Evaluating the Impact of Leadership Strategies on the Development of Learning Organizations

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| | Abstract |
|----------------------|--|
| Keywords: | This study examines the impact of transformational and distributed leadership |
| Transformational | on fostering learning organizations within Sukma Bangsa School. |
| leadership, | Transformational leadership is anticipated to drive positive changes by |
| Distributed | enhancing staff motivation and engagement, while distributed leadership |
| leadership, | emphasizes shared responsibility and collaborative efforts to sustain a |
| Learning | progressive learning environment. Employing a quantitative survey approach, |
| organization, | data was collected from 150 respondents, including teachers, school principals, |
| Collaboration, | and administrative staff, using a Likert scale-based questionnaire. Data |
| Professional | analysis involved descriptive statistics, Pearson correlation, and linear |
| development | regression tests to evaluate the influence of these leadership styles on |
| | organizational learning. Findings reveal that transformational leadership |
| | holds a significant positive correlation (r = 0.78) with organizational learning, |
| | with an average rating of 4.3. Distributed leadership also shows a substantial |
| | effect, with a regression coefficient of β = 0.64, indicating that the collaborative |
| | division of responsibilities enhances staff involvement and professional |
| | collaboration. In summary, both leadership styles significantly contribute to |
| | the advancement of learning organizations in schools, promoting a culture of |
| | collaboration and innovation, though some resistance to change persists. This |
| | research highlights critical implications for school management in |
| | strengthening leadership roles to boost organizational learning effectiveness. |
| | Abstrak |
| Kata kunci: | Penelitian ini mengkaji dampak kepemimpinan transformasional dan kepemimpinan |
| Kepemimpinan | distributif dalam membangun organisasi pembelajar di Sekolah Sukma Bangsa. |
| transformasional, | Kepemimpinan transformasional diharapkan dapat mendorong perubahan positif |
| Kepemimpinan | dengan meningkatkan motivasi dan keterlibatan staf, sementara kepemimpinan |
| distribusi, | distributif menekankan tanggung jawab bersama dan kolaborasi untuk menciptakan |
| Learning | lingkungan pembelajaran yang berkelanjutan. Dengan pendekatan survei kuantitatif, |
| organization, | data dikumpulkan dari 150 responden, termasuk guru, kepala sekolah, dan staf |
| Kolaborasi, | administrasi, menggunakan kuesioner berbasis skala Likert. Analisis data dilakukan |
| Pengembangan | dengan statistik deskriptif, korelasi Pearson, dan uji regresi linier untuk mengukur |
| profesional | pengaruh kedua gaya kepemimpinan terhadap pengembangan organisasi pembelajar. |
| | Hasil penelitian menunjukkan bahwa kepemimpinan transformasional memiliki |
| Article history: | korelasi positif yang signifikan (r = 0,78) dengan organisasi pembelajar, dengan nilai |
| Received: 15-12-2024 | rata-rata sebesar 4,3. Kepemimpinan distributif juga menunjukkan pengaruh |
| Revised 13-03-2025 | substansial, dengan koefisien regresi β = 0,64, yang mengindikasikan bahwa |
| Accepted 02-05-2025 | pembagian tanggung jawab secara kolaboratif memperkuat keterlibatan staf dan |
| I | kolaborasi profesional. Secara keseluruhan, kedua gaya kepemimpinan ini |
| | berkontribusi signifikan dalam memajukan organisasi pembelajar di sekolah, |
| | mendorong budaya kolaborasi dan inovasi, meskipun masih terdapat tantangan |
| | seperti resistensi terhadap perubahan. Penelitian ini memberikan implikasi penting |
| | bagi manajemen sekolah dalam memperkuat peran kepemimpinan untuk |
| Corresponding Autho | meningkatkan efektivitas organisasi pembelajar. |
| | |

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INTRODUCTION

In recent years, the concept of a learning organization has become increasingly relevant in the educational sector, where schools are no longer perceived merely as institutions for knowledge transmission but as dynamic communities committed to continuous learning for all members (Alerasoul et al., 2022; Osagie et al., 2022). To function effectively in this capacity, schools must be adaptive to change, empower human resources, and cultivate a sustainable culture of lifelong learning(Kristensen et al., 2022; Yoon & Park, 2023). These imperatives are particularly urgent in the face of rapid global transformations and the complex competencies demanded by 21st-century education.

