

# Analysis of the Application of the Pedagogical Competency Model Case study of Public and Private Primary Schools in West Jakarta Municipality, DKI Jakarta Province)

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**Abstract.** The low pedagogical competence of elementary school teachers in Indonesia requires efforts to prepare teacher pedagogical competencies in position to be the best model of teacher performance towards the process and quality of education in realizing the transformation of the graduate profile. The purpose of the study was to obtain analytical data onto the application of the pedagogical competency model as a limited test of the results of the development of the model and the difference in its influence on public and private elementary schools. Quantitative research with one group Pretest - Post Test Design experiments. Data processing techniques using Smart PLS. Research sample of 30 teachers in the Municipality of West Jakarta, DKI Jakarta Province. Data collection techniques with Likert scale questionnaire instruments in the form of a web-based pedagogic pro computer program. The results of the study: (1) There are direct and indirect effects of / on variables, (2) there are differences in pedagogical competencies results from the trial implementation of the pedagogical competency model in public school teachers and private school teachers

**Keywords:** pedagogical competency models, strategies for developing pedagogical competencies, internalization values of the teaching profession.

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## INTRODUCTION

Pedagogical Competency Development Research provides data onto research findings that construct analysis for the pedagogical competency development model of teachers in elementary schools can be formed into the construct variables of pedagogic knowledge, reflective abilities, emotional intelligence and instructional communication patterns (Susanto & Rachmadtullah, 2019; Susanto, Rozali, & Agustina, 2019) (Susanto et al., 2019) This is the basis of the development and implementation of the Teacher Pedagogical Competency Model based on the 41 construct indicators and measuring the effectiveness and efficiency of the model trials at the two selected schools (public and private) that represent the sample criteria and testing and applying the conceptual model of pedagogical competency at the senior level and junior level. Building a competency model becomes a basic solution to: (a) teacher preparation and preparation in the community and formative ethics. (Dotger, 2015), (b) preparing pedagogical competencies of teacher students and teachers in positions for future generations. (Berchini, 2017), (c) be the best method in the learning process and the quality of education. (Faltis, Christian & Abdei, 2015), (Aprianto, 2011), (d) as a model that contributes to learning outcomes (Sulaiman & Yuliansari, 2015) (e) authentic and responsive maintenance tools for the transformation of students' behavior. (7).. (f) can improve personal quality and learning achievement (Kirchgasler, 2018).. (g) and as mastery and understanding of the situation and environmental conditions of students becomes a commitment to design challenges into opportunities for managing learning in the classroom (Carter Andrews, Richmond, & Floden, 2018).. Competence is a key factor that integrates knowledge, understanding, ability, value, attitude and interest so that it becomes a key factor that determines the success of performance (McClelland, 2001). So building a pedagogical competency model is started from the internal self and spirituality which covers the six aspects

## LITERATURE REVIEW

The dimensions that form the basis of the analysis of the application of the pedagogical competency models/modelled are based on the internalization of personal values and are focused on the application of. (Karthwohl, Benjamin, & Bertram, n.d.). Knowledge is everything that is known and is a fundamental level

of human thinking. Pedagogic knowledge must be mastered by the teacher for the role of guiding and managing to learn interactions in class. (A.M, 2004).. Reflective ability is the second focus as an ability of the mental process of thinking in reasoning, problem solving, listening, and understanding of values that support teachers' understanding of students and the act of fostering and mentoring (Daniel Goleman, 2007; E. Perrott, 2014; Elizabeth Graham, 2016; M Pawit Yusuf, 2010, 2010; N Sofyani, 2019; Regulation of the Minister of National Education of the Republic of Indonesia Number 16 of 2007 concerning Academic Qualification and Teacher Competency Standards, 2007 Sofyani & Susanto, 2019; Susanto, Ratnawati; Asmi Rozali, 2020; Susanto, Sofyan, et al., 2020). Another focus of self-value is on emotional intelligence as an attitude and readiness to understand themselves and students and is the foundation of the relationship of intellectually intelligent communication .(Elizabeth Graham, 2016).. The fourth focus is instructional communication patterns as communication processes are patterned and specifically designed to change the target behavior in the community's educational psychological atmosphere with openness of dialogue, exploring cognitive ideas and politeness (32. Staton, 2009; McCroskey, Valencic, & Richmond, 2004; Yakub, Gunawan, & Halim, 2015; Zakiah & Umar, 2006; Zulkifley Hamid, Naidatul Zamrizam Abu, & Asyraf Zulkifley, 2015).. Building a competency model is building a knowledge, skills, self-concept, character and motives (From, 2017; Oware, 2015; van Emmerik, Jawahar, Schreurs, & de Cuyper, 2011). The competency model that is built will be the solution for the basic formation of pedagogical competencies of elementary school teachers in Indonesia (Wallace, Butts, Johnson, Stevens, & Smith, 2016)

