

Review Article

The Influence of Learning Leadership Competency Model, Management Leadership and Principal Decision-Making Ability on Pedagogical Competency and Teacher Performance

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ABSTRACT

The introduction highlights the significance of teachers in the education system and the challenges faced in achieving high-quality education in Indonesia. It emphasizes the need for effective teaching methods, creativity, and the role of teachers in shaping cognitive, affective, and psychomotor aspects of students. This section explores key theoretical concepts such as learning leadership, management leadership, decision-making ability, pedagogical competency, and teacher performance. It draws from established leadership models and management functions while defining the competencies required for effective teaching. The research employs a quantitative approach, utilizing a sample population to test hypotheses through Structural Equation Modeling (SEM). The section outlines the validity and reliability tests conducted, along with the R-Square test to measure variable influence. The results highlight the reliability of the instruments used and the R-Square values for teacher performance and pedagogical competency. Hypothesis testing reveals significant positive effects of management leadership, learning leadership competency, and pedagogical competency on teacher performance. The study concludes that decision-making ability does not directly impact teacher performance, but it significantly influences pedagogical competency. Management leadership and learning leadership competency have positive effects on both teacher performance and pedagogical competency. Pedagogical competency is identified as a key factor affecting teacher performance.

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Keywords: Learning Leadership Competency, Management Leadership, Decision-Making Ability, Pedagogical Competency, Teacher Performance, Structural Equation Modeling (SEM), Indonesian Education System.

1. INTRODUCTION

Teachers are the crucial key to creating quality human resources and spearheading the success of the learning process and quality results (Nur'Aini et al., 2019). The problems that exist in the world of formal education increase from year to year. One of the main problems the Indonesian nation faces is the low education quality at every educational level (Nawawi and Department, 2011). Many efforts have been made by the government, education offices, and stakeholders to evaluate, revise, and improve the quality of teachers and education. Nevertheless, these efforts will be meaningless without being supported by the role of teachers.

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The educational process is inseparable from teaching and learning activities in the classroom. The cooperation between teachers and students basically determines teaching and learning activities. Therefore, teachers are required to present the material optimally, so teachers need creativity and new ideas to develop ways of presenting and delivering subject matter when teaching (Wijaya, 2012). The creativity in question is the ability of a teacher to choose methods, approaches, and media that remain in the presentation of the subject matter. In the teaching and learning process, teachers as educators have a role in determining the quality of teaching they carry out, namely providing three aspects: cognitive aspects, affective aspects, and psychomotor aspects (Widayanti, 2014). In other words, the main tasks and roles of teachers are in the teaching field. Law No. 14/2005 on Teachers and Lecturers states that pedagogical competency is "the ability to manage student learning". In essence, competence refers to a person's ability to carry out their duties. The Ministry of National Education (2004:9) explains that "learning management competency" can be seen from the ability to plan teaching and learning programs, carry out interactions or manage the teaching and learning process, and conduct assessments.

According to Gusti (2012:4), "Teacher performance is the achievement obtained as a result of a teacher's work in carrying out the duties and responsibilities assigned to him, according to his authority and abilities". A similar view was conveyed by Rabiyah et al. (2012: 4), that "teacher performance is basically the activities of a teacher in carrying out his duties and obligations as a teacher and educator at school". Technically, "teacher performance is the teacher's activities in the learning process, namely how a teacher plans learning, implements learning activities, and assesses learning outcomes" so that the learning process runs effectively and efficiently. (Rusman, 2012; Setiyati, 2014; The Minister of National Education Regulation No. 41 of 2007).

Professional teachers are teachers who have the ability to create active, effective, and fun learning conditions so that when learning, students feel comfortable. In addition, teachers must also be able to organize learning, such as understanding the concept of material, the right way to deliver the subject matter and how to evaluate learning outcomes (Palobo et al., 2020). The duties and responsibilities of a teacher are stated in the Government Regulation of the Republic of Indonesia Number 19 of 2017 concerning Teachers. The regulation stipulates that the assessment of teacher competency standards is based on four main competencies: pedagogical competency, personality competency, social competency and professional competency.

