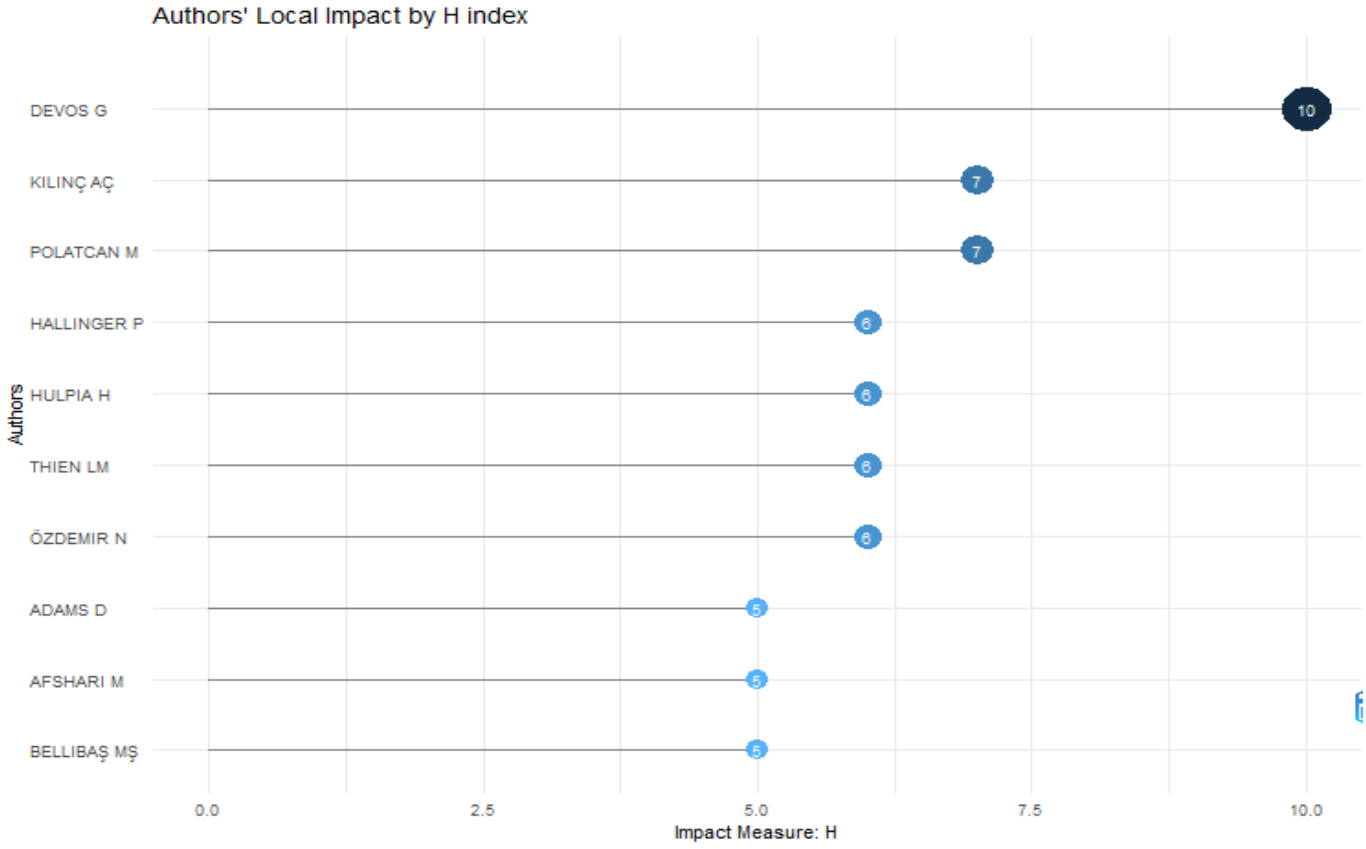


Figure 8. Authors Local Impact by H-Index

The majority of the contributing authors had smaller h-index values (1–3), indicating that the field was attracting new authors. Research on leading schools gained traction globally, and there was growing interest in effective leadership practices and school improvement (Bush, 2020). The field of educational leadership research became increasingly international in orientation and interdisciplinary in approach, drawing on policy, management, and teacher development perspectives (Leithwood et al., 2020; Gumus et al., 2018).

The data revealed a small group of top-cited academic authors within educational leadership, but also a large number of new names with growing citation rates, signalling the field's growth and expansion to new scholars in countries around the world. I drew the initial conclusion that the field of educational leadership research was developing globally, and the Scholars Ranked analysis showcased the current and growing community of established and emerging scholars.

Affiliation Production over Time

The affiliation data showed that educational leadership research had largely been conducted by universities and academic departments. Data from the Department of Educational Sciences, for example, revealed the most consistent growth in the area of educational leadership research. The Department published only 2 articles in 2005–2006 but escalated to 32 articles in 2025–2026. This trend in the area of educational leadership research reflected the growing significance of the field in teacher education and school management programs worldwide (Hallinger, 2019).

Furthermore, Universiti Malaya had a gradual upward trend from 2012 and published 17 articles in 2025–2026. This trend among Southeast Asian universities reflected growing leadership in research and practice, examining aspects of leadership practice, school improvement, and policy implementation (Bush, 2020). Beijing Normal University experienced a rapid increase after 2019 and reached 14 articles in 2025–2026, reflecting a strong growth in interest in educational leadership research in East Asia (Gumus et al., 2018).

While some institutions were already listed prior to 2020, others such as Universiti Sains Malaysia and Universitas Negeri Malang entered the ranking in subsequent years, indicating an increased contribution of universities across Asia to the global research base on school leadership, particularly focusing on instructional leadership and distributed leadership (Leithwood et al., 2020; Harris & Jones, 2018).

