

ORGANIZATIONAL CHANGES IN SCHOOL: A BIBLIOMETRIC ANALYSIS

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ABSTRACT

The issue of organisational change in schools has become increasingly relevant in response to complex global dynamics, attracting significant academic interest. This study aims to analyse the body of literature on organisational change in school contexts through a bibliometric approach using the Scopus database. The research involved identifying specific keywords, followed by the analysis of variables such as publication trends, prolific authors, sources, and thematic clusters. The findings show a notable increase in publications over the last decade. This growing trend underscores the relevance of the topic and suggests promising avenues for further scholarly investigation. This study addresses the ever-increasing need to understand how organisational change in schools is being approached within academic literature. It aims to map the development of this field and identify key research trends and areas of gaps. Mapping and analysing the research landscape of school organisational change (2014–2024) through bibliometric methods. A bibliometric analysis was conducted using data retrieved from the Scopus database, which was then processed through tools such as VOSviewer and Biblioshiny. Summarise the main findings of the study briefly. Organisational change in schools remains a dynamic and expanding area of study. The results underscore the importance of ongoing research and provide valuable insights for educational leaders and policymakers.

Keywords: Bibliometric, Organisational change, School.

INTRODUCTION

Change is the only constant in the world. As Heraclitus famously stated, everything is in flux and nothing remains the same (Mutambara, 2022; Dardiri, 2021; Makhanya, 2021). Civilisation evolves continuously, requiring organisations to transform to stay relevant. In education, organisational change has become an urgent necessity amidst the increasingly complex global environment. Today's educational institutions face multiple challenges ranging from rapid technological advancements and shifting socio-economic structures to the growing diversity of labour market demands (Diaconu, 2023). Schools, as a vital part of educational systems, must adapt to these changes to ensure their relevance and effectiveness. A school that successfully implements organisational change demonstrates adaptability, flexibility, and responsiveness (Then & Pohlmann-Rother, 2024; Alsuwaidi, 2023; Lunenburg & Ornstein, 2012; Gilley, 2000).

Schools are complex organisational entities influenced by both internal and external factors. Organisational change in schools is a multifaceted process shaped by leadership, organisational culture, work systems, and stakeholder involvement, all of which aim to improve educational quality and effectiveness (Fadhilah, 2024). Effective teaching and learning are not solely determined by teacher-student interaction, but also by how the school is managed as an organisation (Lekli & Fetahu, 2024; Nordin & Alias, 2023; Ardianti, 2022).

Given this context, research on organisational change in schools is critical to improving management efficiency and learning outcomes (Diaconu, 2023; Chernova & Tatiana, 2022; Rozikin et al., 2021). Such research provides valuable insights into how schools navigate change in areas such as leadership, curriculum development, and technology integration (Fadhilah, 2024). Furthermore, it helps identify challenges and strategies that schools can implement to improve educational performance (Avi et al., 2016).

In the era of globalisation and digitalisation, schools are compelled to respond to external challenges such as technological advancement, evolving educational policies, and shifting societal expectations (Chen & Wang, 2024). Institutions that effectively adapt to these changes not only remain relevant but also increase their competitive advantage (Hart & Rodgers, 2023; Verbovska, 2022; O'rinova & Qodirova, 2022; Chadani, 2022; Niemeyer-Rens et al., 2022; Sally, 2016).

Many schools have successfully embraced technology in teaching and learning, revised their curricula, and cultivated inclusive organisational cultures. These adaptations show that schools can be powerful agents of change in society. Such transformation is often driven by the personal and professional development of school leaders, particularly principals, who must constantly evaluate their competencies to devise appropriate strategies for sustaining and advancing their organisations (Arruda, 2023; Sahlin, 2023; Chikwe & Biriowu, 2020).

Organisational change may also stem from external influences, including government policies, cultural values, technological innovations, administrative shifts, and staff needs (Secondra & Kristianus, 2021; Arifin, 2020; Mourino, 2017; Bucata, 2016; Kamau Gabriel, 2015). Teachers and school administrators frequently face evolving policies and practices. Positive perceptions of change can lead to an improved school climate and enhanced engagement from parents and communities (Dilan, 2023). Understanding these perceptions is crucial for the successful implementation of change initiatives.

Change acts as a catalyst for improving education. Involving all members of the school organisation is essential, as their awareness and acceptance of the need for change directly influence its outcomes (Diaconu, 2023). Research confirms that well-managed change can significantly enhance educational standards and align competencies with current societal demands (Bykova, 2021; Diaconu, 2023).

Beyond the role of principals, teacher commitment is also vital. Studies indicate that affective, normative, and continuance commitment among teachers positively contribute to the success of organisational change efforts in schools (Windasari et al., 2022). Despite its potential benefits, organisational change in education faces obstacles, especially during crises such as natural disasters, the COVID-19 pandemic, or institutional restructuring. Adjusting to new systems and workplace cultures is key to maintaining educational effectiveness during such periods (Sarasvianti et al., 2023). Successfully managing these transitions requires careful planning and collective support from all stakeholders.

Although interest in school organisational change is growing, no bibliometric study has specifically examined this topic to date. However, recent years have seen a noticeable increase in educational research addressing organisational change, reflecting its rising significance. Such findings are valuable for policymakers and school leaders seeking evidence-based strategies for change (Bilge & Konaklı, 2024). The topic's relevance has been explored extensively in the literature (Clive et al., 2019; Abd, 2019). For example, Loizos Heracleous emphasised how organisations evolve and adapt by examining how individuals frame and interpret strategic issues (Angeliki, 2021). Lunenburg and Ornstein (2012) investigated the primary drivers and barriers of school change, as well as methods to overcome resistance.

