



=====
**Leadership Development for Improved Literacy and
Numeracy Outcomes in Education**
=====

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

Henry B. Wagas

Educator based in Brendola City, Vicenza, Italy
<https://orcid.org/0009-0002-1566-0944> | henry.wagas@gmail.com

Maria Fe L. Divera

Senior Education Program Specialist -School Management, Monitoring, and Evaluation
Schools Division of Toledo City, Philippines
<https://orcid.org/0009-0000-3375-574X> | mariafe.divera@deped.gov.ph

Viquelyn A. Engbino

Teacher III, Department of Education, Schools Division of Toledo City, Philippines
<https://orcid.org/0000-0002-1753-117X> | viquelyn.engbino@deped.gov.ph

Maverick Shawn S. Bendanillo

Nursery - Preschool Teacher, Tubtong School, Jankasem Chatuchak, Bangkok Thailand
<https://orcid.org/0009-0004-0372-727X> | reachme.shawn21@gmail.com

James R. Camangyan

Teacher III, Toledo National Vocational School, Schools Division of Toledo City, Philippines
<https://orcid.org/0009-0006-4603-6043> | james.camangyan001@deped.gov.ph

Abstract:

This integrative literature review explores the landscape of instructional leadership in literacy and numeracy education, revealing key insights crucial for enhancing student outcomes. The study delves into the multifaceted challenges faced by instructional leaders, emphasizing the necessity for adaptive strategies in addressing diverse student needs and navigating dynamic educational standards. A critical finding is the strategic imperative of continuous professional development, with successful instructional leaders actively engaging in workshops, conferences, and collaborative learning communities. Specific competencies essential for effective leadership in literacy and numeracy include a profound understanding of curriculum standards, proficiency in evidence-based instructional strategies, data-driven decision-making, and strong communication skills. The literature underscores the pivotal role of a supportive school culture, shaped by instructional leaders who set clear expectations, provide necessary resources, and foster collaboration among educators. By synthesizing these findings, this study offers a comprehensive framework for instructional leaders, educators, and policymakers to inform practices and policies that enhance instructional leadership in literacy and numeracy. Ultimately, the insights from this review contribute to the broader discourse on educational leadership, providing a foundation for creating environments that foster academic success and lifelong learning.

Keywords: instructional leadership, literacy education, numeracy education, professional development

Introduction:

In the realm of education, the significance of effective instructional leadership cannot be overstated. Instructional leadership plays a pivotal role in shaping the quality of teaching and learning experiences within educational institutions, with a direct impact on student achievement. Within this overarching framework, the focus on literacy and numeracy stands out as fundamental pillars of academic success, serving as essential building blocks for students' cognitive development. This research seeks to delve into the realm of instructional leadership specifically tailored for fostering excellence in literacy and numeracy education.

Literacy and numeracy are cornerstones of academic proficiency, providing students with the skills and tools necessary to navigate an increasingly complex and interconnected world. Research consistently underscores the critical role that instructional leadership plays in enhancing educational outcomes (Leithwood, et al. 2004; Robinson, et al. 2008). Despite the wealth of literature on instructional leadership, there is a need for specialized



investigations focusing on the nuances and strategies associated with fostering proficiency in literacy and numeracy.

The importance of instructional leadership in the context of literacy and numeracy is accentuated by the dynamic and evolving nature of educational standards and pedagogical approaches. The transition to 21st-century learning environments demands a reevaluation of leadership practices to ensure they are aligned with the contemporary needs of students (Hargreaves & Fullan, 2012). As schools strive to cultivate a culture of continuous improvement, instructional leaders must be equipped with the knowledge and skills to guide teachers in implementing evidence-based practices that enhance literacy and numeracy instruction.

This research aims to address the existing gap in the literature by examining the specific strategies, competencies, and professional development initiatives required for instructional leaders to effectively support literacy and numeracy instruction. By synthesizing existing research and conducting systematic literature review, this study endeavors to provide actionable insights for educational leaders, policymakers, and practitioners seeking to enhance instructional leadership in literacy and numeracy.

