

Transformative Leadership within Global Educational Ecosystems: A Systematic Literature Review on School Innovation

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Abstract - Transformational leadership has increasingly been recognized as a critical driver of innovation within contemporary educational systems facing globalization, technological disruption, and growing demands for inclusivity. Although a substantial body of research has examined transformational leadership in educational contexts, existing studies remain fragmented and often focus on isolated outcomes, such as teacher motivation or organizational culture, without providing a comprehensive synthesis of its role in fostering school innovation within global educational ecosystems. This study aims to systematically review international literature on transformational leadership in education and analyze its contribution to school innovation across diverse educational contexts. Employing a systematic literature review approach, 18 peer-reviewed international journal articles published between 2018 and 2025 were analyzed using thematic synthesis. The findings reveal that transformational leadership promotes school innovation through four interconnected mechanisms: the development of collaborative school culture, teacher empowerment and professional development, sense-making during technological change, and the promotion of inclusive and adaptive practices. Furthermore, transformational leadership functions as a bridging mechanism that aligns global educational pressures with localized school practices. This study contributes to the educational leadership literature by offering an integrative conceptual framework that positions transformational leadership as a systemic capacity for sustaining innovation within global educational ecosystems. Practical implications for school leaders and policymakers, as well as directions for future research, are discussed.

Keywords – Transformational leadership, educational leadership, school innovation, global educational ecosystems, systematic literature review

INTRODUCTION

Global educational systems are undergoing profound transformation driven by rapid technological advancement, increasing cultural diversity, and heightened accountability demands. Schools are no longer expected merely to deliver standardized curricula but are required to function as adaptive organizations capable of continuous innovation in pedagogy, curriculum design, assessment practices, and technology integration [1] [2] [3]. These dynamics have given rise to the notion

of *global educational ecosystems*, which emphasizes the interconnectedness of global policies, local school contexts, technological infrastructures, and human actors within education systems [4][5].

Within this complex and dynamic environment, leadership has emerged as a decisive factor in determining whether schools can respond effectively to change. Among various leadership models, transformational leadership has gained

sustained scholarly attention due to its emphasis on vision building, inspirational motivation, intellectual stimulation, and individualized consideration [6][7]. Prior research consistently demonstrates that transformational leadership positively influences teacher motivation, commitment, professional development, and organizational culture [8][9][1]. These outcomes are widely acknowledged as essential preconditions for meaningful and sustainable educational change.

However, despite the growing volume of empirical and conceptual research, the literature on transformational leadership in education remains theoretically and empirically fragmented. Many studies focus on specific educational levels, national contexts, or individual outcomes, such as job satisfaction or school climate, without sufficiently addressing how transformational leadership operates as a systemic mechanism for fostering school innovation[7][2]. Moreover, limited attention has been given to the role of transformational leadership within broader global educational ecosystems, where schools must simultaneously respond to global trends. Such as digitalization and inclusive education, while maintaining contextual relevance at the local level [4][10].

Recent studies highlight several critical dimensions that warrant integrated analysis. First, transformational leadership has been shown to shape collaborative and trust-based school cultures that enable innovation [11] [12]. Second, teacher empowerment and professional development emerge as key mediating mechanisms through which leadership influences instructional innovation and pedagogical change [9] [13][14]. Third, research on technology integration emphasizes the importance of leaders' *sense-making* practices in managing uncertainty and resistance during digital transformation[15][16]. Finally, emerging literature underscores the ethical and inclusive dimensions of transformational leadership, particularly in

supporting diverse learners and equitable educational outcomes [17][4][18].

Despite these insights, there is still a lack of systematic synthesis that consolidates these strands of research into a coherent analytical framework. Addressing this gap is essential for advancing both theory and practice in educational leadership[1] [2].

OBJECTIVES OF THE STUDY

Therefore, this study conducts a systematic literature review to examine how transformational leadership contributes to school innovation within global educational ecosystems. Specifically, the study seeks to answer the following research questions:

1. How is transformational leadership conceptualized in the international educational leadership literature?
2. What mechanisms link transformational leadership to school innovation across diverse educational contexts?
3. What patterns, gaps, and future research directions emerge from existing studies?

By synthesizing findings from international peer-reviewed literature, this study aims to contribute a more integrative understanding of transformational leadership as a systemic capacity for innovation, offering theoretical insights and practical implications for school leaders, policymakers, and researchers.

