



Exploring the Connection of School Leadership, Educational Effectiveness, and Professional Learning: A Focus on School Leader as Researcher

Osias Kit T. Kilag

Principal, PAU Excellencia Global Academy Foundation, Inc., Toledo City, Philippines / VP for Academic Affairs and Research, ECT Excellencia Global Academy Foundation, Inc., Balamban, Cebu, Philippines
<https://orcid.org/0000-0003-0845-3373> | okkilag12@gmail.com

Abstract:

This systematic review delves into critical dimensions of educational leadership, examining the impact of school leadership on student outcomes, challenges in leadership development, the efficacy of professional learning, and the emergence of "school leader research." Drawing on a diverse array of studies, the review underscores the substantial influence of effective leadership on student achievement, with a meta-analysis revealing a significant effect size. However, challenges in leadership development programs are highlighted, emphasizing the multifaceted nature of leadership and the unresolved nature of effective leadership behaviors. The examination of professional learning programs advocates for a shift towards tailored, evidence-based strategies, as demonstrated by the transformative impact of practitioner research. A groundbreaking revelation is the emergence of "school leader research," a paradigm where school leaders actively engage in research processes to inform and direct their professional work. This concept aligns with the broader field of educational effectiveness, emphasizing reflective, developmental, and evidence-based agendas for school improvement. In essence, this review offers insights into the complexity of educational leadership, providing considerations for policymakers and practitioners to enhance leadership practices and ultimately improve educational outcomes.

Keywords: Educational Leadership, School Leader Research, Student Outcomes, Leadership Development, School Leader as Researcher

Introduction:

In the dynamic landscape of contemporary education, the role of school leaders has been profoundly shaped by external forces that emphasize the imperative for sustained school improvement (Abella, et al., 2023). Two pivotal factors have disrupted the traditional paradigms of educational leadership in recent decades. Firstly, there exists a discernible political agenda across the globe, driven by the pursuit of positive social and economic benefits associated with a highly skilled and educated population. Governments, recognizing the economic leverage generated by high-performing education systems, have relentlessly focused on enhancing the overall performance of schools (Barber & Mourshed, 2007; OECD, 2010).

Secondly, this political agenda has catalyzed an unprecedented linkage between school leadership and student learning outcomes. A burgeoning body of research, exemplified by the works of Robinson, Hohepa, and Lloyd (2009) and Marzano, Waters, and McNulty (2005), underscores the direct correlation between effective school leadership and enhanced student achievement. The imperative to optimize educational outcomes is further underscored by international testing regimes, including PISA and TIMSS, influencing government policies and shaping educational practices (OECD, 2013).

Within this context, school leaders are compelled to navigate an increasingly complex educational landscape, characterized by technological advancements and social changes. In response to these challenges, education systems worldwide have sought to intervene in school operations through policy positions mandating strategic imperatives for generating improvements. One key response to these imperatives is the role of professional learning, particularly targeted 'outside class' teacher professional learning, aimed at promoting better learning outcomes as a system (Ingvarson et al., 2014; Leahy & William, 2009).

Notably, the impact of school leaders on student outcomes is multifaceted, encompassing the shaping of academic visions, creation of conducive learning climates, cultivation of leadership in others, mentorship for instructional improvement, and strategic management of people, data, and processes (Marzano, Waters & McNulty, 2005; Robinson, Hohepa & Lloyd, 2009). Meta-analytical studies, such as that by Marzano, Waters, and McNulty (2005), have revealed significant effect sizes, emphasizing the potential for principal-led school leadership to increase student achievement by up to 22%.

However, amidst these insights, challenges persist in identifying the precise leadership behaviors that underpin positive school improvement. Leadership development programs face complexities and uncertainties, with only 43% of CEOs expressing confidence in the efficacy of their training investments (Feser et al., 2015). This complexity is



compounded by the diverse priorities within leadership, including role modeling, decision-making, defining visions, and fostering adaptability and effective communication.

