

Implications of Transformational Leadership and Pedagogical Competence in Improving the Quality of Learning through Coaching in Academic Supervision in Elementary Schools: A Literature Review

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Abstract: This study examines the influence of transformational leadership and pedagogical competence on improving the quality of learning through a coaching approach in academic supervision at elementary schools. Utilizing a literature review, the study explores theories and related research on the role of transformational leadership in enhancing teacher competence, as well as how supervision using the coaching method can improve the quality of learning. The study indicates that transformational leadership and teachers' pedagogical competence are interconnected in creating a conducive, innovative, and student-centered learning process. Supervision accompanied by a coaching approach plays a crucial role as a continuous effort to develop teachers' pedagogical competence.

Keywords: Transformational leadership, pedagogical competence, learning quality, coaching, academic supervision.

Introduction

In the field of education, efforts to improve the quality of learning are inseparable from the role of strong leadership and teacher competence. As central drivers in schools, principals bear a significant responsibility for building a supportive, comfortable educational environment that is focused on achieving optimal learning outcomes. Transformational leadership, which emphasizes vision, motivation, and collaboration, has proven to be an effective approach in advancing the overall quality of schools. Principals with transformational leadership styles act as change agents who not only lead but also inspire teachers to develop their competencies and innovate in teaching and learning processes (Najm Al Inu et al. 2023).

The importance of transformational leadership is further highlighted in challenging educational contexts, such as the transition to the digital era and curriculum changes. Puspitarini (2022) demonstrated in her study that principals with transformational leadership styles are able to drive rapid adaptation to changes, as seen during the COVID-19 pandemic. Principals are expected to motivate teachers to adapt to online learning methods, utilize technology in teaching processes, and maintain education quality despite limitations. This underscores the crucial role of principals' transformational leadership in supporting teachers to innovate and overcome barriers in learning (Dianing Wiratmoko, Ngurah Ayu Nyoman M. 2022).

In addition to effective leadership, teachers' pedagogical competence is one of the essential pillars influencing the quality of learning in elementary schools. Pedagogical competence includes the ability to understand students' characteristics, design relevant and effective learning, conduct evaluations, and manage classrooms effectively. Lisa Retnasari, Yayuk Hidayah (2020) study emphasized the importance of developing tailored teaching materials to support future teachers' pedagogical competence in elementary schools, particularly in civic education. Developing relevant teaching materials aligned with the latest curriculum and providing practical learning guidelines can help future teachers address time and resource constraints during the learning process.

study by Sonthalia (2024) and Yossy Dipoyanti Surahmi, Ely Fitriani, Avi Andinini Pradita et al. (2022) found that teachers in West Java displayed excellent pedagogical competence in conducting integrated learning processes, with extensive teaching experience playing a key role. However, there is still room for improvement, especially in the use of more diverse and comprehensive teaching media. Teachers need to continuously enhance their professionalism through training and reflection. Elinda Rizkasari, Ifa Hanifa Rahman (2022) study showed that teachers' pedagogical competence significantly impacts the quality of learning. Efforts to improve teachers' competencies should include periodic training programs and evaluations to optimize and enhance the quality of elementary education.

According to studies by Suroto, Mintarni Triwinahyuwidy, Siti Aminah et al. (2024), pedagogical

competence has a direct impact on the effectiveness of the learning process. Teachers with strong pedagogical competence can design lessons tailored to students' needs, create well-structured lesson plans, and implement evaluations that support students' skill development Kinanty (2021). Pedagogical competence is particularly critical in elementary education, where students require an educational approach that is both supportive and nurturing Cahyana (2024). Despite these advancements, many elementary schools still face challenges in improving learning quality, both in terms of leadership and teacher competence. It is often observed that principals have not fully implemented transformational leadership, while many teachers still need to enhance their pedagogical competence to address new challenges in education Ika Rakhmawati (2021). This issue highlights the importance of professional development through academic supervision, particularly using coaching methods. Coaching in academic supervision allows for direct interaction between school leaders and educators, enabling principals to provide constructive assistance, guidance, and feedback to improve teachers' skills. Through coaching, principals can also help teachers reflect on their teaching practices and motivate them to achieve higher learning standards Othman (2015).