Literature Review:

Instructional leadership, as a concept, has garnered significant attention in educational research due to its undeniable influence on teaching and learning outcomes (Leithwood, et al. 2004). In the context of literacy and numeracy education, the role of instructional leadership becomes particularly crucial as these foundational skills are essential for students' academic success and lifelong learning (Robinson, et al. 2008). This literature review synthesizes existing research to provide a comprehensive understanding of instructional leadership in the realms of literacy and numeracy, exploring the challenges, strategies, and competencies associated with building effective instructional leadership for improved educational outcomes.

Literacy and numeracy skills form the bedrock of academic proficiency, enabling students to comprehend complex information, think critically, and solve problems across various disciplines (National Council of Teachers of Mathematics, 2000; National Research Council. 1998). These skills are not only essential for academic success but are also crucial for effective participation in the workforce and society at large. Consequently, the cultivation of strong literacy and numeracy skills is a primary goal in educational systems globally.

The Role of Instructional Leadership

Instructional leadership, broadly defined as the actions taken by school leaders to promote, support, and enhance teaching and learning (Leithwood et al., 2004), is instrumental in shaping the quality of literacy and numeracy instruction. Research suggests that effective instructional leadership positively correlates with improved student achievement (Robinson et al., 2008). However, it is important to recognize that instructional leadership is multifaceted and requires specific attention to the unique challenges posed by literacy and numeracy education.

Several challenges are inherent in instructional leadership for literacy and numeracy. One challenge is the diverse range of student needs and learning styles within classrooms. Literacy and numeracy instruction often require differentiated approaches to accommodate varying skill levels, making it imperative for instructional leaders to foster a culture of inclusivity and tailor support strategies accordingly (Marzano et al., 2001).

Additionally, the dynamic nature of educational standards and the continuous evolution of instructional methodologies pose challenges for instructional leaders. Keeping abreast of evidence-based practices, technological advancements, and pedagogical innovations is crucial to providing effective guidance to teachers (Hargreaves & Fullan, 2015).

To address the challenges associated with instructional leadership in literacy and numeracy, various strategies have been proposed in the literature. Professional development emerges as a key component, equipping instructional leaders with the knowledge and skills necessary to navigate the complexities of literacy and numeracy instruction (Blank & de las Alas, 2009). Collaborative learning communities and networks have been identified as effective platforms for instructional leaders to share best practices, discuss challenges, and engage in continuous learning (DuFour & Eaker, 2009).

Furthermore, instructional leaders can play a pivotal role in creating a supportive school culture that values and prioritizes literacy and numeracy. This involves setting clear expectations, providing resources, and fostering a collaborative environment where teachers can collaborate and learn from one another (Leithwood et al., 2004).

The competencies required for instructional leaders in literacy and numeracy extend beyond general leadership skills. They must possess a deep understanding of literacy and numeracy curriculum standards, effective instructional strategies, and assessment practices (Hallinger & Murphy, 1986). Additionally, communication skills



are crucial for instructional leaders to convey expectations, provide constructive feedback, and facilitate dialogue around effective teaching practices (Gurr, 2014).

Moreover, research suggests that instructional leaders in literacy and numeracy should be adept at data-driven decision-making. Analyzing student performance data enables leaders to identify trends, assess the impact of instructional interventions, and guide teachers in refining their approaches to better meet the needs of individual students (Wayman, Midgley, & Stringfield, 2017).

The literature on instructional leadership in literacy and numeracy underscores the critical role that leaders play in shaping the educational experiences of students. Challenges in this domain necessitate tailored strategies and competencies to build effective instructional leadership (Abella, et al., 2023). By focusing on professional development, collaborative learning communities, and the cultivation of specific competencies, schools can enhance instructional leadership to positively impact literacy and numeracy outcomes. As education continues to evolve, understanding and addressing the unique demands of instructional leadership in literacy and numeracy remain imperative for fostering academic success and preparing students for the challenges of the 21st century.