This study also references three prominent models of change management: Kurt Lewin's Force Field Analysis, John Kotter's Eight-Step Plan, and Ben Harris's Five-Phase Model. These frameworks, along with other organisational development techniques, offer structured approaches for planning and implementing change in school settings. In line with the aim of this study, a bibliometric analysis was conducted to examine research trends over the past decade (2014–2024). The following research questions guided the study:

- 1) What are the publication trends in research on school organisational change?
- 2) How productive are the authors and publication sources in this field?
- 3) What thematic clusters are associated with school organisational change?
- 4) What is the diversity of topics explored in this field, and what areas could be investigated further?
- 5) Which publications receive the highest citations, and what are the patterns of author collaboration and countries of origin?

METHOD

As discussed throughout this article, the theme of organisational change has been the subject of extensive academic discourse. This study adopts a bibliometric research design to evaluate research output in a specific domain, namely, organisational change in schools. A comprehensive literature search was conducted in November 2024 using the Scopus database, selected due to its rigour, breadth, and recognised standing within the international academic community. The dataset was processed using two widely accepted bibliometric tools: VOSViewer and Biblioshiny (Aria & Cuccurullo, 2017).

The initial search returned 1,069 documents, retrieved by applying relevant keyword combinations. Specifically, the terms "organizational change" or "organization change" and "school" produced an initial result of 322 records. This dataset was further refined by using a broader range of keywords, organisational change, school, and education, while limiting the language to English, which narrowed the pool to 158 documents.

These keywords were applied across multiple fields, including document titles, abstracts, author keywords, and full texts, ensuring a thorough and inclusive search strategy. Although the focus of this study lies in the educational field, the analysis intentionally spans various disciplines to offer a comprehensive view of how organisational change in schools is addressed in the broader scientific literature. After a manual screening of titles and abstracts,

the final dataset was narrowed to 87 publications that directly addressed organisational change in school contexts. The overall identification and selection process is summarised in Figure 1.

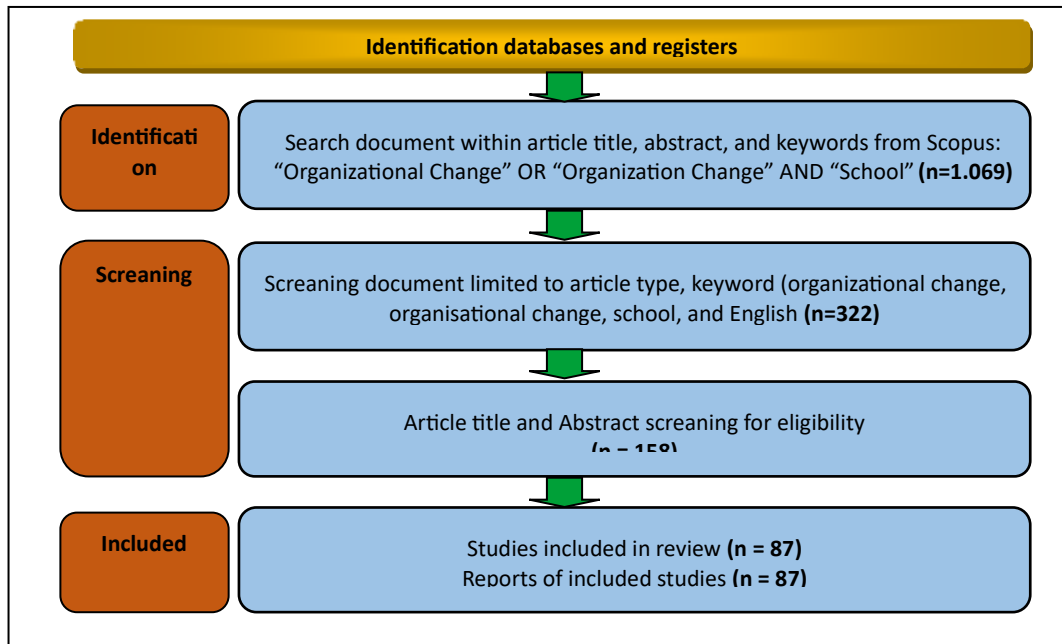


Figure 1. PRISMA Flowchart of Source Identification and Screening

RESULTS AND DISCUSSION

Main Information

Figure 2 presents a detailed analysis of the completeness of bibliometric metadata, offering insights into the reliability and quality of the dataset used in this study. Overall, the keywords employed in the search strategy achieved a strong level of precision, contributing to the robustness of the bibliometric output.

Most core metadata fields, such as Abstract (AB), Author (AU), and Title (TI), show no missing values, indicating a high-quality and well-structured dataset. This level of completeness supports the validity of the subsequent analyses. However, some metadata fields exhibit minor gaps, including Affiliation (C1), Keywords (DE), and Digital Object Identifier (DOI), with missing data ranging from 0.63% to 3.16%. While these omissions are relatively small and within acceptable thresholds, they may still impact aspects of author disambiguation and citation linking.

A more notable issue is observed in the Corresponding Author (RP) field, which has a missing rate of 16.46%. Although still within tolerable limits, this deficiency may affect the accuracy of communication mapping and institutional representation in the analysis. The most critical deficiencies are found in the Keywords Plus (ID) and Web of Science Categories (WC) fields, which exhibit missing data rates of 68.99% and 100%, respectively. These substantial gaps present significant challenges for advanced bibliometric techniques, particularly those involving subject categorisation, co-word analysis, and thematic clustering. Despite these limitations, the overall core metadata integrity remains strong, enabling a credible bibliometric analysis. Nonetheless, improving the completeness of these supplementary fields would allow for a more comprehensive and nuanced understanding of the research landscape in future studies.

