

The Effect of Competence and Self-Efficacy through Motivation on Teacher Performance

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Abstract:

This study aims to competence and self-efficacy through motivation on the performance of early childhood education teachers in the city of Kisaran, North Sumatra Province, Indonesia. This research is quantitative research with a survey approach. A total of 256 teachers were selected by random sampling from 711 early childhood education teachers in Kisaran city. Analysis of research data using path analysis statistical techniques. The results showed that the effect of competence and self-efficacy through motivation on teacher performance, namely (1) teacher competence has a positive and significant effect on motivation by 32.1%, (2) self-efficacy has a positive and significant effect on teacher motivation by 33.0%, (3) teacher competence has a positive and significant effect on performance by 38.5%, (4) self-efficacy has a positive and significant effect on teacher performance by 31.2% and (5) motivation has a positive and significant effect on teacher performance by 34.5%. While the effect of teacher competence through motivation on teacher performance is 11.0%, and the effect of self-efficacy through motivation on teacher performance is 11.3%.

Keywords: competence, self-efficacy, motivation, teacher performance

1. Introduction

Teacher performance is a fundamental element in the success of educational institutions. Teachers are not only responsible for transferring knowledge but also play an important role in shaping students' characters. The role of early childhood education in Indonesia is becoming increasingly important because this stage is the foundation of holistic child development, including cognitive, social, and emotional aspects [1]. The performance of early childhood education teachers in Indonesia, particularly in the city of Kisaran in North Sumatra province, faces significant challenges, ranging from a lack of competence to low work motivation. Good teacher performance is indicated by being able to fulfil and carry out all obligations and responsibilities as a professional. A teacher's performance certainly affects the quality of teaching and learning and student competence as expected from Indonesia's education goals [2]. Teacher performance is expected to improve the desired learning outcomes, produce active and interesting learning, and have an impact on student achievement and produce superior and quality graduates [3]-[4].

Teacher performance is influenced by several factors including teacher competence [5]-[6]. Teacher competence includes pedagogical, professional, social and personality aspects, often not fulfilled optimally [7]. Low teacher competence and professionalism is one of the main factors that hinder the quality of education in schools [8]. Low teacher performance has an impact on the quality of Indonesian education. As Indonesia's education ranking at the global level is still very low compared to other countries in the world. Indonesia ranks 67th out of 209 countries in the world [9].

In addition to competency factors, self-efficacy is also an important variable in teacher performance. Self-efficacy or an individual's belief in his or her ability affects how a person faces challenges and innovates [10]. Teachers often show low self-efficacy, especially in handling complex learning situations, such as dealing with students with special needs or adapting learning methods to a dynamic curriculum [11]. This

low self-efficacy results in a lack of initiative to improve teaching quality and an inability to overcome learning challenges that require creative solutions [12]-[13].

Work motivation is also a factor that greatly affects teacher performance [14]-[15]. Motivation can be intrinsic or extrinsic, such as the drive to provide the best for students or extrinsic such as financial rewards and recognition from society [16]. Based on a survey by the Asahan City Education Office in 2023, more than 60 per cent of early childhood education teachers have low work motivation. The lack of respect for teachers and the lack of structural support from school principals are the main causes that hinder their motivation. As a result, teachers only carry out routine teaching tasks, without providing innovation in learning which ultimately affects student learning development [17].

Referring to existing research, there is a significant relationship between competence, self-efficacy and motivation with teacher performance [18]-[20]. Good teacher competence not only increases self-efficacy but also encourages higher work motivation and affects teacher performance [21]-[22]. However, existing research still tends to examine these variables separately and only explain how they affect each other simultaneously. More in-depth research needs to be conducted to understand the interaction of these three variables to form a more comprehensive model that can explain the influence of each variable and its impact on teacher performance in the context of early childhood education teachers in Indonesia.

Based on the above description, this study aims to examine the relationship path of competence, self-efficacy and motivation to teacher performance, as well as the direct and indirect effects of competence and self-efficacy variables through motivation on teacher performance in Kisaran city, Indonesia.