The headmaster is the highest leader in the school, although leadership is situational, meaning that one type of leadership can be effective for specific situations and less effective for others. The headmaster's leadership can more or less influence education in the school environment. Schools also need a leader who is ready to work hard to advance the school and improve the quality of education in the school environment he leads.

The main activity carried out by schools is learning activities. Learning leadership is a crucial leadership model to be applied by the headmaster. Learning leadership is an action taken with the intention of developing a productive and satisfying work environment for teachers and ultimately creating conditions for increased student learning (Eggen & Kauchak, 2014; Gunawan et al., 2019a). Learning leadership is an effort to lead teachers to teach better, which in turn can improve student learning achievement (Daresh & Playco, 1995). The headmaster provides learning support; for example, the headmaster supports that teaching that focuses on the interests of student learning should be a priority (Patterson, 1993).

According to Brotosedjati (2002), the demand for school principals who have strong management and leadership skills is, in fact, inseparable from issues of educational praxis

and matters related to the decentralization of education, namely the issues that often arise, including the limited authority of school principals which has implications for the low effectiveness of achieving educational targets in schools. This issue also concerns the lack of authority given to school principals in developing school education management, including limited space for movement in utilizing educational resources allocated to schools.

Principal leadership is a way or effort of the principal to influence, encourage, guide, direct and mobilize teachers, students, parents and other related parties to work/play a role in achieving the set goals. Interpersonal communication skills and the headmaster's proper decision-making process will positively impact teacher performance. Principals not only provide direction and supervision to teachers, but they can also make decisions and communicate important matters to create a conducive and dynamic work atmosphere. Such an atmosphere, in turn, will be able to encourage the enthusiasm for the work of teachers, which in turn can stimulate their performance.

There are several studies related to this research, such as research conducted by Basyarian, which found that the application of authoritarian, democratic, and laissez-faire leadership styles with multicultural insights of junior high school headmasters in Palangka Raya City showed that the more appropriate the application of the principal's leadership style, the higher the competence of junior high school Islamic education teachers in Palangka Raya City. Likewise, research conducted by Amanahzuriah, Nurmadiyah, and Asmarians found from this study that Principal Leadership in State Elementary School 035 Tembilihan obtained the results that the principal's leadership and ability to make decisions affect teacher performance.

Based on previous research conducted by Basyarian and Amanahzuriah, the novelty of this research is the addition of pedagogic competency variables, learning models, and principal management skills. This study also used the SEM PLS test to process research data. The purpose of this study was to determine the effect of the Learning Leadership Competency Model, Management Leadership and Principal Decision Making Ability on Pedagogical Competency and Teacher Performance. So, researchers are interested in taking the title The Influence of Learning Leadership Competency Model, Management Leadership and Principal Decision-Making Ability on Pedagogical Competency and Teacher Performance.

2. THEORETICAL REVIEW

Learning Leadership

According to Bass and Aviola, as cited by Sri Rahmi, there are four dimensions in transformational leadership levels known as the 4I concept. The 4I concept consists of idealized influence, inspirational motivation, intellectual stimulation, and individual consideration.

a) Idealized Influence

Idealized influence behavior in the transformational leadership dimension is the behavior of leaders who have strong self-confidence, high commitment, have a clear vision, are diligent, hardworking, militant, consistent, able to show significant, extensive, and great ideas, and able to transmit them to the components of the educational organization.

b) Inspirational Motivation

Inspirational motivation behavior is one of the dimensions of transformational leader behavior that inspires, motivates, and modifies the behavior of the components of educational organizations to achieve unimaginable possibilities, inviting components of educational organizations to view threats as opportunities to learn and achieve.

c) Intellectual Stimulation

Intellectual stimulation behavior is one form of behavior from transformational leadership that seeks to increase subordinates' awareness of organizational self-problems, as well as efforts

to influence them to view these problems from a new perspective to achieve organizational goals, increase intelligence, rationality, and careful problem-solving.

d) Individual Consideration

Individual consideration behavior is a form of transformational leader behavior where he reflects, thinks, and continues to identify the needs of his subordinates, recognizes the abilities of his subordinates, delegates his authority, gives attention and appreciation, fosters, guides, and trains subordinates specifically and personally in order to achieve organizational goals, provides support, encourages and provides experiences about the career development of subordinates.

