

Transformational Management of the Principal in the Implementation of Deep Learning at SDN 10 Air Kumbang Banyuasin

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Abstract: This study aimed to analyze the transformational leadership practices of school principals in supporting the implementation of deep learning at SD Negeri 10 Air Kumbang, Banyuasin Regency. A qualitative case study approach was employed involving the principal, vice principal, and classroom teachers selected through purposive sampling because of their active roles in implementing deep learning. Data were collected through interviews, classroom observations, and document analysis and analyzed using the interactive model of Miles, Huberman, and Saldaña. The findings reveal that transformational leadership significantly facilitates the implementation of deep learning through idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. These leadership practices strengthen teachers' instructional competence, foster collaborative school culture, and promote meaningful, student-centered learning. This study contributes to educational management by demonstrating that transformational leadership functions as a strategic driver of instructional transformation and sustainable implementation of deep learning in elementary schools, particularly in rural educational settings.

Keywords: *transformational leadership, deep learning, school principal, elementary education, instructional leadership, educational management.*

A. Introduction

Educational leadership has become one of the most influential factors in improving school quality and promoting sustainable educational transformation. In the context of the twenty-first century, school principals are expected not only to perform administrative responsibilities but also to become transformational leaders capable of inspiring teachers, fostering innovation, and creating learning environments that respond to the demands of global education. Rapid technological development, curriculum reform, and increasingly complex student learning needs require school leaders to adopt leadership approaches that encourage continuous professional growth and meaningful instructional improvement (Clinciu, 2023).

Indonesia has recently introduced the concept of **Deep Learning** as an educational approach that emphasizes meaningful, conscious, and joyful learning experiences. Deep learning encourages students to develop higher-order thinking skills, creativity, collaboration, communication, and character development through authentic learning

experiences (Sugiyanto, 2025). Unlike traditional teacher-centered instruction, deep learning places students at the center of the learning process, enabling them to construct knowledge actively while solving real-world problems. Consequently, successful implementation of deep learning depends largely on the leadership capacity of school principals to create supportive school cultures, strengthen teacher competencies, and facilitate continuous instructional innovation (Adeoye et al., 2025).

Transformational leadership has been widely recognized as an effective leadership model for improving educational quality. According to Bass and Avolio (1994), transformational leadership consists of four fundamental dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. These dimensions enable school principals to motivate teachers beyond organizational expectations, encourage innovative teaching practices, and build collaborative professional communities (Yakob et al., 2025). Previous studies have demonstrated that transformational leadership positively influences teacher performance, organizational commitment, school climate, instructional quality, and student achievement (Tiwari & Fahrudin, 2024).

Although previous studies consistently report positive relationships between transformational leadership and teacher performance, school effectiveness, and organizational commitment, only a limited number of studies have examined how transformational leadership directly supports the implementation of deep learning in elementary schools. Moreover, empirical evidence from rural public elementary schools remains scarce despite the unique challenges related to teacher readiness, infrastructure, and instructional innovation. Therefore, this study addresses this gap by integrating transformational leadership theory with the implementation of deep learning in the Indonesian elementary school context.

Several international studies have reported that transformational leadership contributes significantly to educational innovation. Hallinger (2018) found that effective school leadership strengthens instructional practices through teacher empowerment and collaborative decision-making (Mincu, 2022). Likewise, Fullan (2020) emphasized that educational transformation requires visionary leaders who are capable of developing professional learning communities and promoting continuous improvement. Robinson et al. (2008) also concluded that leadership practices focusing on instructional improvement have stronger effects on student learning outcomes than administrative management alone (Akhmad, 2025).

In the Indonesian educational context, studies have examined transformational leadership in relation to teacher performance, organizational culture, and school effectiveness. Research by Andriani et al. (2018) indicated that transformational leadership significantly improves teachers' motivation and professional commitment. Similarly, explained that principals play strategic roles in implementing educational reforms through supervision, mentoring, and professional development. However, most previous studies have focused primarily on teacher performance or organizational effectiveness, while limited attention has been given to how transformational leadership

facilitates the implementation of deep learning in elementary schools (Chiazor et al., 2025).

The implementation of deep learning presents considerable challenges for elementary schools. Teachers are expected to redesign learning activities that promote critical thinking, creativity, problem-solving, collaboration, and reflective learning. Such instructional transformation requires continuous professional support, adequate learning resources, and a collaborative school environment (White et al., 2025). Without strong leadership, teachers may encounter difficulties in adapting instructional strategies, integrating technology, and implementing student-centered learning consistently. Therefore, transformational leadership becomes a critical factor in ensuring the successful adoption of deep learning practices (Sliwka et al., 2024).