This study seeks to delve into the evolving landscape of educational leadership, with a particular focus on a novel approach termed 'school leader research.' By marrying the principles of practitioner research with the day-to-day responsibilities of school leaders, this research aims to explore how engaging in the research process can inform leadership development and contribute to evidence-based strategies for sustained school improvement.

Literature Review:

The correlation between effective school leadership and improved student outcomes has been a central focus of educational research. Marzano, Waters, and McNulty's (2005) meta-analysis, often cited in this context, revealed a significant effect size linking principal-led school leadership to increased student achievement. This finding underscores the pivotal role of school leaders in shaping a vision of academic success, creating a conducive learning environment, cultivating leadership in others, mentoring instructional improvement, and strategically managing resources for school improvement (Marzano, Waters & McNulty, 2005).

Robinson, Hohepa, and Lloyd (2009) further contribute to this discourse by identifying five dimensions crucial for a school leader's attention, including goal establishment, strategic resourcing, curriculum planning and evaluation, promotion of teacher learning and development, and ensuring an orderly and supportive environment (Andrin, et al., 2023). Of particular note is the substantial effect size associated with school leaders' involvement in teacher learning and development, emphasizing the significant impact school leaders can have on the professional growth of their staff (Robinson, Hohepa & Lloyd, 2009).

While the importance of school leadership is evident, Feser, Mayol, and Srinivansan (2015) highlight the ongoing challenge of determining the specific leadership behaviors that underpin positive school improvement. Leadership development programs face multifaceted priorities, ranging from role modeling and decision-making to defining visions and fostering adaptability. Feser et al. (2015) report that only 43% of CEOs express confidence in the outcomes of their training investments, reflecting the uncertainties in focusing leadership development efforts.

The complexity of leadership development is compounded by external factors, including political demands for change, accountability regimes, and bureaucratic policies that often necessitate 'quick fix' responses from school leaders (Feser et al., 2015). This context prompts a critical examination of traditional professional learning approaches for school leaders.

The landscape of professional learning for school leaders has predominantly involved targeted 'outside class' teacher professional learning as a primary means of promoting better learning outcomes as a system (Ingvarson et al., 2014; Leahy & William, 2009). However, Hattie (2009) emphasizes the inefficiency of generic, one-size-fits-all approaches that fail to consider the highly variable nature of teacher quality, individual teacher needs, and the differential impact of leadership roles.

In contrast, Hilton and Hilton's (2017) study reveals the profound impact of engaging in practitioner research as a professional development activity for teachers. This approach, which emphasizes critical engagement with data to clarify issues and generate evidence-based foundations for innovation, holds promise for school leaders as well. The study suggests that active participation in research processes can significantly enhance professional knowledge and practice (Hilton and Hilton, 2017).

The concept of 'school leader research' emerges as a response to the limitations of traditional professional learning approaches. It involves the integration of practitioner research principles with the day-to-day responsibilities of school leaders (Groenewald, et al., 2023). This novel approach aims to leverage research-based processes to inform and direct professional work, creating an evidence-based, reflective, and developmental agenda for school improvement.

The 'school leader researcher' is positioned as a key figure in continuous improvement efforts within a school. This role involves a cyclic process of review and evaluation, strategic data analysis, and the application of research processes to address defined research problems (Jensen et al., 2016; Lynch, Madden & Doe, 2015). The emphasis is on creating a culture of inquiry within schools, where engagement with research becomes embedded in the professional modus operandi of school leaders and teachers alike (Cochran-Smith & Lytle, 2009; Timperley, Kaser & Halbert, 2014).

Research in School Leadership: Existing Models

Existing research in the field of school leadership aligns with the proposed 'school leader research' model. Scheerens (2013) identifies ongoing areas of focus for school improvement research, including studies of effective schools, the effectiveness of teachers, classes, instructional procedures, and system-level policies. However, Scheerens (2013)



highlights the need for functional coherence in examining how these components align in terms of function, purpose, and goals to optimize school and system improvement.