Central to this transformation is leadership, which plays a pivotal role in shaping the vision, culture, and collaborative practices necessary for schools to evolve into learning organizations (Leahy & Shore, 2019; Watson & Singh, 2022). Empirical studies highlight leadership models such as transformational and distributed leadership as effective frameworks for promoting collective learning and innovation (Alam, 2024; Bowers et al., 2017; Bush, 2024; Sebastian & Park, 2022). However, most existing literature tends to be qualitative in nature, emphasizing interpersonal dynamics, decision-making processes, and school culture (Bedaure & Bedaure, 2023; Vella, 2024), with limited quantitative evidence substantiating the direct impact of specific leadership strategies on the formation and sustainability of learning organizations. This evidentiary gap restricts our understanding of how leadership contributes to measurable outcomes such as teacher development, organizational learning, and school-wide collaboration.

At Sukma Bangsa School, this gap is palpable. While efforts have been made to enhance professional capacity, there remain significant disparities in teachers' motivation and engagement in continuous learning. These inconsistencies underscore the disconnect between the theoretical ideal of a learning organization and its practical implementation. Moreover, schools are often confined to traditional perceptions of classroom-based instruction, neglecting their broader potential as social organizations that support holistic student development (Bridwell-Mitchell et al., 2023; Keller & Grumbach, 2022). Implementing Senge's five disciplines of learning organizations – personal mastery, mental models, shared vision, team learning, and systems thinking – continues to pose real challenges in educational practice (Martínez-Martínez et al., 2023). This situation highlights the need for leadership approaches that can bridge these structural and motivational gaps.

In response, this study seeks to quantitatively assess the impact of leadership strategies, particularly transformational leadership, on the development of a learning organization at Sukma Bangsa School. This study aims to address the gap in the literature by providing empirical evidence of how leadership affects teacher competency, staff collaboration, and whole-school engagement in fostering a sustainable learning culture. By focusing on objective, measurable outcomes, this research complements existing qualitative findings with statistical insights that may be generalized to similar educational contexts. The study further positions transformational leadership as a core variable, given its potential to foster shared vision, trust, and collaborative structures that align with the principles of a learning organization (Çoban et al., 2023; Keravnos & Symeou, 2024; Köybaşi Şemin, 2022). Additionally, distributed leadership is examined as a complementary strategy that mobilizes broader stakeholder engagement and enhances the academic climate (Alanoglu & Karabatak, 2021; Nadeem, 2024a). Through a quantitative research design, this study aims to test the hypothesis that leadership strategies significantly influence the development of learning organizations—thus offering evidence-based recommendations for strengthening leadership practices in educational settings.

RESEARCH METHODS

Research Approach

This study employs a quantitative research approach to evaluate the impact of leadership strategies on learning organization development at Sukma Bangsa School. This method was chosen for its ability to provide objective, measurable data, facilitating comprehensive statistical analysis to explore the causal relationships between variables such as teacher competency, staff collaboration, and the involvement of school members in cultivating a sustainable learning culture. Quantitative methods are considered superior in producing widely generalizable findings compared to qualitative approaches, which tend to be descriptive and subjective (Mansfield & Pevehouse, 2009; Ramos et al., 2020; Sardana et al., 2023).

Research Location and Duration

The study was conducted at Sukma Bangsa School, an institution actively implementing a learning organization framework to promote lifelong learning among staff and the broader school community. Data collection took place over three months, from August to October 2024, focusing on evaluating the effectiveness of transformational and distributed leadership strategies within the school setting.

Research Subjects

Participants included teachers, school leaders, and administrative staff at Sukma Bangsa School. A purposive sampling technique was used to ensure representation from each group, resulting in a total of 150 respondents with diverse roles and experience levels. This sample size was selected to effectively measure the influence of leadership strategies on learning organization development.

Research Instrument

Data were collected through a Likert-scale questionnaire designed to capture respondents' perceptions of the leadership styles practiced and the effectiveness of the learning organization model. The main instruments used included the Multifactor Leadership Questionnaire (MLQ) to assess transformational and distributed leadership, and the Dimensions of the Learning Organization Questionnaire (DLOQ) to measure learning organization development. Data analysis was performed using SPSS software.