Metadata	Description	Missing Counts	Missing %	Status
AB	Abstract	0	0.00	Excellent
C1	Affiliation	0	0.00	Excellent
AU	Author	0	0.00	Excellent
CR	Cited References	0	0.00	Excellent
DT	Document Type	0	0.00	Excellent
SC	Journal	0	0.00	Excellent
DE	Keywords	0	0.00	Excellent
LA	Language	0	0.00	Excellent
PY	Publication Year	0	0.00	Excellent
TI	Title	0	0.00	Excellent
TC	Total Citation	0	0.00	Excellent
DI	DOI	2	2.30	Good
RP	Corresponding Author	12	13.79	Acceptable
ID	Keywords Plus	74	83.06	Good
WC	Science Categories	87	100.00	Good

Figure 2. Completeness of Metadata Using Biblioshiny



Figure 3. Main Information about the Dataset Using Biblioshiny

Figure 3 provides a comprehensive overview and trend analysis of the dataset, covering ten years (2014–2024), with a focus on research related to organisational change in schools. The data reveals a negative annual growth rate of -6.7%, indicating a gradual decline in publication frequency. This trend suggests that the field may be entering a maturity phase, where research is consolidating around well-established themes rather than expanding into new ones.

The average document age is 5.25 years, indicating that the dataset primarily consists of relatively recent publications. On average, each document receives 12 citations, reflecting a moderate level of academic impact. While this suggests meaningful engagement within the scholarly community, there remains room for improvement in visibility and citation rates.

The dataset comprises 73 publication sources and includes 4,625 references, indicating a strong interdisciplinary foundation and the use of diverse scholarly sources. This breadth of citation underscores a rigorous grounding in both theoretical and empirical literature. Although the overall citation impact is moderate, the large volume of references and variety of journals support the conclusion that the field is both well-developed and fertile for deeper thematic exploration. Strategic efforts to enhance research visibility, such as publishing in high-impact venues or increasing international collaboration, could further elevate the field's influence.

Regarding author collaboration, the dataset includes 249 authors, with only 23 documents (9.24%) being single-authored. The average number of co-authors per document is 2.93, indicating a strong trend toward collaborative research. This collaboration may reflect the complexity of the topic, which often requires interdisciplinary expertise. International co-authorship accounts for 13.79% of the documents, indicating that global collaboration in this field remains relatively limited. This presents an opportunity to foster more cross-border partnerships, enriching the research landscape and expanding the reach of findings.

Figure 3 also includes an analysis of keyword usage. A total of 332 author keywords were identified, compared to 204 Keywords Plus. The higher number of author keywords suggests a tailored focus aligned with the specific objectives of each study. In contrast, Keywords Plus indicates broader, recurring themes that connect the research corpus.

Finally, all 87 documents in the dataset are classified as peer-reviewed journal articles, with no entries categorized as conference papers or book chapters. This emphasizes a clear focus on high-impact, scholarly dissemination, reinforcing the academic credibility and relevance of the selected literature.

Publication Trend

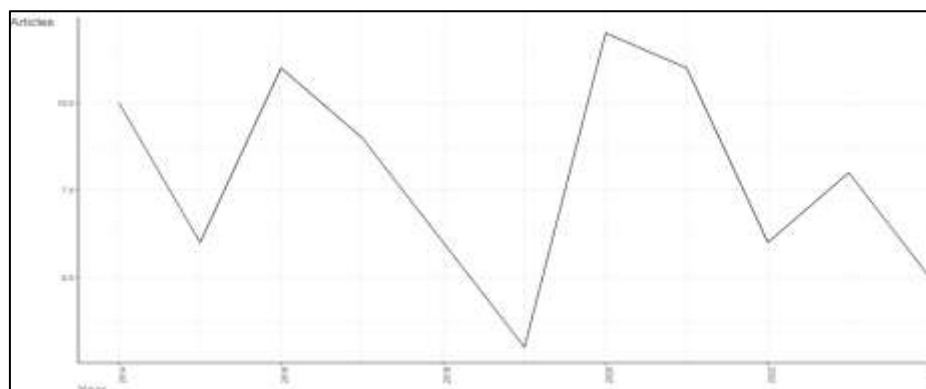


Figure 4. Annual Publication Trend

Figure 4 illustrates the annual trend in the number of published articles on organisational change in schools, with the vertical axis representing the number of articles and the horizontal axis spanning the years 2014 to 2024. The data reveal a fluctuating pattern over the decade, indicating varying levels of research interest during different periods.

The trend can be described in five distinct phases: 1) 2014–2016: A noticeable decline in publication volume, dropping from approximately 10 articles to fewer than 5; 2) 2016–2018: A modest recovery occurred, with the number of articles rising again to nearly 10, suggesting a brief resurgence in scholarly attention; 3) 2018–2020: Another sharp decline was observed, with publication counts falling below five once more; 4) 2020–2022: A significant increase took place, reaching the peak of the decade with slightly more than 10 articles published; 5) 2022–2024: A renewed decline emerged, bringing publication numbers back down to under 5 in 2024.

These fluctuations may be influenced by external factors, such as shifting funding priorities, evolving research agendas, or broader global events, including political transitions, economic downturns, and crises like the COVID-19 pandemic. Despite these variations, the theme of organisational change in schools remains highly relevant. The cyclical nature of the publication trend suggests that while interest may vary over time, the topic continues to offer significant opportunities for further inquiry, particularly in light of ongoing educational reforms, technological integration, and the evolving role of school leadership.

Most Relevant Sources



Figure 5. Most Relevant Sources

Figure 5 presents the distribution of documents across various academic journals. The x-axis represents the number of published articles, while the y-axis lists the corresponding journal titles. The Journal of Educational Administration emerges as the most prominent source, publishing six articles, significantly more than any other journal in the dataset. The Journal of Educational Change ranks second, with four articles. Several other journals contribute two articles each, while sources such as Advanced Science Letters and the American Review of Public Administration each published a single article, representing the lowest contribution levels.