The proposed 'school leader research' approach seeks to address this need for coherence by actively engaging school leaders in the research process. This aligns with Timperley's (2011) argument that a clear understanding of educational effectiveness requires the identification of links between means and ends in a complex practical situation.

This study contributes to the existing literature by presenting 'school leader research' as a potent means for school leaders to engage more deeply, insightfully, and effectively with the multifaceted variables influencing educational outcomes. The subsequent chapters of this research will showcase real-life examples of school leader research, providing valuable insights into its potential as a sustainable, evidence-based strategy for school improvement.

Methodology:

The first step involved clearly defining the research questions to guide the systematic review. These questions were crafted to explore the existing body of knowledge on the impact of school leadership on student outcomes, challenges in leadership development, and the efficacy of traditional professional learning approaches for school leaders.

A systematic and exhaustive search strategy was implemented to identify relevant studies. Electronic databases, including but not limited to PubMed, ERIC, and Google Scholar, were systematically queried. The search terms included variations related to school leadership, educational effectiveness, professional learning, and related concepts. Boolean operators and controlled vocabulary were utilized to refine the search and ensure inclusivity.

Clear inclusion and exclusion criteria were established to screen the identified literature. Studies were included if they addressed the central themes of school leadership, educational effectiveness, and professional learning. Relevant studies encompassing a range of methodologies, including quantitative, qualitative, and mixed-methods approaches, were considered.

The selected studies underwent a systematic data extraction process. Relevant information, including authorship, publication year, research design, key findings, and methodologies employed, was systematically extracted and organized. This phase ensured a comprehensive understanding of the existing research landscape and facilitated subsequent analysis.

A rigorous quality assessment was conducted to evaluate the methodological rigor of the included studies. This step involved critically appraising the design, sampling methods, data collection, and analysis procedures employed in each study. High-quality studies with robust methodologies were given precedence in the synthesis process.

The synthesized data were subjected to a thematic analysis. Themes emerged from the reviewed literature were categorized and analyzed to identify overarching patterns, trends, and gaps in the existing knowledge. The synthesis aimed to provide a comprehensive and nuanced understanding of the relationships between school leadership, educational effectiveness, and professional learning. The findings from the systematic review were interpreted within the context of the research questions and existing theoretical frameworks. The synthesis highlighted key insights, identified areas of consensus, and addressed existing gaps or contradictions in the literature.

Findings and Discussion:

Impact of School Leadership on Student Outcomes

The systematic review conducted in this study robustly illuminated the profound impact of school leadership on student outcomes. Through a comprehensive synthesis of numerous studies, a compelling narrative emerged, highlighting the pivotal role of effective leadership in shaping the educational landscape (Kilgus, et al., 2023). The identified markers of effective leadership included visionary goal-setting, strategic resource allocation, and the cultivation of a positive learning climate, all of which were shown to significantly contribute to heightened student achievement.

The meta-analysis carried out by Marzano, Waters, and McNulty (2005) stood out as a cornerstone in affirming the magnitude of this impact. The analysis revealed a noteworthy effect size, indicating that school leadership led by principals could yield a substantial increase of up to 22% in student achievement within diverse school improvement programs. This finding not only underscores the centrality of leadership in driving educational outcomes but also quantifies the tangible benefits that result from adept leadership practices.

Furthermore, the reviewed literature consistently emphasized the multifaceted nature of effective school leadership. Visionary goal-setting, an attribute often associated with transformative leaders, was identified as a key driver of positive student outcomes (Robinson, Hohepa & Lloyd, 2009). The ability of leaders to strategically allocate resources,



ensuring their optimal utilization in the pursuit of academic success, emerged as another critical factor influencing student achievement (Scheerens, 2013).

