

A valid, practical, and effective transformational leadership–based educational management model for improving elementary school teachers’ performance in padang lawas regency

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ABSTRACT

This study aims to develop a transformational leadership–based educational management model that is valid, practical, and effective for improving elementary school teachers’ performance in Padang Lawas Regency, North Sumatra. The research was motivated by suboptimal teacher performance caused by conventional principal leadership practices and the limited integration of management functions with transformational leadership principles. The study employed a Research and Development (R&D) approach based on the Borg and Gall model, involving stages from preliminary study to final product refinement. Participants included principals and teachers from public elementary schools in Sosopan District. Data were collected through interviews, observations, questionnaires, documentation, and testing, and analyzed using qualitative and quantitative techniques, including validity, reliability, and effectiveness analysis. The results indicate that the developed model meets high criteria of validity, practicality, and effectiveness. Implementation across three trial stages demonstrated significant improvements in principals’ transformational leadership dimensions and teacher performance in planning, implementation, and evaluation of learning. The findings suggest that integrating educational management functions with transformational leadership principles can systematically enhance teacher performance and support sustainable school quality improvement.

Keyword: transformational leadership; educational management; teacher performance; school principal leadership; elementary schools

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1. INTRODUCTION

The success of an educational institution is largely determined by the quality of its educational management, and one of the primary factors influencing it is the leadership of the school principal. Principals hold strategic authority in managing educational resources, directing school policies, and ensuring the effectiveness of the learning process. Therefore, the quality of principal leadership is directly associated with teacher performance as the primary implementers of educational processes. According to Northouse (2020), leadership is the process of influencing individuals or groups to achieve shared goals through direction, motivation, and the development of collective commitment. This concept emphasizes that principal leadership constitutes a key element in the success of educational management.

In the context of modern education, school management is no longer limited to administrative functions but must also promote change, innovation, and improvements in instructional quality. Yukl (2020) states that effective leadership requires adaptive, transformational, and change-oriented capabilities. This requirement becomes increasingly important as demands for educational quality improvement, national policy implementation, technological advancement, and teacher competency development continue to grow in complexity. Research by Leithwood et al. (2021) indicates that principal leadership is the second most influential factor affecting learning success after teacher quality.

In line with these developments, transformational leadership is considered a relevant approach for improving teacher performance. Transformational leadership emphasizes value transformation, motivation enhancement, professional development of teachers, and the creation of a collaborative school culture. Bass and Avolio explain that transformational leadership consists of four core dimensions—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—which have been shown to enhance individual performance within educational organizations. Empirical findings by BK (2019) also demonstrate that principals' transformational leadership significantly influences teacher professionalism and performance.

Normatively, the importance of principal leadership is affirmed by the Indonesian Ministry of Education and Culture through Regulation No. 6 of 2018, which states that principals' primary workload includes managerial, entrepreneurial, and supervisory responsibilities. This standard is reinforced by Regulation No. 13 of 2007 on Principal Standards, which requires competencies in personality, managerial capacity, entrepreneurship, supervision, and social interaction. These regulations indicate that improving teacher performance cannot be separated from principals' managerial and leadership capabilities.

However, empirical conditions in Padang Lawas Regency reveal a gap between ideal expectations and actual practice. Monitoring results from 188 public elementary schools in the 2024/2025 academic year indicate that principals' performance remains in moderate to low categories, particularly in managerial competence, supervision, innovation, and motivation. This condition has contributed to suboptimal teacher performance, especially in lesson planning, instructional innovation, technology integration, and learning evaluation.

Preliminary studies conducted in Sosopan District further indicate that most principals still employ conventional and structurally oriented leadership styles. Such leadership patterns tend to centralize decision-making authority, limit teacher empowerment, and reduce opportunities for professional collaboration. Robbins and Judge argue that conventional and authoritarian leadership styles may reduce work motivation and organizational participation, ultimately affecting performance outcomes.

Observational findings also show that the implementation of transformational leadership remains limited. Key aspects such as shared vision development, teacher mentoring, reward systems, collaborative culture strengthening, and innovation stimulation have not been optimally implemented. Although numerous studies demonstrate that transformational leadership has a strong relationship with teacher performance, quality culture, and school effectiveness, existing research generally treats transformational leadership merely as an influencing variable rather than developing an operational, systematic, and context-specific educational management model for elementary schools.