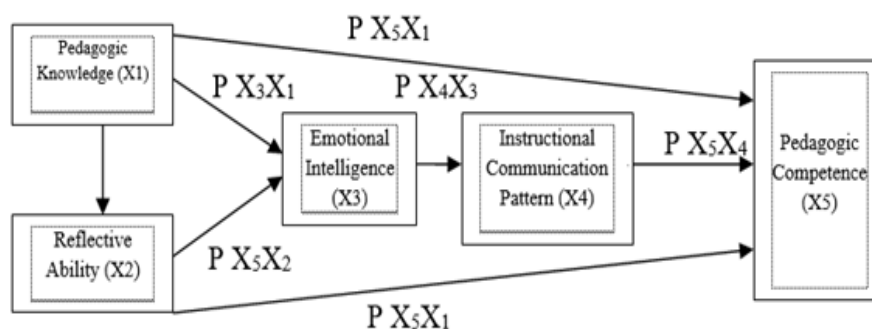
## METHODS

### System overview and development

This study aims to obtain analysis data on the application of the pedagogic competency model as a limited test of the results of model development and the differences in its effects on public and private primary schools. The method used is qualitative with one group pretest - post test to test to design experiment. Data collection techniques with Likert scale questionnaire instrument in the form of a web-based pedagogic pro computer program. Data processing techniques using Smart PLS. The research sample was 30 teachers in West Jakarta Municipality, DKI Jakarta Province. The analysis of research s are:

1. Be there a direct and indirect effect of exogenous variables (pedagogic knowledge, reflective abilities, emotional intelligence and instructional communication patterns on endegon variables (pedagogic competence) in public schools and private schools?

The research constellations are as follows:



**Figure 1. Research Constellation**

2. Be there differences in pedagogic competence from the trial results of the application of the pedagogic competency model for teachers in public schools and teachers in private schools ? The research design at the time of testing the model used was the experimental design of the One-Group Pretest - Posttest Design (Sugiyono , 2017 ; 74 ) . The difference between the results and conditions before and after the model application trial was expressed as a pairwise difference tests / tested in terms of mean (mean value ) and degree of correlation . The research design is as follows : .

O <sub>1</sub>	X <sub>1</sub>	O <sub>2</sub>
O <sub>3</sub>	X <sub>2</sub>	O <sub>4</sub>

## Information

- 01 = Pedagogical competence of public school teachers without model
- 02 = pedagogical competence of state school teachers with models
- 02 - 01 = The difference in pedagogical competence of public school teachers between the results and conditions before and after the trial application of the model
- 03 = Pedagogical competence of private school teachers without model
- 04 = Pedagogical competence of private school teachers with a model

## RESULTS AND DISCUSSION

### Analysis of Model Validity and Reliability

**Table 1.** Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
<b>Emotional Intelligence (X3)</b>	<b>0.920</b>	<b>0.924</b>	<b>0.940</b>	<b>0.760</b>
<b>Reflective Ability (X2)</b>	<b>0.875</b>	<b>0.879</b>	<b>0.910</b>	<b>0.669</b>
<b>Pedagogic Competence (X5)</b>	<b>0.899</b>	<b>0.901</b>	<b>0.923</b>	<b>0.666</b>
<b>Pedagogic Knowledge (X1)</b>	<b>0.943</b>	<b>0.949</b>	<b>0.949</b>	<b>0.558</b>
<b>Instructional Communication Pattern (X4)</b>	<b>0.944</b>	<b>0.945</b>	<b>0.952</b>	<b>0.667</b>

### Analysis of Model Validity and Reliability

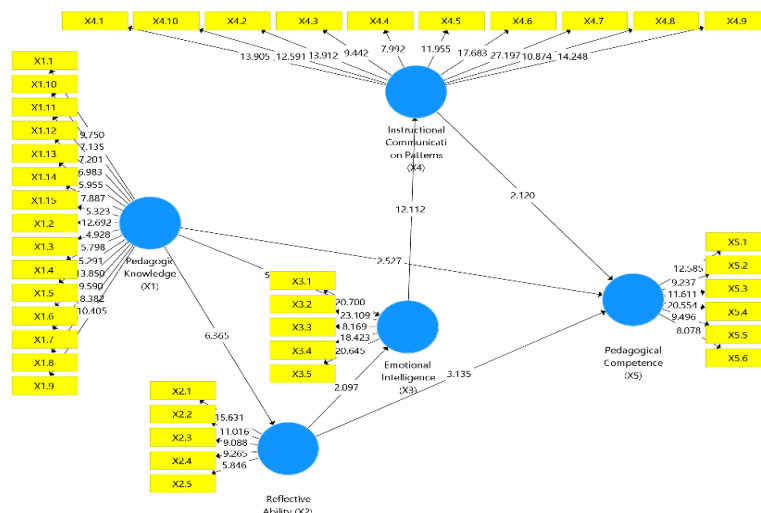
#### 1. Validity Test

In diagrams and tables, all indicators have a loading factor of > 0.60, meaning that all indicators are valid indicators to measure their constructs.