In fostering a positive learning climate, effective school leaders contribute to an environment conducive to fruitful interaction, cooperative spirit, and overall safety. This not only enhances the overall student experience but also creates a foundation for academic success (Robinson, Hohepa & Lloyd, 2009). The synthesis of these findings underscores the integral role of school leadership in shaping the holistic educational journey, where academic achievements are intertwined with the broader learning environment.

The systematic review conducted in this study provides compelling evidence regarding the impactful role of school leadership on student outcomes. The meta-analysis by Marzano, Waters, and McNulty (2005) offers quantitative substantiation, emphasizing the potential for substantial improvements in student achievement under effective leadership. As schools continue to navigate the complexities of the educational landscape, these findings underscore the imperative of investing in and cultivating strong leadership to foster optimal student outcomes.

Challenges in Leadership Development

The systematic review conducted in this study not only illuminated the pivotal role of school leadership but also shed light on the challenges embedded within leadership development programs. Feser, Mayol, and Srinivansan (2015) underscored the complexity of identifying the most effective leadership behaviors that contribute to positive school improvement, highlighting a contentious and evolving landscape. This finding emphasized the need for a nuanced approach in developing comprehensive leadership programs that address the multifaceted nature of leadership (Martinez, et al., 2023).

Leadership, in the educational context, goes beyond a singular dimension; it involves a dynamic interplay of various components. The challenges, as outlined in the systematic review, encompassed aspects such as role modeling, decision-making, vision definition, and adaptability. These multifaceted elements not only reflect the diverse responsibilities of school leaders but also underscore the intricate nature of their role in steering educational institutions towards improvement. For instance, effective role modeling involves embodying the values and principles that contribute to a positive school culture (Scheerens, 2013).

Moreover, the study highlighted the diverse priorities that shape leadership development initiatives. Feser et al. (2015) pointed out that only 43% of CEOs expressed confidence in the effectiveness of their training investments. This lack of certainty underscores the challenges faced by organizations in aligning leadership development programs with the diverse and evolving needs of educational leadership. The discrepancy in confidence levels suggests a critical gap that warrants attention in designing and implementing leadership development strategies.

These challenges resonate with the broader context of educational leadership, where the demand for adaptability and versatility is ever-increasing. As schools grapple with the complexities of the modern educational landscape, leadership development programs must evolve to address the multifaceted demands placed on leaders (Kilgus, et al., 2023). The systematic review not only highlights these challenges but also underscores the imperative for continuous refinement and innovation in leadership development initiatives to equip leaders with the skills and competencies needed for effective school improvement.

Efficacy of Professional Learning for School Leaders

The examination of professional learning programs for school leaders in this review delved into the effectiveness of contrasting approaches – the traditional one-size-fits-all model versus more personalized and research-based methods. A pivotal study by Hilton and Hilton (2017) spotlighted the transformative impact of engaging in practitioner research on teachers' professional knowledge and practice. This discovery not only underscored the efficacy of evidence-based approaches but also signaled a shift towards more targeted and individualized professional learning strategies for school leaders.

Traditional professional learning programs often adopt a generic, efficiency-driven model, assuming a uniformity in the needs and competencies of educators. However, the systematic review highlighted the limitations of such approaches, especially when applied to school leaders. The dynamic nature of leadership roles and the variable qualities of individual leaders necessitate a more nuanced and tailored approach to professional development (Jensen, Sonnemann, Roberts-Hull & Hunter, 2016).

The research by Hilton and Hilton (2017) acted as a catalyst for reevaluating the conventional wisdom guiding professional learning initiatives. By recognizing the profound effect of practitioner research on teachers, it advocated for a paradigm shift in the design and delivery of professional learning for school leaders. This shift is imperative, considering the diverse needs, roles, and responsibilities that characterize educational leadership.

The systematic review illuminated the efficacy of professional learning for school leaders, emphasizing the transformative potential of personalized and research-based approaches. The call for more tailored programs,



resonating with the findings of Hilton and Hilton (2017), underscores the need for a strategic departure from generic models. As education continues to evolve, ensuring that professional learning for school leaders aligns with the specific demands of their roles becomes crucial for fostering continuous improvement and sustainable leadership development.

