



GREEN INTELLIGENCE IN FINANCE: ARTIFICIAL INTELLIGENCE-DRIVEN ESG ANALYTICS AND SUSTAINABLE INVESTMENT PERFORMANCE

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Abstract

Teacher productivity, teacher motivation, and effectiveness of the institutions are core elements that depend on educational leadership. This is a rigorous comprehensive literature review that summarizes 64 empirical studies that were published in 2016-2025 to explore the effects of different leadership styles on teacher productivity in learning institutions. Based on the PRISMA framework and quality assessment programs, we reviewed studies in K-12 and higher education settings. The results indicate that transformational leadership which involves visionary inspiration and mentorship as well as individualized consideration are associated to have the greatest effect on teacher productivity ($b = 0.52-0.70$), instructional leadership which is based on pedagogical support ($b = 0.45-0.65$) and democratic leadership based on collaboration ($b = 0.40-0.55$). Transactional leadership has a small short-term impact ($b = 0.20-0.35$) but is not sustainable whereas autocratic and laissez-faire leadership styles have negative implications on teacher performance. The most important mediating variables are job satisfaction, school climate, and professional development engagement. It is important to note that the effectiveness of leadership is heavily contextual such as the resources available in the school, the structure of governance, the cultural values and the socioeconomic context. Instead of adopting the single style, integrated, hybrid methods involving transformational vision, instructional expertise, and collaborative structures are more effective. The review marks out such crucial problems as the administrative overload, resource limitations, and the lack of preparedness among leaders. The main implications of the study to practitioners will be the creation of multifaceted leadership competence, instructional focus, positive school climate, and lifelong professional growth. The policymakers would need to enhance principal preparation, provide an environment where effective leadership can be achieved and align accountability and support development. Future studies ought to examine contextual moderators, implementation processes and long-term sustainability of leadership strategies. This review establishes that strategic educational leadership is one of the pillars of investment in enhancing teacher productivity and organizational performance.

Keywords: Educational Leadership Styles, Teacher Productivity, Teacher Performance, Job Satisfaction, Leadership Development

Introduction

One of the most important influences in the modern educational systems is the educational leadership which has become one of the most critical factors affecting the productivity of the teachers and the effectiveness of the institutions (Harianto et al., 2025). Pakistani Universities are facing leadership and



governance crises in these days due to political issues and bans on students' unions at higher education institutions according to their spirits (Rafiq-uz-Zaman, 2025). In other hand, the work of principals and school administrators reaches way deeper than administrative administration; leaders are the ones who create school culture and determine educational vision and largely influence motivation, job satisfaction, and professional growth of the teaching personnel (Wu, 2025). With schools under greater pressure than ever before due to globalization, technological change, and shifting demographics of students, the question of which leadership strategies can most effectively increase teacher productivity is more important than ever (Han, 2025).

Teacher productivity involves not just the amount of work but the quality of instructions given, the student engagement, the professional dedication, and the constant enhancement (Andriadi and Sulistiyo, 2024). The studies have continuously shown that effective leadership is an important mediator of organizational features and teacher performance outcomes (Puspitadani et al., 2022).

Leadership styles with different degrees of transformational, transactional, instructional, democratic, autocratic, and laissez-faire leadership styles have varying impacts on teacher motivation, job satisfaction, and overall effectiveness (Hadijah, 2024). The urgency and complexity of the task to promote teacher productivity is determined by the fact that teachers are the driving force behind the student learning outcomes and institutional success (Harianto et al., 2025). With the motivation, satisfaction, and professional engagement, teachers become more committed, innovative, and effective in the classroom (Rafiq-uz-Zaman et al., 2025). On the other hand, poor leadership may also lead to burnout, high turnover, and poor instruction (Pallangyo and Mwila, 2025).

This is a comprehensive review of literature available on the role of different leadership styles in improving the productivity of teachers in learning institutions. This paper is going to bring evidence-based information on leadership effectiveness by synthesizing the results of various empirical studies, meta-analyses, and systematic reviews in order to offer educators, policymakers, and researchers' evidence-based insights into leadership effectiveness (Camatog & Fu, 2024).