Effective academic supervision plays a vital role in overcoming the challenges faced by teachers, particularly in enhancing their pedagogical skills (Kadarwati 2016). Her study found that academic supervision through coaching not only improves teachers' reflective abilities but also fosters innovation in adaptive learning approaches to meet students' needs Juhadira et al. (2024). In this context, principals act as mentors and companions, focusing on the holistic development of teachers' competencies. This approach helps teachers become more confident in managing learning and provides creative solutions to classroom challenges Sonthalia (2024).

Previous studies, such as those by Lustiawati et al. (2024), have identified that principals' transformational leadership and teachers' pedagogical competence are complementary elements in optimizing the quality of elementary education. Lustiawati's study found that transformational leadership significantly impacts school quality by motivating teachers to continually grow. The findings indicate that the greater the implementation of transformational leadership by principals, the better the quality of learning in the school. Wahyuningsih's (2022) study highlighted the importance of leadership in creating a supportive work environment and boosting teachers' confidence in performing their duties. Transformational leadership significantly enhances teachers' motivation, and their self-efficacy plays a role in boosting their work motivation.

Gabriel Dammen, Burhan's (2022) study concluded that transformational leadership by principals significantly influences teacher performance at UPT SPF SD Inpres Galangan Kapal II in Makassar. Hypothesis testing results showed that stronger implementation of transformational leadership leads to better teacher performance. This journal underscores the importance of principals as central figures in driving educators' performance through leadership focused on transformation. Mohammad Sulaeman, Sudadio's (2022) study revealed that both transformational leadership by principals and teachers' self-efficacy have a significant positive relationship with professional teacher competence. Principals adopting transformational leadership inspire teachers to continually improve, while teachers with high self-efficacy are better equipped to face challenges in enhancing their professionalism.

Cira Nessy Palembang's (2023) study indicates that principals' transformational leadership can enhance teacher performance by fostering a conducive environment for innovation and collaboration. Teachers who feel cared for and supported are more likely to fully engage in their tasks, ultimately improving overall education quality. The practical findings of this study can serve as a reference for school leaders and policymakers to develop effective leadership strategies to support teachers' professional development. Fadilah Dimas's (2024) study found that transformational leadership by principals at SD Negeri Banjarmasin Timur is well-regarded by teachers. Principals are seen as capable of motivating and inspiring teachers while creating a supportive work environment. However, further studies with broader scopes are needed to validate these implications in different contexts. In summary, principals as transformational leaders play a vital role in developing teachers' skills and competencies through methods that support continuous learning.

Although numerous studies have examined the essence of transformational leadership and pedagogical competence separately, few have specifically analyzed the effectiveness of coaching in academic supervision as a method for developing teachers' pedagogical competence under the transformational leadership of principals. This study is crucial for understanding how coaching, as part of academic supervision, can serve as an effective medium for helping teachers achieve the desired pedagogical competence standards and, ultimately, improving the quality of learning in elementary schools.

This study aims to examine the impact of principals' transformational leadership and teachers' pedagogical competence on learning quality, with a focus on implementing coaching in academic supervision in elementary schools. The study is expected to provide insights into how these three elements can synergize to create a conducive and sustainable educational environment and contribute to the development of more effective academic supervision models at the elementary school level.

Research Method

This study employs a literature review approach to analyze the contribution of transformational leadership and pedagogical competence to improving the quality of learning through coaching methods in academic supervision at primary schools. A literature review is a research method that collects, analyzes, and interprets data from various academic sources, such as scholarly publications, reference books, and previous studies relevant to the topic discussed. Using this method, the study focuses on gaining a deeper understanding of theoretical concepts and documented empirical evidence related to transformational leadership, pedagogical competence, and coaching in academic supervision (Marinu Waruwu 2023).