Management Leadership

Management in the context of organizational management is interpreted comprehensively, including various dimensions, including planning, organizing, directing, supervising, and utilizing organizational resources to achieve established goals. G.R. Terry (1978) defines management as planning, mobilizing activities, and achieving the desired results through the organization's involvement and utilization of human resources.

Thus, it can be said that management is the ability or power to organize a business and is responsible for the success and failure of the business. The dimensions of management are reinforced in accordance with the functions of management, which Terry (1978) termed POAC, which stands for Planning, Organizing, Actuating, and Controlling:

1. Planning is an activity that determines the goals to be achieved and thinks about how and determines the use of means in achieving these means.
2. Organizing is the management and arrangement of all the resources available in the organization, both human and material resources.
3. Actuating is the activity of moving and controlling all organizational resources in an effort to achieve goals.
4. Controlling or supervision is something that needs to be carried out so that members of the organization can work well together and make the same movement toward achieving the goals and general objectives of the organization.

Decision Making Ability

In the Dictionary of Science, decision-making is defined as the selection of a decision or policy based on certain criteria. This process includes two or more alternatives because if there is only one alternative, there will be no decision to be made.

George R. Terry describes the fundamentals of decision-making that apply as follows:

Intuition

Decisions made based on intuition or feelings are more subjective, which are easily exposed to suggestion, external influences, and other psychological factors. The subjective nature of this intuitive decision has several advantages, those are:

- Decision-making by one party makes it easy to decide.
- Intuitive decisions are more appropriate for humanitarian issues.

Decision-making based on intuition takes less time for problems of limited impact; intuitive decision-making generally provides satisfaction. However, this decision-making is challenging to validate because it is difficult to find a comparison. In other words, this is because one party only takes intuitive decision-making so that other things are usually ignored.

a) Experience

In this regard, experience can indeed be used as a guide in solving problems. Experiential decisions are precious for practical knowledge. Experience and the ability to predict what the background of the problem is and how it will be resolved help facilitate problem-solving.

b) Fact

Decisions based on sufficient facts, data, or information are indeed excellent and solid decisions, but obtaining sufficient information is quite challenging.

c) Authority

Decisions based on authority alone will lead to routine and dictatorial practices. Decisions based on authority are sometimes made by decision-makers, often bypassing the problem that should be solved and instead becoming vague or unclear.

d) Rational

Rational decisions are related to utilization. The problems faced are problems that require rational solutions. Decisions made based on rational considerations are more objective. In society, rational decisions can be measured if the optimal satisfaction of the community can be achieved within the limits of the community values recognized at that time.

Pedagogical Competency

Terminologically, pedagogical competency is an ability related to students' understanding of educational management and dialogical learning. In substance, this competence includes the understanding of students, designing and implementing learning, evaluating learning outcomes, and developing children to actualize their various potentials.

Pedagogical competency is the ability to manage student learning, which includes comprehension of students, design, and implementation of learning, evaluation of learning outcomes, and development of students to actualize their various potentials.

Furthermore, from the quotation taken by Muhammad Rahman, there is a Teacher and Lecturer Law No. 14 of 2005, the dimensions of competence that the teaching profession must possess are:

a) Pedagogical competency.

b) Professional competency.

c) Personal competency.

d) Social competency.

Teacher Performance

Whitmore simply states that performance is the performance of the functions required of a person. According to Whitmore, the definition requires the least need to succeed. Therefore, Whitmore put forward a definition of performance that is considered representative and then illustrates the great responsibility of one's work.