Despite the growing body of literature on transformational leadership, a significant research gap remains regarding its role in supporting deep learning implementation within Indonesian elementary education. Existing studies generally examine leadership from the perspectives of teacher performance, school effectiveness, or organizational commitment, whereas empirical investigations integrating transformational leadership with deep learning implementation remain scarce. Furthermore, evidence from rural public elementary schools in Indonesia is still limited, although these schools face distinctive challenges related to infrastructure, teacher capacity, and educational resources.

This study addresses this gap by investigating the implementation of transformational leadership in supporting deep learning at SD Negeri 10 Air Kumbang, Banyuasin Regency. The study explores leadership practices adopted by the principal, teachers' responses toward these practices, and their contribution to creating meaningful learning experiences for students. By focusing on a public elementary school implementing deep learning, this research provides empirical evidence regarding leadership strategies that facilitate educational transformation in the Indonesian context.

The findings of this study are expected to contribute both theoretically and practically. Theoretically, the study enriches the literature on transformational leadership by integrating it with the concept of deep learning implementation in elementary education. Practically, the findings provide valuable recommendations for school principals, teachers, educational supervisors, and policymakers in designing leadership strategies that strengthen instructional innovation, improve teacher professionalism, and enhance the quality of learning in elementary schools.

B. Methods

This study employed a qualitative case study design to explore how transformational leadership was implemented by the principal in supporting deep learning at SD Negeri 10 Air Kumbang, Banyuasin Regency, South Sumatra, Indonesia. A qualitative approach was chosen to obtain an in-depth understanding of leadership practices and their influence on teaching and learning (Maral, 2022).

SD Negeri 10 Air Kumbang was purposively selected because it has actively implemented deep learning practices within the Merdeka Curriculum despite being located in a rural area. This context provides valuable insights into how transformational leadership supports instructional innovation under limited educational resources. Data collection was conducted sequentially through classroom observations, interviews, document verification, and member checking to strengthen data credibility and ensure the trustworthiness of the findings.

The participants were selected using purposive sampling and included the school principal, vice principal, and classroom teachers who were actively involved in implementing deep learning. Data were collected through semi-structured interviews, classroom observations, and document analysis, including lesson plans, supervision reports, and school policy documents (Karakose et al., 2021).

The research instruments consisted of interview guidelines, observation sheets, field notes, and document review forms. The interview questions were developed based on the four dimensions of transformational leadership proposed by Bass and Avolio (1994): idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Ayumi & Nasution, 2025).

Data were analyzed using the interactive model of Miles, Huberman, and Saldaña (2014), including data condensation, data display, and conclusion drawing. The credibility of the findings was ensured through source and method triangulation, member checking, and prolonged engagement. Ethical considerations were maintained by obtaining participants' consent and ensuring the confidentiality of all research data (Aquino et al., 2021).

C. Results and Discussion

The findings revealed that the implementation of transformational leadership by the principal played a significant role in supporting the implementation of deep learning at SD Negeri 10 Air Kumbang. The results were categorized into four dimensions of transformational leadership proposed by Bass and Avolio (1994): idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

The findings demonstrate that transformational leadership functions not merely as an administrative leadership approach but as a strategic mechanism for instructional transformation. By empowering teachers through continuous mentoring, collaborative professional learning, and academic supervision, principals create organizational conditions that enable sustainable implementation of deep learning. These findings extend Bass and Avolio's transformational leadership theory by illustrating its practical application in facilitating instructional innovation within elementary education under the Merdeka Curriculum.

Idealized Influence

The principal demonstrated idealized influence by serving as a role model in implementing school policies and promoting professional ethics. Teachers reported that the principal consistently encouraged discipline, integrity, and commitment to improving instructional quality. The principal also actively participated in academic supervision and classroom activities, creating a positive school climate that supported educational innovation. This leadership behavior increased teachers' confidence in implementing deep learning practices (Yousefi et al., 2025).

Inspirational Motivation

The findings showed that the principal effectively motivated teachers by communicating a clear vision of deep learning implementation. Regular meetings, collaborative discussions, and professional development activities encouraged teachers to adopt innovative teaching strategies. Teachers expressed greater enthusiasm for designing student-centered learning experiences that promoted critical thinking, creativity, collaboration, and active participation. These findings support previous studies indicating that inspirational leadership strengthens teachers' commitment to educational change (Idiko, 2023).