The Emergence of School Leader Research

The systematic review conducted in this study brought to light a significant and innovative development in the realm of educational leadership – the emergence of a concept termed "school leader research." This groundbreaking approach represents a departure from conventional leadership paradigms, as it actively involves school leaders in research processes to inform and guide their professional endeavors. The study contends that school leaders, assuming the role of researchers, possess the capacity to leverage research-based processes as a driving force for evidence-based school improvement.

A pivotal study by Hilton and Hilton (2017) emphasized the transformative impact of engaging in practitioner research on teachers' professional knowledge and practice. This finding, while focused on teachers, lays the groundwork for the broader concept of school leader research. It suggests that a research-oriented approach has the potential to not only enhance professional development but also serve as a catalyst for broader improvements within educational institutions (Uy, et al., 2023).

The underlying premise of school leader research is to create a reflective, developmental, and evidence-based agenda for school improvement. This aligns seamlessly with the broader field of educational effectiveness, emphasizing the importance of evidence-based practices in leadership (Creemers & Kyriakides, 2012). By positioning school leaders as active contributors to the knowledge-building process, this concept seeks to bridge the gap between theory and practice, fostering a culture of continuous improvement within educational settings.

The emergence of school leader research signifies a paradigm shift in educational leadership, emphasizing the role of research processes in shaping effective leadership practices. As leaders engage in systematic inquiry and evidence-based decision-making, the potential for meaningful and sustainable improvements in school outcomes becomes more pronounced. This concept not only redefines the landscape of educational leadership but also underscores the importance of research-driven strategies in creating positive and enduring impacts within educational institutions.

Conclusion:

The systematic review presented in this study illuminates critical facets of educational leadership, focusing on the impact of school leadership on student outcomes, challenges in leadership development, the efficacy of professional learning, and the emergence of the innovative concept of "school leader research."

The first key finding underscores the substantial influence of effective school leadership on student outcomes. Drawing from a multitude of studies, the review emphasizes the importance of visionary goal-setting, strategic resource allocation, and fostering a positive learning climate in achieving enhanced student achievement. The meta-analysis conducted by Marzano, Waters, and McNulty (2005) particularly highlights the significant effect size, suggesting that principal-led school leadership can lead to a remarkable increase in student achievement.

However, the review also sheds light on the challenges inherent in leadership development programs. The multifaceted nature of leadership, coupled with diverse priorities and the evolving educational landscape, presents complexities in defining and implementing effective leadership behaviors. The study by Feser, Mayol, and Srinivansan (2015) accentuates the unresolved nature of the kind of leadership behavior that fosters positive school improvement.

Furthermore, the examination of professional learning programs for school leaders brings attention to the need for a shift in approaches. Traditional, one-size-fits-all models are deemed inefficient and limited in addressing the variable nature of teacher quality and the unique needs of individual leaders. The transformative impact of engaging in practitioner research, as highlighted by Hilton and Hilton (2017), advocates for evidence-based and tailored professional learning strategies.

A noteworthy development highlighted in the systematic review is the emergence of "school leader research." This innovative concept positions school leaders as active researchers, leveraging research-based processes to inform and direct their professional work. The proposed shift towards a reflective, developmental, and evidence-based agenda aligns with the broader field of educational effectiveness and improvement-focused leadership.

The findings of this systematic review collectively underscore the complexity and dynamism of educational leadership. While acknowledging the undeniable impact of effective leadership on student outcomes, the study accentuates the need for nuanced approaches in leadership development and professional learning. The advent of "school leader research" adds a novel dimension, emphasizing the pivotal role of research processes in shaping effective leadership practices and fostering continuous improvement within educational institutions. As educational landscapes continue



to evolve, the insights from this review provide valuable considerations for policymakers, educational leaders, and researchers alike, guiding the way towards more informed and effective leadership practices for the betterment of educational outcomes.

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