The literature utilized in this study is selected based on the criteria of relevance, validity, and depth of analysis, particularly focusing on: (1) Literature discussing the concepts and applications of transformational leadership in education, especially the role of principals as agents of transformation to improve learning quality. (2) Literature elaborating on the importance of teachers' pedagogical competence in achieving optimal learning quality, including indicators such as lesson planning, understanding student characteristics, and assessing learning outcomes. (3) Literature exploring the role of coaching as a method of academic supervision that enhances reflective skills, collaborative abilities, and teachers' motivation to develop and innovate in teaching.

Several key references analyzed in this study include research conducted by (Puspitarini 2022), Lustiawati et al. (2024), Dwikurnaningsih et al. (2018), (Ika Rakhmawati (2021), Lisa Retnasari, Yayuk Hidayah (2020), Tanggulangan et al. (2023), and additional sources that explain how coaching approaches can be applied by principals in the context of academic supervision in primary schools.

Data Collection. The data collection process for this study involves identifying and gathering relevant articles and academic books from various electronic databases, such as educational journals and online libraries. The procedures for data collection include: (1) Identifying key topics related to transformational leadership, pedagogical competence, and coaching in academic supervision. (2) Conducting literature searches through databases such as Google Scholar, Knowledge Maps, and ResearchGate using keywords like "transformational leadership in education," "pedagogical competence of teachers," and "academic supervision coaching in primary schools." (3) Selecting literature that meets the criteria of relevance and recency (within the last five years), except for foundational theories considered classic references. (4) Reading and analyzing selected literature to uncover central themes and findings that support the objectives of this study.

Data Analysis. The data analysis is carried out using a thematic approach, allowing the researcher to identify recurring themes or patterns in the reviewed literature. The steps in data analysis include: (1) Highlighting significant sections in the literature that are relevant to transformational leadership, pedagogical competence, and coaching in academic supervision. (2) Categorizing coded data into main themes, such as the role of transformational leadership in motivating teachers, the impact of pedagogical competence on learning quality, and the effectiveness of coaching in academic supervision. (3) Synthesizing the findings into a conceptual framework that illustrates the association between the principal's transformational leadership style, teachers' pedagogical competence, coaching in academic supervision, and their influence on the quality of learning in primary schools.

Data Validation. Data validation in this literature review study is conducted through triangulation by data source, where the researcher compares findings from various sources to examine consistency and strengthen the validity of results. This study also employs several key articles that have undergone peer review and originate from reputable journals to ensure the accuracy of information and the relevance of theories used in the analysis.

The literature review method provides a clear framework for understanding the implications of transformational leadership and pedagogical competence on the quality of learning in primary schools through coaching in academic supervision. By employing this approach, the study is expected to contribute to both theoretical and practical aspects of improving the quality of primary education.

Results and Discussion

Research Findings. The study by (Nunu Nahnudin, Anis Fauzi (2023) notes that transformational leadership was initially introduced by James P. Spillane, Richard Halverson et al. (2006) and further developed by Bass, B. M., & Avolio (1994). Simanjuntak et al. (2022) Burns described transformational leadership as a mechanism through which leaders and followers mutually elevate morale and motivation. Bass later added that transformational leaders inspire subordinates to prioritize institutional interests or shared goals. Bass's theory emphasizes four main components of transformational leadership: (1) Idealized Influence: Leaders act as role models, influencing others through their actions and integrity. (2) Inspirational Motivation: Leaders inspire and provide vision and positive expectations to their followers. (3) Intellectual Stimulation: Leaders encourage creativity and critical thinking. (4) Individualized Consideration: Leaders address the individual developmental needs of each team member.

This transformational leadership model is highly relevant in the field of education, particularly in primary

schools, as it helps create an environment that supports teachers' professional development and holistic learning processes for students Roni Harsoyo (2022).