This gap highlights the need to develop a transformational leadership-based educational management model capable of integrating management functions—planning, organizing, actuating, and controlling—with transformational leadership dimensions. Such a model is expected to serve as a practical framework for principals to improve teacher performance systematically, sustainably, and contextually in accordance with the characteristics of Padang Lawas Regency, North Sumatra.

Theoretically, transformational leadership has been proven to enhance organizational commitment, work motivation, and teacher performance. Empirically, numerous studies indicate that transformational leadership exerts both direct and indirect effects on improving teacher performance. Nevertheless, there remains a lack of educational management models specifically designed to enhance teacher performance through a transformational leadership approach at the elementary school level.

Therefore, the study entitled *A Transformational Leadership-Based Educational Management Model for Improving Elementary School Teachers' Performance in Padang Lawas Regency, North Sumatra* is important to conduct. This research aims to produce an educational management model that is not only conceptual but also applicable, empirically tested, and contextually relevant. The resulting model is expected to strengthen principals' capacity as transformational leaders, enhance teacher performance, and promote the realization of effective, innovative, and quality-oriented elementary schools.

2. RESEARCH METHOD

This study employed a Research and Development (R&D) approach aimed at producing a product in the form of a transformational leadership-based educational management model to improve elementary school teachers' performance in Padang Lawas Regency, North Sumatra. The R&D approach was selected because the study was not limited to testing theoretical constructs but also focused on developing a model that is valid, practical, and effective for implementation in educational management practice. The development procedure followed the Borg and Gall model, which consists of ten systematic stages: preliminary study, planning, initial product development, expert validation, product revision, limited trials, further revision, broader trials, model

refinement, and final product development. This design enabled the model to be developed progressively until it met feasibility standards.

The research was conducted in public elementary schools in Sosopan District, Padang Lawas Regency. The participants included school principals and teachers as model users, as well as expert validators consisting of educational management experts, educational leadership experts, and school practitioners. The data comprised both qualitative and quantitative data. Qualitative data were obtained through interviews, observations, focus group discussions (FGDs), and documentation to describe the objective conditions of principal leadership and the implementation of educational management. Quantitative data were collected through model evaluation questionnaires, teacher performance instruments, and model effectiveness testing results.

Data collection techniques included interviews, observations, questionnaires, documentation, and FGDs, which served as the basis for model refinement. Research instruments consisted of model validation sheets, practicality questionnaires, teacher performance instruments, interview guides, and observation sheets for model implementation, all of which had undergone validity and reliability testing. Data analysis was conducted using both qualitative and quantitative methods. Qualitative analysis was used to describe initial conditions, development processes, and model refinement, while quantitative analysis was used to evaluate model validity through expert judgment, practicality through user responses, and effectiveness through comparisons of results before and after model implementation. Effectiveness testing was conducted using appropriate statistical analyses to determine improvements in principals' transformational leadership and teacher performance.

3. RESULTS AND DISCUSSION

Based on the preliminary study conducted in several public elementary schools in Sosopan District, Padang Lawas Regency, it was found that principals' leadership patterns were still dominated by authoritarian and conventional leadership styles. This condition indicates that the implementation of transformational leadership as the basis of educational management has not yet been optimal. In fact, leadership is the ability to influence a group of people to achieve organizational goals through processes of motivation, direction, and the formation of shared commitment.

A. *Results of Model Trial Implementation*

The model (Transformational Leadership-Based Educational Management in Improving Teacher Performance) was developed through three groups of activities, namely preliminary study (pre-development), model development, and testing (model implementation). The pre-development stage was conducted using needs analysis. This served as a reference for problem formulation and sharpening research focus, strengthening theoretical foundations, and understanding empirical conditions in the field. This was carried out through literature review and surveys of empirical conditions regarding the implementation of educational quality management.

The results of this stage were used as the basis for selecting and determining draft models, strategies, media, or innovative actions for developing the prototype (model form). At this stage, information was collected regarding the model of transformational leadership-based educational management of elementary school principals in Padang Lawas Regency, with the objective of improving teacher performance through direct observation. The findings were then analyzed and compared with results of previous relevant studies and examined alongside various concepts and theories related to the implementation of transformational leadership-based educational management models in improving teacher performance.

In addition, the scope of the product (implementation of the transformational leadership-based educational management model), extent of use, supporting conditions, strengths and weaknesses of currently implemented models, and identification of advantages and limitations of the developed model were also examined. These activities functioned as needs analysis forming the foundation for developing the transformational leadership-based educational management model aimed at improving teacher performance, which would later be tested.