Methodology:

The research methodology employed in this study involved an integrative literature review approach to synthesize and analyze existing research on instructional leadership in literacy and numeracy. This method facilitated the exploration of diverse perspectives, strategies, and competencies associated with building effective instructional leadership in the context of literacy and numeracy education.

The initial phase of the research involved a systematic search of scholarly databases, including but not limited to, PubMed, ERIC, PsycINFO, and Google Scholar. Keywords such as "instructional leadership," "literacy," "numeracy," "educational outcomes," and "professional development" were utilized to identify relevant literature. Additionally, a snowballing technique was employed, where references from identified articles were examined to uncover additional sources.

To ensure the relevance and quality of the literature included in the review, specific inclusion and exclusion criteria were established. Included studies were required to focus explicitly on instructional leadership in the context of literacy and numeracy. Peer-reviewed articles, books, and reports published within the last two decades were prioritized. Studies that did not meet these criteria or lacked empirical rigor were excluded.

The data extraction process involved systematically extracting relevant information from the selected literature. Key elements extracted included the challenges associated with instructional leadership in literacy and numeracy, strategies employed to address these challenges, and the competencies deemed essential for effective instructional leadership. This process was conducted in a systematic manner to ensure the comprehensive coverage of the literature.

The synthesized data were organized thematically, allowing for the identification of common patterns, trends, and discrepancies across studies. This thematic synthesis facilitated the development of a cohesive narrative that presented an integrated understanding of instructional leadership in literacy and numeracy. To ensure the rigor and reliability of the literature included in the review, a quality assessment was conducted. Each selected study underwent a critical appraisal process, considering factors such as research design, methodology, sample size, and the validity of findings. Studies meeting predetermined quality criteria were retained, while those with significant methodological flaws were excluded.

Findings and Discussion:

Diverse Challenges in Literacy and Numeracy Instructional Leadership:

The integrative literature review conducted on instructional leadership in literacy and numeracy unearthed a spectrum of challenges confronted by educational leaders in these pivotal domains. One of the primary challenges identified was the imperative to address the diverse learning needs of students. Scholars such as Leithwood et al. (2004) emphasize that classrooms are increasingly characterized by a heterogeneous mix of learners, necessitating instructional leaders to develop strategies that accommodate varying levels of proficiency and diverse learning styles.

Furthermore, the review shed light on the intricate task of navigating the continuously evolving landscape of educational standards and pedagogical approaches. The seminal work of Robinson et al. (2008) underscores the dynamic nature of literacy and numeracy education, highlighting the ongoing changes in curriculum frameworks and teaching methodologies. This constant evolution poses a significant challenge for instructional leaders, requiring them to stay informed about the latest trends and research to effectively guide their teaching faculty.



The dynamic nature of literacy and numeracy instruction was a recurrent theme in the literature, emphasizing the need for instructional leaders to be adaptive and responsive. The work of Marzano et al. (2001) affirms that traditional, one-size-fits-all approaches are insufficient in meeting the diverse needs of students. Instead, instructional leaders must employ flexible strategies that recognize and accommodate the varied skill levels and learning preferences present in contemporary classrooms (Abendan, et al., 2023).

To address these challenges, the literature consistently advocated for instructional leaders to adopt a proactive stance. Hargreaves and Fullan (2012) argue that leaders must not only react to challenges as they arise but also anticipate and prepare for the evolving needs of literacy and numeracy education. This proactive approach involves strategic planning, ongoing professional development, and a commitment to fostering a culture of adaptability within educational institutions.

The literature review underscores the multifaceted challenges faced by instructional leaders in the domains of literacy and numeracy. Addressing diverse student needs, navigating evolving educational standards, and adapting to dynamic instructional landscapes require a nuanced and strategic approach from educational leaders. The findings from this study emphasize the importance of proactive leadership in responding to these challenges, offering insights that can inform the development of effective instructional leadership practices in literacy and numeracy education (Groenewald, et al., 2023).