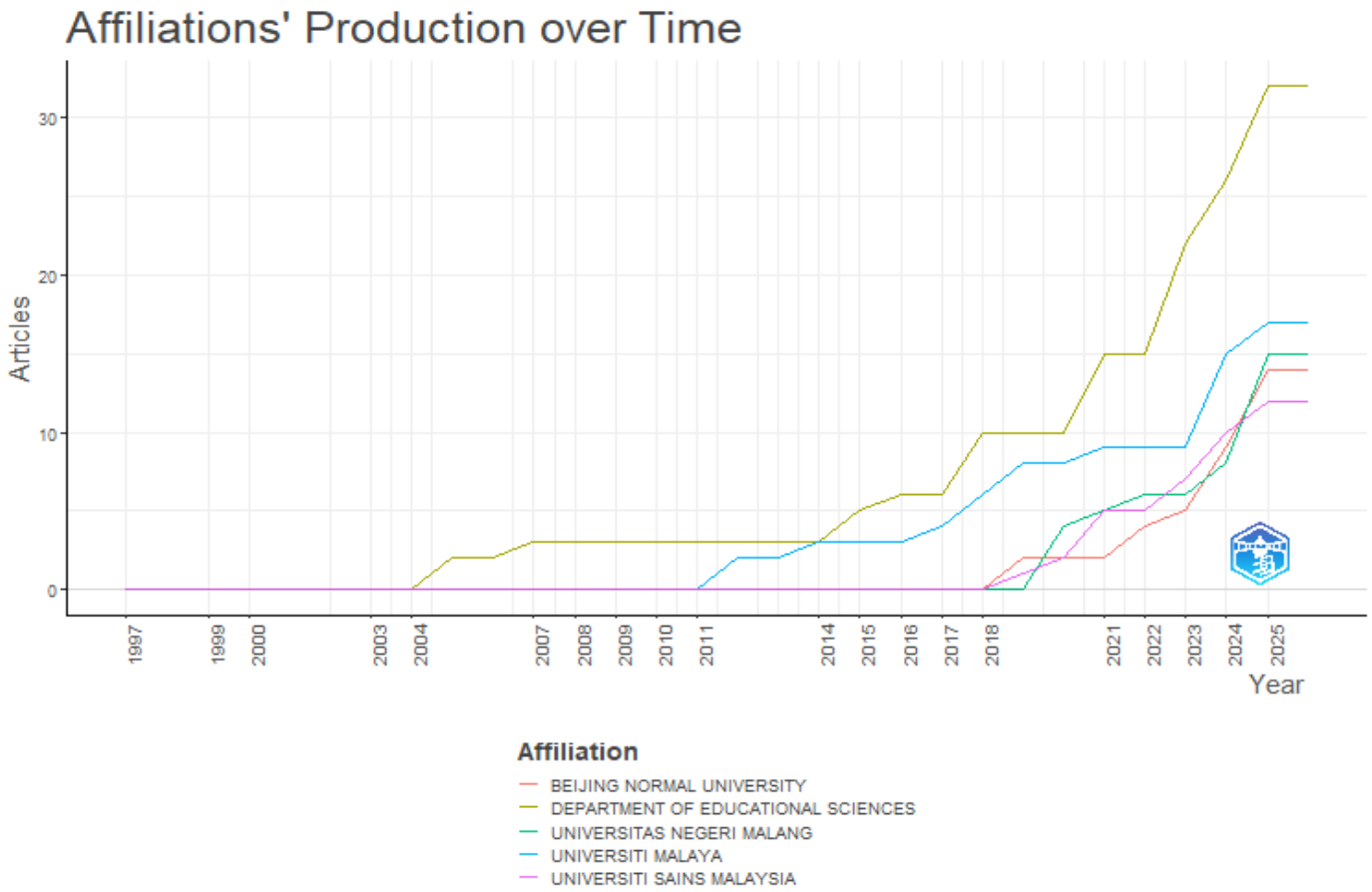


Figure 9. Affiliation Production over Time

The data showed an increase in institutional contributions to educational leadership research over time, particularly after 2015. The Department of Educational Sciences continued to be the most consistent contributor to educational leadership research; however, there was an obvious increase in research productivity from universities in Asia, namely, Universiti Malaya, Beijing Normal University, Universiti Sains Malaysia, and Universitas Negeri Malang. The findings indicated a global distribution of research on educational leadership, with universities playing a prominent role in fostering school leadership and management research and practice.

Most Cited Countries

The data revealed significant disparities in both the quantity and impact of publications across countries. The United States led in total output (1904 articles) but had a moderate average citation rate of 21.9 per article, suggesting high productivity but relatively lower influence per paper (Hallinger & Bryant, 2016). In contrast, Belgium and the United Kingdom showed fewer publications (1009 and 1138 articles, respectively) but much higher average citations (84.1 and 63.2), indicating that research from these countries tended to be more influential internationally (Bush & Glover, 2018).

Asian countries demonstrated mixed patterns. China and Malaysia had moderate total publications (833 and 548, respectively) but low citation averages (11.7 and 10), implying growing output but lower global visibility (Leithwood et al., 2020). Meanwhile, countries like Hong Kong, Thailand, and Australia maintained both moderate output and higher citation averages (28–28.8), reflecting regional centers of impactful research in educational sciences (Day & Sammons, 2019).

Other countries, including the Philippines, Ethiopia, Jordan, and Vietnam, had very low output and citations (1.2–1.7), highlighting the limited global contribution and visibility of their research in the field of educational leadership (Nguyen et al., 2021). Overall, the data suggested that research productivity did not always correlate with impact, as some smaller countries produced fewer but highly cited studies, while larger producers had lower per-article influence.