2. Method

This research is a quantitative research in the form of a pathway to analyse the cause-and-effect relationship between variables in a research model. The path model describes how the independent variable affects the dependent variable through direct or indirect paths, and tests hypotheses about the relationship between these variables. This research design is in the form of a survey with a questionnaire as a data collection tool given to a research sample of 256 early childhood education teachers in the city of Kisaran, North Sumatra province, Indonesia from a population of 711 teachers. Survey design is the process of planning and creating an efficient survey to collect research data. It includes selecting the sample size, setting the desired response rate, selecting the survey medium, designing the questions, and determining how to analyse the data.

The data analysis process involves extracting meaning from the collected data, applying statistical techniques of path analysis, and interpreting the results to understand the implications of the research findings [23]-[24]. Instrument analysis was carried out in this study to see the validity and reliability of the instrument. Testing the validity of each instrument was carried out in this study to ensure that the statements in the questionnaire could accurately measure the desired aspects. The reliability test continues the validity test stage by using valid statements from the validity test [25]. The research data analysis technique uses the path analysis method to test the research hypothesis and the research path model as Figure 1.

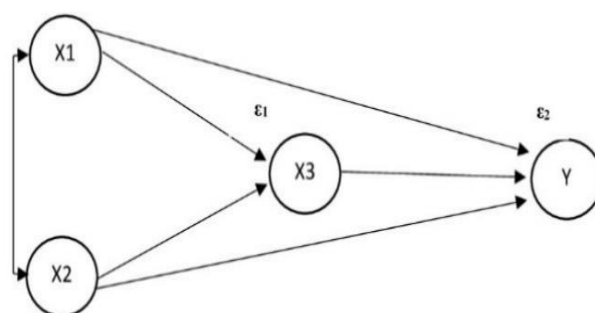


Figure 1. Research path model

Based on Figure 1, the path relationship analysis fulfils two structural equations as follows:

$$\text{Substructure - 1 : } X_3 = \rho_{X_3X_1} X_1 + \rho_{X_3X_2} X_2 + \epsilon_1 \dots \dots \dots (1)$$

$$\text{Substructure - 2 : } Y = \rho_{YX_1} X_1 + \rho_{YX_2} X_2 + \rho_{YX_3} X_3 + \epsilon_2 \dots \dots \dots (2)$$

Testing and decision making is done with t and F tests at a probability value of 0.05. If t count > t table and F count > F table with a probability of 0.05 then the hypothesis is accepted

3. Results and Discussion

This research data was collected through distributing questionnaires to 256 research respondents. The data that has been collected is then analysed by means of path analysis to see how strong the influence of each variable is with other variables, both direct and indirect effects. The data analysis in this study aims to test:

1. Direct effect, which is the effect of one exogenous variable on endogenous variables that occurs without going through other endogenous variables.
2. Indirect effect, which is the effect of one exogenous variable on an endogenous variable that occurs through another endogenous variable contained in an analysed causality model.
3. Total effect, which is the sum of direct and indirect effects.

The findings of this study indicate that the variables tested simultaneously have an influence. The simultaneous effect of teacher competency variables (X_1) self-efficacy (X_2) and motivation (X_3) influenced teacher performance (Y) by 0.652 or 65.2%. For the results of path analysis and the significance of the influence between variables as in Table 1.

Table 1 Summary of Path Coefficient Analysis Results of Sub Structure-1 and 2

Influence between Variables	Coefficient Path	t-count	F-count	Testing Results	R ²	e
X_1 to X_3	0,321	10,063	17,335	There is an effect	0,621	0,703
X_2 to X_3	0,330	5,290		There is an effect		
X_1 to Y	0,385	7,706	13,532	There is an effect	0,443	0,213
X_2 to Y	0,312	3,604		There is an effect		
X_3 to Y	0,345	5,419		There is an effect		

The results of Table 1 above are explained as follows:

1. The path analysis test for sub structure-1 is significant at 0.05. Thus, it can be stated that all paths are meaningful. The coefficient of determination (R_{square}) or $R_{X_3X_1}$ is 0.321, which is 32.1%. This means that teacher competence and self-efficacy affect teacher performance by 62.1%. While the influence of other variables is 0.379 or 37.9%..
2. Path analysis testing for sub structure-2 is significant at 0.05. Thus, it can be stated that all paths are meaningful. The coefficient of determination (R_{square}) or $R_{X_3X_1}$ is 0.321, which is 32.1%. This means that competence and self-efficacy and teacher work motivation affect teacher performance by 44.3%. While the influence of other variables is 0.557 or 55.7%.