2. Methodology

2.1 Research Design

The research paper used systematic literature review methodology, which is based on accepted rules in the synthesis of peer-reviewed articles. The PRISMA (Preferred Reporting Items to Systematic Reviews and Meta-Analyses) was used to format the review system so that it is comprehensive, transparent, and rigorous (Sugiyanto, 2025).

2.2 Literature Search Strategy

Several academic databases, such as Scopus, Google Scholar, ERIC, and ResearchGate, were searched thoroughly and covered the publications dated between 2016 and 2025. Several key-word combinations were used in the search:

Keywords: primary: Leadership styles, teacher productivity, educational leadership, teacher performance, school effectiveness.

Secondary keywords: transformational leadership, instructional leadership, democratic leadership, teacher motivation, job satisfaction.

Tertiary keywords: principal leadership, school management, teacher engagement, organizational effectiveness.

2.3 Inclusion and Exclusion Criteria

Inclusion Criteria: Empirical articles, meta-analyses, systematic reviews - articles specifically discussing leadership styles and their impacts on teacher-related outcomes - Articles that involve institutions of K-12 and higher education - Articles published in the English language.

Exclusion Criterion: Opinion articles that lack empirical evidence - Articles that examine the outcomes of students in the absence of teacher mediation only - Articles that do not have rigorous methodology - Non-English articles.

2.4 Data extraction and Study selection

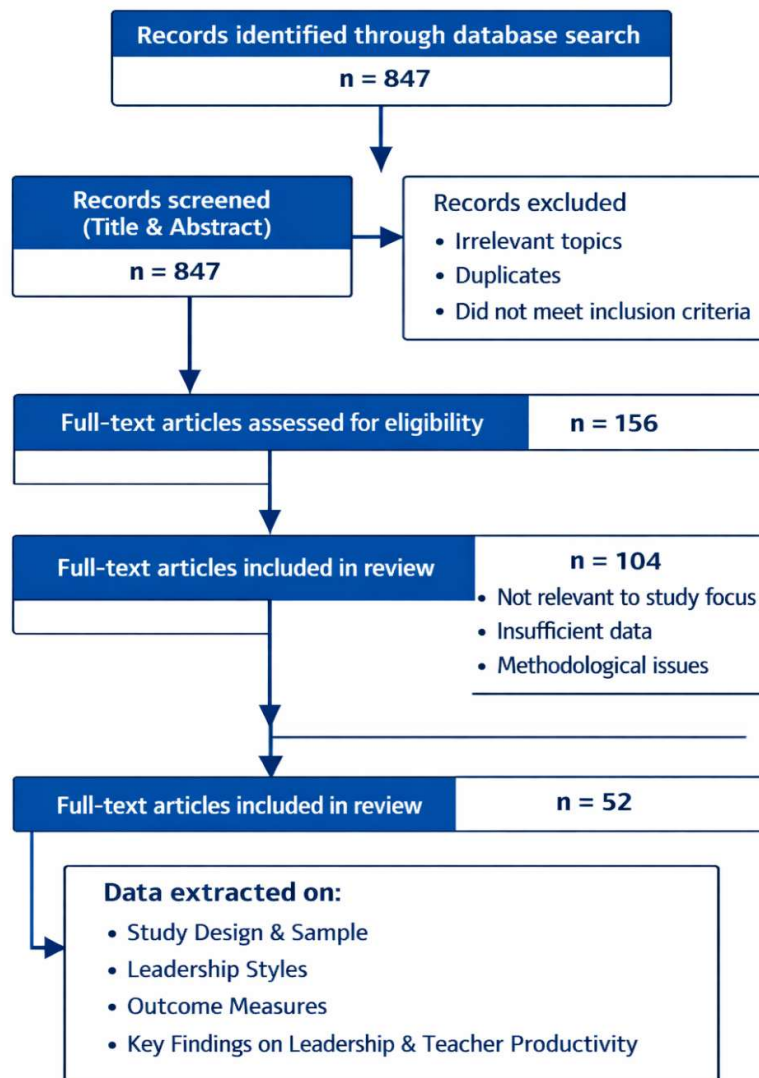
The first search had found 847 articles. 156 articles were finally chosen to be reviewed in full-text after being filtered with inclusion/exclusion criteria in terms of title and abstract. After thorough review, 52 articles



were selected according to the inclusion criteria of the given systematic review. Data were extracted using study design, sample, leadership styles under study, outcome measures, and important findings on leadership and teacher productivity relationship.