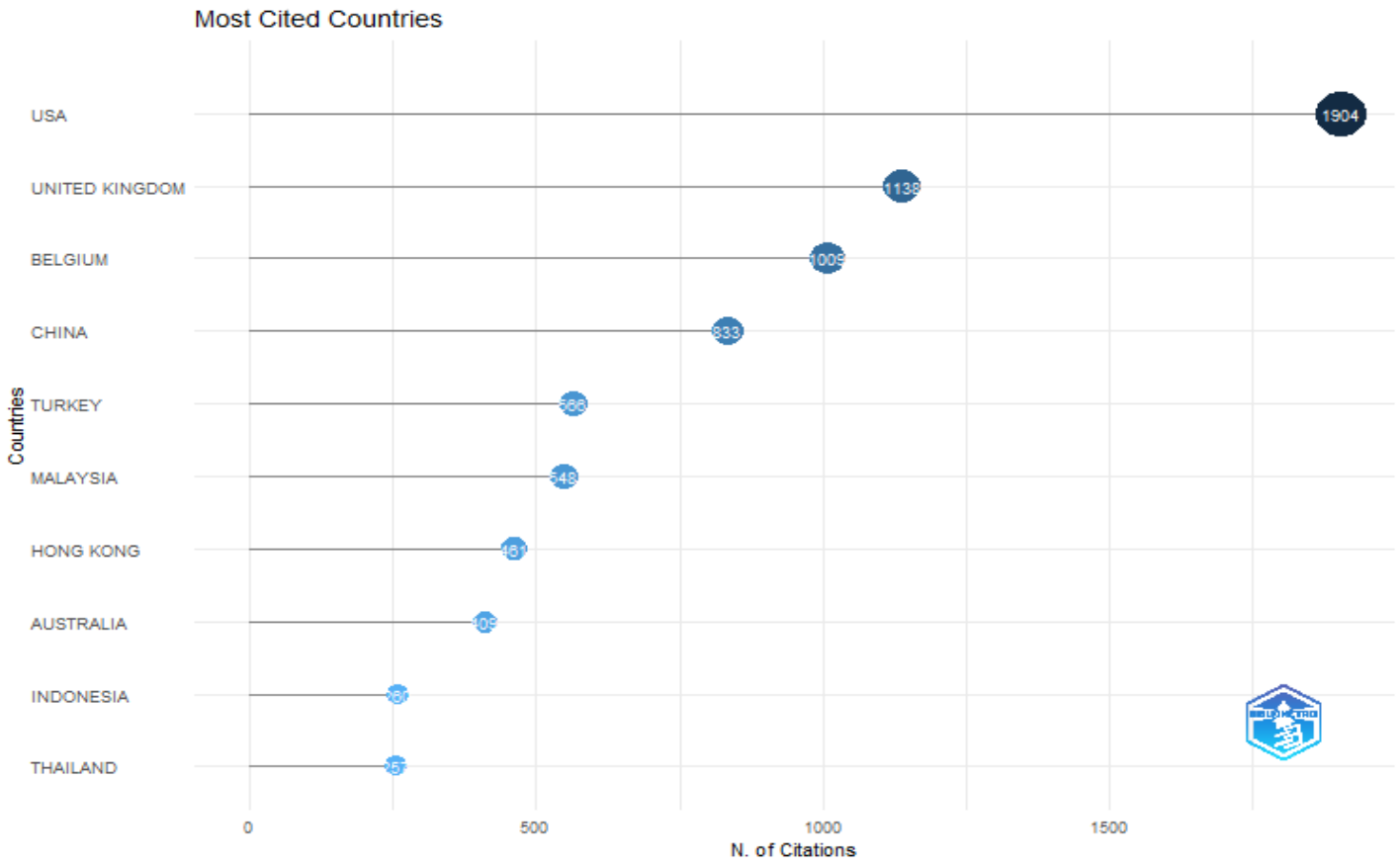


Figure 10. Most Cited Countries

Based on the data, the researcher concluded that the USA was by far the country that published the most, but from the visualization it was clear that European countries such as Belgium and the UK also had a significant influence. Asian countries were rising, but their publications had, on average, a lower impact. In the future, it was essential that Asian countries gained more visibility on the international stage. This visualization clearly showed that the focus should be placed not only on increasing the number of publications but also on improving the quality of research.

Words Frequency over Time

This data set tracked research on educational leadership and its subfields, including transformational, instructional, and distributed leadership. The early years (1978–1990) saw minimal research on educational leadership. However, in the early 2000s, the volume of research on educational leadership began to increase, particularly in the areas of transformational and instructional leadership as schools around the world sought school improvement and effective leadership (Hallinger & Bryant, 2016).

In all leadership domains, there was a marked growth from 2010 onwards. Transformational leadership grew from 24 articles in 2010 to 141 in 2026. Distributed leadership grew from 15 in 2010 to 125 in 2026. There was an international trend in secondary education toward more collaborative and student-centered school leadership (Bush & Glover, 2018). However, in terms of articles published on the themes of job satisfaction and school leadership practices, there was evidence to suggest that there was an emerging recognition of the link between the nature of school leadership and teacher job satisfaction (Day & Sammons, 2019).

The increase in published research from 2015 to 2026, spanning different categories (i.e., theoretical, practical, comparative, and qualitative or quantitative), signaled an evolved educational leadership research field. This growth included increased involvement of researchers from a diverse set of nations, as well as a practical bent toward improving educational leadership in settings such as secondary schools (Nguyen et al., 2021). Notably, distributed leadership enjoyed a marked ascendancy over traditional leadership frameworks emphasizing centralized authority and bureaucratic hierarchies.