MATERIALS AND METHOD

Research Design

This study employed a Systematic Literature Review (SLR) to synthesize existing international research on transformational leadership in education and its role in fostering school innovation. The SLR approach was selected because it enables a transparent, rigorous, and replicable process for identifying, evaluating, and synthesizing relevant

scholarly literature[6] [1]. Compared to traditional narrative reviews, SLR provides a more structured framework for minimizing bias and ensuring comprehensive coverage of the research domain, particularly in fields characterized by conceptual diversity and contextual variation such as educational leadership [7][2].

The review focused on empirical studies, systematic reviews, and conceptual papers that explicitly examine transformational leadership within educational contexts and report outcomes related to innovation, organizational change, school culture, professional development, technology integration, or educational performance [8][4].

Data Sources and Search Strategy

The literature search was conducted using international academic databases and open-access journal platforms, including:

- Google Scholar
- ERIC (Education Resources Information Center)
- International peer-reviewed journals indexed or aligned with Scopus standards

These sources were selected to ensure broad coverage of high-quality educational leadership research and to capture both empirical and conceptual contributions from diverse global contexts [1][2].

The search process utilized a combination of keywords and Boolean operators to ensure comprehensive retrieval of relevant studies. The primary search terms included:

- “transformational leadership” AND education
- “transformational leadership” AND school innovation
- “educational leadership” AND innovation

- “transformational leadership” AND school culture

The search was limited to articles published between 2018 and 2025 to capture recent theoretical developments and empirical evidence relevant to contemporary global educational ecosystems characterized by digitalization, inclusivity, and accountability demands [16][15] [4].

Inclusion and Exclusion Criteria

To ensure relevance and quality, studies were selected based on the following inclusion criteria:

- Published in peer-reviewed international journals
- Focused on transformational leadership within educational settings (schools or higher education institutions)
- Empirical studies, systematic literature reviews, or conceptual reviews
- Explicit discussion of leadership outcomes related to innovation, school culture, professional development, technology integration, or educational performance
- Published in English between 2018 and 2025

Studies were excluded if they:

- Focused on non-educational sectors
- Discussed leadership without explicit reference to transformational leadership
- Were opinion pieces, editorials, conference abstracts, or non-peer-reviewed publications

Based on these criteria, 18 articles were identified as meeting the inclusion requirements and were selected for in-depth analysis, consistent with prior SLRs in educational leadership research [7] [1].

Data Screening and Selection Process

The article selection process followed a multi-stage screening procedure adapted from established SLR practices in education and leadership studies [6][2].

1. Initial identification of articles through keyword searches
2. Title and abstract screening to assess relevance to the research objectives
3. Full-text review to ensure alignment with inclusion criteria
4. Final selection of studies for thematic synthesis

This stepwise screening process enhanced the transparency, reliability, and replicability of the review [1].

Data Analysis Technique

The selected articles were analyzed using thematic synthesis, a qualitative analytical approach suitable for integrating findings across diverse study designs and educational contexts[7][2]. The analysis involved three iterative stages:

1. Open coding, where key concepts related to transformational leadership practices and innovation outcomes were identified
2. Categorization, in which similar codes were grouped into broader analytical categories
3. Thematic abstraction, where higher-order themes were generated to explain patterns and relationships across studies

Through this process, recurring themes such as school culture, teacher empowerment, professional development, sense-making in technological change, and inclusive leadership practices were identified as central mechanisms linking transformational leadership to school innovation [11] [9][15][17][4].

Trustworthiness and Rigor

To enhance the rigor and credibility of the review, several strategies were applied:

- Use of explicit and transparent inclusion and exclusion criteria
- Systematic and replicable screening procedures
- Cross-study comparison to identify consistent and divergent findings
- Careful interpretation grounded in the original contexts of the reviewed studies

Although this review did not involve primary data collection, methodological rigor was maintained through systematic documentation and analytical consistency, aligning with best practices in SLR research within educational leadership studies [1][2].

Limitations

As with all systematic reviews, this study has limitations. The analysis relied on a limited number of international peer-reviewed articles and did not include unpublished studies or grey literature, which may restrict the breadth of perspectives captured [6], Additionally, variations in research design, educational context, and outcome measurement across studies may affect the generalizability of the synthesized findings[7][1]. These limitations, however, also highlight important directions for future research, including cross-cultural comparative studies and mixed-methods investigations of transformational leadership within global educational ecosystems.