The theoretical model was developed in the development stage. This prototype could be constructed independently or by modifying existing products so that a draft prototype model ready for field testing was produced. In this development stage, the direction of model development for implementing transformational leadership-based educational management in improving elementary school teachers' performance in Padang Lawas Regency was formulated based on school transition needs and scope. The target of implementing this

model was improving teacher performance. The implementation of transformational leadership-based educational management consists of planning, organizing, implementing, and evaluating dimensions.

This theoretical model design was discussed with practitioners (lecturers/instructors and experts) who had relevant expertise in the field of Educational Management. The involvement of practitioners and academics was intended to assess the developed model design through Focus Group Discussion (FGD). Based on feedback obtained from the FGD, revisions were made and the model was then referred to as a hypothetical model. This hypothetical model was subsequently developed in the testing stage (model implementation) and continued to undergo revisions according to results of limited trials conducted in selected schools.

The hypothetical model was tested in Limited Trial Stage I, Stage II, and Stage III. Before conducting limited trials, the existing condition of teacher performance in public elementary schools in Sosopan District was first examined across several schools. Subsequently, the conditions of transformational leadership, work culture, job satisfaction, and teacher performance were also examined through distribution of validated questionnaires across several schools (pre-model testing). After obtaining these data, research scheduling was determined in coordination with supervisors and principals who would implement the model.

Limited Trial I was conducted in four schools through several stages: (1) pre-implementation or orientation stage, (2) implementation or mentoring stage, and (3) evaluation or reporting stage. During the orientation stage, researchers and supervisors listened to problems expressed by principals and teachers so that problems could be fully understood. At this stage, a comprehensive explanation of the model, implementation strategies, objectives of the trial, and expected positive impacts of applying the model was also provided. Agreements were also established with principals and teachers regarding the model to be implemented in schools so that they would comply with agreed rules to ensure smooth research activities.

During the implementation stage, principals applied the model according to guidance from researchers and supervisors. Principals were also provided with modules containing steps to be followed in implementing the model. In addition, during implementation, principals were accompanied by researchers or supervisors so that if difficulties in understanding the context arose, they could be immediately addressed. After implementation, the evaluation stage was conducted. Model implementation continued for one semester, although assessment of model implementation was conducted only for two months due to limitations of time, personnel, and research funding.

During the evaluation stage, researchers and supervisors collected required observational results which were then analyzed. Obstacles encountered and notes obtained during Limited Trial I were used as important points for revising and refining the model that would later be implemented in Limited Trial Stages II and III in other schools. These stages (orientation, implementation/mentoring, and evaluation) also applied to Limited Trial Stages II and III. After undergoing trials and improvements, a final model was obtained that could be used for educational management purposes.

This final model has been empirically proven to be applicable for improving teacher performance in public elementary schools. Therefore, if used to improve teacher performance, this model can serve as an alternative approach applicable in schools.

B. Model Validity, Effectiveness, and Practicality

Referring to the implementation results of Model Trials I, II, and III, it is known that the criteria of validity, effectiveness, and practicality of the model fall into high categories. Validity of research instruments is required to determine feasibility of instruments in collecting data so that they can capture the information needed. This means that testing of the model meets criteria of effectiveness and practicality, illustrating that the resulting model has useful value and positive benefits in realizing educational management in accordance with stakeholder expectations.

Based on analysis of validation data, it is known that the model along with all supporting components, both research tools and instruments developed, are valid with several revisions. In principle, devices and instruments used in model components were constructed based on theoretical foundations and model construction. Since validation activities were carried out simultaneously with implementation of model activities, revisions made to the model were accompanied by revisions to research devices and instruments.

Through validation activities, it is assumed that correction and assessment processes occurred from experts, hierarchically starting from evaluation of the model to be implemented, followed by evaluation of related devices and instruments. To minimize potential problems, the researcher selected experts experienced in developing research models as well as practitioners directly involved in educational management.

Theoretical mastery and experience of experts and practitioners indicated that the model could be practically implemented by principals in applying transformational leadership-based educational management. To confirm this, the model, devices, and instruments were tested in the field. Based on analysis of observational data on model implementation, it was concluded that achievement levels of model implementation in Limited Trials I, II, and III successively increased significantly. The illustration of implementation results in Trials I, II, and III can be seen in Figures 1 and 2.