This distribution indicates that research on organizational change in schools is being disseminated through a mix of specialized education journals and broader interdisciplinary outlets. The presence of multiple journals with modest contributions suggests a multidisciplinary interest in the topic, spanning fields such as educational leadership, management, public administration, and organizational studies.

Notably, the data highlights a concentration of key publications in a small number of well-established journals. These journals serve as core dissemination platforms for research in school organizational change. At the same time, the relatively broad distribution of other contributions reveals opportunities for researchers to explore new and underrepresented publication venues.

To broaden the impact and visibility of future research, scholars may consider diversifying their publication strategies by targeting journals beyond the dominant few, particularly in related fields such as policy studies, educational technology, or innovation management. This approach could facilitate broader academic engagement and support interdisciplinary knowledge exchange.

Most Productive Authors

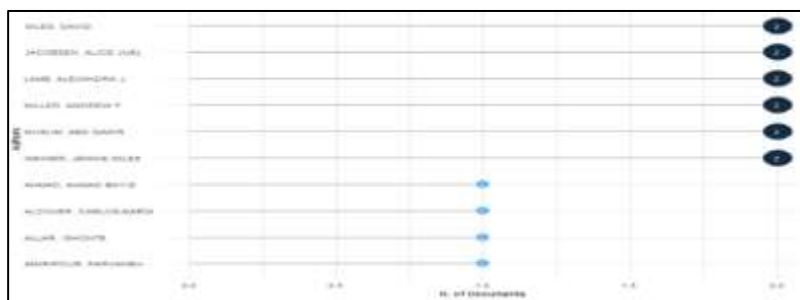


Figure 6. Most Productive Authors

Figure 6 illustrates the distribution of research output by individual authors. The x-axis represents the number of documents published, while the y-axis lists the names of the contributing authors.

Seven authors emerged as the most prolific contributors, each with two publications: David Giles, Alice Juel Jacobsen, Alexandra J. Lamb, Andrew F. Miller, Abd Qadir Muslim, Jennie Miles Weiner, and Ahmad Bayiz Ahmad. These individuals demonstrate consistent engagement in the field of organizational change in schools.

The remaining authors, including Carlos-María Alcover, Ishonté Allar, Parvaneh Amiripour, and others, each contributed a single publication. This indicates a broad base of participation, where many researchers have made contributions without a high frequency of repeat publications.

Overall, the chart reveals a relatively balanced distribution of authorship, with no extreme dominance by any single individual or small group. This pattern suggests that the field is collaborative and inclusive, encouraging diverse perspectives and participation from a wide range of scholars.

Such a distribution also reflects the emergent and interdisciplinary nature of the research area, where contributors may engage occasionally, often bringing insights from related disciplines such as leadership studies, educational policy, or organisational psychology.

Thematic Clusters in Research

The conceptual structure map presented in Figure 7 utilises Multiple Correspondence Analysis (MCA) to display the spatial distribution of keywords and concepts based on their relational proximity. The map is organized along two principal dimensions: Dimension 1 (Dim 1) and Dimension 2 (Dim 2), which together explain 46.52% and 21.97% of the variance in the dataset, respectively. These values indicate the proportion of variation among keyword associations that is accounted for by each dimension.

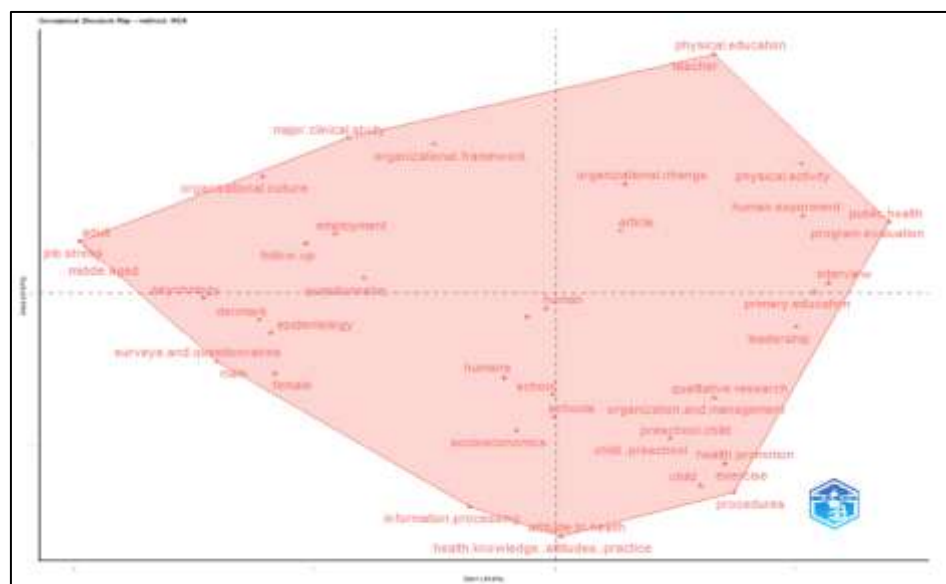


Figure 7. Concepts based on Word Association

Dimension 1 (Horizontal Axis), left side: keywords such as work stress, psychology, midlife, adulthood, epidemiology, Denmark, survey, men, and women are clustered. These terms suggest a focus on occupational health, psychological research, and demographic studies. Right side: Terms such as leadership, health promotion, physical activity, program evaluation, sports, and qualitative research are listed. This side reflects studies related to health promotion, physical education, and organisational change within institutional settings.

Dimension 2 (Vertical Axis), upper area: keywords such as organizational framework, organizational culture, clinical studies, and employment dominate. These align with themes in organizational behaviour, clinical interventions, and workplace dynamics. Lower area: Terms such as school, information processing, health, knowledge, attitude, practices, preschool children, and socioeconomics are prevalent. This portion corresponds to research in education, particularly early childhood development, and the dissemination of health-related knowledge. Overall, the MCA map offers a clear visualization of thematic clusters, demonstrating how the fields of health, education, and organizational studies intersect. The spatial relationships among keywords reveal overlapping domains that blend educational leadership, public health, and organisational theory.