Strategies for Professional Development:

One pivotal revelation emerging from the integrative literature review is the paramount importance of professional development as a linchpin strategy for cultivating effective instructional leadership in the realms of literacy and numeracy. The scholarly discourse, notably articulated by Blank and de las Alas (2009), accentuates the critical role that continuous learning plays in empowering instructional leaders to navigate the complexities of modern education.

Successful instructional leaders, as highlighted in the literature, actively engaged in ongoing professional development initiatives to enhance their leadership competencies. This involved participation in workshops, attendance at conferences, and active involvement in collaborative learning communities. Leithwood et al. (2004) argue that such immersive experiences enable leaders to deepen their understanding of effective instructional practices and stay abreast of emerging trends, fostering an environment of continuous improvement.

The literature consistently extolled the positive impact of continuous professional development on instructional leaders' efficacy in literacy and numeracy education. Robinson et al. (2008) assert that the dynamism inherent in educational landscapes requires leaders to be proactive in acquiring new knowledge and skills (Tañiza, et al., 2023). Engaging in professional development not only equips instructional leaders with the latest pedagogical strategies but also enhances their ability to facilitate meaningful professional growth among their teaching faculty.

Moreover, the literature underscored the collaborative dimension of professional development, emphasizing the importance of instructional leaders actively participating in collaborative learning communities. DuFour and Eaker (2009) argue that such communities provide a platform for instructional leaders to share best practices, discuss challenges, and collectively explore innovative approaches to literacy and numeracy instruction.

The literature unequivocally positions professional development as a cornerstone strategy for effective instructional leadership in literacy and numeracy. By actively participating in continuous learning opportunities, instructional leaders not only enhance their own capabilities but also contribute to a culture of ongoing improvement within educational institutions (Vestal, et al., 2023). The findings underscore the imperative for instructional leaders to prioritize and invest in professional development as a strategic pathway to excellence in literacy and numeracy education.

Competencies Required for Effective Instructional Leadership:

The integrative literature review uncovered a distinct set of competencies imperative for instructional leaders to excel in the realms of literacy and numeracy education. Beyond the generic leadership skills, the synthesis of literature, as highlighted by Hallinger and Murphy (1986), emphasized specific attributes that distinguish effective instructional leaders in these critical domains.

A fundamental competency identified in the literature is a profound understanding of curriculum standards. Instructional leaders must not only be familiar with the prescribed standards but also adept at aligning them with instructional practices to meet the diverse needs of students (Leithwood et al., 2004). This competency ensures that the educational objectives set by curriculum frameworks are effectively translated into actionable plans that enhance literacy and numeracy outcomes.

Proficiency in evidence-based instructional strategies emerged as another critical competency for effective instructional leadership. The works of Robinson et al. (2008) emphasize the importance of instructional leaders



being well-versed in pedagogical approaches grounded in empirical evidence. This competency enables leaders to guide teaching faculty in adopting methods that have proven efficacy in fostering literacy and numeracy skills among students.

Adeptness at data-driven decision-making was identified as a key competency essential for instructional leaders. Wayman, Midgley, and Stringfield (2017) argue that the ability to analyze student performance data enables leaders to make informed decisions, tailor instructional approaches, and identify areas for improvement. This competency aligns instructional leadership with an outcomes-focused approach, ensuring that interventions are targeted and evidence-based.

Furthermore, communication skills were underscored as critical competencies for instructional leaders in literacy and numeracy. Gurr (2014) posits that effective communication is pivotal for conveying expectations, providing constructive feedback, and fostering a collaborative environment among teaching faculty. This competency establishes a foundation for a positive school culture conducive to the enhancement of literacy and numeracy outcomes.

The literature synthesis affirms that instructional leaders in literacy and numeracy education must possess specific competencies to navigate the complexities of their roles. A deep understanding of curriculum standards, proficiency in evidence-based instructional strategies, adeptness at data-driven decision-making, and strong communication skills collectively contribute to effective instructional leadership that positively influences literacy and numeracy outcomes.