#### 2. Reliability Test

There are several criteria for assessing the outer model, including composite reliability, alpha cronbach and AVE. Cronbachs Alpha of each construct > 0.70, composite reliability of each construct > 0.70 and Average Variance Extracted (AVE) each construct > 0.50 means that all constructs are reliable

### Designing the Measurement Model (Outer Model)



**Figure 2.** Measurement Model (outer model / Output Calculate Algorithm) Pedagogic Competency Development Model

Information:

X1 = Pedagogic Knowledge

X1.1 = Placement of humans as subjects of education

X1.2 = Placement of values and ideals

X1.3 = Realization of values and ideals

X1.4 = Ability to reason, think, experience, intuition and reflect

X1.5 = Self-realization and innate abilities

X1.6 = Intellectual stimulation interaction

X1.7 = Vocabulary skills

X1.8 = Expansion of relationships with family and friends

X1.9 = Control of emotional expression control

X1.10 = motor activity

X1.11 = Readiness of activity for response

X1.12 = Use of language in the way children think

X1.13 = Active role builds memory knowledge

X1.14 = Responsibility for behavior change

X1.15 = To lead oneself

X2 = Reflective ability

X2.1 = Critical and creative thinking processes

X2.2 = Ability to reason

X2.3. = Development of problem-solving ideas

X2.4 = Ability to listen

X2.5 = Interpret value

X3 = Emotional Intelligence

X3.1 = Knowing the causes of emotions

X3.2 = Natural expression of the heart

X3.3 = Enthusiastic to achieve

X3.4 = Introduction of other people's emotions

X3.5 = Fostering relationships

X4 = Instructional Communication Pattern

X4.1 = Open communication and dialogue

X4.2 = Interpersonal communication

X4.3 = Group communication

X4.4 = Information communication

X4.5 = Communication facilitates ideas

X4.6 = Communication influences

X4.7 = polite communication

X4.8 = Communication expression of self-strength

X4.9 = Mentoring communication

X4.10 = Student-teacher approach communication

X5 = Pedagogic Competence

X5.1 = Identify characteristics

X5.2 = Opportunity to participate

X5.3 = Class setting

X5.4 = Identify the causes of learning behavior deviations

X5.5 = Development of achievement for shortcomings

X5.6 = Humanist action

1. Direct and indirect effects of exogenous variables (pedagogic knowledge, reflective abilities, emotional intelligence and instructional communication patterns on endogenous variables (pedagogic competence) in public and private schools

The output that explains the relationship between latent variables and their indicators can be shown in the following table

**Table 1. Outer Loadings**

	<b>Emotional Intelligence (X3)</b>	<b>Reflective Ability (X2)</b>	<b>Pedagogic Competence (X5)</b>	<b>Pedagogic Knowledge (X1)</b>	<b>Instructional Communication Patterns (X4)</b>
X1.1				<b>0.746</b>	
X1.10				<b>0.756</b>	
X1.11				<b>0.653</b>	
X1.12				<b>0.788</b>	
X1.13				<b>0.736</b>	
X1.14				<b>0.804</b>	
X1.15				<b>0.674</b>	
X1.2				<b>0.862</b>	
X1.3				<b>0.611</b>	
X1.4				<b>0.702</b>	
X1.5				<b>0.707</b>	
X1.6				<b>0.862</b>	
X1.7				<b>0.811</b>	
X1.8				<b>0.713</b>	
X1.9				<b>0.729</b>	
X2.1		<b>0.893</b>			
X2.2		<b>0.804</b>			
X2.3		<b>0.814</b>			
X2.4		<b>0.821</b>			
X2.5		<b>0.751</b>			
X3.1	<b>0.873</b>				
X3.2	<b>0.909</b>				
X3.3	<b>0.769</b>				
X3.4	<b>0.906</b>				
X3.5	<b>0.894</b>				
X4.1					<b>0.812</b>
X4.10					<b>0.813</b>
X4.2					<b>0.858</b>
X4.3					<b>0.776</b>
X4.4					<b>0.788</b>
X4.5					<b>0.826</b>
X4.6					<b>0.786</b>
X4.7					<b>0.878</b>
X4.8					<b>0.806</b>
X4.9					<b>0.820</b>
X5.1			<b>0.826</b>		
X5.2			<b>0.803</b>		
X5.3			<b>0.813</b>		
X5.4			<b>0.866</b>		
X5.5			<b>0.823</b>		
X5.6			<b>0.761</b>		