Future research could further investigate interdisciplinary intersections, especially in areas such as the role of leadership in driving organisational change within schools and workplaces. These overlapping themes present valuable opportunities for expanding the theoretical and practical scope of educational change literature.

Research Topic Area

The treemap provided offers a visual representation of the frequency distribution of various themes of school organisational change. Each rectangular block represents a concept, with its size proportional to its frequency or importance. The percentages shown indicate the relative contribution of each term in the data set. Dominant

keyword: “Human” (11 occurrences, 6%) stands out as the most frequently occurring term. This suggests a broad focus on human-related research, potentially covering areas such as public health, psychology, and education. Other high-frequency terms include Women (8 occurrences, 4%), Human (8 occurrences, 4%), Health Promotion, School, Articles (7 occurrences each, 4%), Men, Sports, Children, and Denmark (6 occurrences each, 3%).



Figure 8. Treemap Visualisation Research Topic Area using Biblioshiny

The treemap visualisation in Figure 8 presents the distribution of research themes based on keyword frequency. Each term's proportional size reflects its relative importance within the dataset, revealing both dominant areas of scholarly interest and emerging or underrepresented topics.

Medium-Frequency Keywords. Keywords such as Organisational Culture, Organisational Change, Physical Activity, Questionnaire, Qualitative Research, and Workplace appear with a frequency of approximately 3% each. These terms highlight the intersection between organisational dynamics, physical health, and research methodology, suggesting an interdisciplinary focus in current scholarship. **Low-Frequency Keywords.** Terms such as Mental Health, Leadership, Adolescents, Public Health, and Program Evaluation occur less frequently (1–2%). Although these topics are less dominant, they remain relevant and potentially underexplored, offering opportunities for future inquiry and specialisation. **Thematic Domains.** Education and Child Development: Keywords such as schools, Children, Adolescents, Preschoolers, and Child Health reflect a strong interest in early childhood education and health, emphasising the importance of developmental outcomes in school settings.

Organisational and Occupational Research: Frequent mentions of Organisational Change, Organisational Culture, Leadership, Workplace, and Occupational Health underscore the field's engagement with institutional behaviour, workplace well-being, and leadership effectiveness. **Methodological Approaches:** The prominence of terms like Qualitative Research, Questionnaire, Survey, and Cluster Analysis illustrates the central role of empirical and exploratory methods in advancing research in this domain. **Demographic and Geographic Focus:** Demographic keywords such as Men, Women, Middle Age, and Youth indicate studies centred on population subgroups, while geographical mentions such as Denmark, Canada, Hong Kong, and Australia highlight the inclusion of regional and international perspectives, enabling comparative and cross-cultural analyses.

Interpretation and Implications. The treemap reveals a balanced thematic composition, with significant focus on human health (both physical and mental), organisational studies, and child development. The overlapping presence of keywords such as Workplace, Organizational Culture, and Health Promotion points to an interdisciplinary approach, where health outcomes are examined within organizational and societal contexts.

Moreover, the strong presence of child- and school-related keywords suggests that interventions targeting health and well-being are frequently situated within the educational environment, particularly during early stages of development. These insights support the view that organisational change in schools is not only a managerial concern but also a vehicle for enhancing public health, educational quality, and social equity.

Network graphs, as shown in Fig. 9, visualise the relationships between key concepts or topics in a dataset. Nodes (circles) represent specific terms or themes, while edges (lines connecting the dots) indicate the strength or frequency of co-occurrence between the terms. Different colours represent thematic groups, which suggest groups of related topics.

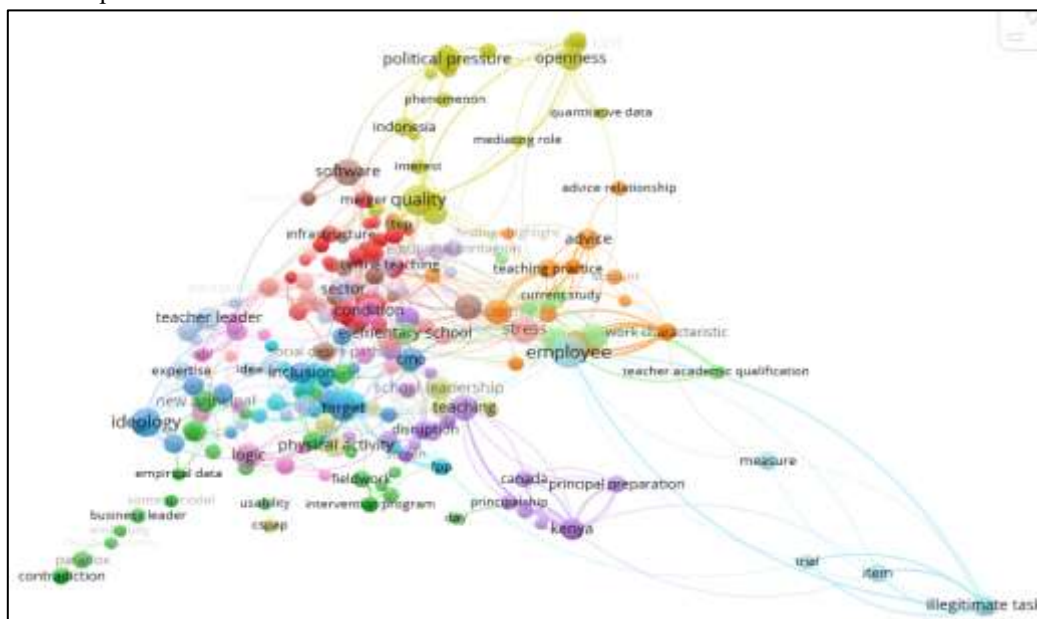


Figure 9. Network Graph Visualization Future Research Topic using VOSviewer

The network visualisation in Figure 9 maps the conceptual landscape of future research directions by highlighting central nodes and thematic clusters based on keyword co-occurrence. This network illustrates the interconnectedness of various research topics and suggests areas where scholarly attention is currently focused or is potentially emerging.