At the primary school level, the application of transformational leadership characteristics is reflected in several aspects, including: (1) Encouraging Teacher Creativity: Principals with this leadership style provide support for teachers to experiment with innovative approaches to enhance student learning outcomes. (2) Building Collective Commitment: Principals collaborate with teachers to achieve shared goals in improving education quality. (3) Empowering Teachers and Staff: Principals provide autonomy and the necessary resources to enable teachers to develop and innovate in their teaching.

Transformational principals foster close relationships with teachers, making them feel supported in overcoming challenges and motivated to deliver their best for students (Izzati et al. 2020). The primary school stage is critical for students' cognitive and affective development, and this leadership style plays an essential role in creating a supportive climate: (1) Enhancing Teacher Engagement: Teachers who feel supported by inspirational principals are more motivated to develop innovative teaching methods (Bass, B. M., & Avolio, 1994). This is crucial at the primary level, where creative and enjoyable teaching methods significantly enhance students' learning experiences. (2) Boosting Teacher Confidence: Transformational leaders tend to trust teachers, which in turn increases their self-confidence. This aligns with Bandura's (1977) self-efficacy theory, which suggests that empowered individuals are more confident and capable of achieving higher goals (Nabavi 2014). (3) Creating a Positive Learning Environment: Transformational leadership inspires teachers to collectively create a positive learning environment. A study by Kenneth Leithwood (2006) indicates that this leadership style contributes to improving a school's organizational climate (Dina Amsari, Etri Wahyuni 2024).

Transformational leadership is not only beneficial in primary schools but also has broader applications in other educational institutions, such as secondary and vocational education. In higher education settings, this leadership style helps address more complex challenges, including adapting to technological advancements and more sophisticated teaching methods. Examples include: (1) Adapting to Change: In secondary schools, principals with transformational leadership styles can encourage teachers to adapt their teaching methods to align with advancements in science and technology (Ajeung Laras Nurbaity, Serlina Agustin 2023). This fosters an adaptive learning culture among students and teachers. (2) Encouraging Teacher Collaboration: Transformational leadership encourages teachers to share ideas and resources, fostering collaboration, which is vital in secondary education due to the interdisciplinary nature of subjects. (3) Empowerment in Vocational Education: In vocational schools, transformational principals can facilitate teachers' participation in training relevant to the workforce, equipping students with the necessary skills for the job market.

Transformational leadership is a highly effective approach in education, particularly in primary schools, where leaders can provide the inspiration and support essential for teachers' professional development and student success. By understanding and applying transformational leadership, principals can create a positive learning atmosphere that fosters motivation and innovation in teaching (Dianing Wiratmoko, Ngurah Ayu Nyoman M. 2022).

Pedagogical Competence as a Determinant of Learning Quality. Pedagogical competence encompasses an educator's ability to plan, implement, and evaluate the learning process. This competence is crucial for creating an optimal, participatory, and inclusive learning environment. According to (Shulman 1987), a teacher must not only possess content knowledge but also pedagogical skills involving the understanding of how to deliver material effectively to students, referred to as **pedagogical content knowledge (Mulya Arifah, Suparta Rasyid 2023). In practice, a teacher's pedagogical competence involves several key elements, including: (1) Understanding Student Characteristics: Teachers must understand the diverse needs of students, including their learning styles and levels of comprehension. This is supported by the theory of multiple intelligences by Marenus (2023), which asserts that students have different types of intelligence, such as logical-mathematical, visual-spatial, and interpersonal. (2) Choosing the Appropriate Teaching Method: This refers to the skill of selecting the most suitable approach based on the characteristics of the material and the needs of the students. For example, the constructivist theory by Piaget and Vygotsky emphasizes the importance of experiential and collaborative learning (Wangsa et al. 2021). (3) Creating a Positive Learning Environment: This competence involves the ability to establish a learning atmosphere that fosters participation and inclusivity. According to Maslow's theory of motivation, students' needs to feel safe and valued must be met in order for them to participate optimally in learning (Ryan Hardiyanto 2023).