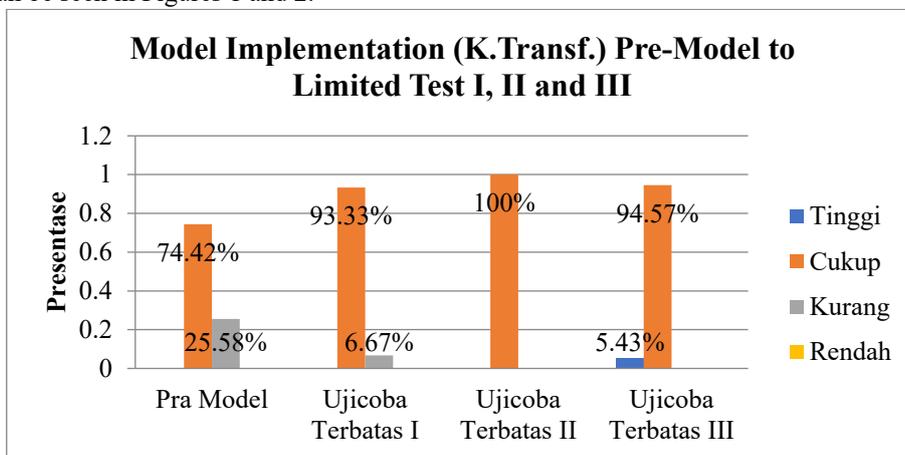


Figure 1. The Implementation Value of the Model in the Principal's Transformational Decree

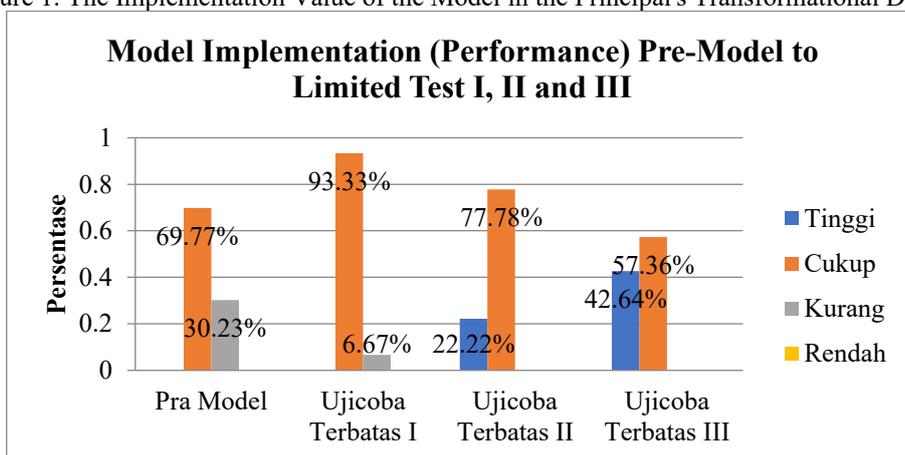


Figure 2. The Value of Model Implementation on Teacher Performance

Based on the diagram, it can be seen that the implementation aspect in Limited Trials I, II, and III increased compared to before the model was applied and tested in public elementary schools in Sosopan District, Padang Lawas Regency. This indicates that if the model is implemented consistently, the expected results will continue to improve. In the pre-model assessment (before the model was applied), it was found that the achievement levels of the two variables—leadership and performance—were in the moderate and low categories. Subsequently, after Limited Trial Stage I of the model was conducted, a significant improvement was observed in both variables. The longer the model was implemented consecutively in Limited Trials II and III, the better the improvement results, showing achievement in the high and moderate categories. This suggests that continuous implementation of the model is expected to produce increasingly satisfactory outcomes.

Based on the perceptions and experiences of experts, it was stated that the developed model could be effectively implemented by school principals in applying educational management in schools. To demonstrate the validity of this statement, field trials were conducted. To obtain an effective model, three limited trials were carried out. Model effectiveness was determined by the achievement of several aspects. First, the achievement of transformational leadership aspects of principals in implementing educational management, indicated by fulfillment of indicators such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Second, the achievement of thirteen additional transformational leadership aspects, including teachers' trust, teacher loyalty, teacher admiration, shared vision and goals, teachers' new perspectives in working, teachers' confidence to work better, teacher training, teacher coaching, teacher potential development, teacher needs, teacher motivation, appreciation of teachers' work results, and

recognition of outstanding teachers. Third, the achievement of improved performance levels based on aspects developed from the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform No. 16 of 2009, Article 15, as well as performance indicators including work quantity, work quality, effective time utilization, and teacher collaboration.