Based on Table 1, there are two path analysis equations, namely (1) the variables of teacher competence and self-efficacy are two exogenous variables, one of which has a correlative relationship with each other and jointly affects the endogenous variable of motivation, and (2) the variables of teacher competence and self-efficacy are two exogenous variables that one with the other have a correlation link together with the intermediate variable of motivation that affects the endogenous variable of teacher performance. Based on the results of the calculation, it is known that the value of t count > t table and F count > F table with a significant level of 0.00 (p-value < 0,05). This means that the influence between variables and path analysis model testing has a significant effect. It is concluded that there is a direct effect of teacher competence and self-efficacy variables and indirectly through the mediation of teacher work motivation on teacher performance. Table 2 concludes the direct and indirect effects and the total effect.

Table 2 Results of Direct, Indirect and Total Influence

Variable Influence	Effect Value		
	Directly	Indirect Through X ₃	Total
X ₁ terhadap X ₃	0.321		0.321
X ₂ terhadap X ₃	0.330		0.330
X ₁ terhadap Y	0.385	0,110	0,495
X ₂ terhadap Y	0.312	0,113	0,788
X ₃ terhadap Y	0.345		0.345

The findings of this study are formulated as Figure 2 below in the form of the results of the research model path analysis.

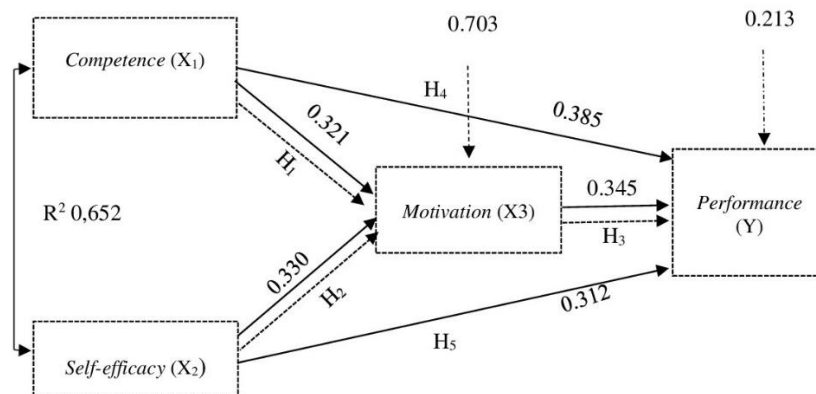


Figure 2 Results of Path Analysis Research Model

Based on Figure 2, the path model equation of this study is as follows:

$$\text{Substructure - 1 : } X_3 = 0,321 X_1 + 0,330 X_2 + 0,703 e_1$$

$$\text{Substructure - 2 : } Y = 0,385 X_1 + 0,312 X_2 + 0,345 X_3 + 0,213 e_2$$

The results of this study are reinforced by research findings that there is an indirect effect of competence on teacher performance through work motivation greater than the direct effect of competence on teacher performance so that it can be concluded that work motivation becomes a mediating variable between competence and teacher performance [26]. Competence is the ability and characteristics possessed by a person, in the form of a set of knowledge, skills and behaviours that must be lived and mastered to carry out their professional duties. In other words, competence is the ability or proficiency required to perform a particular job or task. Competence has a positive and significant impact on the performance of a person or organisation. Competence is the ability, skills, and knowledge possessed by a person or organisation [27]. Competence is the basis for good performance because it allows a person or organisation to perform their duties and responsibilities better. The better the competence, the better the resulting performance. Strong competencies enable individuals or organisations to achieve goals more efficiently and effectively [28].