Central Nodes and Core Themes. Three dominant nodes, “Employees,” “Teaching,” and “Quality”, serve as the most interconnected concepts within the network, reflecting their foundational role in the literature. “Employees” is linked to keywords such as job characteristics, stress, and unauthorised tasks, indicating a focus on workplace dynamics, including employee well-being and occupational stress. “Teaching” connects with terms like leadership and schools, underscoring the importance of instructional practices and the role of leadership in educational effectiveness. “Quality” emerges as a cross-cutting theme tied to governance, institutional performance, and outcome standards.

Thematic Clusters by Colour Group: 1) **Orange Cluster: Teaching and Employee Wellness** This group includes keywords such as employee, stress, teaching practices, advice, and emotional contagion. It highlights the intersection between pedagogical practices and employee mental health, emphasizing how working conditions and instructional demands influence educator well-being; 2) **Green Cluster Ideology and Leadership.** Keywords like ideology, logic, leadership, and inclusion suggest a theoretical and strategic orientation, focusing on educational leadership, values, and inclusive governance. Subtopics include school leadership and teacher leadership, pointing to the decision-making frameworks guiding institutional change; 3) **Blue Cluster Educational Preparation and Context.** This cluster features terms such as teacher academic qualifications, principal preparation, Kenya, and Canada, reflecting research on educator training systems and leadership development in both local and international contexts; 4) **Yellow Cluster Policy and Quality.** Includes terms like political pressure, openness, and quality. This group addresses the role of policy-making, regulation, and institutional transparency in shaping organisational effectiveness and educational standards; 5) **Pink Cluster Physical Activity and Inclusion.** Keywords such as physical activity, inclusion, and targets indicate research at the intersection of health promotion, inclusive education, and organisational practices supporting diversity and well-being.

Peripheral Nodes and Emerging Topics. Peripheral terms such as illegitimate tasks, contradictions, paradoxes, and business leaders appear on the fringes of the network. While less central, these keywords may represent emerging or niche areas of study that warrant further investigation, particularly in exploring unrecognised work burdens and tensions within organisational roles. **Implications for Future Research.** The network map reveals a diverse and interconnected research ecosystem, with core themes centred on education, leadership, organisational behaviour, and employee well-being. Subtopics such as stress, instructional practices, and leadership development are well represented. However, underexplored areas such as illegitimate tasks and the influence of political pressures present promising directions for future inquiry, especially in the context of organizational change in schools and other institutional settings.

Most Citations Publication

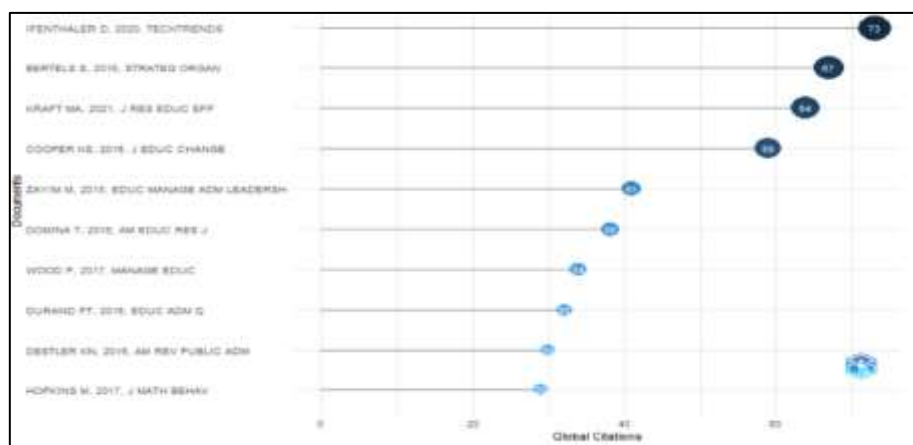


Figure 10. Most Citations Publication using Biblioshiny

Figure 10 presents a visualisation of the global citation distribution of key documents within the field. Each data point represents a specific publication, with its position along the horizontal axis indicating the total number of citations received globally.

Highly Cited Publications. The most cited paper in the dataset is Ifenthaler (2020), published in TechTrends, with 73 citations. This is followed by Bertels (2016) in Organisational Strategies, with approximately 67 citations, Kraft (2021) in Journal of Research on Educational Effectiveness, with approximately 64 citations, and Cooper (2018) in Journal of Educational Change, with approximately 59 citations. These works demonstrate substantial influence and relevance in their respective domains, suggesting that their frameworks, findings, or methodologies are widely recognised and utilised by scholars.

Mid-Level Citations. Publications by Zayim (2015) in Educational Management Administration & Leadership and Domina (2016) in American Educational Research Journal received 41 and 38 citations, respectively. While these represent moderate levels of impact, they indicate consistent academic engagement and thematic relevance, with low-level Citations. Papers by Wood (2017), Durand (2016), Destler (2016), and Hopkins (2017) received between 29 and 34 citations, which, although lower, may reflect recent or niche contributions or specific applications of their work.

New vs. Older Publications. One notable observation is the high citation count of recent papers, such as Kraft (2021), which, despite being relatively new, has garnered considerable attention. This suggests that its research focus aligned with urgent or trending issues, enabling rapid uptake within the academic community. In contrast, older papers, such as those by Zayim (2015) and Durand (2016), have had a longer time to accumulate citations, yet demonstrate a more moderate impact, potentially due to more specialised or context-specific contributions.