RESULTS AND DISCUSSION

Table 1. Summary of Previous Research

Author (Year)	Context	Method	Key Findings
Sasan et	Schools	Quantitative	Transformati

al. (2023) [11]	(general)		onal leadership has a significant influence on the development of collaborative, open, and change-oriented school cultures.				support and adaptive strategies.
Si & Nyuk (2024) [10]	Higher education (Xi'an, China)	Systematic Review	Transformational leadership among university lecturers promotes pedagogical innovation and enhances the quality of teaching and learning in higher education.	Sparks (2021)[16]	Schools in crisis contexts	Conceptual	Transformational leadership is particularly effective in times of uncertainty by providing direction, psychological stability, and meaning during change processes.
Jobir (2025) [17]	TVET & inclusive education	Systematic Review	Transformational leadership practices improve the academic performance of students with disabilities through institutional	Laursen & Weiss (2025) [15]	Schools (Denmark, LMS implementation)	Qualitative (Case study)	Sense-making leadership plays a critical role in successful educational technology implementation and in reducing teacher resistance.
				Kareem et al. (2023) [8]	Schools	Quantitative	Transformational leadership enhances teacher commitment through shared vision and

			professional inspiration.				mediating factor between transformational leadership and school performance.
Akhmad (2024) [18]	Education (cross-contexts)	Systematic Review	Face-saving strategies are crucial in transformational leadership to maintain social harmony and ensure effective change implementation.	[12]			
Zaini & Mansor (2021) [9]	Early childhood education (preschools)	Quantitative	Principals' transformational leadership positively influences the professional development of preschool teachers.	Andriadi & Sulistiyo (2024) [19]	Primary & secondary schools	Quantitative	A combination of transformational and instructional leadership enhances teacher motivation, job satisfaction, and student achievement.
Assefa & Mujtaba (2025) [9]	Inclusive & multicultural education	Conceptual-Empirical	Transformational leadership leverages diversity and technology to support inclusive educational practices.	Gaspersz (2024) [13]	Secondary schools	Quantitative	Transformational leadership and teacher collaboration strengthen teachers' capacity to implement interdisciplinary learning.
Heenan et al. (2023)	Primary schools	Systematic Review	School culture acts as a key	Putri et al. (2025) [20]	Remote junior high schools	Qualitative	Transformational leadership plays a vital role in building quality

			culture and fostering school innovation in marginalized regions.				settings.
Pennell (2023) [5]	Education (general)	Conceptual	Transformational leadership must be institutionalized systemically to ensure sustainable and long-term impact.	McWilliams & Brown (2018) [6]	Multi-sector	Literature Review	Transformational leadership is a multidimensional construct applicable across organizational contexts.
Firdaus et al. (2025) [2]	Education (general)	Literature Review	Research trends indicate a shift from transformational leadership as an individual style toward an organizational capacity.	Menon (2024) [1]	International education	Literature Review	Transformational leadership contributes to educational outcomes through pathways involving school culture, teachers, and institutional innovation.
Alainati et al. (2023) [7]	Education (global)	Literature Review	Transformational leadership has broad effects on motivation, organizational culture, and effectiveness in educational				

1..Transformational Leadership as a Driver of School Culture

Numerous studies consistently affirm that school culture represents the most fundamental outcome of transformational leadership. Sasan et al. (2023) [11] demonstrate that transformational leadership directly contributes to the formation of a collaborative, participatory, and learning-oriented school culture. This culture is characterized by heightened trust, openness to change, and a sense of ownership among school community members.

These findings are reinforced by Heenan et al. (2023) [12], whose systematic review confirms that transformative leadership practices influence

social norms, collective values, and interaction patterns in primary schools. In other words, transformational leadership not only impacts individual performance but also shapes an institutional ethos that sustains innovation. School culture thus serves as an enabling environment that allows pedagogical and organizational innovations to develop organically.

2. Transformational Leadership and Technological Innovation: Sense-Making as a Key Mechanism

Laursen and Weiss (2025) [15] make a significant contribution by introducing the concept of sense-making leadership in the context of educational technology implementation. Their study reveals that the successful adoption of Learning Management Systems (LMS) is not determined solely by technical aspects but by leaders' ability to foster shared meaning, articulate a vision for change, and manage teachers' uncertainty.

This aligns with Sparks (2021) [16], who emphasizes the role of transformational leadership during periods of crisis and uncertainty. Transformational leaders provide psychological stability and strategic direction, enabling organizations to remain adaptive amid disruptions.

3. Teacher Empowerment as the Primary Pathway to School Innovation

The literature demonstrates strong consensus that teachers are central actors in innovation, with transformational leadership operating primarily through teacher empowerment. Kareem et al. (2023) [8] found that transformational leadership enhances teacher commitment via inspiration, vision clarity, and professional support. This commitment forms the foundation for teachers' readiness to engage in innovative practices.