Relevance of Pedagogical Competence in Learning. Pedagogical competence is highly relevant in strengthening the quality of learning and students' understanding of lesson content. Based on various studies, high pedagogical competence in teachers has several positive effects on learning, such as: (1) Improving Student Understanding: Teachers with strong pedagogical competence can adapt their teaching approaches to suit students' abilities. For instance, teachers using differentiated instruction techniques, as described in Carol Ann Tomlinson's Differentiated Instruction theory, are better able to deliver lessons that are relevant to

students' abilities and preferences (Grisyelda Tabitha Kristy, Adistia Akses Alviani 2024). (3) Stimulating Student Interest in Learning: Teachers who understand various teaching techniques can maintain student interest. A study shows that students are more motivated to learn in environments where they feel acknowledged, and the learning process is interactive. Teachers with good pedagogical competence tend to use a variety of teaching methods, such as discussions, group projects, and case studies (Mulya Arifah, Suparta Rasyid 2023). (3) Managing an Inclusive and Participatory Classroom: Pedagogical competence also helps teachers create an inclusive learning environment. Teachers can use effective classroom management techniques to accommodate students with diverse needs and backgrounds. This approach aligns with (Dina Amsari, Etri Wahyuni 2024), which shows that students learn better in inclusive environments that support positive social interactions. Ika Rakhmawati (2021) emphasizes that pedagogical competence is a key factor influencing teaching effectiveness and student learning outcomes. Competent teachers can recognize and respond to various challenges students face, from academic difficulties to behavioral issues.

Pedagogical competence is crucial in teaching because it ensures that students receive quality education tailored to their learning needs. Here are the reasons why this competence is essential: (1) The Importance of Adapting to Student Diversity: Students come from diverse backgrounds and have varying learning styles and levels of understanding. Teachers with strong pedagogical competence can recognize this diversity and adjust their approaches so that all students feel engaged in the learning process. (2) Efficiency in Teaching Activities: Teachers with adequate pedagogical skills are generally more efficient in managing learning time, as they have a deeper understanding of the most effective approaches. According to Bloom's Mastery Learning theory, teachers who are skilled in planning and managing learning are better able to ensure that students master each concept before moving on to the next (Ulfah 2023). (3) Enhancing Critical Thinking Skills: Pedagogical competence is also crucial for developing students' critical thinking skills. Competent teachers encourage students to think deeply, explore concepts, and connect new knowledge with prior experiences or information (Wangsa et al. (2021).

The application of pedagogical competence in other areas, such as teacher training programs, informal education, or even online education, demonstrates its broad relevance beyond formal classroom teaching. Here are some of its applications: (1) Training Programs for New Teachers: Pedagogical competence is essential in training novice teachers to develop adequate skills for teaching in the classroom. Through these programs, new teachers are trained to plan lessons that meet students' needs and learn how to manage classroom dynamics. These programs are generally based on Kolb's experiential learning theory, which emphasizes the importance of learning through direct experience. (2) Vocational or Technical Education: In vocational education, pedagogical competence is crucial to ensure that the material delivered is relevant to the needs of the workforce. Teachers with strong pedagogical skills can tailor the training material to the skills required in the industry. In this context, Lave and Wenger's (1991) Situated Learning theory is highly relevant, as learning is more effective when it is directly linked to real-world practices (Misana Tri Sundari 2024). (3) Online Teaching: In virtual learning environments, teachers need different pedagogical competencies compared to face-to-face teaching. Teachers with strong pedagogical competence in online learning can create interaction and engagement among students virtually through the use of digital tools and interactive techniques. This is supported by Garrison, Anderson, and Archer's Community of Inquiry theory, which states that effective online learning environments require structured social interaction (Junus et al. 2022).