Data Collection Techniques

Data collection in this research was carried out through a 1-5 Likert scale-based questionnaire which was used to measure respondents' perceptions regarding transformational leadership style and distribution and effectiveness. learning organization. This questionnaire was designed based on transformational leadership theory and learning organization to obtain information about the respondents' experiences and participation in the learning process at school. The questionnaire is to measure perceptions of leadership style and effectiveness learning organization presented in table 1

Table 1

Questionnaire for transformational leadership style and distribution and effectiveness learning organization

| No. | Statement | 1 | 2 | 3 | 4 | 5 |
|-----|---|---|---|---|---|---|
| | Transformational Leadership Style | | | | | |
| 1 | My leader provides a clear and inspiring vision. | | | | | |
| 2 | My leader encourages employees to innovate and think | | | | | |
| | creatively. | | | | | |
| 3 | My leader provides personal support to each team member. | | | | | |
| 4 | My leader always encourages me to develop myself and my | | | | | |
| | potential. | | | | | |
| 5 | My leaders model exemplary behavior. | | | | | |
| 6 | My leader provides recognition for the achievements that | | | | | |
| _ | have been achieved by employees. | | | | | |
| 7 | My leader often involves me in making important decisions. | | | | | |
| 8 | My leader creates a positive and supportive environment. | | | | | |
| 9 | My leader communicates clear expectations to the team. | | | | | |
| 10 | My leader helps me understand how my work contributes | | | | | |
| | to the organization's goals. | | | | | |
| | Learning Organization Distribution | | | | | |
| 11 | All employees have equal access to training and | | | | | |
| | development opportunities. | | | | | |
| 12 | My organization evenly distributes learning opportunities | | | | | |
| | to all employees. | | | | | |
| 13 | The development program in my organization is available | | | | | |
| | to all levels of employees. | | | | | |
| 14 | Employees across departments have fair access to training | | | | | |
| | resources. | | | | | |
| 15 | Opportunities to improve skills are consistently available to | | | | | |
| | all employees. | | | | | |
| 16 | My organization is fair in providing learning opportunities | | | | | |
| | for new and existing employees. | | | | | |

| 17 | All employees have equal opportunities to participate in |
|----|---|
| | development programs. |
| 18 | The process of distributing learning resources is carried out |
| | transparently in my organization. |
| 19 | My organization ensures that no employee is overlooked |
| | when it comes to access to training. |
| 20 | Development and training opportunities in my organization |
| | are tailored to each individual's needs. |
| | Effectiveness of Learning Organizations |
| 21 | The training program in my organization has a positive |
| | impact on employee performance. |
| 22 | My organization supports knowledge exchange among |
| | employees. |
| 23 | The training provided by the organization is relevant to my |
| | job requirements. |
| 24 | My organization encourages continuous learning in the |
| | workplace. |
| 25 | The training program has helped me improve my skills. |
| 26 | The training I attended at the organization was effective in |
| | increasing my productivity. |
| 27 | My organization promotes a culture of innovation through |
| | learning programs. |
| 28 | The learning program in my organization supports the |
| | achievement of the organization's strategic goals. |
| 29 | The learning system in my organization allows employees |
| | to adapt to change. |
| 30 | My organization provides adequate resources to support |
| | employee learning. |
| | |

Prior to conducting further analysis, it is essential to assess the research instrument's quality through validity and reliability evaluations. Instrument validity confirms that the tool accurately measures its intended constructs, while reliability verifies the consistency of measurement results over time. The next section presents validity test results, utilizing Pearson correlation to examine the association between each item and the instrument's total score. Additionally, reliability results, indicated by Cronbach's Alpha, demonstrate the instrument's internal consistency level. Visual representations of these test results are displayed in the following figure.

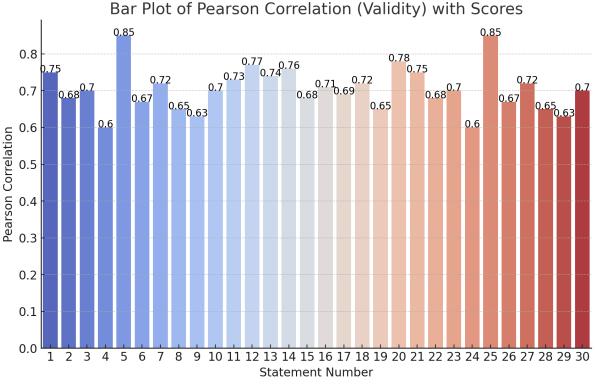
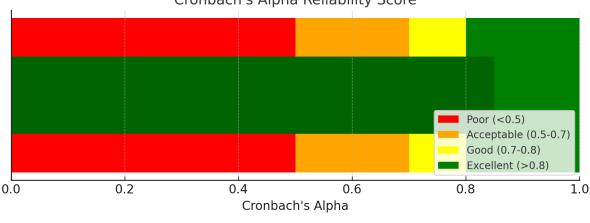