In the diagram and table above, it can be analyzed that:

1. All indicators have a loading factor > 0.60, meaning all indicators are valid for measuring the construct.
2. The latent variable that has the greatest value of the indicator as the construct is the emotional intelligence variable. This can happen because the spirituality of the teaching profession contributes to understanding one's emotional intelligence.
3. The three indicators that have the greatest value of the latent variable of emotional intelligence are:
  - a. The heart expression indicator is naturally 0.909.
  - b. The indicator for recognizing other people's emotions is 0.906
  - c. The indicator fosters a relationship of 0.895.

**Tabel 2. Path Coefficients**

	ntelligence Emotional (X3)	Reflective Ability (X2)	Pedagogic Competence (X5)	Pedagogic Knowledge (X1)	Instructional Communication Patterns (X4)
Intelligence Emotional (X3)					0.832
Reflective Ability (X2)	0.283		0.396		
Pedagogic Competence (X5)					
Pedagogic Knowledge (X1)	0.687	0.660	0.294		
Instructional Communication Patterns (X4)			0.338		

From these data, the path coefficient from X1 to X2 is 0.660, from x1 to X3 is 0.687, X1 to X5 is 0.295. Meanwhile, from X2 to X3 the amount is 0.283, and X2 to X5 is 0.396. The coefficient of X3 to X4 is 0.832. The coefficient of X4 to X5 is 0.338.

#### Analysis of Relationship Between Constructs

**Table 3. Total Effects (Mean, STDEV, T-Values)**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
<b>Emotional Intelligence (X3) -&gt; Instructional Communication Patterns (X4)</b>	0.832	0.844	0.069	12.069	<b>0.000</b>
<b>Reflective Ability (X2) -&gt; Emotional Intelligence (X3)</b>	0.283	0.300	0.136	2.083	<b>0.038</b>
<b>Reflective Ability (X2) -&gt; Pedagogic Competence (X5)</b>	0.396	0.390	0.124	3.187	<b>0.002</b>
<b>Pedagogic Knowledge (X1) -&gt; Emotional Intelligence (X3)</b>	0.687	0.659	0.128	5.375	<b>0.000</b>
<b>Pedagogic Knowledge (X1) -&gt; Reflective Ability (X2)</b>	0.660	0.697	0.104	6.363	<b>0.000</b>
<b>Pedagogic Knowledge (X1) -&gt; Pedagogic Competence (X5)</b>	0.294	0.330	0.126	2.343	<b>0.020</b>
<b>Instructional Communication Patterns (X4) -&gt; Pedagogic Competence (X5)</b>	0.338	0.301	0.161	2.102	<b>0.036</b>

From the table above it can be analyzed that:

- a. The relationship between X3 (Emotional Intelligence) and X4 (Instructional Communication Patterns) is significant with a P Value of 0.000 (<0.05)

- b. The relationship between X2 (Reflective Ability) and X3 (Emotional Intelligence) is significant with a P Value of 0.038 (<0.05).
- c. The relationship between X2 (Reflective Ability) and X5 (Pedagogic Competence) is significant with a P Value of 0.002 (<0.05)
- d. The relationship between X1 (Pedagogic Knowledge) and X3 (Emotional intelligence) is significant with a P Value of 0.000 (<0.05).
- e. The relationship between X1 (Pedagogic Knowledge) and X2 (Reflective Ability) is significant with a P Value of 0.000 (<0.05)
- f. The relationship between X1 (Pedagogic Knowledge) and X5 (Pedagogic Competence) is significant with a P Value of 0.020 (<0.05).
- g. The relationship between X1 (Pedagogic Knowledge) and X5 (Pedagogic Competence) is significant with a P Value of 0.036 (<0.05).

#### Hypothesis test

Hypothesis testing is done by using the t test. The t test is intended to test whether the independent variable partially has a significant effect on the dependent variable.