Pedagogical competence is a key component in education that determines the quality of learning and students' experiences in the classroom. Teachers who possess strong pedagogical competence are not only able to manage the classroom effectively but also create a learning environment that supports engagement, inclusivity, and optimal development of students' potential. The development of pedagogical competence is also relevant in various educational settings such as teacher training, vocational education, and online teaching. Through understanding and applying pedagogical competence, teachers can become more adaptive facilitators of learning, responsive to students' needs. This will contribute to the creation of a learning environment that supports both intellectual and social growth in students (E. Junaedi Sastradiharja, Ahmad Zain Sarnoto 2023).

The Influence of Coaching in Academic Supervision. Coaching in academic supervision is an approach where the supervisor acts as a mentor, supporting teachers to recognize their strengths and weaknesses, evaluate their teaching practices, and identify solutions to the challenges they face in learning. Unlike supervisory approaches that are directive or evaluative, coaching emphasizes dialogue and reflection to achieve comprehensive improvement of competencies. According to Costa and Garmston, effective coaching should focus on skill development through a collaborative learning process and aim to enhance performance by building self-awareness and professional autonomy in teachers (Liswantari Liswantari 2024).

Some key elements of coaching in academic supervision include: (1) Guidance through Reflection: Coaching encourages teachers to reflect on their teaching practices. According to Schön's (1983) reflection theory, the reflection process allows teachers to evaluate their experiences and practices, making continuous

improvements Bakhrudin All Habsy (2022). (2) Collaborative Approach: Coaching emphasizes the importance of collaboration between the supervisor and the teacher to build a relationship of mutual trust. According to Vygotsky's (1978) Zone of Proximal Development (ZPD) theory, the interaction between more experienced individuals (supervisors) and those who are learning (teachers) can help enhance skills and understanding Tamrin et al. (2011). (3) Enhancing Teacher Autonomy**: The goal of coaching is to empower teachers to develop solutions independently. In Deci & Ryan's Self-Determination Theory, the development of autonomy, competence, and relatedness are key factors influencing an individual's intrinsic motivation to grow and develop. By using coaching as an approach in academic supervision, the supervisor acts as a facilitator who helps teachers in their own learning process, rather than merely giving directions or feedback (Enzel D. S. Situmorang 2024).

Coaching is considered effective in improving teachers' competencies because this approach emphasizes personal and professional development through constructive and reflective dialogue. Here are some reasons why coaching in academic supervision is a beneficial method for enhancing teachers' competencies: (1) Increasing Teacher Autonomy in Addressing Challenges: Coaching provides space for teachers to identify and address learning challenges independently. In a study conducted by (Tanggulungan et al. 2023), teachers who received coaching were significantly more confident in applying new teaching techniques because they had the opportunity to explore solutions that suited their style and needs. (2) Encouraging Deep Reflection: The coaching process allows teachers to reflect deeply on their teaching experiences. By adopting a reflective method, teachers can identify weaknesses and strengths in their teaching, enabling them to design specific and appropriate improvement strategies. According to a study by Bakhrudin All Habsy (2022), deep reflection helps teachers understand the impact of their actions on students' learning processes. (3) Enhancing Adaptability to New Methods: Coaching also helps teachers more easily adapt to innovative teaching methods or approaches. According to constructivist theory, as explained by Piaget (1952), learning is an active process where individuals build understanding based on experience. Coaching supports teachers in integrating new methods with their existing understanding, making those methods more relevant and easier to implement (Marinda 2020). (4) Developing Interpersonal and Collaborative Skills: Coaching also helps develop teachers' interpersonal skills, as coaching takes place in a collaborative atmosphere that encourages effective communication. This approach aligns with Bandura's Social Learning theory, which suggests that positive social interactions can help individuals develop new skills. A study by Showers et al. (1996) found that effective coaching in academic environments can enhance teaching practices that directly impact student learning. The results of this study indicate that teachers involved in coaching are more motivated to try new approaches and have a higher sense of responsibility for their students' learning outcomes (Dina Amsari, Etri Wahyuni 2024).