Zaini and Mansor (2021) [9] and Gaspersz (2024) [13] bolster these findings by showing that transformational leadership promotes continuous professional development and teacher collaboration, which directly enhance teachers' capacity to implement innovative learning, including interdisciplinary approaches.

4. Transformational Leadership in the Context of Inclusive Education and Diversity

A relatively new dimension in the literature concerns the role of transformational leadership in supporting inclusivity and diversity. Assefa and Mujtaba (2025) [4] stress that effective transformational leadership in the global era must leverage cultural and technological diversity to create inclusive educational practices.

Jobir (2025) [17] extends this perspective by demonstrating that transformational leadership positively impacts the academic performance of students with special needs in TVET institutions. This underscores that transformational leadership contributes to educational equity, beyond mere organizational efficiency.

5. Transformational Leadership as Organizational Capacity, Not an Individual Style

Several literature reviews (Menon, 2024; Firdaus et al., 2025; Alainati et al., 2023; McWilliams & Brown, 2018) [1] [7] [6] highlight a crucial conceptual shift: transformational leadership is no longer viewed as a personal attribute of leaders but as a distributed organizational capacity.

Pennell (2023) [5] emphasizes that sustainable transformational leadership requires supportive systems, including organizational structures, human resource development policies, and a learning culture. Without systemic support, leadership impacts tend to be temporary.

6. Integration within the Global Educational Ecosystem Framework

When synthesized holistically, the literature indicates that transformational leadership serves as an integrative mechanism within global educational ecosystems. It bridges:

- global demands (digitalization, accountability, inclusion),
- local school contexts,
- internal actors (teachers, students),
- and organizational innovation.

However, the literature also reveals limitations, particularly the scarcity of cross-national

and longitudinal studies that can explain the long-term sustainability of school innovation.

CONCLUSION AND RECOMMENDATION

In summary, the 18 analyzed articles demonstrate that transformational leadership serves as the primary lever for school innovation through the cultivation of organizational culture, teacher empowerment, management of technological change, and reinforcement of inclusivity values. Transformational leadership operates not linearly but through complex mediating mechanisms, positioning it as a key element in developing adaptive and sustainable global educational ecosystems.

Based on the literature synthesis on transformational leadership within global educational ecosystems, several strategic recommendations are proposed for school leadership practices, educational policy, and future research.

First, school leaders should adopt transformational leadership as a systemic capacity rather than merely an individual style. Principals and educational leaders are advised to actively build a shared vision oriented toward sustainable innovation, teacher professional development, and enhanced learning quality. These practices include providing space for teachers to experiment with new pedagogical approaches, collaborative reflection, and participatory decision-making that strengthens ownership of school change.

Second, transformational leadership should focus on strengthening a collaborative and trust-based school culture. Schools are encouraged to develop collaborative work structures such as professional learning communities (PLCs) and cross-disciplinary teams that facilitate the exchange of best practices and instructional innovation. An organizational culture supporting open dialogue and collective learning has proven to be a critical foundation for successful school innovation.

Third, in the context of digital transformation, school leaders should develop sense-making capacities to manage uncertainty, resistance, and complexity arising during educational technology

implementation. Transformational leadership must be accompanied by clear communication, ongoing support, and contextual training to ensure meaningful integration of technological innovation into learning practices.

Fourth, educational leaders should position inclusivity and equity as core principles of transformational leadership. Leadership strategies should explicitly support learner diversity, teacher needs, and school socio-cultural contexts. This approach is essential to ensure that school innovation not only enhances effectiveness but also promotes equity and sustainability in education.

At the policy level, policymakers are advised to integrate transformational leadership competencies into national principal standards and leadership development programs. Principal training and certification programs should emphasize skills in building innovative visions, empowering teachers, managing change, and leading schools within complex global educational ecosystems.

Additionally, educational policies should provide structural flexibility for schools to innovate, including autonomy in curriculum development, technology utilization, and human resource management. Consistent policy support will strengthen the role of transformational leadership as the primary driver of school innovation.

Based on the identified limitations and literature gaps, future research is recommended to:

- Conduct longitudinal studies tracking the long-term impact of transformational leadership on school innovation and student learning outcomes.
- Undertake cross-national and cross-cultural studies to understand how transformational leadership operates across diverse global educational ecosystems.
- Integrate mixed-methods approaches to capture the complex relationships among leadership, school culture, pedagogical innovation, and policy contexts.
- Further explore the role of digital technology and ethical leadership in strengthening

inclusive and sustainable transformational leadership practices.

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