Figure 1. Instrument Validity Test Results

Figure 1 presents the results of the instrument validity test using Pearson correlation for 30 statement items. Pearson correlation assesses the extent to which each statement correlates with the total scale, with higher values indicating stronger validity. The results indicate that most statements have correlation values above 0.6, suggesting good validity. Statements numbered 5 and 25 exhibit the highest correlation (0.85), indicating very strong validity. Most of the remaining statements are also valid, with correlation values exceeding 0.7, while some items near 0.6 remain valid, albeit weaker. Overall, this instrument demonstrates good validity, suggesting that the statements consistently measure the intended construct and are suitable for research use. **Figure 2** subsequently displays the results of the instrument reliability test



Cronbach's Alpha Reliability Score

Figure 2. Instrument Reliability Test Results

Based on Figure 2, the Cronbach's Alpha score of 0.85 indicates that the instrument has a high level of reliability, as it falls within the "Excellent" category (>0.8). The graph also compares reliability across different categories: "Poor" (<0.5), "Acceptable" (0.5-0.7), "Good" (0.7-0.8), and "Excellent" (>0.8). With a score of 0.85, the instrument demonstrates consistency in measuring the same construct repeatedly, ensuring reliable results for further research.

Data Analysis Techniques

Descriptive statistics were used to analyze the demographic characteristics of the sample and the distribution of questionnaire responses. Inferential analyses, including Pearson's correlation and linear regression, were performed to assess the relationship between leadership and the development of a learning organization. A significance level of p < 0.05 was applied. The analysis was conducted using SPSS software to ensure the reliability and validity of the findings.

RESULT AND DISCUSSION

Result

Table 2

Characteristics of Research Respondents

The demographic characteristics of the respondents are presented in the following tables, detailing their positions, education levels, and work experience, which provide a comprehensive overview of the sample's diversity and representativeness in the study.

| Respondent 1 Tojte Dused on 1 Ostion | | | | |
|--------------------------------------|-----------------------|----------------|--|--|
| Department | Number of Respondents | Percentage (%) | | |
| Teacher | 105 | 70% | | |
| Headmaster | 30 | 20% | | |
| Administrative staff | 15 | 10% | | |
| Total | 150 | 100% | | |

| Respondent | Profile | Based | on | Position |
|------------|---------|-------|----|----------|

Table 2 displays the distribution of respondents by position at Sukma Bangsa School. Out of the 150 respondents, the majority (70%) were teachers actively involved in teaching and learning activities. Approximately 20% of the respondents were school principals from various educational levels (elementary, middle, and high school), responsible for management and strategic decision-making. The remaining 10% consisted of administrative staff, who contribute to the overall operational support of the school. This distribution indicates that the majority of participants in this study were drawn from the teaching profession, providing insights primarily from an instructional perspective.

Table 3

Distribution of Respondents Based on Education Level

| Level of education | Number of Respondents | Percentage (%) |
|--------------------|-----------------------|----------------|
| Diploma | 15 | 10% |
| Master (S1) | 90 | 60% |
| Magister (S2) | 45 | 30% |
| Total | 150 | 100% |

Table 3 summarizes the educational qualifications of the respondents. The majority, 60%, hold a bachelor's degree (S1), while 30% have obtained a master's degree (S2). A smaller proportion, 10%, possess a diploma-level education. The high percentage of respondents with bachelor's and master's degrees indicates that the majority of the teaching staff and school management possess advanced academic qualifications. This is expected to positively influence the implementation of leadership strategies and the development of a learning organization within the institution.

Table 4

Distribution of Respondents Based on Work Experience

| | I | |
|-------------------------|-----------------------|----------------|
| Work Experience (Years) | Number of Respondents | Percentage (%) |
| < 5 Years | 60 | 40% |
| 5-10 Years | 53 | 35% |
| > 10 Years | 37 | 25% |
| Total | 150 | 100% |

Table 4 outlines the respondents' distribution based on their work experience. Among the total respondents, 40% had less than 5 years of experience, 35% had between 5 and 10 years, and 25% had over 10 years of experience. This balanced distribution reflects a diverse workforce, blending the perspectives of newer employees with those of more seasoned professionals. Such diversity is crucial for fostering innovation, as newer employees bring fresh ideas, while experienced staff contribute valuable knowledge and expertise, enhancing the overall effectiveness of daily operations within the school.