Basis for Decision Making:

If the probability (prob value) > 0.05 or - t table < t count < t table then H0 is not rejected

If the probability (prob value) < 0.05 or t count < - t table or t count > t table then H0 is rejected

(t table for alpha = 0.05 is 1.96 and t table for alpha = 0.10 is 1.65)

#### Hypothesis:

1. H0: variable X3 has no significant effect on variable X4  
H1: variable X3 has a significant effect on variable X4  
In the table above, the value of t stat = 12.069 > 1.96 so that H0 is rejected, and H1 is accepted, which means that the X3 variable has a positive and significant effect on the X4 variable. The higher X3, the higher X4. The higher the emotional intelligence, the more effective the instructional communication pattern will be.
2. H0: variable X2 has no significant effect on variable X3  
H1: variable X2 has a significant effect on variable X3  
X2 has a positive and significant effect on X3, because the value of t = 2.083 > 1.96, the higher the reflective ability, the higher the emotional intelligence.
3. H0: variable X2 does not have a significant effect on variable X5  
H1: variable X2 has a significant effect on variable X5  
X2 has a positive and significant effect on X5, because the value of t = 3.187 > 1.96, the higher the subjective ability, the higher the pedagogical competence.
4. H0: variable X1 does not have a significant effect on variable X3  
H1: variable X1 has a significant effect on variable X3  
X1 has a positive and significant effect on X3, because the value of t = 5.375 > 1.96, the higher the pedagogical knowledge, the higher the emotional intelligence.
5. H0: variable X1 has no significant effect on variable X2  
H1: variable X1 has a significant effect on variable X2  
X1 has a positive and significant effect on X2, because the value of t = 6.363 > 1.96, the higher the pedagogical knowledge, the higher the reflective ability.
6. H0: variable X1 does not have a significant effect on variable X5  
H1: variable X1 has a significant effect on variable X5  
X1 has a positive and significant effect on X5, because the value of t = 2.343 > 1.96, the higher the pedagogical knowledge, the higher the pedagogical competence.
7. H0: variable X4 has no significant effect on variable X5  
H1: variable X4 has a significant effect on variable X5  
X4 has a positive and significant effect on X5, because the value of t = 2.102 > 1.96, the more effective the instructional communication pattern is, the higher the pedagogical competence.

#### Structural Equation

Thus the structural equation is

$$X2 = 0.660 * X1 + e$$

$$X3 = 0.687 * X1 + 0.283 * X2 + e$$

$$X4 = 0.832 * X3 + e$$

$$X5 = 0.294 * X1 + 0.396 * X2 + 0.338 * X4 + e$$

### Goodness of Fit Model

Goodness of fit model is done by using R-square

The coefficient of determination (R square Adjusted) is used to show how much influence the influencing variable has on the affected variable.

**Tabel 4. R Square**

	R Square	R Square Adjusted
<b>Emotional Intelligence (X3)</b>	0.809	0.795
<b>Reflective Ability (X2)</b>	0.435	0.415
<b>Pedagogic Competence (X5)</b>	0.911	0.900
<b>Instructional Communication Pattern (X4)</b>	0.693	0.682

Based on the table above,

1. The value of R square Adjusted equation  $X2 = 0.660 * X1 + e$  from the table above 0.415 shows that 41.5% of the variance of X2 can be explained by changes in variable X1, while the other 58.5% is caused by other factors outside the model.
2. The value of R square Adjusted equation  $X3 = 0.687 * X1 + 0.283 * X2 + e$  from the table above 0.795 shows that 79.5% of the variance of X3 can be explained by changes in variables X1 AND X2, while the other 19.5% is caused by other factors outside model.
3. The value of R square Adjusted equation  $X4 = 0.832 * X3 + e$  from the table above 0.682 shows that 68.2% of the variance of X4 can be explained by changes in variable X3, while the other 31.8% is caused by other factors outside the model.
4. The value of R square Adjusted equation  $X5 = 0.294 * X1 + 0.396 * X2 + 0.338 * X4 + e$  from the table above 0.900 indicates that 90.0% of the variance of X5 can be explained by changes in the variables X1, X2 AND X4, while the other 10.0% caused by factors other than the model.

### Indirect Effects

**Tabel 5. Total Indirect Effect**

	Kecerdasan Emosional (X3)	Kemampuan Reflektif (X2)	Kompetensi Pedagogik (X5)	Pengetahuan Pedagogik (X1)	Pola Komunikasi Instruksional (X4)
Kecerdasan Emosional (X3)			0.282		
Kemampuan Reflektif (X2)			0.080		0.236
Kompetensi Pedagogik (X5)					
Pengetahuan Pedagogik (X1)	0.187		0.507		0.728
Pola Komunikasi Instruksional (X4)					

### Indirect Effects

**Table 5. Total Indirect Effect**

	Emotional Intelligence (X3)	Reflective Ability (X2)	Pedagogic Competence (X5)	Pedagogic Knowledge (X1)	Instructional Communication Pattern (X4)
Emotional Intelligence (X3)			0.282		
Reflective Ability (X2)			0.080		0.236
Pedagogic Competence (X5)					