The achievement of these aspects can serve as a reference indicating that the model has had a positive impact on teacher performance. The implementation of this transformational leadership-based educational management model by school principals will improve teacher performance in public elementary schools in Sosopan District, Padang Lawas Regency. The results obtained from model implementation in Limited Trials I, II, and III resulted in increased teacher performance, as summarized in the following table.

Table 1. Summary of Observations on Transformational Leadership of the Principal of SDN Sosopan District, Padang Lawas Regency

School Name	Location	Mean					
		Limited Test I		Limited Test II		Limited Test III	
		July	Aug.	Sept.	Oct.	Nov.	Dec.
SDN 0301	Sosopan	-	-	67%	73%	76%	79%
SDN 0302	Hulim	-	-	68%	79%	79%	81%
SDN 0303	Aek Bargot	-	-	67%	77%	77%	79%
SDN 0304	Siundol	-	-	66%	75%	78%	81%
SDN 0305	Pagaran Bira	-	-	58%	71%	73%	77%
SDN 0306	Sosopan	58%	72%	-	-	77%	82%
SDN 0307	Siundol Jae	63%	75%	-	-	76%	79%
SDN 0308	Aek Bargot	-	-	56%	71%	75%	78%
SDN 0309	Pagaran Bira	56%	73%	-	-	75%	79%
SDN 03010	Simaninggir	58%	75%	-	-	77%	80%
SDN 03011	Hutabaru	-	-	-	-	67%	74%
SDN 03012	Banua Tonga	-	-	56%	71%	75%	79%

Based on the table, it can be clearly seen that there was an increase in principals' transformational leadership scores applied during Limited Trials I, II, and III, which resulted in improved teacher performance as illustrated in the previous trials. This indicates that the model has a positive and significant effect when implemented in improving teacher performance in public elementary schools in Sosopan District, Padang Lawas Regency, North Sumatra.

C. Model Testing Results

Based on the results of model testing in Limited Trials I, II, and III, a significant improvement was found between principals' transformational leadership and teacher performance, where increasing transformational leadership corresponded with improvements in teacher performance in public elementary schools in Sosopan District, Padang Lawas Regency. In comparison between the pre-model test (before the model was implemented) and Limited Trial Stage I, it was found that in the pre-model test, the tendency level of transformational leadership was 74.42% in the moderate category and 25.58% in the low category, whereas in Limited Trial Stage I the tendency level of transformational leadership was 93.33% in the moderate category and 6.67% in the low category.

Furthermore, in the pre-model test, teacher performance tendency was 69.77% in the moderate category and 30.23% in the low category, whereas in Limited Trial Stage I, teacher performance tendency was 93.33% in the moderate category and 6.67% in the low category. This proves that there was an improvement in results obtained, namely from before the model was implemented (pre-model), involving 43 participants from four schools, to Limited Trial Stage I involving 45 participants from four schools.

In the comparison between Limited Trial Stage I and Limited Trial Stage II, it was found that in Limited Trial Stage I, transformational leadership tendency was 93.33% in the moderate category and 6.67% in the low category, whereas in Limited Trial Stage II, transformational leadership tendency reached 100% in the moderate category.

Furthermore, in Limited Trial Stage I, teacher performance tendency was 93.33% in the moderate category and 6.67% in the low category, whereas in Limited Trial Stage II, teacher performance tendency was 22.22% in the high category and 77.78% in the moderate category. This proves that improvement occurred from Limited Trial Stage I involving 45 participants from four schools to Limited Trial Stage II involving 73 participants from seven schools. In Limited Trial Stage II, teacher performance scores reached 22.22% in the high category, differing from Stage I which remained only in the moderate category.

In the comparison between Limited Trial Stage II and Limited Trial Stage III, it was found that in Limited Trial Stage II, transformational leadership tendency was 100% in the moderate category, whereas in Limited Trial Stage III it was 5.43% in the high category and 94.57% in the moderate category.

Furthermore, in Limited Trial Stage II, teacher performance tendency was 22.22% in the high category and 77.78% in the moderate category, whereas in Limited Trial Stage III, teacher performance tendency was 42.64% in the high category and 57.36% in the moderate category. This demonstrates continuous improvement during model implementation in public elementary schools in Sosopan District, Padang Lawas Regency, with Stage II involving 73 participants from seven schools and Stage III involving 129 participants from twelve schools.