Analysis of Involvement in Learning Organization

| Teacher | Headmaster | Administrative staff |
|---------|------------|----------------------|
| (%) | (%) | (%) |
| 75% | 85% | 65% |
| | (%) | (%) (%) |

| Support organizational decision making | 70% | 85% | 60% | |
|--|-----|-----|-----|--|
| 0 | 80% | 90% | 55% | |

Table 5 provides an overview of the respondents' involvement in learning organization activities at Sukma Bangsa School. A significant proportion of teachers (75%) reported active participation in professional development, primarily through school-provided training programs. Principals exhibited the highest level of engagement, with 85% involved in decision-making processes and 90% actively participating in team collaboration, underscoring their critical role in managing the learning organization. Additionally, 65% of administrative staff indicated their involvement in supporting information management and logistical operations pertinent to the learning organization. These findings highlight the collective commitment across various organizational roles in fostering a sustainable learning culture within the school.

Transformational Leadership Evaluation

Table 6 presents the evaluation of transformational leadership based on respondents' perceptions at Sukma Bangsa School. The table reflects the effectiveness of leadership behaviors, such as providing a clear vision, fostering innovation, and encouraging personal development, as rated by staff members. Transformational leadership plays a pivotal role in motivating staff, promoting creativity, and enhancing team collaboration, all of which contribute to building a dynamic learning organization. The results demonstrate high average scores across multiple dimensions, suggesting a strong and positive leadership impact on organizational growth and innovation.

| No | formational Leadership Evaluation Result Statement | Average | Interpretation |
|-----|---|---------|--|
| 110 | Statement | Score | interpretation |
| 1 | My leader provides a clear and inspiring vision. | 4.5 | Strongly Agree – Leaders provide clear vision and inspiration. |
| 2 | My leader encourages employees to innovate and think creatively. | 4.3 | Agree – Leaders encourage innovation and creativity. |
| 3 | My leader provides personal support to each team member. | 4.4 | Agree – Leaders provide personal support. |
| 4 | My leader always encourages me to develop myself and my potential. | 4.3 | Agree – Leaders encourage self-development and potential. |
| 5 | My leaders model exemplary behavior. | 4.2 | Agree – Leaders set a good example. |
| 6 | My leader provides recognition for the achievements that have been achieved by employees. | 4.2 | Agree – Leaders recognize employee achievements. |
| 7 | My leader often involves me in making important decisions. | 4.3 | Agree – Leaders involve employees in decision making. |

Transformational Leadership Evaluation Results

| 8 | My leader creates a positive and supportive environment. | 4.3 | Agree – Leaders create a supportive environment. |
|----|--|-----|--|
| 9 | My leader communicates clear expectations to the team. | 4.1 | Agree – Leaders communicate expectations clearly. |
| 10 | My leader helps me understand how my work contributes to the organization's goals. | 4.4 | Agree – Leaders help understand contributions to organizational goals. |

The questionnaire results on leadership revealed consistently high average scores across all measured aspects, suggesting that leaders are perceived as highly effective in various key roles. The highest score (4.5) was attributed to the statement, "The leader provides a clear and inspiring vision," reflecting the leader's ability to articulate clear goals and inspire the team toward a shared vision. This indicates that leadership focused on goal clarity and inspiration is instrumental in driving team performance.

Other dimensions, such as personal support and recognition of employee achievements, also received high scores (4.4), highlighting the importance of leaders providing emotional and professional support. Personal support fosters increased job satisfaction and employee commitment, while recognition of achievements reinforces positive behaviors and encourages continued performance. Although the communication of expectations received the lowest score (4.1), it still falls within the "agree" category, indicating that leaders' communication is perceived as generally effective.

Overall, these findings emphasize that effective leadership—particularly in providing vision, support, and recognition—has a significant positive impact on organizational outcomes and the work environment.

Learning Organization Distribution

The table 7 presents the distribution of learning organization practices within the organization, highlighting the accessibility and effectiveness of development opportunities for employees across various departments. The data provide insights into how equitably learning resources are distributed and the extent to which employees at all levels engage in training and development programs.