Pedagogic Knowledge (X1)	0.187		0.507		0.728
Instructional Communication Pattern (X4)					

Specific Indirect Effects

**Table 6.** *Specific Indirect Effects*

	Specific Indirect Effect
Pedagogic Knowledge (X1) -> Reflective Ability (X2) -> Emotional Intelligence (X3)	0.187
Pedagogic Knowledge (X1) -> Reflective Ability (X2) -> Pedagogic Competence (X5)	0.261
Reflective Ability (X2) -> Emotional Intelligence (X3) -> Instructional Communication Patterns (X4) -> Pedagogic Competence (X5)	0.080
Pedagogic Knowledge (X1) -> Reflective Ability (X2) -> Emotional Intelligence (X3) -> Instructional Communication Patterns (X4) -> Pedagogic Competence (X5)	0.053
Emotional Intelligence (X3) -> Instructional Communication Patterns (X4) -> Pedagogic Competence (X5)	0.282
Pedagogic Knowledge (X1) -> Emotional Intelligence (X3) -> Instructional Communication Patterns (X4) -> Pedagogic Competence (X5)	0.194
Reflective Ability (X2) -> Emotional Intelligence (X3) -> Instructional Communication Patterns (X4)	0.236
Pedagogic Knowledge (X1) -> Reflective Ability (X2) -> Emotional Intelligence (X3) -> Instructional Communication Patterns (X4)	0.156
Pedagogic Knowledge (X1) -> Emotional Intelligence (X3) -> Instructional Communication Patterns (X4)	0.572

**Total Effects**

**Table 7.** *Total Effect*

	Emotional Intelligence (X3)	Reflective Ability (X2)	Pedagogic Competence (X5)	Pedagogic Knowledge (X1)	Instructional Communication Patterns (X4)
Emotional Intelligence (X3)			0.282		0.832
Reflective Ability (X2)	0.283		0.475		0.236
Pedagogic Competence (X5)					
Pedagogic Knowledge (X1)	0.874	0.660	0.801		0.728
Instructional Communication Patterns (X4)			0.338		

2. Variabel kecerdasan emosional berpengaruh tidak langsung kepada kompetensi pedagogik melalui pola komunikasi instruksional.

The conclusion is:

1. Pedagogic knowledge variables have a direct effect on the variables of reflective ability, emotional intelligence and pedagogical competence.
2. The variable of reflective ability has a direct effect on emotional intelligence and pedagogical competence.
3. Emotional intelligence variables have a direct effect on instructional communication patterns.
4. Instructional communication pattern variables have a direct effect on pedagogic competence.

5. Pedagogic knowledge variables have an indirect effect on emotional intelligence variables through reflective abilities.
6. Pedagogic knowledge variables have an indirect effect on pedagogical competence through reflective abilities.
7. Pedagogic knowledge variables have an indirect effect on pedagogic competence through emotional intelligence and instructional communication patterns.
8. Pedagogic knowledge variables have an indirect effect on instructional communication patterns through reflective abilities and emotional intelligence.
9. Pedagogic knowledge variables have an indirect effect on instructional communication patterns through emotional intelligence.
10. Pedagogic knowledge variables have an indirect effect on pedagogic competence through reflective abilities, emotional intelligence and instructional communication patterns.
11. The reflective ability variable has an indirect effect on pedagogic competence through emotional intelligence and instructional communication patterns.
12. Emotional intelligence variables have an indirect effect on pedagogic competence through instructional communication patterns.

So this proves that: pedagogical competence can be developed by developing strategies to increase pedagogical knowledge, reflective abilities, emotional intelligence and instructional communication patterns. (Susanto, Ratnawati; Asmi Rozali, 2020; Susanto & Rachmadtullah, 2019; Susanto, Rozali, & Agustina, 2020). This is in line with the research of J.From (2017) which emphasizes that competencies that are formed based on self-spirituality raise a complete competence between knowledge, skills and values. (From, 2017). It is also in line with research conducted by A. Hakim (2015) that the contribution to teacher competence is how the values arising from personality integrate with social abilities in interactions that raise the competence itself as a result of learning (Hakim, 2015).

## 2. Differences in pedagogical competence results from the trial implementation of the pedagogical competency model for teachers in public schools and teachers in private schools?

Differences in Pedagogic Competencies of Teachers in Public Elementary Schools Before the Implementation of the Model and After the Implementation of the Pedagogic Competency Model.