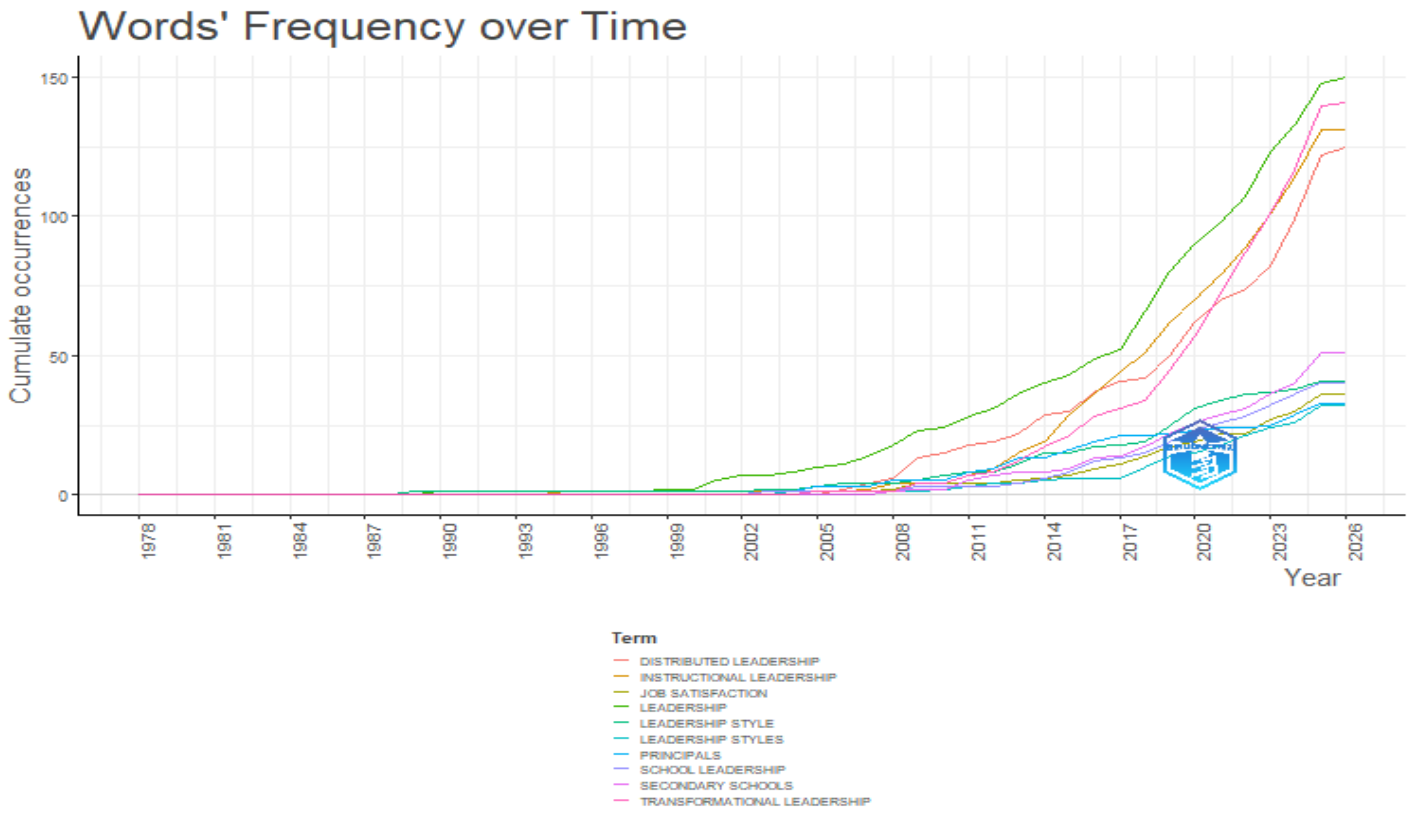


Figure 11. Words Frequency Over Time

Based on the data, the researcher concluded that, from a small number of initial studies and evaluations of the work of school headteachers, educational leadership had emerged as a highly active, varied, and evolving field of research. Transformational and distributed leadership had become major agendas for future research. Alongside the dominant styles of leadership, there was an increasing volume of research on themes such as school leadership, job satisfaction, and the impact of leadership on teacher motivation and student outcomes. Future research was likely to move toward the development of integrated models of leadership and undertake cross-cultural comparisons aimed at improving leadership in the secondary sector.

Word Cloud

Analyzing the frequency of various terms and concepts in the frequency data of cited papers, it became apparent which topics were predominantly discussed in research on educational leadership. Leadership, transformational leadership, instructional leadership, and distributed leadership appeared most frequently (Nguyen et al., 2021; Leithwood et al., 2020). Globally researched leadership approaches and concepts were also often cited. Transformational leadership and instructional leadership were the most frequently cited leadership approaches related to school outcomes (Hallinger & Bryant, 2016).

There was growing interest in secondary schools, job satisfaction, and school leadership (Bush & Glover, 2018). Terms such as teacher self-efficacy, school improvement, teacher leadership, and organizational commitment were also featured frequently, reflecting an understanding of the links between effective leadership, teacher development, and pupil outcomes (Day & Sammons, 2019). Interest in issues such as ethical leadership, servant leadership, and teacher collaboration reflected an increasing focus on values-driven approaches to school leadership and more participative approaches to teacher development.



Figure 12. Word Cloud

The frequency analysis for educational leadership indicated that the field had matured and needed to be viewed as a multidimensional field with much more to offer than simply examining different leadership styles (i.e., transformational and instructional leadership). Topics such as teacher development, school effectiveness, instructional leadership, distributed leadership, and the school as a learning community had become staples in the field. The prevalence of the secondary school setting, teacher self-efficacy, and job satisfaction clearly indicated that the field recognized the impact that effective leadership had on school performance, as well as teacher growth and well-being. Future research was likely to be more focused on models of leadership that sought to integrate these different perspectives on effective educational leadership. Some examples of future research might draw on models of leadership that were ethical, participatory, and performance-oriented.

Tree Map

The data reported showed frequency of terms associated with leadership and specific forms of leadership, i.e., transformational leadership, instructional leadership, and distributed leadership. The discourse around educational leadership and its effect on teachers in terms of motivation was a theme that received attention in many countries (Leithwood et al., 2020). It was often treated as though the most effective form of leadership was held by one person; whether this was the principal/Head teacher or a coach (Hallinger & Bryant, 2016). Educational leaders had the potential to elevate teacher motivation and improve instructional practices in schools; this was an area of growing concern and research across the globe (Bush & Glover, 2018).

High frequencies for secondary schools, school leadership, and principals indicate that a large body of research is conducted in middle and high school settings (Nguyen et al., 2021). Terms like job satisfaction, teacher self-efficacy, teacher leadership, and organizational commitment indicate the growing focus on the human and relational aspects of effective school leadership and teacher well-being (Day & Sammons, 2019).