Disciplinary Spread and Implications. The cited works span a range of disciplines, including educational management, organisational leadership, public administration, and even mathematics. Notably, journals such as TechTrends (educational technology) and Organisational Strategies (strategic management) appear to yield higher citation counts, indicating stronger research engagement in areas where education intersects with technology and organisational strategy. This analysis highlights the significance of publishing in high-visibility journals, particularly those aligned with contemporary academic and societal priorities. It also illustrates how aligning one's research with emerging topics, practical applications, or interdisciplinary frameworks can enhance visibility and citation impact.

Collaboration Author Net

Figure 11 illustrates the co-authorship network among researchers in the field of organizational change in schools. In this network visualisation, each node represents an author. The size of the node reflects the author's publication frequency or level of collaborative activity. Edges (connecting lines) indicate co-authorship relationships. Colour-coded clusters represent sub-groups of authors who collaborate more frequently with each other than with authors outside their group.

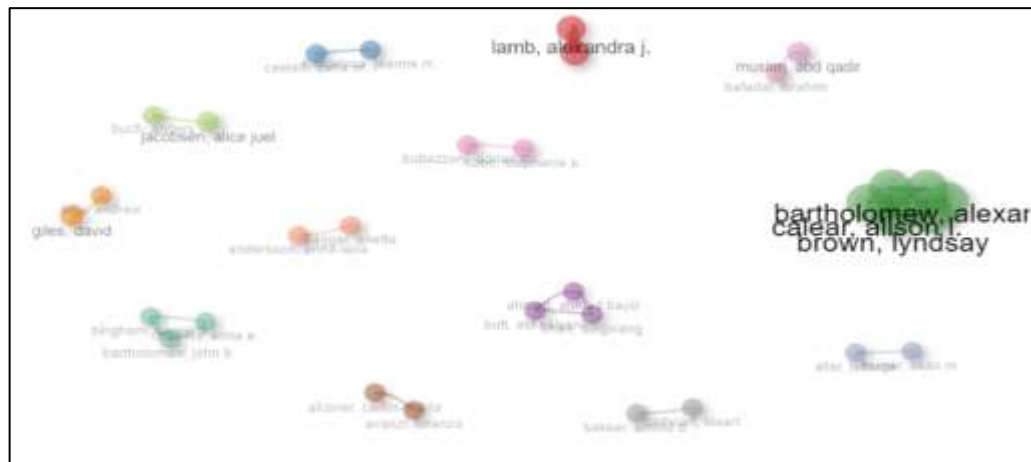


Figure 11. Collaboration Author Net using Biblioshiny

Key Collaborators and Central Nodes. Some nodes are notably larger and more centrally positioned, particularly Bartholomew, Alexandra, and Brown, Lyndsay—indicating their high productivity and centrality within their respective collaborative groups. Similarly, Lamb, Alexandra J., also appears as a central figure within another distinct cluster, suggesting her influential role in forming research alliances within her domain.

Collaborative Clusters. Several thematic and institutional sub-networks can be identified: a) A large green cluster is centered around Bartholomew, Alexandra, suggesting a strong, cohesive team of frequent collaborators; b) Jacobsen, Alice Juel and Buch, Anders form a sub-group within this cluster, indicating tight collaboration; c) An orange cluster includes Giles, David and Bills, Andrew, suggesting another active but smaller collaborative group. Strong internal connections characterise these clusters, but limited inter-group collaboration is evident, as shown by the sparse or absent links between different-coloured clusters.

Peripheral and Isolated Authors. Several authors appear as isolated pairs or minor, disconnected triads, for instance, Alcover, Carlos-María, and Avanzi, Lorenzo—indicating infrequent or exclusive co-authorship patterns. Such structures may reflect either niche research focuses or geographical/institutional constraints.

Implications for Future Collaboration. The collaboration network highlights the fragmentation within the research community. While strong internal collaboration exists within specific groups, the lack of cross-cluster connectivity points to missed opportunities for interdisciplinary and inter-institutional engagement.

To foster a more integrated research ecosystem, academic institutions, journal editors, and conference organizers may: Encourage cross-cluster collaboration by connecting central authors with researchers from other groups; Promote collaborative grants, joint workshops, or interdisciplinary projects that bridge these isolated sub-networks; Utilize highly productive and connected authors (e.g., Bartholomew, Lamb, Giles) as bridging figures or collaboration facilitators to initiate dialogue and partnership across research domains.

Author's Country

Figure 12 presents a bar chart illustrating the research output by country, distinguishing between Single Country Publications (SCP) and Multiple Country Publications (MCP). SCP (blue) refers to documents authored exclusively by researchers from a single country. MCP (red) refers to research produced through international collaboration involving authors from multiple countries. The length of each bar represents the total number of publications, while the colour segmentation indicates the proportion of domestic versus international co-authorship.

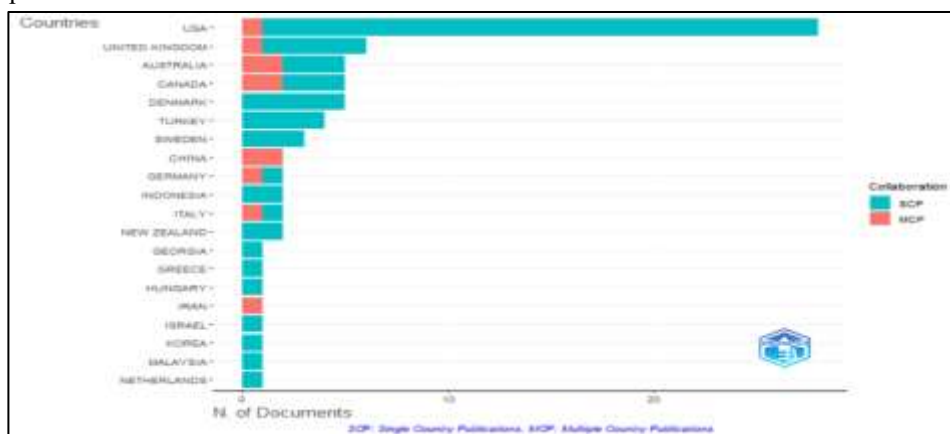


Figure 12. Author's Country using Biblioshiny

Top Contributors and Collaboration Trends. United States: The U.S. leads in total publication output, with a dominant proportion of SCPs, indicating a strong capacity for independent, domestically-driven research. While there is evidence of international collaboration, it remains relatively limited compared to the country's domestic research productivity.