Based on the above understanding, actual performance far beyond what is expected is the performance that sets the highest standards of the person himself, which are always standards that exceed what others ask or expect. Thus, according to Whitmore, performance is an act, an achievement, or what a person shows through fundamental skills.

In assessing teacher performance, teacher performance has five dimensions, namely, quality of work, speed/accuracy of work, initiative at work, workability, and ability to communicate work.

3. MTEHOD

The research approach used in this research is a quantitative approach. The quantitative research method aims to test the hypothesis that has been set. Quantitative methods in the form of numbers derived from measurements using a scale on the variables in the study. The population of this study was the sample in this study was obtained by So that the number of samples becomes Data analysis used the Structural Equation Model (SEM) approach assisted by the Smart PLS application (Yannis & Nikolaos, 2018). The stages of data analysis in this study are:

Outer Model Analysis

1. Validity and Reliability Test

Validity and reliability tests are carried out to ensure that the measurements used are suitable for measurement (valid and reliable). Validity and reliability testing can be seen from:

a. Convergent Validity is an indicator that is assessed based on the correlation

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between the item score/component score and the construct score, which can be seen from the standardized loading factor, which represents the magnitude of the correlation between each measurement item (indicator) and its construct. Individual reflexive measures are said to be high if they correlate > 0.7.

- b. Discriminant Validity is a measurement model with reflexive indicators assessed based on cross-loading measurements with constructs. Discriminant validity is to compare the square root of Average Variance Extracted (AVE) values.
- c. Composite reliability is an indicator for measuring a construct, which can be seen in the view of latent variable coefficients. In this measurement, if the value achieved is > 0.70, it can be said that the construct has high reliability.
- d. Cronbach's Alpha is a reliability test that is conducted to strengthen the results of composite reliability. A variable can be considered reliable if it has a Cronbach's alpha value > 0.7.

Inner Model Analysis, commonly referred to as the Structural Model, is used to predict the causal relation between the variables tested in the model.

Table 1. Instrument Testing

Instrument Test	The Test Used
1. Validity Test	1. Convergent Validity 2. AVE
2. Reliability Test	3. Cronbach Alpha 4. Composite Reliability

2. R-Square Test

The R2 test is used to measure the model's ability to explain variations in the dependent variable.

Inner Model Analysis

Inner model analysis in testing using Smart PLS is conducted by testing the hypothesis. In hypothesis testing, it can be seen from the t-statistic value and probability value. For hypothesis testing, namely by using a statistical value, for alpha 5%, the t-statistic value used is 1.96. In contrast, the beta score determines the direction of influence of the relation between variables. The criteria for acceptance/rejection of hypotheses are

$H_a = t\text{-statistic} > 1,96$ with p-values score < 0,05.

$H_0 = t\text{-statistic} < 1,96$ with p-values score > 0.05.

4 . RESULTS AND DISCUSSION

Validity Test

A validity test is used to determine whether a questionnaire is valid or not. In this study, validity testing was conducted using convergent validity and AVE. Validity uses convergent validity, where the measurement model with indicator reflection is assessed based on the correlation between the item score/component score calculated by PLS. Individual reflection measures are considered high if they correlate more than 0.7 with the measured construction. However, according to Dahri (2017), a loading value of 0.5 to 0.6 is considered sufficient for early-stage research from the development of the measurement scale.

Table 2 Validity Test Results

Variables	Outer Loading	AVE	Description
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Learning Leadership Competency	X1.1	0.817	0.596	Valid
	X1.2	0.779		Valid
	X1.3	0.734		Valid
	X1.4	0.807		Valid
Management Leadership	X2.1	0.815	0.653	Valid
	X2.2	0.852		Valid
	X2.3	0.772		Valid
	X2.4	0.792		Valid
Decision-Making Ability	X3.1	0.785	0.624	Valid
	X3.2	0.781		Valid
	X3.3	0.814		Valid
	X3.4	0.749		Valid
	X3.5	0.728		Valid
Decision-Making Capability	Y1.1	0.803	0.616	Valid
	Y1.2	0.826		Valid
	Y1.3	0.765		Valid
	Y1.4	0.806		Valid
	Y1.5	0.748		Valid
Pedagogical Competency	Z1.1	0.750	0.587	Valid
	Z1.2	0.770		Valid
	Z1.3	0.754		Valid
	Z1.4	0.791		Valid