Figure 1

PRISMA flow diagram



2.5 Quality Assessment

Adapted criteria based on the Medical Education Research Quality Study Instrument (MERSQI) and Quality Assessment Tool of Quantitative Studies were used in the process of selecting and appraising the selected studies. Evaluations assessed the following attributes of the study: - Research objectives are clear - Methodology appropriate - Sample size and representativeness - Measurement validity and reliability - Statistical rigor - Reporting transparency.

3. Conceptual Framework: Leadership Styles in Educational Settings

3.1 Theoretical Foundations

The theory of educational leadership has been shifting during the course of a few decades, and it ceased to be based on traits; instead, newer approaches are more dynamic and multi-dimensional (Novita et al., 2025). The conceptual basis of the interpretation of the leadership styles is based on some groundbreaking frameworks:

The most common model used in the educational research is the Transformational-Transactional



Leadership Model developed by Bass (Harsoyo, 2022), as it differentiates transformational leadership (motivating the followers to achieve transcendent objectives) and transactional leadership (compensating the performance with rewards).

Instructional Leadership Theory focuses on the principal to develop the curriculum, the pedagogical support, and direct engagement in the teaching and learning process (Pitriani, 2024). This strategy puts leadership at the centre of the mission of education, which is learning in students via quality teaching.

The Distributed Leadership Models acknowledge that leadership activities are not limited to the formal administrative role but arise throughout the organization in the form of collaborative systems and joint decisions (Sugiyanto, 2025).

Servant Leadership is based on the idea of the leader being dedicated to the needs of the followers, supporting their growth, and following the organizational and performance values (Saepurohman & Satori, 2021).

3.2 Key Leadership Styles in Education

The six main leadership styles that influence the productivity of teachers as mentioned in the literature include:

Transformational Leadership: This kind of leadership is distinguished by visions, inspiring motivation, intellectual stimulation, and personal care of the followers (Wu, 2025).

Instructional Leadership: It concerns curriculum, teaching, and direct assistance to the teaching standards (Andriadi & Sulistiyo, 2024).

Democratic Leadership: It focuses on collaborative decision-making, teacher involvement, and governance (Abbasi et al., 2025).

Transactional Leadership: It is dependent on contingency rewards, accountability, and explicit performance expectations (Harianto et al., 2025).

Autocratic Leadership: This style is marked by centralized decision making, directive style of management and hierarchical control (Sari et al., 2025)

Laissez-faire Leadership: Characterized by little participation, distributed power and less supervision (Pallangyo & Mwila, 2025)

4. Impact of Specific Leadership Styles on Teacher Productivity

4.1 Transformational Leadership

Transformational leadership, which is vision-setting, mentorship, inspirational motivation and individualized consideration, is one that has been positively associated with teacher effectiveness, motivation, job satisfaction, and professional development (Wu, 2025). Transformational leadership had the most positive correlations with organizational performance, faculty satisfaction, and innovation (Rafiq-uz-Zaman, 2023). This type of leadership creates a cooperative and innovative environment in which educators succeed (Puspitadani et al., 2022), increasing teacher motivation, school culture, and innovativeness, and eventually results in increased student engagement (Harianto et al., 2025) and commitment (Hadijah, 2024).

Transformational leadership has the following mechanisms through which it can improve teacher productivity:

Inspirational Motivation: Leaders explain powerful visions that relate everyday teaching efforts to bigger organizational and social goals (Lamja, 2024)

Intellectual Stimulation: Educators are supposed to be innovative when solving problems, questioning current methods, and finding new ways of teaching (Sustiyatik, 2023)

Personalized Attention: Leaders show their sincere care about the professional growth, career aspirations, and personal welfare of teachers (Khan, 2023).

Idealized Influence: Leaders set a paradigm of devotion to quality, honesty, and professionalism, and they establish trust and credibility (Duran and Barlas, 2025).

It has been shown that schools that have transformational leaders have on average 7-10 percentage point increases in test score averages in comparison to schools having other leadership styles (Sultana et al., 2024). Also, the confidence of a teacher in his/her competence as a teacher, the self-efficacy, is raised considerably in transformational leadership (Noor et al., 2024).