Intellectual Stimulation

The implementation of deep learning was strengthened through the principal's efforts to stimulate teachers' creativity and professional growth. Teachers were encouraged to develop innovative teaching modules, integrate digital learning resources, and apply problem-based and project-based learning approaches. Classroom observations indicated that students became more actively engaged in discussions, collaborative activities, and reflective learning. The findings demonstrate that intellectual stimulation contributes to continuous instructional improvement and meaningful learning experiences (Piaralal et al., 2026).

Individualized Consideration

The principal provided individualized support by recognizing teachers' professional needs and offering continuous guidance through academic supervision, mentoring, and constructive feedback. Teachers appreciated the opportunities to discuss instructional challenges and receive personalized assistance in implementing deep learning. This supportive leadership approach enhanced teachers' confidence, professional competence, and willingness to adopt innovative instructional practices (Nguyen et al., 2023).

Discussion

The findings indicate that transformational leadership serves as a key factor in facilitating the successful implementation of deep learning in elementary schools. The principal's ability to inspire, motivate, and empower teachers created a collaborative learning culture that encouraged instructional innovation and continuous professional development. These findings are consistent with Bass and Avolio's transformational

leadership theory, which emphasizes leadership behaviors that influence organizational commitment and educational improvement (Farahdiba et al., 2022).

Furthermore, the study supports previous research demonstrating that transformational leadership positively affects teacher motivation, instructional quality, and school effectiveness. By integrating transformational leadership with the principles of deep learning, the school successfully promoted meaningful, mindful, and joyful learning experiences. Teachers shifted from traditional teacher-centered instruction toward more student-centered pedagogical approaches that fostered critical thinking, creativity, communication, and collaboration (Lin et al., 2022).

Overall, the findings suggest that effective transformational leadership not only improves teachers' professional performance but also creates organizational conditions that enable the successful implementation of deep learning. Therefore, strengthening principals' transformational leadership competencies should become a strategic priority for improving the quality of elementary education and supporting sustainable educational transformation in Indonesia (Ishaqi et al., 2021).

D. Conclusions

This study concludes that transformational leadership plays a vital role in supporting the successful implementation of deep learning at SD Negeri 10 Air Kumbang, Banyuasin Regency. The principal demonstrated transformational leadership through the four dimensions of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. These leadership practices created a positive school culture characterized by collaboration, innovation, and continuous professional development, enabling teachers to implement student-centered learning more effectively (Dalkie & Botha, 2024).

The findings further indicate that transformational leadership enhances teachers' motivation, instructional competence, and commitment to educational improvement. Through continuous academic supervision, mentoring, collaborative learning, and professional empowerment, teachers became more confident in designing meaningful learning experiences that encourage students' critical thinking, creativity, communication, collaboration, and active participation. Consequently, the implementation of deep learning became more systematic and sustainable within the school environment (Erdurmazli, 2025).

This study also contributes to the existing literature by providing empirical evidence on the relationship between transformational leadership and deep learning implementation in Indonesian elementary schools. Unlike previous studies that primarily focused on teacher performance or school effectiveness, this research demonstrates how transformational leadership directly supports instructional transformation and the successful adoption of deep learning principles (Hilton et al., 2023).

Practically, the findings suggest that strengthening principals' transformational leadership competencies should become a strategic priority for educational policymakers,

school supervisors, and professional development institutions. Leadership training programs should emphasize instructional leadership, teacher empowerment, collaborative professional learning, and innovation management to support sustainable educational transformation. Future studies are recommended to involve a larger number of schools and participants, employ mixed-method or quantitative approaches, and examine additional factors influencing the implementation of deep learning across different educational contexts.

This study concludes that transformational leadership is a fundamental factor supporting the successful implementation of deep learning in elementary schools. Through idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, school principals create collaborative, innovative, and student-centered learning environments that strengthen teachers' professional competence and instructional quality. The study contributes theoretically by integrating transformational leadership with deep learning implementation in elementary education and provides practical recommendations for strengthening instructional leadership through continuous professional development, collaborative learning communities, and academic supervision. Future studies should involve multiple schools with diverse characteristics and employ mixed-method approaches to further validate these findings across different educational contexts.

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