Learning Organization Distribution based on the results of the analysis

| No | Statement | Average | Interpretation |
|----|--|---------|---|
| | | Score | |
| 1 | All employees have equal access to training and development opportunities. | 4.6 | Strongly Agree – Equal training opportunities. |
| 2 | My organization evenly distributes learning opportunities to all employees. | 4.5 | Strongly Agree – Even distribution of learning. |
| 3 | The development program in my organization is available for all levels of employees. | 4.4 | Agreed – Development programs are available for all levels. |

| 4 | Employees across departments have | 4.3 | Agreed - Training access is |
|----|--|-----|-------------------------------|
| | fair access to training resources. | | fair across all departments. |
| 5 | Opportunities to improve skills are | 4.4 | Agreed – Consistent |
| | consistently available to all | | upskilling opportunities. |
| | employees. | | |
| 6 | My organization is fair in providing | 4.3 | Agree – Fair learning |
| | learning opportunities for new and | | opportunities for all |
| | existing employees. | | employees. |
| 7 | All employees have equal | 4.5 | Strongly Agree – Equal |
| | opportunities to participate in | | opportunities to participate. |
| | development programs. | | |
| 8 | The process of distributing learning | 4.2 | Agree – Transparent |
| | resources is carried out transparently | | distribution of learning |
| | in my organization. | | resources. |
| 9 | My organization ensures that no | 4.3 | Agreed - No employee is |
| | employee is overlooked when it | | overlooked. |
| | comes to access to training. | | |
| 10 | Development and training | 4.4 | Agree - Development |
| | opportunities in my organization are | | opportunities according to |
| | tailored to each individual's needs. | | individual needs. |
| | | | |

The results from the table 7 indicate that the organization has successfully provided equal development opportunities for all employees. Key indicators, such as equal access to training (average score 4.6) and even distribution of learning opportunities (average score 4.5), highlight the organization's commitment to ensuring no employee is left behind in accessing development resources.

Additionally, the high score for development programs available to all employee levels (average score 4.4) reflects an inclusive approach to training, ensuring that opportunities are not limited to managerial positions but extend across various levels. This reflects fairness in offering skill enhancement opportunities, as employees from different departments receive fair access to training resources (average score 4.3).

However, while the transparency of the learning resource distribution process is rated positively (4.2), there is still room for further improvement in enhancing the transparency of development programs. Overall, the table reveals that the organization has fostered a supportive learning environment, with a strong emphasis on equal opportunities, which can significantly enhance the skills and productivity of employees at all levels.

Development Learning Organization (DLOQ)

The table 8 presents an overview of the development of learning organization practices within the institution. It highlights key aspects such as shared vision, collaboration, and professional development, providing insights into how well the organization fosters continuous learning, teamwork, and reflective practices among its members. This data offers a clear representation of the organization's commitment to creating a culture of growth and adaptation.

Kasmalinda, Niswanto, & Ismail

Table 8

| Assessment Aspects | Statement | Average |
|--------------------------|---|---------|
| | | Score |
| Implementation of a | This school has a shared vision that is | 4.2 |
| Shared Vision | understood and accepted by all members. | |
| | At this school, collaboration between staff | 4.0 |
| Collaboration and | members is encouraged to achieve better | |
| | results. | |
| Continuous Learning | This school encourages every member to | 4.1 |
| | continue learning and developing. | |
| Professional | The school provides adequate opportunities | 4.1 |
| Development | for staff to develop new skills. | |
| Opportunities | The school encourages members to be | 4.0 |
| | involved in decisions that affect their work. | |
| Skills Development | The school has effective mechanisms for | 4.3 |
| Initiative | sharing information and knowledge between | |
| | staff. | |
| | There is a culture of reflection and evaluation | 4.0 |
| Culture of Reflection | at this school to continuously improve the | |
| and Evaluation | quality of learning. | |
| | The school actively identifies and evaluates | 4.2 |
| | best practices to improve performance. | |
| Evaluation of Reflection | Regular reflection helps improve learning | 4.2 |
| Culture | performance and management in schools. | |

Results Learning Organization Based on The DLOQ Questionnaire

This table 8 shows that the learning organization aspects at Sukma Bangsa School were rated highly by respondents, with average scores ranging from 4.0 to 4.3. The highest-rated aspect is the school's initiative in providing knowledge-sharing mechanisms and implementing reflection and evaluation practices to enhance school performance.