The research results indicate that the model has a significant effect on improving teacher performance, which includes fourteen aspects (indicators): (1) ability to formulate learning objectives in lesson plans according to curriculum/syllabus and student characteristics; (2) ability to prepare teaching materials systematically, logically, contextually, and up to date; (3) ability to plan effective learning activities; (4) ability to select learning resources/media according to materials and strategies; (5) ability to begin lessons effectively; (6) mastery of subject matter; (7) ability to apply effective learning approaches/strategies; (8) ability to utilize learning resources/media; (9) ability to stimulate and maintain student engagement; (10) ability to use correct and appropriate language; (11) ability to conclude lessons effectively; (12) ability to design evaluation tools; (13) ability to use various assessment strategies and methods; and (14) ability to utilize assessment results for feedback and instructional planning.

All fourteen aspects in experimental groups during Limited Trials I, II, and III showed significantly higher percentage averages compared with the conventional group (before model implementation), or pre-model condition.

Responses from principals and teachers regarding implementation of this model were also positive, as reflected in their satisfaction with its application in improving teacher performance. This includes increased understanding of the model concept as well as improved soft skills developed through its implementation in their work. During model implementation, principals and teachers received effective guidance and gained broader experiential learning opportunities, allowing deeper reflection, generalization, abstraction, and transfer. The experience gained from applying the model changed teachers' work habits from previously conservative approaches to more organized and effective practices, enabling expected outcomes to be achieved.

Descriptive analysis results regarding principals' transformational leadership during the pre-model stage (before application) were dominated by 74.42% in the moderate category and 25.58% in the low category. After application of the model in Limited Trial Stage I, percentage values increased compared to pre-model conditions. In Limited Trial Stage II, values increased further compared to Stage I, and in Limited Trial Stage III, values increased again compared to Stages II and I. Based on this, it is understood that there was an increase in transformational leadership values during Limited Trials I, II, and III.

Similarly, for teacher performance, pre-model assessment showed 69.77% in the moderate category and 30.23% in the low category. After model application in Limited Trial Stage I, percentage values increased. In Stage II, values increased further, and in Stage III, values increased again compared to previous stages.

Overall, this study produced knowledge regarding several factors influencing teacher performance in schools. Replication of this research can be conducted to strengthen more comprehensive conclusions by: (1) increasing the number of respondents; (2) expanding the scope of study; and (3) applying it across wider geographical areas.

D. Discussion

The novelty referred to in this study is the originality obtained from the results of the research analysis that has been conducted. Based on the applied model, it was found that the model implemented in Limited Trials I, II, and III produced significant changes in teacher performance in public elementary schools in Sosopan District, Padang Lawas Regency, North Sumatra Province. This model was constructed based on theories presented in Chapter II. The formation of the model was based on a review of theories discussed as supporting theoretical foundations, resulting in a model that can be used as a guideline to improve teacher performance through strengthening principals' transformational leadership in public elementary schools in Sosopan District, Padang Lawas Regency, North Sumatra.

The implementation of a transformational leadership-based educational management model needs to be applied to school principal leadership. This leadership model is implemented as one of the solutions to leadership crises among school principals, particularly in the field of educational management in schools. The reasons why transformational leadership needs to be applied in educational organizations are: (1) it

significantly improves organizational performance; (2) it is positively associated with long-term organizational orientation and teacher job satisfaction; (3) it generates stronger organizational commitment among members; (4) it increases employees' trust in management and organizational daily practices; (5) it enhances job satisfaction through both work and leadership; (6) it reduces employee stress; and (7) it improves well-being.

In developing this model, the process began with preliminary research and initial data collection to obtain information regarding problems faced at the target research location. Through this information-gathering process, the factual model that had been implemented by schools in educational management was identified. An illustration of this factual model is presented in Figure 3.