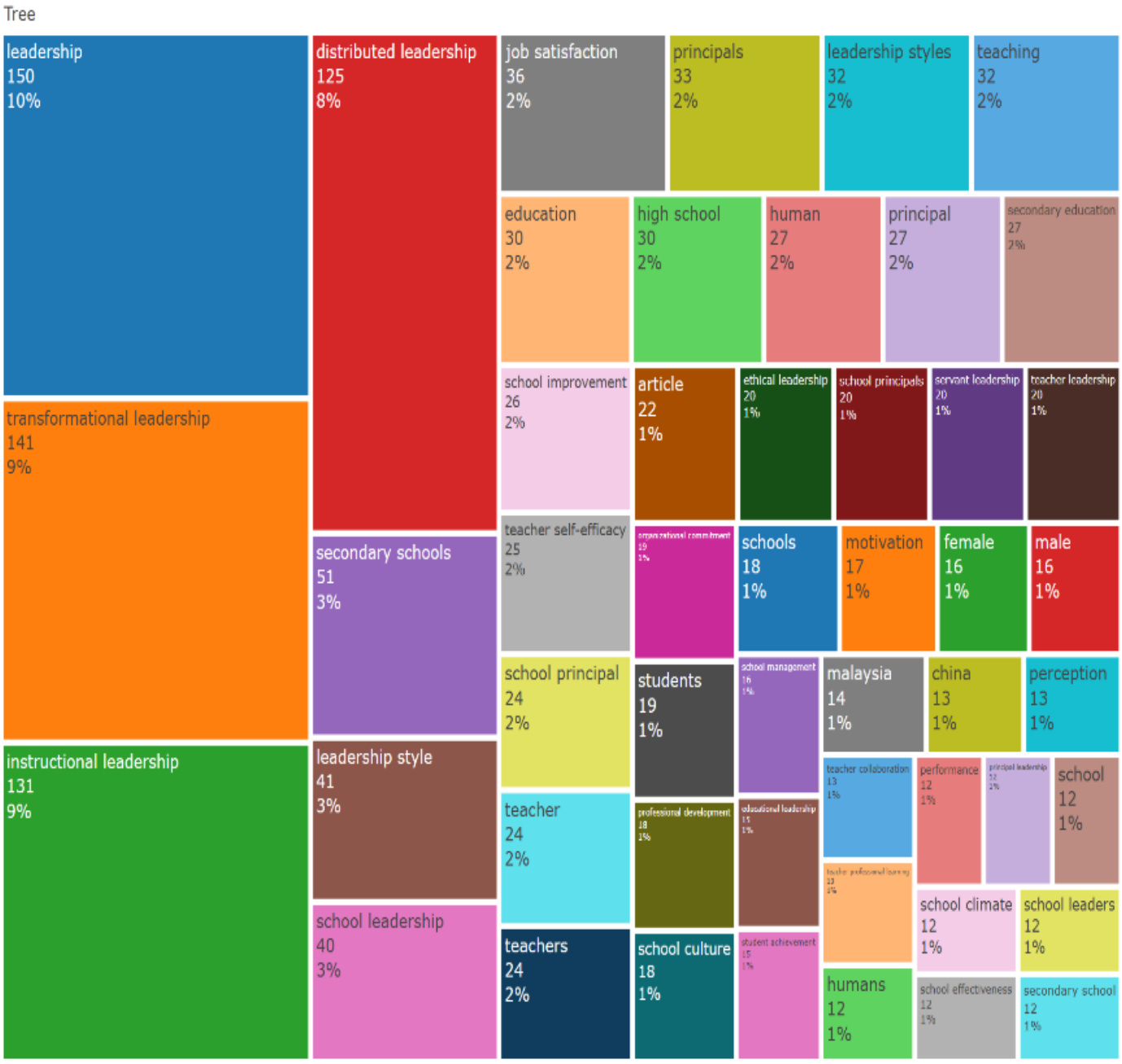


Figure 13. Thematic Tree

There is growing interest in emerging issues on ethical leadership, servant leadership and teacher professional learning as values-based and participative leadership approaches that nurture moral leadership to enhance student achievement and school culture. While there are increased contributions from various parts of the world including the Asian region particularly Malaysia and China, this special issue highlights issues and concerns related to educational leadership from a Vietnamese context and beyond (Nguyen et al., 2022). Of particular interest are submissions that draw comparisons between issues and best practices in educational leadership between developed and developing countries, including those within the Asian region. Ultimately, this special issue seeks to explore, critique and challenge theoretical and practical issues in educational leadership for improved teaching, learning and school administration for sustainable development through the exchange of knowledge from around the world.

Using term frequencies to interpret the results indicates that the field of educational leadership research has taken on a more holistic and multidimensional form. References to transformational, instructional and distributed leadership remain core themes.

However, there is also an increased emphasis on topics related to teacher well-being, collaboration, educational leadership ethics and approaches to leadership in secondary schools. In the context of educational structures, there is consistent evidence of the critical role that principals play in teacher development and improving teacher performance and student outcomes. As a result, future research in educational leadership must strive to combine a human, ethical and organizational orientation to achieve leadership that is meaningful and sustainable.

Trend Topics

A trend topics analysis of the word “leadership” from books published between 1942 and 2026 revealed the shifting foci of research over time, with certain core leadership themes prominently featuring in the latter decades.

Following 2016, the top two topics, leadership and school improvement, had leadership as the predominant trend topic, with other core leadership themes such as transformational leadership, distributed leadership, and instructional leadership representing the main thrust for school improvement through effective leadership (Leithwood et al., 2020; Hallinger & Bryant, 2016). The median years of 2019–2021 for the topics transformational leadership and distributed leadership underpinned the recent growing interest in the research literature of these two categories on teacher motivation, student learning, and organizational change (Nguyen et al., 2022).

Studies continued to focus on the secondary school as the principal setting for effective leadership, while studies of the principal and school leadership remained prominent (Day & Sammons, 2019). There was growing interest in a number of new themes, including teacher self-efficacy, teacher collaboration, teacher autonomy, and teacher well-being (Bush & Glover, 2018; Nguyen et al., 2021).

In addition, there was an observable growth in research on school culture, shared leadership, and servant leadership. This emerging trend of studies reflected a shift toward more collaborative and ethical approaches to educational leadership.