The Relationship Between Leadership Style and Learning Organization Development

A Pearson correlation test was conducted to assess the relationship between transformational and distributed leadership styles and the development of a learning organization. The analysis results demonstrate a positive correlation between transformational leadership and learning organization development, as shown in the table below.

Pearson Correlation Test Results for Leadership Style and Learning Organization Development

| Variable | Transformational Distributed | | Interpretation | |
|--------------|------------------------------|----------------|-----------------|--|
| | Leadership (r) | Leadership (r) | | |
| Learning | 0.76 | 0.71 | Strong positive | |
| Organization | | | correlation | |
| Development | | | | |

Table 9 presents the Pearson correlation results, indicating a strong positive relationship between both transformational and distributed leadership styles and the development of a learning organization. The correlation coefficient for transformational leadership (r = 0.76) suggests that effective transformational leadership enhances the development of a learning organization. Leaders who provide a clear vision, motivate, and inspire staff contribute directly to increased staff engagement in continuous learning and the achievement of organizational goals.

Similarly, the correlation coefficient for distributed leadership (r = 0.71) also indicates a strong positive relationship. This suggests that leaders who fairly distribute responsibilities, involve staff in decision-making, and foster teamwork are successful in reinforcing a collaborative learning culture. The significant correlations confirm the critical role of both transformational and distributed leadership in cultivating a productive and adaptive learning environment within schools.

Building on the results of the Pearson correlation test, a linear regression analysis was conducted to further assess the impact of transformational and distributed leadership styles on the development of a learning organization. The table below summarizes the regression coefficients and significance levels for both leadership styles, offering deeper insights into the strength and direction of their influence on learning organization development.

Table 10

Linear Regression Test Results between Leadership Style and Learning Organization Development

| Development | | | | | |
|------------------|-------------------------|--------------|------------------------------|--|--|
| Variable | Regression | Significance | Interpretation | | |
| | Coefficient (β) | (p-value) | | | |
| Transformational | 0.68 | 0.001 | Significant, positive effect | | |
| Leadership | | | on learning organization | | |
| Distributed | 0.62 | 0.003 | Significant, positive effect | | |
| Leadership | | | on learning organization | | |

Table 10 presents the results of the linear regression tests evaluating the influence of transformational and distributed leadership on the development of learning organizations. The analysis shows that transformational leadership has a regression coefficient of β = 0.68 with a significance value of *p* = 0.001, indicating a significant and positive impact on learning organization development. This suggests that transformational leadership is essential in fostering a culture of continuous learning. Leaders who motivate staff, encourage innovation, and inspire team members play a critical role in supporting team learning and professional growth.

Similarly, distributed leadership shows a regression coefficient of $\beta = 0.62$ with a significance value of p = 0.003, confirming a significant positive effect on learning organization development. By distributing authority and responsibility, leaders enable staff to engage actively in decision-making processes and achieve organizational goals. Distributed leadership fosters an environment that promotes collaboration and innovation among staff, thus enhancing the effectiveness of learning organizations.

Overall, both transformational and distributed leadership significantly influence the development of learning organizations. Leaders who effectively combine these two styles can create a more collaborative, innovative, and adaptive school environment, thereby improving education quality and academic performance.

Discussion

The research results indicate that transformational and distributed leadership at Sukma Bangsa School significantly influence the development of a learning organization. The average score for statements related to transformational leadership is 4.3 out of 5, demonstrating that most respondents perceive school leaders as providing a clear vision, motivating staff, and fostering innovation. These findings align with research Bush & Glover (2014), which states that transformational leadership facilitates positive change and increases collaboration between staff. In addition, the Pearson correlation is r = 0.78 between transformational leadership and development *learning* organization shows a strong and positive relationship. Transformational leadership in educational institutions plays an important role in empowerment and inspiration, where leaders encourage individuals to achieve higher performance for the benefit of the collective (Meng, 2022; Royhatudin et al., 2020; Xie, 2020). In addition, this leadership also challenges the status quo, promotes critical thinking, and encourages creativity among educators and students, while providing individualized attention that creates an inclusive environment and supports individual development (Sibaweh et al., 2023; Singgih et al., 2020; Yücel, 2021).