**Table 8. Descriptive Statistics of Public Elementary Schools**

	Descriptive Statistics <sup>a</sup>				
	N	Minimum	Maximum	Mean	Std. Deviation
Pedagogical Competence Before	15	3.17	5.00	4.2000	.58439
Pedagogical Competence After	15	3.67	5.00	4.4320	.45650
Valid N (listwise)	15				

a. SD = Private Primary School

The data shows that the sample is 15 people, with a minimum value before the application of the model is 3.17 and a maximum value of 5.00 with an average value of 4.2000. The sample data after the application of the model is a minimum value of 3.67, a maximum value of 5.00, an average value of 4.4320. The data shows that there are differences in scores before and after the application of the pedagogic competency model for public elementary school teachers.

**Table 9**

		Paired Samples Statistics <sup>a</sup>			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pedagogical Competence Before	4.2000	15	.58439	.15089
	Pedagogical Competence After	4.4320	15	.45650	.11787

a. SD = Private Primary School

The mean difference before and after the application of the model is 4,2000 and 4,4320, it can be said that they have different pedagogic competency profiles of public school teachers before and after the application of the model.

**Table 10****Paired Samples Correlations<sup>a</sup>**

	N	Correlation	Sig.
Pair 1 Pedagogical Competence Before and After	15	.972	.000

a. SD = Public Primary School

The level of relationship between the pedagogical competence of public SD teachers before and after the application of the model was 0.972, indicating a very strong correlation to the pedagogic competency profile of elementary school teachers before and after.

**Table 11****Paired Samples Test<sup>a</sup>**

	Mean	Std. Deviation	Paired Differences		t	df	Sig. (2-tailed)	
			Std. Error	95% Confidence Interval of the Difference				
				Mean				Lower
Pair 1 Pedagogical Competence Before and After	-.23200	.17652	.04558	-.32975	-.13425	-5.090	14	.000

a. SD = Public Primary School

Hypothesis:

H0: Average Pedagogic Competence Before and Pedagogic Competence After, not statistically significant in SD Negeri

H1: Average Prior Pedagogical Competencies and After Pedagogical Competencies, are statistically significantly different in public elementary schools

Basis for Decision Making

If the probability (sig value) > 0.05 or - t table < t count < t table then H0 is not rejected

If the probability (sig value) < 0.05 or t count < - t table or t count > t table then H0 is rejected

Decision:

1. In the table above the value of sig = 0.000 < 0.05 so that H0 is rejected, which means that the average of the pedagogic competence before and after the pedagogic competence is statistically significant in SD Negeri.
2. Average Pedagogic Competence Before and After Pedagogic Competence are 4.20 and 4.43. The differences were not due to chance as a result of sampling, but they were statistically significant.

### Differences in the Pedagogic Competency Profiles of Teachers in Private Primary Schools before the Implementation of the Model and After the Implementation of the Pedagogic Competency Model.

**Table 12. Descriptive Statistics of Private Primary Schools**

	Descriptive Statistics <sup>a</sup>				
	N	Minimum	Maximum	Mean	Std. Deviation
Pedagogical Competence Before	15	2.17	4.17	3.2893	.71730
Pedagogical Competence After	15	2.33	4.50	3.5667	.81075
Valid N (listwise)	15				

a. SD = Private Primary School

The data shows that the sample is 15 people, with a minimum value before the application of the model is 2.17 and a maximum value of 4.17 with an average value of 3,2893. an average value of 3.5667. The data shows that there are differences in values before and after the application of the model on the pedagogical competence of private school teachers.

**Table 13**

		Paired Samples Statistics <sup>a</sup>			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pedagogical Competence Before	3.2893	15	.71730	.18521
	Pedagogical Competence After	3.5667	15	.81075	.20933

a. SD = Private Primary School

The mean difference before and after the application of the model is 3.2893 and 3.5667, it can be said that there is a difference between before and after the application of the model on the pedagogical competence of private school teachers.

**Table 14**

		Paired Samples Test <sup>a</sup>							
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pedagogical Competence Before and After	-.27733	.18599	.04802	-.38033	-.17434	-5.775	14	.000

a. SD = Private Primary School

The level of relationship between the pedagogical competence of private elementary school teachers before and after the application of the model is 0.978 indicating a very strong correlation.

**Table 15**

		Paired Samples Test <sup>a</sup>							
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pedagogical Competence Before and After	-.27733	.18599	.04802	-.38033	-.17434	-5.775	14	.000

a. SD = Private Primary School

Paired t test is intended to test whether there is a difference in the mean of the two sample groups that are interrelated or paired.

Hypothesis:

H0: Average Pedagogic Competence Before and Pedagogic Competence After, not statistically significant in private SD

H1: Average Pedagogic Competence Before and Pedagogic Competence After, statistically significant difference in private SD

Basis for Decision Making

If the probability (sig value) > 0.05 or - t table < t count < t table then H0 is not rejected

If the probability (sig value) < 0.05 or t count < - t table or t count > t table then H0 is rejected

Decision:

1. In the table above, the value of sig = 0.000 < 0.05 so that H0 is rejected, which means the Mean Pedagogic Competence Before and After Pedagogic Competence is statistically significant in private SD.