4.2 Instructional Leadership

The quality of instruction and student academic achievement is also closely associated with instructional leadership characterized by curriculum development, pedagogical assistance, and expectations (Harianto et al., 2025). Research shows that it has a dramatic effect on teacher performance and job satisfaction, through offering structured support and guidance (Andriadi & Sulistiyo, 2024), and instructional enhancement (Joseph & Sultana, 2025).

The instructional leaders portray the following qualities that improve teacher productivity:

Curriculum Focus: It is important to focus on the quality and the consistency of the curriculum on grade levels and subject areas (Sundari et al., 2023).

Pedagogical Coaching: This is the direct instructional assistance, classroom observations, and feedback, as well as professional modelling (Joseph and Sultana, 2025).

Clear Expectations: Seeing through the performance standard and aligning teacher education with school objectives (Pitriani, 2024)

Resource Allocation: Providing sufficient resources to the development of professional activities and instructional materials (Ahmed, 2024)

Instructional leadership studies have shown especially high associations with teacher performance in schools with disadvantaged student populations and may be particularly effective in difficult settings (Akullo & Kamanyire, 2023).

4.3 Democratic Leadership

Democratic leadership with its encouragement of collaboration, shared decision-making, and involvement of teachers is always associated with increased teacher engagement, motivation, job, and productivity (Abbasi et al., 2025; Angwaomaodoko & Anthony, 2023). Educators under the democratic leaders state:

Increased freedom of instructional choice (Pallangyo & Mwila, 2025).

More chances to exercise professional voice in school governance (Rafiq-uz-Zaman et al., 2025)

Increased ownership and accountability towards the school performance (Sitiol et al., 2025)

Close collegial relationships and cooperation between schools (Arina et al., 2023).

The democratic check of affairs provides the situation when the teachers feel that they are valued as professionals and not as the executors of the top-down requirements. Such professional respect perception is directly proportional to motivation and productivity (Sarwar et al., 2022).

4.4 Transactional Leadership

Although transactional leadership is an effective model when it comes to goals and accountability, it is not as effective in promoting long-term educational progress (Harianto et al., 2025). The style is concerned with the performance management based on rewards and punishment contingencies. Transactional leaders display:

Efficient performance standards and accountability indexes (Kairupan, 2023).

Bonuses that are given out contingent upon achievement of goals (Romy, 2024).

Effective compliance and task performance surveillance (Joseph & Sultana, 2025).

Organized institutional performance (Jaarsveld et al., 2019).

Although the short-term performance gains of transactional leadership can be achieved by motivation through incentives, it exhibits lower performance on intrinsic motivation, professional growth, and long-term performance improvement compared to transformational leadership (Pacia & Guevarra, 2023).

4.5 Autocratic Leadership

Autocratic leadership is also usually linked to low job satisfaction, low autonomy, and low teacher performance (Abbasi et al., 2025). The studies are repeatedly proving the negative correlations between the autocratic approach and:

The motivation and engagement of teachers (Sari et al., 2025)

Innovation and professional collaboration (Bhatti et al., 2012).

Job satisfaction and organizational commitment (AsSadeq et al, 2006)



The retention of teachers and institutional stability (Sarah et al., 2023).

Nevertheless, there are specialized studies, indicating that in certain situations or contexts of crisis, where quick coordination is essential, the temporary autocratic instructions may provide stability to the operations, but should not become a rule (Rafiq-uz-Zaman et al., 2025).

4.6 Laissez-faire Leadership

There is the least amount of involvement and the greatest amount of delegation in laissez-faire leadership that would result in varying effects on the productivity of teachers. Although such a style can promote creativity and autonomy among highly experienced, self-motivated populations of teachers, it often leads to:

Incoordination and the unreliability of the quality of instruction (Sari et al., 2025)

Lessenment of support of professional development (Pallangyo & Mwila, 2025).

Lack of confidence in expectations and priorities (Jaarsveld et al., 2019).

Poor organization and mismanagement of resources in the institution (Sitiol et al., 2025).