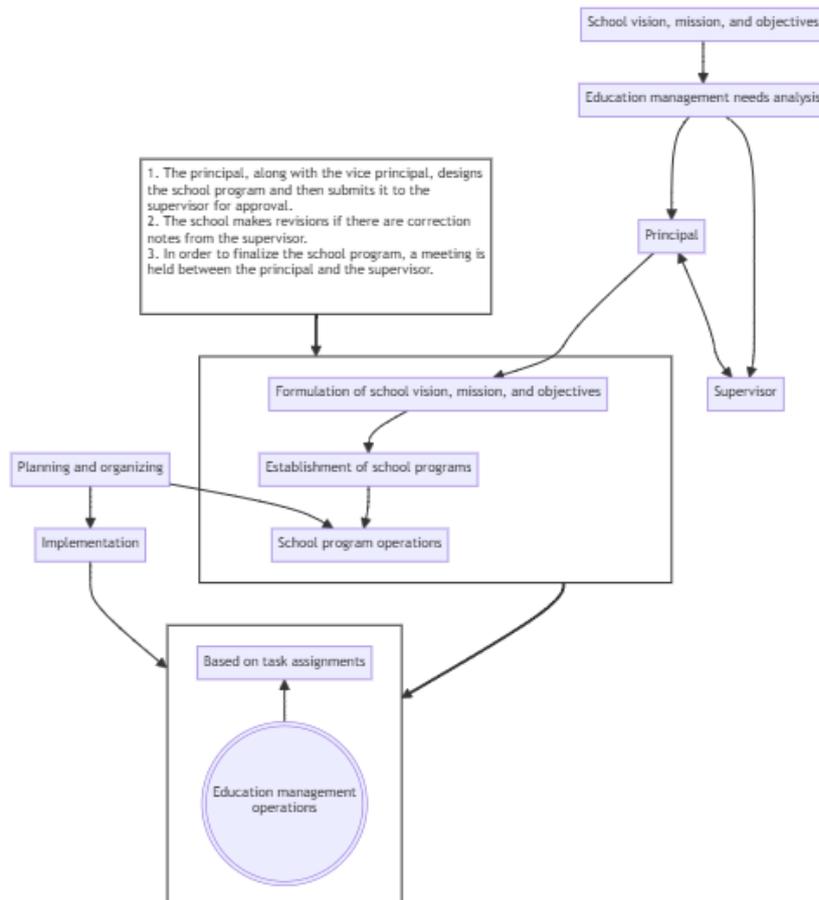


Figure 3. Factual Model

After obtaining this information, the process continued with research planning, including formulation of research objectives and identification of required research components. Supporting theories for model development were then examined. In the theoretical review, concepts of management, educational management, and transformational leadership were discussed as research foundations and research targets, namely improving teacher performance in public elementary schools in Sosopan District, Padang Lawas Regency. These were also linked to preliminary study findings derived from prior research, observations, and interviews. From these analyses, a conceptual model was identified.

The conceptual model then served as a reference for determining the theoretical model to be developed in order to obtain a hypothetical model. At this stage, a product design was created based on the conceptual model, followed by determining stages for field testing. The conceptual model was analyzed through field observations, needs identification, school characteristics, and component identification. After the theoretical model was identified, it was further analyzed and developed into a hypothetical model. In its development, preparation of the hypothetical model involved practitioners and prospective users of the model. The model design development was conducted using Focus Group Discussion (FGD) techniques involving school principals, supervisors, heads of local education offices, and educational management experts. In this FGD

process, member involvement needed to be intensive to produce a model capable of achieving research objectives.

Subsequently, the results of Limited Trial II were analyzed and evaluated to refine the wider trial or Limited Trial Stage III. Limited Trial Stage III involved all respondents, namely 12 schools and 129 teachers. Based on the results of this wider trial, it was found that the model significantly improved teacher performance in public elementary schools in Sosopan District, Padang Lawas Regency, North Sumatra. Ultimately, the model was designated as the final model because it successfully improved teacher performance in schools. The model produced satisfactory results and can serve as a reference for implementing the model across schools more broadly, including across different districts within Padang Lawas. An illustration of the final model is presented in Figure 4.