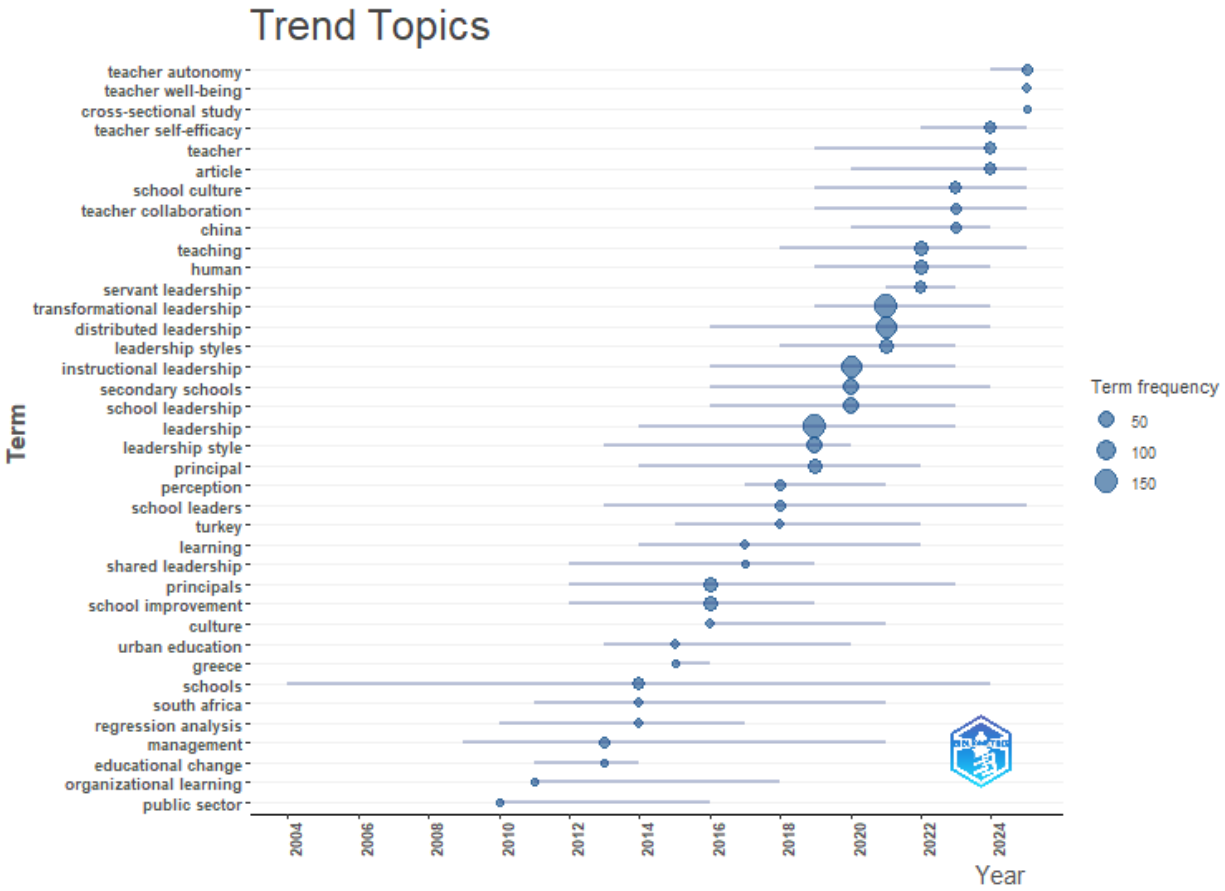


Figure 14. Trend Topics

Educational leadership had matured and contained a diverse set of approaches. While traditional models were still the most represented, a growing field of teacher-centric models, models that focused on ethics, and models that strived to improve school culture were observed. Secondly, the trend topic continued to focus heavily on secondary schools and principals in order to find successful models of implementation. As the field continued to grow, it was crucial that research on educational leadership combined perspectives on effective leadership and teacher development within the context of schools. The end result was expected to be healthy, high-performing schools that were equitable for all students.

Coupling Network of Documents using CR

A bibliometric analysis of 250 documents on educational leadership published in different parts of the world revealed two primary clusters of research focus. The first cluster, accounting for approximately 68% of the documents, was on instructional leadership and distributed leadership. The core purpose of the existing research under this cluster was to contribute to improving teaching practices and school management effectiveness (Bellibaş, 2022). Specifically, instructional leadership research had been on the rise since 2016 as the role of school administrators in enhancing teachers' performance and student achievement outcomes had become critical (Lingam, 2021). In relation to distributed leadership, the existing research had seen an increase in citation rates, particularly when school administrators aimed to foster shared decision-making among school personnel (Shafeeu, 2022; Ma, 2021).

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume X Issue VII July 2026

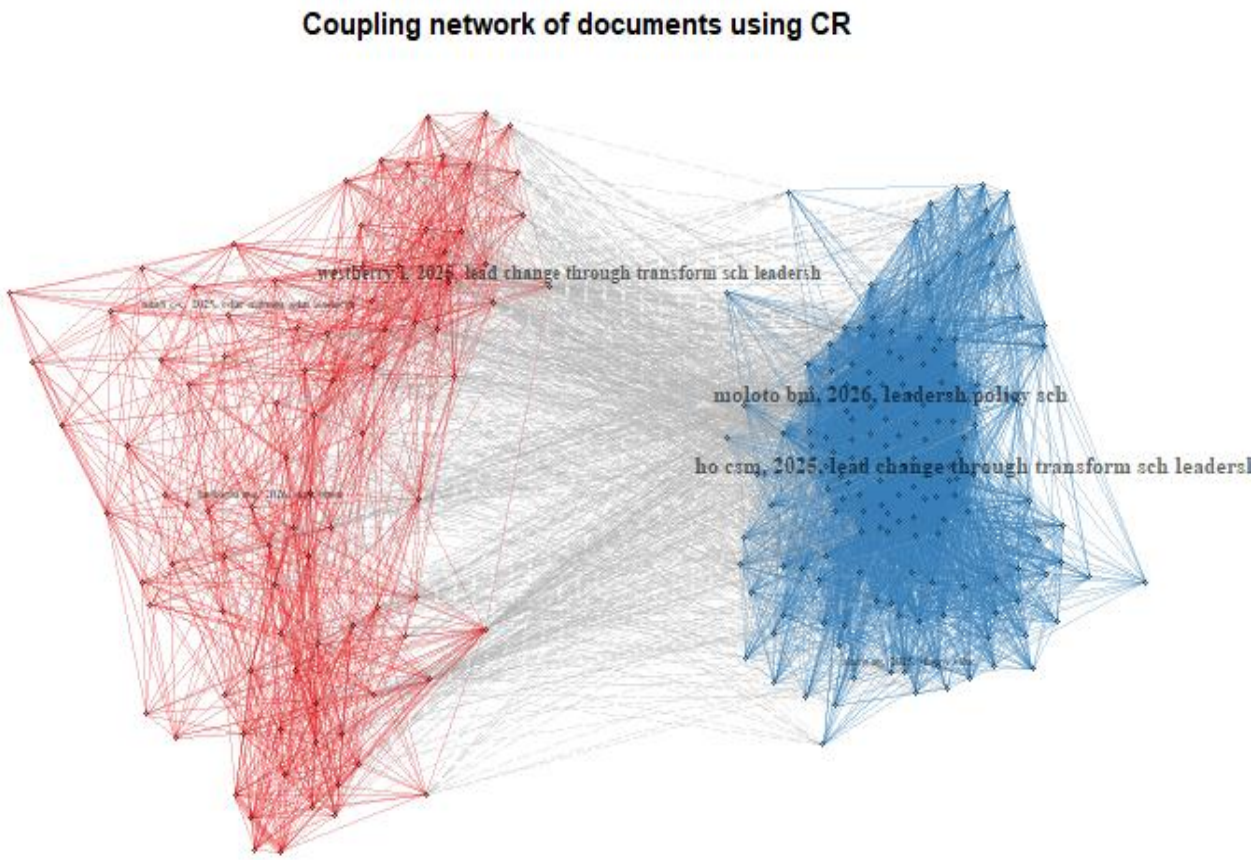


Figure 15. Coupling Network of Documents using CR

Cluster 2 focuses on themes of transformational leadership, styles of leadership and general theories of leadership, and how motivation and vision are used in school leadership (Bush, 2019, 2022; Bellibaş, 2021). The most recent references reflect an emphasis on transformational leadership that reflects concerns around the world related to ethical school leadership, teacher motivation, and positive school culture (Westberry, 2025; Thien, 2024). The clusters combine to reveal two related foci: one for effective administration through instructional and distributed leadership and the other focused on building the capacity of school leaders for motivation, ethical practice, and strategic thinking.

Published works (2016–2026) demonstrate a shift towards an integrated contextual as well as human centred perspective, highlighting the significance of collaboration, professional development and school culture for improving schools (Noor, 2022). Alongside citations for early works, studies in this area are gradually amassing higher citation scores and further advancing knowledge and research agenda.