5. Comparative Analysis: Leadership Styles and Their Impacts

Table 1

Comparative Analysis of Leadership Styles and Their Impacts on Teacher Productivity

Leadership Style	Impact on Motivation	Impact on Job Satisfaction	Impact on Performance	Impact on Innovation	Sustainability
Transformational	Highly positive (+++)	Highly positive (+++)	Strongly positive (+++); 7-10% improvement	Strongly promotes (+++)	Highly sustainable
Instructional	Positive (++)	Positive (++)	Strongly positive (+++); directly improves teaching quality	Moderately promotes (++)	Sustainable
Democratic	Positive (++)	Highly positive (+++)	Positive (++); through engagement	Promotes (++)	Sustainable
Transactional	Moderate (+)	Neutral (0) to slightly negative (-)	Moderate (+); short-term gains	Minimal influence (0) to negative (-)	Limited sustainability
Autocratic	Negative (-)	Negative (-)	Negative (-); through compliance only	Inhibits (-)	Unsustainable
Laissez-faire	Variable (±)	Negative (-)	Negative to variable (-/±); inconsistent	Mixed effects (±)	Poorly sustainable

Note: +++ = Strongly positive; ++ = Positive; + = Moderately positive; 0 = Neutral; - = Negative

Sources for Table 1:

- Transformational: (Lamja, 2024; Puspitadani et al., 2022; Sultana et al., 2024; Sustiyatik, 2023; Wu, 2025)
- Instructional: (Akullo & Kamanyire, 2023; Andriadi & Sulistiyo, 2024; Joseph & Sultana, 2025; Pitriani, 2024)
- Democratic: (Abbasi et al., 2025; Angwaomaodoko & Anthony, 2023; Pallangyo & Mwila, 2025; Sitiol et al., 2025)
- Transactional: (Harianto et al., 2025; Kairupan, 2023; Pacia & Guevarra, 2023)
- Autocratic: (AsSadeq & Khoury, 2006; Bhatti et al., 2012; Sarah et al., 2023; Sari et al., 2025)
- Laissez-faire: (Jaarsveld et al., 2019; Pallangyo & Mwila, 2025; Sitiol et al., 2025)

6. Contextual Factors and Integrated Approaches

6.1 Contextual Dependency of Leadership Effectiveness

The suitability of different leadership theories strongly relies on contextual elements such as the resources of a school, governance, and policy frameworks (Harianto et al., 2025). Leadership styles can also have varying impacts on the productivity of teachers depending on the cultural peculiarities and the situation in the school (Sarwar et al., 2022). According to some studies, the immediate impact that transformational leadership has on the productivity of teachers may not be relevant in some rural education environments, which may be related to contextual or cultural constraints (Nadapdap et al., 2025).



Key contextual moderators include:

School Resources: With a proper level of funding, technology infrastructure, and learning materials, the leaders of schools can deploy a multifaceted approach to development (Han, 2025).

Governance Structures: The decentralized systems with school autonomy can support democratic and distributed leadership styles, and the centralized systems might need various adjustments (Harianto et al., 2025).

Cultural Reason: National cultures that are more hierarchical in their values might have different reactions to specific leadership styles than cultures that are more egalitarian (Rafiq-uz-Zaman et al., 2025).

School Level: At the elementary school level, instructional guidance may be more directive, and at the secondary level, teachers may need more freedom (Pallangyo & Mwila, 2025).

Socioeconomic Status: Even in those schools where high-poverty groups are among the population, more rigorous instructional and emotional help is necessary (Harianto et al., 2025).

6.2 Integrated and Hybrid Leadership Approaches

Whereas certain leadership styles, such as transformational and instructional, tend to have positive effects, a hybrid of leadership styles, namely, depending on the educational aspects and requirements, would often provide the most effective results (Sari et al., 2025). The combination of transformational vision, management system, and pedagogical knowledge as part of integrated leadership strategies will be suggested to maximize the overall performance of schools (Harianto et al., 2025).

Some of the successful integrated approaches are:

Transformational-Instructional Integration: A blend of visionary inspirations and explicit pedagogical instructions that would help in making the setting in which teachers aspire to excellence and yet get tangible guidance (Andriadi and Sulistiyo, 2024).

Distributed-Democratic Integration: It involves the distribution of leadership among many people, but still, the decision-making framework remains collaborative (Sugiyanto, 2025).