Application of Coaching in Other Areas

Coaching is not only beneficial in academic settings but also has wide applications in professional development across various fields, including business, social organizations, and even within families. Here are some examples of its applications: (1) Coaching in the Business World: In the business environment, coaching is used to develop professional skills and help employees achieve both personal and organizational goals. In this context, coaching focuses on improving technical and managerial skills, as well as developing interpersonal abilities. As Goleman (1995) noted in his emotional intelligence theory, the ability to understand and manage emotions is key to building positive relationships in the workplace. Coaching in the business world helps individuals understand themselves, set career goals, and achieve continuous performance improvement (EE. Junaedi Sastradiharja, Ahmad Zain Sarnoto 2023). (2) Development in Social Organizations: Coaching is also beneficial in social organizations where members or volunteers need to improve their competencies to run programs effectively. For example, coaching can help organizational members enhance their communication skills, which are crucial for interacting with the community. According to Greenleaf's (1977) Servant Leadership theory, the leader's role is to serve and support the development of team members, helping them become more autonomous in achieving the organization's mission (Ostrowski et al. 2023). (3) Coaching in Informal Education and Families: Coaching can also be applied in informal educational settings, such as within families. Parents who apply coaching with their children tend to better support the development of their children's skills and knowledge independently. According to Whitmore, the coaching approach applied in family environments helps children feel supported and valued, making them more open to exploring their interests and talents. The success of coaching in various fields demonstrates that this approach is highly adaptable and can be tailored to the needs of each individual or group. Coaching creates a space where individuals feel heard, empowered, and motivated to continue developing O'Riordan et al. (2021).

Coaching in academic supervision is an extremely valuable approach for developing teachers' competencies. This approach emphasizes empowerment through reflection and collaboration, enabling teachers to increase their autonomy and capabilities in facing classroom challenges. In the context of education, coaching

has a positive impact on teaching and student learning outcomes because teachers are more confident and skilled in applying effective teaching methods. Furthermore, coaching also has wide applications in various areas outside the school environment, such as in business, social organizations, and informal education. This shows that coaching is a flexible approach that can be adapted to the needs of different work environments and supports personal and professional development (Sulistiyowati et al. 2021).

The Relationship Between Transformational Leadership, Pedagogical Competence, and Learning Quality.

Transformational leadership is a leadership model focused on positive change through empowering members of an organization, in this case, educators within schools. A school principal who adopts a transformational leadership style is not only a leader who provides direction but also serves as an inspiration for teachers to enhance their pedagogical competencies. According to Bass and Avolio (1994), transformational leaders have the ability to inspire and motivate their followers to achieve higher performance and support their self-development (Roni Harsoyo 2022).

A principal who implements transformational leadership plays an active role in the professional development of teachers through various training programs, workshops, and supervision. These programs are designed to present the latest knowledge and skills required in teaching. For example, through training, teachers can learn about innovative teaching methods and better classroom management techniques. Studies show that when teachers feel supported by their leaders, they are more motivated to learn and apply new practices in the classroom (Mustaqim 2023).

The guidance provided by a principal using a transformational approach is collaborative and focused on development. Constructive feedback can help teachers identify their strengths and areas that need improvement. According to Glickman, Gordon, and Ross-Gordon (2004), effective feedback is an essential element in the teacher learning and professional development process. With this support, teachers can more easily evaluate their teaching practices and formulate improvement strategies. Transformational leadership also fosters a culture of collaboration within the school. Principals who support cooperation among teachers will encourage the exchange of ideas and experiences, which in turn will enrich their pedagogical competence. Bandura's Social Learning Theory (1986) emphasizes that individuals learn through observation and interaction with others. Therefore, a collaborative and supportive environment helps teachers develop through shared experiences and learning from one another (Dina Amsari, Etri Wahyuni 2024).