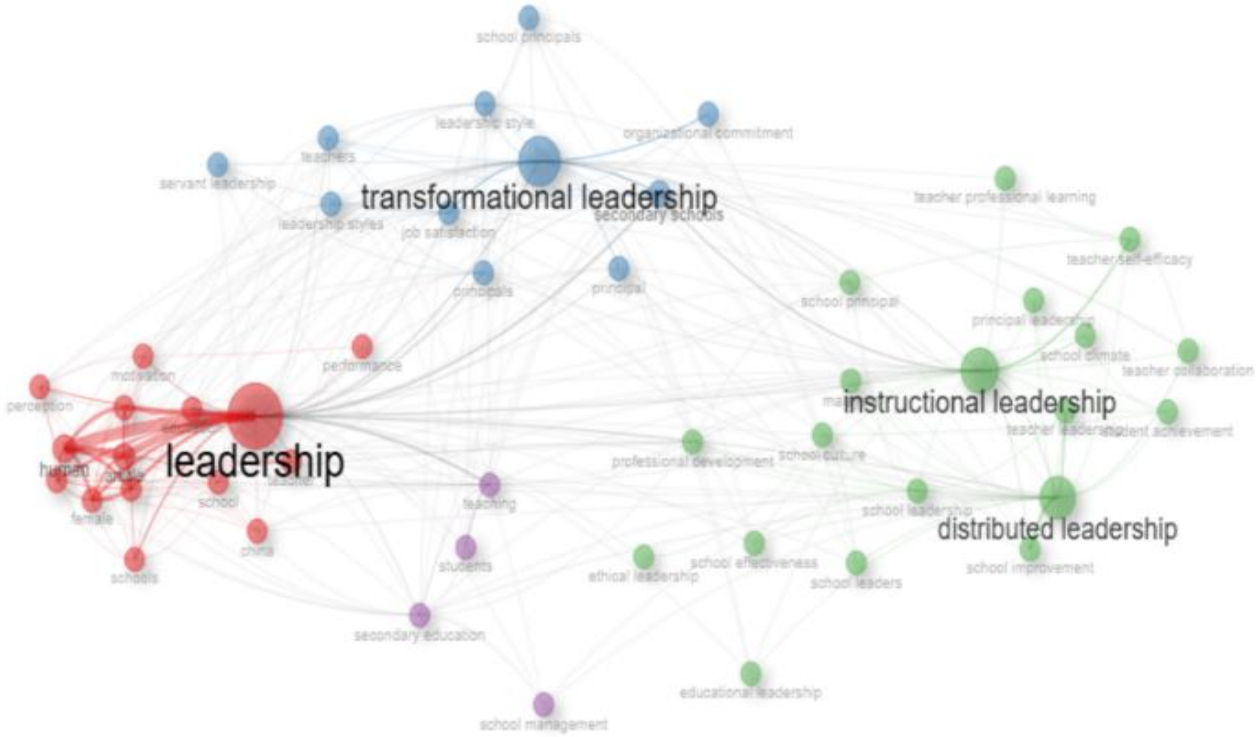


Figure 16. Key Word Network

The findings of this study demonstrate that over the last two decades educational leadership research has matured in terms of its diversity and complexity. Key issues for effective school operation revolve around the practice of instructional and distributed leadership, while the transformational leader and ethical leadership are most critical in shaping school vision and culture. The period 2016–2026 is characterized by an increase in research which adopts teacher-centric approaches and a collaborative leadership focus, both seeking to develop effective whole school improvement strategies. Moving forward, future research would benefit from further investigation of the relationship between leadership style, teacher empowerment and student outcomes to inform educational policy and practice internationally.

Development and Relevance Degree

The analysis of educational leadership literature from 1942 to 2026, the following central (motor) themes such as transformational, instructional and distributed leadership continue to dominate the field in terms of promoting teacher motivation, collaboration and student achievement (Shen, 2020; Liu, 2021; Dou, 2017). The emerging themes include ethical leadership, servant leadership and equity-focused leadership which emphasize the human-centered and values-driven approach in educational settings (Bellibaş, 2021; Thien, 2021). The niche themes include teacher professional learning, school climate and technology integration, whereas the basic themes still revolve around education, schools and principals (Schmitz, 2023; Ma, 2024; Liu, 2018).