Importance of a Supportive School Culture:

The literature review unveiled a critical insight into the pivotal role played by a supportive school culture in prioritizing literacy and numeracy education. This key finding accentuates the multifaceted influence of instructional leaders in shaping the ethos of an educational institution and, consequently, impacting the implementation of effective literacy and numeracy instruction.

Successful instructional leaders, as illuminated in the works of Leithwood et al. (2004), demonstrated a keen understanding of the importance of fostering a positive school culture. Central to this endeavor was the establishment of clear expectations for teachers. By articulating expectations, instructional leaders provide a framework for educators to align their efforts with the overarching goals of enhancing literacy and numeracy outcomes.

Moreover, the literature consistently highlighted the imperative of providing necessary resources as a hallmark of instructional leadership within a supportive school culture. Robinson et al. (2008) emphasize that instructional leaders play a pivotal role in securing and allocating resources that directly contribute to effective literacy and numeracy instruction. This includes access to relevant teaching materials, professional development opportunities, and technological resources necessary for modern pedagogy (Kilgus, et al., 2023).

Encouraging collaboration among educators emerged as another integral aspect of fostering a supportive school culture conducive to literacy and numeracy excellence. The literature, as noted by DuFour and Eaker (2009), underscores the significance of collaborative learning communities in which teachers can share insights, discuss challenges, and collectively refine instructional practices. Instructional leaders, by promoting a collaborative environment, facilitate the exchange of best practices and contribute to a culture of continuous improvement.

The literature unequivocally emphasizes the importance of a supportive school culture in advancing literacy and numeracy education. Instructional leaders, through their actions and decisions, shape the organizational climate, influencing the attitudes and behaviors of educators. Clear expectations, provision of resources, and encouragement of collaboration collectively contribute to the establishment of a school culture that prioritizes and enhances the effectiveness of literacy and numeracy instruction.

Conclusion:

The integrative literature review on instructional leadership in literacy and numeracy illuminates key insights that are integral to enhancing educational outcomes in these foundational domains. The study synthesized a wealth of research, revealing multifaceted challenges, strategic approaches, specific competencies, and the crucial role of school culture in instructional leadership.

The literature consistently underscored the diverse challenges faced by instructional leaders in literacy and numeracy, emphasizing the need for adaptive strategies to address the varying learning needs and the dynamic nature of educational standards and pedagogical approaches. Effective instructional leaders were found to be proactive in anticipating challenges, aligning their strategies with evolving educational landscapes, and fostering a flexible and inclusive instructional environment.



Professional development emerged as a linchpin strategy for building effective instructional leadership. Engaging in continuous learning, attending workshops, conferences, and participating in collaborative learning communities were identified as essential components. This strategic emphasis on professional growth not only enhanced instructional leaders' capabilities but also contributed to a culture of ongoing improvement within educational institutions.

Specific competencies crucial for effective instructional leadership were delineated in the literature. Beyond general leadership skills, the literature highlighted the importance of a deep understanding of curriculum standards, proficiency in evidence-based instructional strategies, adeptness at data-driven decision-making, and strong communication skills. These competencies collectively empower instructional leaders to navigate the complexities of literacy and numeracy education successfully.

A pivotal finding was the profound impact of a supportive school culture on literacy and numeracy outcomes. Instructional leaders played a central role in shaping this culture by setting clear expectations, providing necessary resources, and fostering collaboration among educators. The establishment of a positive school culture emerged as a catalyst for effective implementation of literacy and numeracy instruction.

This integrative literature review contributes a nuanced understanding of instructional leadership in literacy and numeracy, providing valuable insights for educators, policymakers, and researchers. By addressing challenges, prioritizing professional development, cultivating specific competencies, and fostering a supportive school culture, instructional leaders can play a transformative role in advancing literacy and numeracy education, thereby ensuring a solid foundation for students' academic success and lifelong learning.