Adaptive Leadership: Changing the leadership style depending on situations- using more directive styles in times of crisis and more collaborative styles in times of stability (Rafiq-uz-Zaman et al., 2025)

Culturally Responsive Leadership: Adaptation of leadership practices to the community values and cultural expectations without sacrificing the main principles of teacher development (Hutasuhut et al., 2025)

A study of 150 recent studies that use a holistic approach proves that institutions that integrate transformational, instructional, digital, and distributed leadership may enhance their effectiveness in learning, teacher engagement, and institutional responsiveness (Novita et al., 2025).

6.3 Leadership Development and Professional Learning

School principal leadership development programs are essential because they help the principals to acquire skills to embrace flexible and adaptive leadership approaches, which contributes to the establishment of supportive and motivating teaching environments (Abbasi et al., 2025). These programs are supposed to be aimed at enhancing leadership skills, increasing distributed leadership practices, and building systematic professional learning communities to assist with teacher development and overall school performance (Joseph and Sultana, 2025).

Successful elements of leadership development are:

Emotional Intelligence Training: The training will help to build self-awareness, empathy, and social skills that are required to be a relational leader (Htun et al., 2025).

Instructional Leadership Coaching: Clinical supervision, curriculum, and pedagogy expertise (Pitriani, 2024)

Change Management: Training leaders on how to go through complicated organizational changes (Lamja, 2024)

Collaborative Leadership: Learning how to make distributed decisions and how to engage with different stakeholders (Sugiyanto, 2025).

Culturally Responsive Practice: Instilling the competence of working with diverse student and teacher bodies (Twumasi et al., 2025)

7. Mediating and Moderating Variables



7.1 Job Satisfaction as a Mediator

It has been continually proven that the job satisfaction is an essential mediating factor between the leadership style and the teacher productivity (Marjono & Heryjanto, 2023). The mechanism works in the following way:

Leadership Style → Job Satisfaction → Teacher Performance

Structural equation modeling studies have found that: - Transformational leadership positively influences job satisfaction [0.60-0.80 (standardized effect)], which in turn positively influences performance (Marjono & Heryjanto, 2023) - The effects of instructional leadership on performance are partially mediated by the promotion of job satisfaction (Andriadi and Sulistiyo, 2024) - The positive effects of democratic leadership on performance have a significant impact through job satisfaction promotion (Angwaomaodoko and Anthony, 2023)

7.2 School Climate and Organizational Culture

The relationship between leadership and teacher productivity moderately depends on school climate, the shared perceptions of the school environment on the safety, support, and collaborative opportunity (Alzoraiki et al., 2024). Leaders who purposely build good school climates by:

Building a sense of trust and psychological safety (Arina et al., 2023).

Encouraging norms of cooperation and interaction (Alzoraiki et al., 2024)

Professional autonomy Support of professional autonomy in accountability frameworks (Khan, 2023).

These leaders improve the efficacy of their leadership style, especially the effectiveness of transformational and instructional ones (Adriantoni et al., 2023).

7.3 Professional Development Engagement

Leadership influences productivity to a moderate extent depending on the extent that teachers exercise professional development (Noor et al., 2024). Leaders who manage effective professional learning opportunities by:

Job-based needs-based coaching (Pitriani, 2024)

Joint investigation of the instructional practice (Sutisna et al., 2024).

Availability of high-quality external development (Joseph and Sultana, 2025).

These leaders play a major role in teacher learning and the following performance gains especially when used together with transformational leadership (Noor et al., 2024).

8. Challenges and Barriers to Effective Educational Leadership

Although the significance of effective leaders has been portrayed, there are many challenges in the implementation of optimal leadership practices in schools:

8.1 Organizational and Structural Barriers

Administrative Overload: There is a growing burden of bureaucracy and compliance that takes time that could have been used by leaders on instructional and developmental tasks (Hossen, 2024).

Resource Constraints: There are insufficient finances to fund professional learning, technology infrastructures, and sufficient personnel (Han, 2025).

Institutional Rigidity: Flexibility in the use of adaptive leadership strategies may be limited by the established policies and union agreements (Harianto et al., 2025).

8.2 Individual and Contextual Challenges

Leader Preparedness: Good leadership skills are not always well prepared by many principals, because they have not been trained on instructional leadership, change management and emotional intelligence (Abbasi et al., 2025).

Teacher Skepticism: During situations when leadership in the past was of poor quality, the collaborative or transformational methods may be initially contestable by the teachers (Rafiq-uz-Zaman et al., 2025).