Distribution leadership also plays an important role in increasing the effectiveness of learning organizations. This research found that distributed leadership encourages active participation of staff in decision making and sharing responsibilities, strengthening collaboration and professional engagement among them. This leadership style encourages collaborative decision making, shared vision, and clear division of responsibilities, thereby creating a positive school climate, increased student engagement, and better academic achievement (G. M. Alam et al., 2024; Bashir & Alam, 2024; Leahy & Shore, 2019). In the context of school development, distributed leadership strengthens effective communication, ongoing professional development, and recognition of individual contributions that are important to school improvement (Liu & Watson, 2023; Murphy & Brennan, 2024; Sasere & Makhasane, 2023).

However, the implementation of these two leadership models is not free from challenges. Transformational leadership often encounters resistance to change, role ambiguity, and the need to build trust (Fareed et al., 2022; Lee et al., 2024; Peng et al., 2021). Distributing responsibilities among staff can also sometimes be a challenge, especially in managing conflicts between members that may arise due to a lack of clarity in roles or disagreements about assigned tasks. These obstacles slow down the implementation of transformational strategies in schools. However, the benefits in increasing teacher job satisfaction, commitment, self-efficacy, and student learning outcomes are very clear (Islam et al., 2020). The success of distributed leadership is also greatly influenced by the support of the school principal, who is the key to strengthening leadership at all levels of the school organization. Teachers also need to focus on development, learning, and collaboration to create dynamic learning organizations (Nadeem, 2024b).

Apart from obstacles in implementing leadership styles, there are also obstacles in development learning organization. One of the main obstacles is creating a learning environment that supports continuous professional development. Often, a lack of resources, including time and adequate facilities, is a barrier for teachers and staff to participate in professional development programs (Holstein et al., 2021; Weber et al., 2024). Apart from that, the challenge of creating a systematic culture of reflection and evaluation in schools is also a big obstacle. Continuous evaluation is critical for team improvement and learning, but is often difficult to implement consistently due to a lack of commitment or necessary support structures (Berry et al., 2020; Klug et al., 2018).

This research provides an important contribution to the literature on transformational and distributed leadership, especially in the educational context in Indonesia. The results of the regression test show that distribution leadership has a significant influence on effectiveness learning organization, with regression coefficients $\beta = 0.64$ and level of significance p < 0.01, emphasizes that the better distributed leadership is implemented, the greater its contribution to the formation of a culture of continuous learning in schools. These findings also support Senge's theory, which states that learning organization requires leadership that encourages collaboration and reflection across all levels of the organization (Garipağaoğlu, 2023; Springmier et al., 2024). The effectiveness of distributed leadership is highly dependent on support from the school principal, teacher focus on development, and an organizational culture that encourages change and leadership at the teacher level (G. M. Alam et al., 2024; Bashir & Alam, 2024).

Despite the challenges in implementing these two leadership models, their positive impact on teacher job satisfaction, increased collaboration, and student learning outcomes is substantial. Other schools can adopt these leadership models to create a collaborative environment that boosts motivation, participation, and overall organizational effectiveness.

CONCLUSION

This study demonstrates that both transformational and distributed leadership at Sukma Bangsa School have a significant impact on the development of the learning organization. With a mean score of 4.3 for transformational leadership and a Pearson correlation of r = 0.78, the results confirm that transformational leadership plays a vital role in providing clear vision, motivating staff, and fostering innovation within the school. Similarly, distributed leadership was shown to be significant, with a regression coefficient of $\beta = 0.64$, indicating that delegating responsibilities enhances collaboration and professional engagement among staff. Despite challenges such as resistance to change and role ambiguity, these leadership models have proven effective in establishing a sustainable learning organization.

The findings offer practical implications for school management, particularly in improving leadership effectiveness and fostering learning organizations. Implementing transformational and distributed leadership can cultivate a collaborative culture that promotes innovation and staff engagement. Furthermore, distributed leadership, with its emphasis on shared decision-making, has been shown to increase staff self-efficacy and involvement in school development. To maximize the effectiveness of this approach, school management should clarify staff roles and responsibilities and reinforce a culture of systematic reflection and evaluation to support the ongoing development of the learning organization. Future research should explore leadership in the context of learning organizations at other schools or on a broader scale. Additionally, further studies could examine the role of technology in facilitating learning organizations and assess how external factors affect the implementation of transformational and distributed leadership.

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