2. Average Pedagogic Competencies Before and After Pedagogic Competencies were 3.29 and 3.57. The differences were not due to chance as a result of sampling, but they were statistically significant

Differences in the Competency Profile of Teachers in Public and Private Elementary Schools after the Implementation of the Pedagogic Competency Model Application

**Table 16**

Descriptives								
Pedagogical Competence After								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Private Elementary School	15	3.5667	.81075	.20933	3.1177	4.0156	2.33	4.50
Public Elementary School	15	4.4320	.45650	.11787	4.1792	4.6848	3.67	5.00
Total	30	3.9993	.78204	.14278	3.7073	4.2914	2.33	5.00

The data shows that the sample is 30 people, with the minimum values at public and private SD after the application of the model are 2.33 and 3.67 and the maximum values are 4.50 and 5.00 and the mean values are 3.5667 and 4.4320. The data show that the pedagogic competence in public and private SDs is significantly different in public schools by 4.4320 > than in private schools 3.5667.

**Table 17**

ANOVA						
Pedagogical Competence After						
	Sum of Squares	df	Mean Square	F	Sig.	
Between Groups	5.616	1	5.616	12.975	.001	
Within Groups	12.120	28	.433			
Total	17.736	29				

The F test or commonly known as the analysis of variance tests / tested (ANOVA ) is an analytical test developed by R . A Fisher This analysis of variance is used to test whether the average of three or more populations is different , if the population is normally distributed among / over the same variance , in the F test the dependent and independent variables will be tested together to see the significance of F at  $\alpha = 5\%$  .

The results of this test are said to be significant if the absolute value of Fcount  $\geq$  Ftable or sig value  $\leq 0.05$  , or it can be said that the null hypothesis (H0 ) are rejected and the alternative hypothesis (H1 ) are accepted . This applies otherwise it is said to be insignificant if the absolute value of Fcount  $\leq$  Ftable or sig value  $\geq 0.05$  , or it can be said that the null hypothesis (H0 ) are accepted and the alternative hypothesis (Ha ) are rejected .

Hypothesis:

H0: Average after pedagogic competence is not significantly different because of differences in SD

H1: Average after pedagogic competence is significantly different due to differences in SD

Basis for Decision Making

If the probability (sig value) > 0.05 or F count < F table, then H0 is not rejected

If the probability (sig value) < 0.05 or F arithmetic > F table then H0 is rejected

Decision:

1. In the table above the value of sig = 0.001 < 0.05, so that H0 is rejected, and accepted H1, which means the Average Pedagogical Competencies After being significantly different because of differences in elementary school

2. Average Pedagogic Competence in Private SD = 3.57, significantly different from and the average Pedagogic Competence in Public SD = 4.43. The differences were not due to chance as a result of sampling, but they were statistically significant

## CONCLUSIONS

1. There are direct and indirect effects of exogenous variables (pedagogic knowledge, reflective abilities, emotional intelligence and instructional communication patterns on endogenous variables (pedagogic competence) in public schools and private schools.
  - Pedagogic knowledge variables have a direct effect on the variables of reflective ability, emotional intelligence and pedagogical competence.
  - The reflective ability variable directly affects emotional intelligence and pedagogical competence.
  - Emotional intelligence variables have a direct effect on instructional communication patterns.
  - Instructional communication pattern variables have a direct effect on pedagogic competence.
  - Pedagogic knowledge variables have an indirect effect on emotional intelligence variables through reflective abilities.
  - Pedagogic knowledge variables have an indirect effect on pedagogic competence through reflective abilities.
  - Pedagogic knowledge variables have an indirect effect on pedagogic competence through emotional intelligence and instructional communication patterns.
  - Pedagogic knowledge variables have an indirect effect on instructional communication patterns through reflective abilities and emotional intelligence.
  - Pedagogic knowledge variables have an indirect effect on instructional communication patterns through emotional intelligence.
  - Pedagogic knowledge variables have an indirect effect on pedagogic competence through reflective abilities, emotional intelligence and instructional communication patterns.
  - The variable of reflective ability has an indirect effect on pedagogic competence through emotional intelligence and instructional communication patterns.
  - Emotional intelligence variables have an indirect effect on pedagogic competence through instructional communication patterns
2. There is a difference in the pedagogical competency profile of the results of the trial run of the pedagogical competency model for teachers in public schools and teachers in private schools.

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