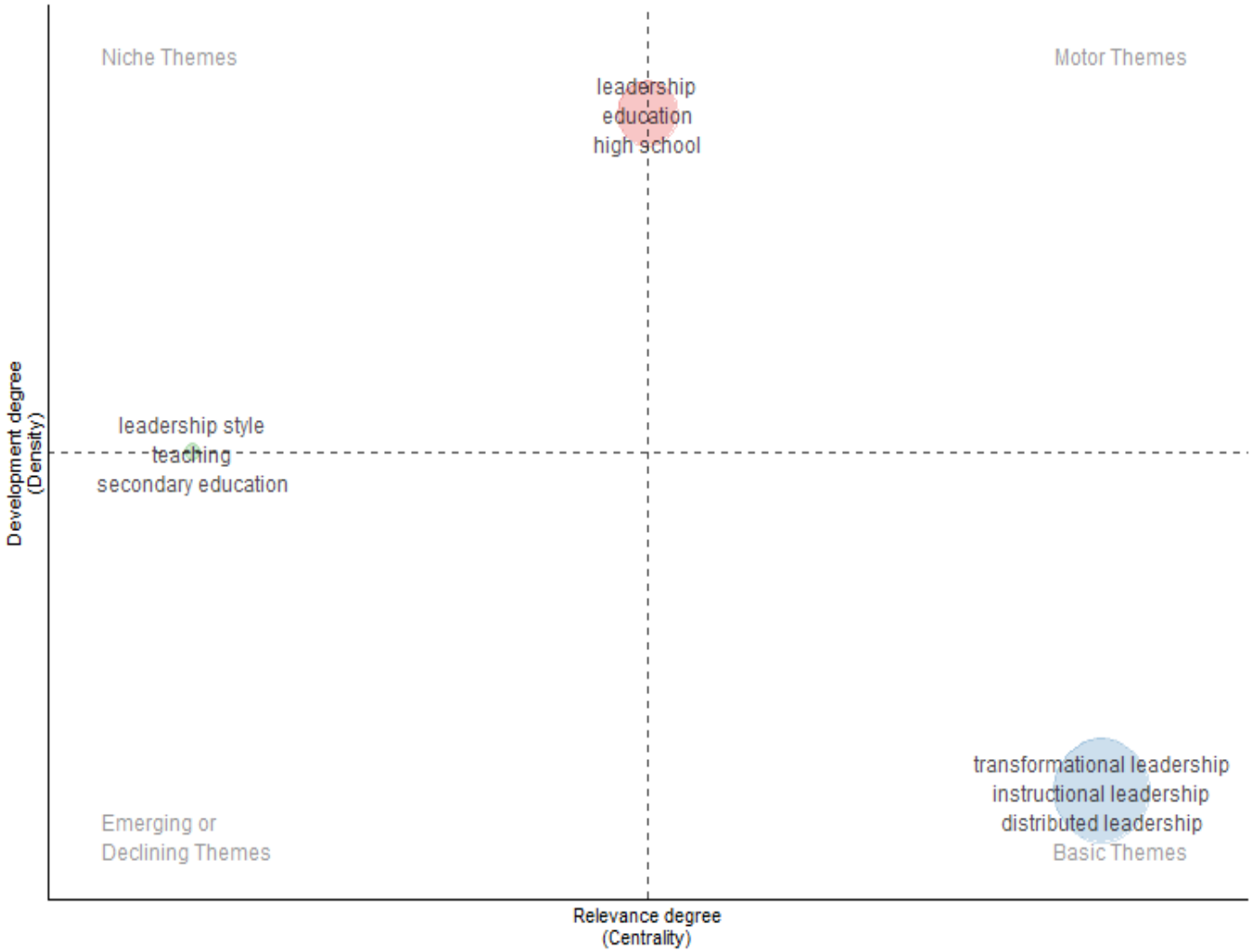


Figure 17. Development and Relevance Degree of the Study

Leadership in schools is not an abstract theory remote from practice; it is a practice that is both highly professional and genuinely humane. School leaders who strive to develop teacher self-efficacy, school effectiveness and student achievement, are likely to adopt a holistic approach grounded in theory and practice.

A comprehensive bibliometric analysis of 968 documents (968 articles) from 421 sources (books and conference papers) published over an 84-year period (1942–2026) revealed a dramatic and stable growth in the production of school leadership research, particularly on transformational, instructional, and distributed school leadership (2.51%). The majority of research publications were journal articles and studies, written in a spirit of collaborative authorship between scholars from different countries. A keyword and content analysis also revealed that numerous keywords were associated with school leadership studies, with reference to teacher motivation, quality of instruction, school improvement, and other areas, while references to ethical leadership, teacher professional development, teacher management, school change, and others appeared to be increasingly discussed. Annual production had increased sharply, especially since 2016, peaking at 127 articles published in 2025. The majority of school leadership studies had their origins in basic research studies, recently followed by applied and practical studies. Geographically, school leadership studies had emanated mostly from the United States and Europe; however, there was an emerging increase in school leadership research production in Asia. In conclusion, school leadership studies were dynamic, multidisciplinary, and consisted of different operational, teacher-focused approaches while also addressing ethical and other issues related to effective school practice. The body of knowledge offered a strong and viable foundation for current and future research, policy development, and best practices of school leadership with global applicability to generalize across cultures and contexts.

DISCUSSIONS

The bibliometric findings gave a clear picture of how research on school leadership, especially transformational, instructional, and distributed leadership, had developed over time. One of the most noticeable patterns was the steady rise in publications from 2016 to 2025, showing that interest in this area continued to grow across the globe. This increase reflected how strongly school leadership was linked to school improvement efforts in different educational systems. Citation patterns also showed an interesting balance: older studies continued to receive strong recognition and influence, while newer work was still building its citation base, which was expected given the time needed for research to gain visibility. The analysis of journals further showed that only a small group of high-impact outlets dominated the field. At the same time, collaboration across countries was clearly expanding, with the United States and parts of Europe leading in productivity and influence, while Asian countries were steadily increasing their presence. A similar pattern appeared at the author level, where a relatively small group of researchers had played a major role in shaping the direction of the field.

Looking at keyword patterns, the results showed a fairly consistent core of themes across the literature. Transformational, instructional, and distributed leadership remained the most dominant concepts, confirming their central place in school leadership research. At the same time, newer and more specific keywords became more visible, such as teacher self-efficacy, school improvement, organizational commitment, and teacher collaboration. These additions suggested that researchers were increasingly interested in how leadership affected teachers and school outcomes in more practical and measurable ways. The growing attention to ethical leadership and servant leadership also signaled a shift toward more value-oriented and people-focused leadership approaches. Overall, the keyword trends suggested that the field was gradually moving beyond traditional leadership models and becoming more integrated, focusing on both organizational performance and human development within schools.

In terms of thematic relationships and future directions, the analysis showed that the major leadership approaches were closely connected rather than isolated. Transformational leadership was often tied to motivation, vision, and change processes, while instructional leadership was more directly linked to teaching quality and student learning. Distributed leadership, on the other hand, highlighted shared responsibility and collaboration among school members. When these themes were viewed together, they pointed toward a broader understanding of leadership as something shared rather than centered on a single individual. Based on these findings, future research was likely to focus on combining these leadership models in more integrated frameworks, along with studies that compared different cultural contexts, tracked leadership effects over time, and examined more directly how leadership practices influenced both teacher well-being and student achievement in real school settings.

CONCLUSIONS AND IMPLICATIONS

This study presented the results of a comprehensive bibliometric analysis that mapped the trajectory of school leadership research and assessed its evolution. The findings demonstrated that school leadership research, particularly with reference to transformational, instructional, and distributed approaches to leadership, had matured and become a prominent multidimensional and global research domain. Transformational leadership continued to play a significant role in motivating teachers and developing school vision while striving for ethical and innovative practice. Instructional leadership remained crucial to enhancing teaching quality, embedding curricula, and achieving desired student outcomes. Distributed leadership was increasingly perceived as a collaborative method that hinged upon shared governance, decision-making, and accountability. An exponential increase in published studies and enhanced global collaboration among scholars, particularly over the last decade, reflected the growing relevance of effective school leadership practices for improving teacher performance and enhancing school effectiveness. Newer research trajectories signaled a marked humanistic turn as researchers focused on inclusive, ethical, and participative approaches to leadership. The findings also highlighted the need to take into consideration school-based factors such as teacher well-being, professional development, and school culture.

The findings of this study had important implications for both policymakers and school administrators and practitioners in education. Implications for educational policymakers included the need for leadership development programs for school heads to move beyond typical transformational, instructional, or distributed models and incorporate a holistic, balanced approach that took into consideration the different instructional and organizational challenges facing schools today. School administrators and practitioners could use this study to advocate for ways in which school leaders could use a holistic approach to school administration that focused on operations, motivation, and ethics in order to foster teacher self-efficacy, collaboration, and instructional improvement. Additionally, future research on school leadership was needed to address research gaps and explore emerging themes such as integrated models, cross-cultural perspectives, and school leaders' effects on teacher and student outcomes in a variety of educational contexts. This study on the evolution, findings, and future directions of research on school leadership contributed to a better understanding of a crucial component necessary to create effective, collaborative, and sustainable schools.

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