Reliability Test

This study uses 2 types of reliability tests: the Cronbach Alpha test and the Composite Reliability test. Cronbach Alpha measures the lowest value (lower bound) reliability. The data is considered reliable if the data has a Cronbach alpha value > 0.7. Composite reliability measures the actual reliability value of a variable. Data is considered highly reliable if it has a composite reliability score > 0.7.

Table 3 Reliability Test Results

	Cronbach's Alpha	Composite Reliability
Decision-Making Capability	0.830	0.880
Management Leadership	0.823	0.883
Teacher Performance	0.850	0.892
Learning Leadership Competency	0.793	0.865
Pedagogical Competency	0.766	0.851

The test results show that all instruments are considered reliable, with Cronbach Alpha and Composite reliability scores > 0.7.

R-Square Test

The R-Square Coefficient determination (R-Square) test is used to measure how much other variables influence the endogenous variable. Based on data analysis conducted

through the use of the Smart PLS program, the R-Square value is obtained as shown in the following table:

Table 4 R-Square Test

	R-Square	R-Square Adjusted
Teacher Performance	0.632	0.617
Pedagogical Competency	0.556	0.542

Based on the test results, the R-Square score for teacher performance is 0.632, which means that decision-making ability, management leadership, learning leadership, and pedagogical competency affect teacher performance by 63.2%, and the other 36.8% are influenced by variables that have not been explained in this study.

Based on the test results, the R-Square score for pedagogical competency is 0.556, which means that decision-making ability, management leadership, and learning leadership affect pedagogical competency by 55.6%, and 44.4% of others are influenced by variables that have not been explained in this study.

Hypothesis Test

Testing the hypothesis can be seen through the t-statistic value and probability value. For hypothesis testing using statistical values, for alpha 5% by comparing t-count with t-table. So, the criteria for acceptance or rejection of the hypothesis are H0 rejected if t-statistic > t-count. To reject/accept the hypothesis using probability, Ha is accepted if the p-value is < 0.05.

Table 5 : Result of data statistics

	Original Sample (O)	T Statistics (O/STDEV)	P Values
Decision-Making Capability -> Teacher Performance	0.169	1.842	0.066
Decision-Making Capability -> Pedagogical Competency	0.247	2.736	0.006
Management Leadership -> Teacher Performance	0.202	2.342	0.020
Management Leadership -> Pedagogical Competency	0.242	2.674	0.008
Learning Leadership Competency -> Teacher Performance	0.268	2.899	0.004
Learning Leadership Competency -> Pedagogical Competency	0.373	3.720	0.000
Pedagogical Competency -> Teacher Performance	0.292	3.253	0.001
Decision-Making Capability -> Pedagogical Competency -> Teacher Performance	0.072	2.111	0.035
Management Leadership -> Pedagogical Competency -> Teacher Performance	0.071	2.068	0.039
Learning Leadership Competency -> Pedagogical Competency -> Teacher Performance	0.109	2.218	0.027

Decision Making Ability -> Teacher Performance

The results of testing the hypothesis of the effect of Decision-Making Ability on Teacher Performance indicate that the p-value is **0.066**, higher than 0.05, and a t-statistic value of 1.842, lower than 1.660, and a beta score of 0.169. From the explanation above, it will be indicated that Decision Making Ability does not affect Teacher Performance.

Decision-Making Ability -> Pedagogical Competency

The results of testing the hypothesis of the effect of Decision-Making Ability on Pedagogical Competency indicated that the p-value is **0.006**, which is lower than 0.05, and a t-statistic value of 2.736, higher than 1.660, and a beta score of 0.247. From the explanation above, it will be indicated that Decision Making Ability has a significant positive effect on Pedagogical Competency.