The United Kingdom, Australia, and Canada follow the U.S. in total output but exhibit a higher proportion of MCPs, reflecting robust international research collaboration. This suggests an emphasis on global engagement and networked knowledge production. Denmark, Türkiye, Sweden, and China: Denmark and Sweden display balanced SCP and MCP contributions, indicating integrated collaboration strategies with strong international links. China, by contrast, shows a greater concentration of SCPs, implying a domestic research focus with limited cross-border collaboration. Italy and Indonesia: Although these countries report modest publication volumes, their balanced SCP-MCP ratio demonstrates active participation in global research networks, potentially as emerging contributors in international academia. Greece, Georgia, and Hungary exhibit lower total output, and their publications are predominantly SCPs. This pattern may indicate limited international collaboration, possibly due to institutional capacity constraints, funding limitations, or strategic focus on internal priorities.

Interpretation and Policy Implications. The SCP-MCP distribution serves as a proxy for global research connectivity. Countries with higher MCP contributions tend to be more engaged in cross-border knowledge exchange, thereby enabling access to diverse expertise, shared infrastructure, and broader funding opportunities. These benefits often correlate with greater citation impact and academic visibility. To enhance their research standing and global influence, institutions and policymakers, particularly in countries with low MCP ratios, should: Encourage and facilitate international partnerships through bilateral agreements, joint funding schemes, and collaborative training programs. Invest in research mobility, allowing scholars to participate in global consortia and multinational research projects. Strategically balance domestic research priorities with international engagement, leveraging strengths in both spheres for maximum impact.

The findings of this bibliometric analysis confirm that the theme of organisational change in schools remains highly relevant and timely, particularly in the context of ongoing transformations in education, governance, and global socio-economic dynamics. The trends observed across publication volumes, thematic clusters, and co-authorship patterns reflect a diverse and evolving research landscape. Several future research directions emerge from this analysis: leadership and organisational change. The centrality of keywords such as leadership, teaching, and quality highlights the need for more nuanced studies on the role of educational leadership in facilitating or hindering organisational change. Future studies could explore how school principals, teacher leaders, and district administrators influence transformation processes across varying institutional contexts.

Emerging Topics. Less-explored yet intriguing themes such as unauthorised or illegitimate tasks, emotional stress, and organisational paradoxes warrant further investigation. These issues, often experienced by educators and support staff, can significantly affect the organisational climate and change readiness, especially in under-resourced or rapidly reforming schools. Keywords associated with political pressure and quality assurance suggest a growing interest in how external policy mandates influence internal school dynamics. Research should critically examine the impact of top-down reforms, especially in terms of autonomy, resistance, and long-term sustainability of change initiatives.

International and Comparative Perspectives. Collaboration data reveals uneven global participation, with some countries showing limited international engagement. Expanding cross-border comparative studies, particularly between high-output and emerging research regions, can offer rich insights into cultural, structural, and systemic variations in how organisational change is enacted and experienced. **Strategic Publishing and Research Visibility.** Citation analysis suggests that publishing in high-impact, thematically aligned journals such as *TechTrends*, *Journal of Educational Change*, and *Educational Management Administration & Leadership* can enhance academic visibility and influence. Scholars are advised to align their research with current academic and societal priorities, such as digital transformation, inclusion, and post-pandemic educational resilience.

The Value of International Networks. The analysis of co-authorship and country collaboration underscores the vital role of international partnerships in enhancing research capacity. Authors affiliated with strong international networks tend to produce more widely cited and impactful studies. Institutions should invest in building global research consortia, encourage mobility programs, and support joint publications and grant proposals.

CONCLUSION

This bibliometric study demonstrates that organisational change in schools remains a relevant and evolving field of research, especially amid increasing global demands for educational reform, institutional accountability, and leadership adaptability. The analysis of 87 publications over the past decade reveals both a thematic concentration on areas such as leadership, teaching practices, employee well-being, and quality assurance, as well as an emerging interest in topics like policy pressures, workplace stressors, and inclusive education.

Key findings highlight a steady scholarly interest in school transformation, though publication trends indicate periodic fluctuations, possibly influenced by global events or shifts in funding priorities. The central role of leadership, teaching quality, and employee wellness in shaping successful organisational change. The presence of

fragmented collaboration networks, with limited cross-group or international engagement. A growing interdisciplinary approach, merging insights from education, health, psychology, and organisational science. The importance of publishing in high-visibility journals and leveraging international research networks to enhance scholarly impact. As education systems worldwide continue to face challenges ranging from digitalisation and demographic shifts to socio-political change, the need to understand and manage organisational change in schools becomes even more pressing. Future research should explore understudied areas such as the emotional labour of educators, the complexity of leadership logic, and the practical implications of global policy mandates. Equally, collaborative and comparative studies across regions can enrich the theoretical and practical understanding of how schools adapt and evolve.

Ultimately, this study provides a comprehensive foundation for scholars, policymakers, and practitioners to navigate the dynamics of change in educational organisations, fostering more adaptive, inclusive, and resilient institutions.

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