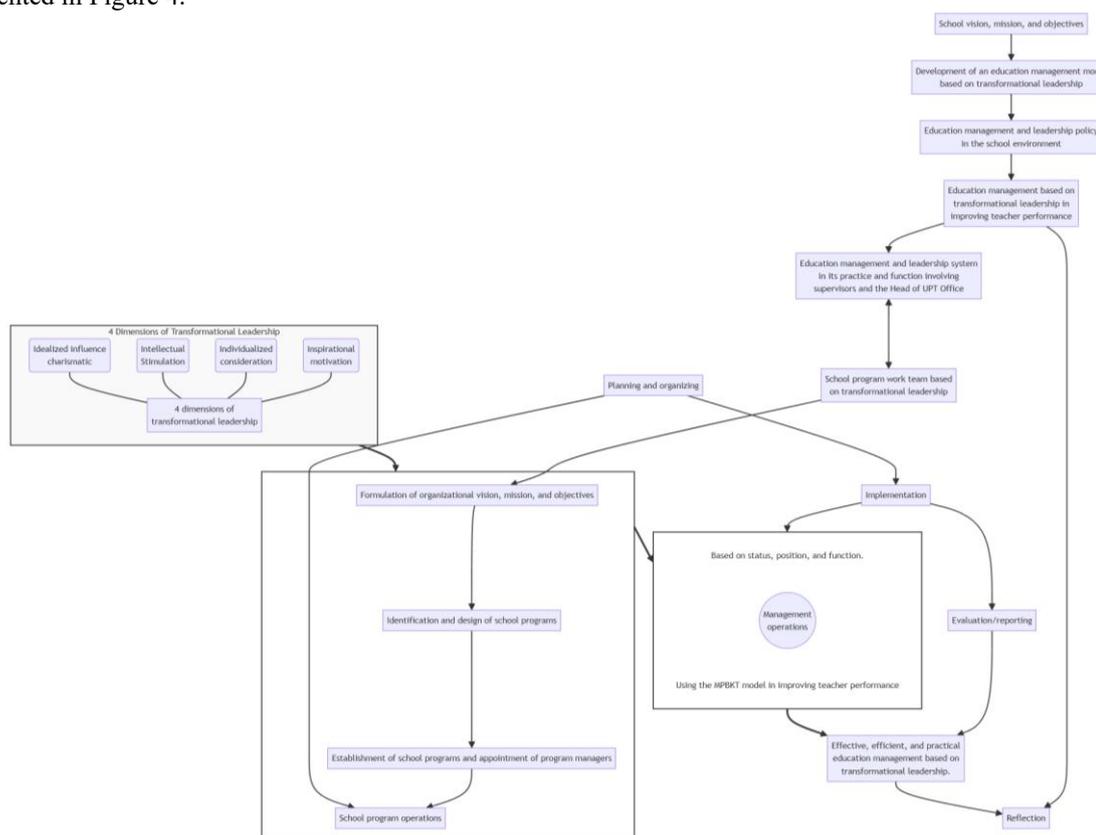


Figure 4. Final Model

During the process, the model was discussed and analyzed thoroughly by experts in educational management. After obtaining validation from experts, the model was then tested in public elementary schools in Sosopan District, Padang Lawas Regency. The trials conducted consisted of Limited Trials I, II, and the wider trial (Limited Trial III). Limited Trial I involved 45 teachers as respondents from four selected schools. The trial results showed that model implementation had a significant effect on improving teacher performance compared with conditions before the model was applied (pre-model). Findings and important notes from Limited Trial I were then analyzed, developed, and evaluated to refine model implementation in the subsequent trial stage.

Limited Trial II involved 73 teachers from seven schools. The results also showed a significant increase in teacher performance. The results of Limited Trial II were considerably better than those of Limited Trial I. However, minor notes were still identified during the implementation process. The results of Limited Trial II were then analyzed and evaluated for refinement prior to conducting the wider trial or Limited Trial Stage III. This stage involved all respondents, namely 12 schools and 129 teachers.

Based on the wider trial results, it was found that the model significantly improved teacher performance in public elementary schools in Sosopan District, Padang Lawas Regency, North Sumatra. Ultimately, the model was designated as the final model because it successfully improved teacher performance in schools. The model yielded satisfactory results and can be used as a reference for applying the model across various schools more broadly, including across different districts within Padang Lawas.

4. CONCLUSION

Based on the overall research and development process conducted in accordance with the Borg and Gall model, it can be concluded that the transformational leadership-based educational management model developed in this study is valid, practical, and effective in improving elementary school teachers' performance in Sosopan District, Padang Lawas Regency. In terms of validity, the model has undergone conceptual examination, expert validation through focus group discussions with educational management specialists and practitioners, as well as instrument testing that met scientific standards of validity, reliability, and accuracy, thereby confirming its theoretical and empirical feasibility.

Regarding practicality, the model is easy to understand and implement by school principals and teachers, received positive responses during socialization and limited trial stages I, II, and III, and was considered realistic and applicable within the elementary school management context. In terms of effectiveness, implementation of the model demonstrated significant improvements in principals' transformational leadership competencies—including idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—which directly contributed to enhanced teacher performance across planning, instructional implementation, and evaluation dimensions.

Therefore, the validated final model can be utilized as an innovative approach to educational management grounded in transformational leadership principles. It is not only applicable in public elementary schools in Sosopan District but also has the potential to be replicated in other elementary school contexts as a strategic solution for improving educational quality in a sustainable manner.

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