Management Leadership -> Teacher Performance

The results of testing the hypothesis of the effect of management leadership on teacher performance indicated that the p-value is **0.020**, which is lower than 0.05, a t-statistic value of 2.342, which is higher than 1.660, and a beta score of 0.202. From the explanation above, it will be indicated that management leadership significantly affects teacher performance.

Management leadership -> Pedagogical Competency

The results of testing the hypothesis of management leadership's effect on pedagogical competence showed that the p-value is **0.008**, lower than 0.05, and a t-statistic value of 2.674, higher than 1.660, and a beta score of 0.242. From the explanation above, it will be indicated that management leadership significantly positively affects Pedagogical Competence.

Learning Leadership Competency -> Teacher Performance

The results of testing the hypothesis of the effect of Learning Leadership Competency on Teacher Performance indicated that the p-value is **0.004**, lower than 0.05, and the t-statistic value of 2.899, higher than 1.660, and a beta score of 0.268. From the explanation above, it will be indicated that Learning Leadership Competence significantly positively affects Teacher Performance.

Learning Leadership Competency -> Pedagogical Competency

Pedagogical Competency: this is shown that the p-value is **0.000**, which is smaller than 0.05. As well as a t-statistic value of 3.720, higher than 1.660, and a beta score of 0.373. So, from the explanation above, it will be indicated that Learning Leadership Competence has a significant positive effect on Pedagogical Competence.

Pedagogical Competency -> Teacher Performance

The results of testing the hypothesis of the effect of Pedagogical Competency on Teacher Performance indicated that the p-value is **0.001**, which is lower than 0.05, a t-statistic value of 3.253, higher than 1.660, and a beta score of 0.292. From the explanation above, it will be indicated that Pedagogical Competency has a significant positive effect on Teacher Performance.

Decision-Making Ability -> Pedagogical Competency -> Teacher Performance

The results of testing the hypothesis of the effect of Decision-Making Ability mediated by Pedagogical Competency on Teacher Performance indicated that the p-value is **0.035**, which is lower than 0.05, as well as a t-statistic value of 2.111, which is higher than 1.660 and a beta score of 0.072. The explanation above shows that Decision Making Ability mediated by Pedagogical Competency significantly affects Teacher Performance.

Management Leadership -> Pedagogical Competency -> Teacher Performance

The results of testing the hypothesis that Pedagogical Competency mediates the effect of management leadership on Teacher Performance indicated that the p-value is **0.039**, which is lower than 0.05, as well as a t-statistic value of 2.218, which is higher than 1.660 and a beta score of 0.071. So, from the explanation above, it will be indicated that management leadership mediated by Pedagogical Competency has a significant positive effect on Teacher Performance.

Learning Leadership Competence -> Pedagogical Competency -> Teacher Performance

The results of testing the hypothesis of the effect of management leadership mediated by Pedagogical Competency on Teacher Performance indicated that the p-value is **0.027**, which is lower than 0.05, as well as a t-statistic value of 2.068, which is higher than 1.660 and a beta score of 0.109. So, from the explanation above, it will be indicated that management leadership mediated by Pedagogical Competency has a significant positive effect on Teacher Performance.

5. CONCLUSION

Based on the results of research and discussion that has been conducted, it is concluded that Decision-Making Ability does not affect Teacher Performance. Decision-making ability has a significant positive effect on Pedagogical Competence. Management leadership has a significant positive effect on Teacher Performance. Management leadership has a significant positive effect on Pedagogical Competence. Learning Leadership Competency has a significant positive effect on Teacher Performance. Learning Leadership Competence has a significant positive effect on Pedagogical Competence. Pedagogical Competence has a significant positive effect on Teacher Performance. Pedagogical Competence has a significant positive effect on Teacher Performance. Management leadership mediated by Pedagogical Competence significantly positively affects Teacher Performance.

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