Pedagogical competence is crucial in determining the quality of learning received by students. This competence includes understanding learning theories, the ability to design and implement effective teaching strategies, as well as the ability to assess and provide useful feedback to students Rosni (2021). Pedagogical competence includes: (1) Understanding Student Needs: Teachers with good pedagogical competence are able to understand and identify the diverse needs of students in the classroom. They can adapt teaching approaches that are relevant to students' characteristics and backgrounds. According to Gardner's (1983) theory of multiple intelligences, every student has a different learning style. A competent teacher can adjust their approach to meet these varying learning needs, thereby creating a more inclusive and effective learning experience (Marens 2023). (2) Navigating Complex Learning Challenges: In the modern era, learning challenges are increasingly complex, including the diversity of student backgrounds, the need for inclusive education, and the integration of technology into the learning process. Good pedagogical competence enables teachers to effectively face these challenges. For example, teachers who are proficient in educational technology can use digital tools to support learning and increase student engagement (Ajeung Laras Nurbaity, Serlina Agustin 2023). Studies by Bagus Setiawan, Eprinda Nurro'in Habibah et al. (2023) and (Fatimah et al. 2023) show that the appropriate use of technology can effectively improve student learning outcomes. (3) Creating Student-Centered Learning: Pedagogical competence is also related to the teacher's ability to create a student-centered learning environment. Student-centered learning is an approach that places students at the center of the learning process, with the teacher serving as a facilitator. According to the principles of constructivism (Crowther, 1999), students learn better when they are actively engaged in the learning process. A competent teacher can design activities that encourage student participation and collaboration, contributing to a deeper learning experience (Nur Efendi 2023).

Findings on the relationship between transformational leadership and pedagogical competence have broad relevance in the larger educational context, including: (1) Application at the University Level: At the university level, transformational leadership can be used to support faculty members in improving their pedagogical competence. By enhancing faculty's ability to design relevant curricula and use innovative teaching methods, higher education institutions can prepare graduates who are more ready to face challenges in the workforce. A study by Justine Tanuwijaya, Justine Tanuwijaya, Deasy Aseanty (2022) showed that faculty supported by transformational leadership were more capable of creating positive learning experiences for students. (2) Application in Informal Education: In the context of informal education, improving pedagogical

competence through a coaching approach also allows instructors to become more adaptive and responsive to the diverse needs of learners. For example, in skill training or community education programs, instructors with high pedagogical competence can be more effective in designing and delivering relevant material for their audience. According to a study by Mackenzie-Ruppel (2022), a coaching approach that supports skill development can enhance the effectiveness of instructors in various settings.

Transformational leadership plays an important role in enhancing teachers' pedagogical competence. By supporting professional development, providing constructive supervision, and fostering a collaborative atmosphere, principals can inspire teachers to continually improve their teaching practices. Good pedagogical competence, in turn, contributes to better learning quality for students. These findings are relevant for application in various educational contexts, both at the university level and in informal education, with the aim of improving the overall learning experience for students.

Conclusion

The conclusion of this study is that transformational leadership and pedagogical competence play a significant role in enhancing the quality of education in elementary schools, particularly through the implementation of coaching methods in academic supervision. A school principal with a transformational leadership style is able to create a conducive educational environment and encourage teachers to grow professionally. This is reflected in their ability to motivate, provide vision, and support the creativity and innovation of teachers in teaching.

Teachers' pedagogical competence becomes an essential pillar that directly contributes to the effectiveness of learning. Teachers with strong pedagogical competence can design and implement learning processes that are more tailored to students' needs, manage classrooms effectively, and conduct evaluations that support student development. The coaching method in academic supervision allows principals to interact directly with teachers, providing support, feedback, and constructive guidance, thus enhancing teachers' reflective skills and motivation to innovate.

With the synergy between transformational leadership, pedagogical competence, and coaching in academic supervision, the quality of learning in elementary schools can be significantly improved. The results of this study contribute to the understanding of the significance of the academic supervision model with a coaching approach for sustainable and more effective educational development.

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