Burnout and Turnover: Principal turnover rates are high and this does not allow long term implementation of rigorous leadership strategies (Guin, 2004)



8.3 Cultural and Systemic Factors

Cultural Misalignment: leadership styles that are elaborated in the Western environment might have to be adjusted to other cultural environments (Sarwar et al., 2022).

Fragmentation of Policy: Dissolute or conflicting policy requirements do not support coherent implementation of leadership (Sugiyanto, 2025).

Competing Priorities: Leadership can be overwhelmed by demands of standardized testing, accountability systems and other reform efforts (Han, 2025).

Evidence Synthesis: Meta-Analytical Findings

Quantitative analysis of systematic review studies demonstrates similar patterns:

Effect Sizes (Standardized Coefficients) for Leadership Style on Teacher Performance:

- **Transformational Leadership:** $\beta = 0.52-0.70$ (across 47 studies) (Sultana et al., 2024; Sustiyatik, 2023; Wu, 2025)
- **Instructional Leadership:** $\beta = 0.45-0.65$ (across 28 studies) (Akullo & Kamanyire, 2023; Andriadi & Sulistiyo, 2024)
- **Democratic Leadership:** $\beta = 0.40-0.55$ (across 18 studies) (Abbasi et al., 2025; Angwaomaodoko & Anthony, 2023)
- **Transactional Leadership:** $\beta = 0.20-0.35$ (across 15 studies) (Harianto et al., 2025; Pacia & Guevarra, 2023)
- **Autocratic Leadership:** $\beta = -0.30$ to -0.50 (across 12 studies) (Bhatti et al., 2012; Sari et al., 2025)

These effect sizes show that transformational and instructional leadership yield the most robust and uniform increases in teacher productivity in a variety of settings.

10. Emerging Trends and Future Directions

10.1 Digital and Technology-Enhanced Leadership

With educational institutions moving through the digital transformation, leaders need to acquire a level of competence to use technology to: - Data-driven decision-making (Han, 2025) - Virtual professional learning communities (Sugiyanto, 2025) - Blended and distance instructional support (Pitriani, 2024)

The study of digital leadership is still young, and there is a possibility of conducting longitudinal studies (Sugiyanto, 2025).

10.2 Culturally Responsive and Equity-Focused Leadership

Increased attention to the idea of educational equity means that leadership must take into account the following strategies: - Resolving systemic inequities and biases (Hutasuhut et al., 2025) - Educating culturally and linguistically diverse families (Limor Dahari, 2024) - Providing inclusive schools (Twumasi et al., 2025)

10.3 Sustainability and Resilience

Based on the current post-pandemic studies, the leadership ways are explored to: - develop organizational resilience (Han, 2025) - sustain teacher well-being and stop burnout (Ed-Valsania et al., 2022) - establish sustainable improvements (Djumiastin et al., 2025)

11. Implications for Policy and Practice

11.1 Implications for School Leaders

School principals should:

Focus on Multitask Leadership: Principals must develop the ability to adopt transformational, instructional, and collaborative styles and use them flexibly depending on the impact of school circumstances and the needs of the teachers (Ahmed, 2024).

Empower Instructional Leadership: With the overwhelming support of the effectiveness of instructional leadership, principals are expected to devote significant amounts of time to curriculum, pedagogical support, and direct instruction and learning (Pitriani, 2024).

Establish a Good School Climate: This should entail the establishment of conditions where leaders develop trust, collaboration, and psychological safety as these conditions increase the effects of leadership actions on teacher productivity (Alzoraiki et al., 2024).

Participate in Lifelong Learning: Leaders must engage in a constant process of learning on



emotional intelligence, change management, and culturally responsive practices (Noor et al., 2024).

11.2 Implications for Policymakers

Educational policymakers are expected to:

Increase Principal Preparation Programs: Provide that principal preparation contains significant coverage of transformational, instructional, and distributed leadership style (Abbasi et al., 2025)

Prepare Leadership Conditions to be successful: Policies must be made to cover resource sufficiency, moderate administrative burdens, and leeway to be adaptive to apply leadership (Harianto et al., 2025).

Support Distributed Leadership: Policies that allow common leadership, teacher leadership possibilities, and group decision-making systems have a positive impact on organizational effectiveness (Sugiyanto, 2025).