Work motivation can act as a mediator in measuring the effect of competence and self-efficacy on teacher performance [29]. This means that work motivation is influenced by competence, work motivation affects teacher performance, then competence affects teacher work motivation. Motivation is the drive or reason that makes someone do something to achieve a certain goal [30]. In general, motivation is the process that explains the intensity, direction, and persistence of a person in trying to achieve goals [31]. Motivation is very relevant and has a relationship between humans, especially between superiors and subordinates. Motivation questions how to motivate the work passion of subordinates, so that they want to work hard by giving all their abilities and skills to realise the goals of the company. Motivation is a factor that directs and

encourages behaviour and a person's desire to carry out an activity, which is expressed in the form of hard and weak effort [32].

Existing research also explains that self-efficacy has an influence on teacher performance but the results become very significant with the mediating variable in the form of work motivation [33]. Self-efficacy is an individual's belief about his or her ability to succeed in a task, achieve a goal, or overcome a particular challenge. It is a belief in one's own ability to organise and execute a set of actions necessary to achieve a desired outcome [34]. Strong self-efficacy can encourage a person to put in more effort, be more resistant to difficulties, and more likely to achieve success [35]. Competence and work motivation have a significant relationship with self-efficacy and teacher performance, meaning that the mediation of work motivation can increase the relationship between self-efficacy and teacher performance [36]. Work motivation as a mediator of the relationship between self-efficacy and teacher performance, can also affect the improvement of the teacher's self-efficacy itself which ultimately has an impact on improving teacher performance. Strong work motivation from within teachers can increase teachers' interest in always learning, increasing knowledge and skills by encouraging themselves to carry out activities that are beneficial in efforts to improve their performance [37]. Strong competence and self-efficacy in teachers will encourage their motivation for self-development and encourage teacher enthusiasm in carrying out teaching and work activities.

Self-efficacy can mediate work motivation and have an impact on performance. This means that teacher performance will increase through the indirect influence of self-efficacy and also on teacher performance through motivation [38]. However, there are other studies that explain that the effect of self-efficacy on performance is insignificant, then the relationship becomes significant mediated by work motivation [39]. The role of the mediating variable, work motivation, has been shown to be a predictor of teacher performance. This means that the relationship between self-efficacy and teacher performance will be stronger if mediated by work motivation. Based on the results of this study, the competence and self-efficacy of a teacher who is high and continues to increase can be a driving force in a person in working and trying his best to achieve what he wants. Good competence and high teacher self-efficacy will motivate teachers to act more purposefully. In addition, with high competence and efficacy, a person will feel confident that their abilities and sufficient self-confidence can complete their tasks and obligations. It is concluded that competence and self-efficacy as well as strong motivation will have an impact on achieving high performance. Competence, self-efficacy and motivation support a teacher in working, encouraged to achieve and dare to take responsibility.

4. Conclusion

This study concluded that there is a direct effect of teacher competence and self-efficacy on teacher performance and an indirect effect through mediation of teacher work motivation on the performance of early childhood education teachers in the city of Kisaran Indonesia. The direct effects are as follows (1) teacher competence has a positive effect on motivation by 32.1%, (2) self-efficacy has a positive effect on teacher motivation by 33.0%, (3) teacher competence has a positive effect on performance by 38.5%, (4) self-efficacy has a positive effect on teacher performance by 31.2% and (5) motivation has a positive effect on teacher performance by 34.5%. While the indirect effect of (1) teacher competence through motivation on teacher performance is 11.0%, and (2) self-efficacy through motivation on teacher performance is 11.3%. The results of path analysis testing for sub structure-1 are significant at 0.00 and all paths are meaningful. The coefficient of determination or R_{x3x1} is 0.321, which is 32.1%. This means that teacher competence and self-efficacy influence teacher performance by 62.1%. Path analysis testing for sub structure-2 is significant at 0.00 and all paths are meaningful. The coefficient of determination or R_{2x3x1} is 0.321 or 32.1%. This means that competence and self-efficacy and teacher work motivation influence teacher performance by 44.3%.

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