References:

- Abella, J., Kilag, O. K., Andrin, G., Tañiza, F. N., Groenewald, E., & Cordova Jr, N. (2024). Literacy Leadership in Elementary Schools: The Connections between Principal Practices and Reading Performance. *Excellencia: International Multi-disciplinary Journal of Education (2994-9521)*, 2(1), 69-78.
- Abendan, C. F., Canubas, A. L., Canoy, C., Cuizon, J., Rebecoy, W., & Kilag, O. K. (2023). Enhancing Literal Reading Skills in Elementary Pupils: A Rave-O Strategy Approach. *Excellencia: International Multi-disciplinary Journal of Education (2994-9521)*, 1(5), 136-147.
- Blank, R. K., & De las Alas, N. (2009). *The Effects of Teacher Professional Development on Gains in Student Achievement: How Meta Analysis Provides Scientific Evidence Useful to Education Leaders*. Council of Chief State School Officers. One Massachusetts Avenue NW Suite 700, Washington, DC 20001.
- DuFour, R., & Eaker, R. (2009). *Professional learning communities at work tm: best practices for enhancing students achievement*. Solution Tree Press.
- Groenewald, E., Kilag, O. K., Cabuenas, M. C., Camangyan, J., Abapo, J. M., & Abendan, C. F. (2023). The Influence of Principals' Instructional Leadership on the Professional Performance of Teachers. *Excellencia: International Multi-disciplinary Journal of Education (2994-9521)*, 1(6), 433-443.
- Gurr, D. (2014). Successful school leadership across contexts and cultures. *Leading and Managing*, 20(2), 75-88.
- Hargreaves, A., & Fullan, M. (2015). *Professional capital: Transformng teaching in every school*. Teachers College Press.
- Kilag, O. K. T., & Sasan, J. M. (2023). Unpacking the Role of Instructional Leadership in Teacher Professional Development. *Advanced Qualitative Research*, 1(1), 63-73.
- Kilag, O. K. T., Tiongzon, B. D., Paragoso, S. D., Ompad, E. A., Bibon, M. B., Alvez, G. G. T., & Sasan, J. M. (2023). HIGH COMMITMENT WORK SYSTEM AND DISTRIBUTIVE LEADERSHIP ON EMPLOYEE PRODUCTIVE BEHAVIOR. *Gospodarka i Innowacje.*, 36, 389-409.
- Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). How leadership influences student learning. Retrieved from <https://www.wallacefoundation.org/knowledge-center/Documents/How-Leadership-Influences-Student-Learning.pdf>
- Marzano, R. J., Pickering, D., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Ascd.



- National Council of Teachers of Mathematics. (2000). Principles and standards for school mathematics. Reston, VA: Author.
- National Research Council. (1998). Preventing reading difficulties in young children.
- Robinson, V. M., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational administration quarterly*, 44(5), 635-674.
- Sasan, J. M., & Kilag, O. (2023). From Teacher to School Founder: A Practicum Journal on Dr. Francisca T. Uy's Educational Journey. *Psychology and Education: A Multidisciplinary Journal*, 13(2), 159-165.
- Tañiza, F. N., Kilag, O. K., Groenewald, E., Andrin, G., Abella, J., & Cordova Jr, N. (2024). Leading the Way: A Strategic Approach to Large-Scale Educational Reform in Literacy and Numeracy. *Excellencia: International Multidisciplinary Journal of Education (2994-9521)*, 2(1), 47-57.
- Uy, F. T., Sasan, J. M., & Kilag, O. K. (2023). School Principal Administrative-Supervisory Leadership During the Pandemic: A Phenomenological Qualitative Study. *International Journal of Theory and Application in Elementary and Secondary School Education*, 5(1), 44-62.
- Vestal, P., Kilag, O. K., Alvez, G. G., Escabas, D., Ignacio, R., & Abendan, C. F. (2023). Bridging the Literacy Gap: A Multisensory Approach to Effective Intervention. *Excellencia: International Multi-disciplinary Journal of Education (2994-9521)*, 1(4), 156-168.
- Wayman, J. C., Midgley, S., & Stringfield, S. (2017). Leadership for data-based decision making: Collaborative educator teams. In *Learner-centered leadership* (pp. 189-206). Routledge.