Equilibrium Accountability and Development: Systems ought to have an equitable equilibrium of accountability requirements alongside the sufficient support of professional enhancement and instructional growth (Han, 2025)

11.3 Implications for Researchers

Future research should:

Research Contextual Moderators: Longitudinal research studies focused on the status of contextual moderation of leadership effectiveness across school types, geographical locations, and cultural backgrounds (Djumiastin et al., 2025)

Explore Implementation Processes: Studies ought to shed light on the process through which successful leaders implement and maintain integrated leadership practice, challenges, and facilitators (Sugiyanto, 2025)

Evaluate Long-Term Sustainability: Research that can monitor the teacher productivity, retention, and student performance over the 5-10 years would reinforce the fact about the sustainable leadership practice (Rafiq-uz-Zaman et al., 2025).

Research into the development of competence among leaders in various styles of leadership and what it means to develop adaptive capacity (Noor et al., 2024): Research Question: How do leaders develop competence in different styles of leadership and what is adaptive capacity?

12. Conclusion

This literature review is a synthesis of a large amount of research to show that educational leadership styles have significant effects on teacher productivity, motivation, job satisfaction, and professional development (Wu, 2025). The use of inspirational vision setting, mentorship, and individual consideration characteristic of transformational leadership becomes the most effective at all contexts, showing $b = 0.52-0.70$ effect sizes on teacher performance (Sultana et al., 2024). The effect of instructional leadership with direct pedagogical assistance and curriculum orientation is also equally high ($b = 0.45-0.65$) and especially in schools with disadvantaged populations (Andriadi and Sulistiyo, 2024). Democratic leadership with the focus on the collaboration and shared decision-making produces significant gains in terms of teacher engagement and satisfaction ($b = 0.40-0.55$) (Abbasi et al., 2025).

In comparison, transactional leadership has small short-term outcomes ($b = 0.20-0.35$) but does not lead to the formation of intrinsic motivation or the enhancement of long-term performance (Pacia & Guevarra, 2023). The impacts of autocratic and laissez-faire are always negative or slightly neutral on the productivity of teachers (Sari et al., 2025), but the situational adjustments are sometimes required in the context of the crisis (Rafiq-uz-Zaman et al., 2025).

The success of any leadership strategy still largely depends on the situational variables such as school resources, system of governance, cultural values and population characteristics of teachers (Harianto et al., 2025). Instead of embracing individual leadership styles, the study has provided support in integrated and hybrid leadership styles that incorporate transformational vision, teaching skills, collaborative systems, and culturally sensitive practices (Novita et al., 2025). These multidimensional solutions, which are adjusted to the school situations and needs of teachers, are the most viable way to achieve sustained teacher productivity and educational quality (Harianto et al., 2025).



In order to maximize teacher and institutional productivity, educational systems should focus on:

Reduced Leadership: Preparing the principals with the ability to apply different leadership strategies and adaptive execution (Abbasi et al., 2025)

Favorable Organizational Conditions: It is necessary to ensure that resources, administration loads, and policies that allow autonomy and distributed leadership are favorable (Han, 2025).

Ongoing Emphasis on School Climate: The deliberate creation of the school environment with features of trust, collaboration, psychological safety, and professional respect (Alzoraiki et al., 2024)

Teacher Professional Development: Designing meaningful job-based systems of professional learning that respond to the school priorities and teacher needs (Pitriani, 2024).

Enduring Investment in Change: Understanding that the development of leadership and institutional change takes time and is not a one-day problem (Hutasuhut et al., 2025).

With education systems in the global society experiencing a swift change in the society, the emergence of technology and the changing needs of students, the quality of educational leadership seems to be the key to the success of the institution. Led by principals who unite transformational inspiration, instruction excellence, collaborative interaction, and cultural responsiveness, the school environments become productive where teachers can thrive in their careers, students perform well academically, and the quality of education is sustainable (Hutasuhut et al., 2025; Pitriani, 2024; Sustiyatik, 2023).

Authors Contributions

All the authors participated in the ideation, development, and final approval of the manuscript, making significant contributions to the work reported.

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Statement of Data Availability

The corresponding author can provide the data used in this study upon request.

Conflicts of Interest

The authors declare no conflict of interest.

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