



The Effect of Teacher Pedagogic Competence and Discipline on the Performance of Elementary School Teachers during the Covid-19 Pandemic

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Abstract: The focus of this research is the effect of teacher pedagogic competence and discipline on teacher performance in Kunduran District, Blora Regency. Teacher performance can be seen from their work performance in managing learning activities. This study used a sample of 172 respondents. Three variables are examined in this study: academic competence, discipline, and teacher performance. The data collection method that researchers use is a questionnaire. Methods of data analysis using SPSS Statistics 20 and Excel Office 2010 software. Based on the research and followed by data analysis using multiple linear regression, shows 1) teacher performance influences pedagogical competence; 2) teacher performance is influenced by teacher discipline; 3) and teacher performance can influence pedagogical competence and discipline together. multiple regression equation $Y = 33.304 + 0.132X_1 + 0.304X_2 + e$. This study's results mean that teachers with high work motivation and high work discipline can provide the best performance results to improve the quality of learning.

Abstrak: Fokus penelitian ini adalah pengaruh kompetensi pedagogik dan disiplin guru terhadap kinerja guru di Kecamatan Kunduran Kabupaten Blora. Kinerja guru dapat dilihat dari prestasi kerja yang dilakukannya dalam mengelola kegiatan pembelajaran. Penelitian ini menggunakan sampel sebanyak 172 responden. Terdapat 3 variabel yang diteliti dalam penelitian ini yaitu kompetensi pedagogik, kedisiplinan, dan kinerja guru. Metode pengumpulan data yang peneliti gunakan adalah kuesioner. Metode analisis data menggunakan software SPSS Statistics 20 dan Excel Office 2010. Berdasarkan penelitian dan dilanjutkan dengan analisis data dengan regresi linier berganda menunjukkan: 1) kinerja guru berpengaruh terhadap kompetensi pedagogik; 2) kinerja guru dipengaruhi disiplin guru; 3) dan kinerja guru dapat mempengaruhi kompetensi pedagogik dan disiplin secara bersama-sama. persamaan regresi berganda $Y = 33,304 + 0,132X_1 + 0,304X_2 + e$. Hasil penelitian ini bermakna bahwa guru yang memiliki motivasi tinggi dalam bekerja dan disiplin kerja yang tinggi maka guru mampu memberikan hasil kinerja yang terbaik untuk meningkatkan kualitas pembelajaran

A. Introduction

The learning process continued utilizing a distance learning system at all levels of education during the Covid-19 epidemic, including primary education, secondary education, and higher education. Although learning is done remotely, interaction between professors and students is still expected during the learning process (Sepulveda-Escobar & Morrison, 2020). Teachers as educators must be capable of creating and developing teaching methods that provide pupils with the freedom to study independently at home and more thoroughly investigate their surroundings. Instructors are required to be able to engage students in learning activities that will help them grow their attitudes, knowledge, and abilities, in addition to being able to give them tasks. The job of the teacher is crucial to advancing education. Thus, we must keep up the education standard in various circumstances and scenarios that call for exact alterations and upgrades. Indeed, Gao et al (2020); König et al (2020) found that teachers' performance during long-distance learning periods suffered from a decline in quality due to lower work motivation. The drawback of distance learning is that it causes teachers to lose motivation for their work for various reasons, including a work environment that differs from a classroom and being distracted by social media and other forms of entertainment. The continuation of schooling during a pandemic depends on several variables, including teacher readiness, parent and family readiness, and school readiness. Teachers are expected to be able to create distant learning patterns that fit the requirements and circumstances of the school's students (Rahman, 2018). When teaching in various settings during the learning process, the teacher must act quickly and appropriately (AbdelSalam et al., 2021). Teachers must be ready to handle various learning situations, student issues, and changes and advancements in civic life. As part of the distance learning process, teachers are expected to develop their competence and performance standards. One of the global success stepping stones is anticipated to be professional teacher performance of instruction. Teachers with organizational commitment, work discipline, motivation, and quality of work life that can impact a teacher's performance are needed by schools (Downie et al., 2021).

Distance learning during the COVID-19 pandemic impacted the work of discipline teachers because teachers who typically meet directly with students must behave responsibly and set an excellent example for students. In distance learning, teachers have more freedom to carry out the learning process, but they are still expected to be responsible and set an excellent example for students. This can be demonstrated by actions or conduct that comply with laws and regulations set by the government or with the morals, standards, and laws that apply in a particular society and set of institutions.

Teacher performance is the ability shown by a teacher to carry out managing tasks at school (Doko et al., 2022). This representation is a picture of the actions taken by the teacher in class or during learning (Sutrisno et al., 2022). This activity can consist of making plans, carrying out plans and evaluating class performance (Wahyuningsih, 2021). We can see the performance of this teacher in student learning outcomes in both academic and non-

academic schools (Lubis, 2020; Rahmayanti et al., 2021). Covid-19 changed everything so that the Central Java Governor Circular Letter No. 440/0005942 dated 14 March 2020 and directions from the Regent of Blora effective 26 March 2020 concerning learning activities during the COVID-19 pandemic that hit Indonesia (Onih & Sardjijo, 2023; Devinta & Santosa, 2022). Benchmarks of performance are job demands that describe work results and what you want to achieve. A professional teacher with high performance should have a positive attitude towards the job. Such attitude is, for example, discipline, like to work seriously, maintain the quality of work, be responsible, highly dedicated, highly motivated and so on (Wibowo, 2020). Research findings previously explained that teacher performance is influenced by ability and work motivation (Kompri, 2014). In addition to work motivation, work discipline can also

This hostile situation requires teachers to have functional pedagogic competencies, namely the ability to plan, implement, and evaluate learning outcomes (Nabela et al., 2021; Saifullah, 2020). We hope that good pedagogic skills will improve performance. Arifah (2018) & Maqbullah (2018) state that teacher competency can influence teacher performance.

In addition to pedagogical competence, teachers must also have good discipline. A teacher can demonstrate this discipline by following rules, procedures and practices that can ultimately produce the expected performance (Ritonga, 2021; Catio & Sunarsi, 2020). Damanik (2019) found a significant influence between work discipline and teacher effectiveness.

If pedagogic competence and work discipline are good, researchers believe they will influence performance (Antariani et al., 2021; Mardalena et al., 2020). On the other hand, if pedagogical competence and work discipline are lacking, it is also believed that teachers' performance in Kunduran District is also not good (Hakim et al., 2021; Setianigsih & Kader, 2019; Rachmawati & Kaluge, 2020).

B. Method

The researchers used a quantitative approach with a correlation design to determine whether teachers' pedagogic competence and discipline affected elementary school teachers' performance during and after the COVID-19 pandemic Kunduran District (Andrini, 2021). This research was conducted in Kunduran District with 172 elementary school teachers as respondents. The reason for the researcher is that the research results that the researcher collects are in the form of data in the form of statistical numbers, and the researcher describes them using clear criteria (Sugiyono, 2018).

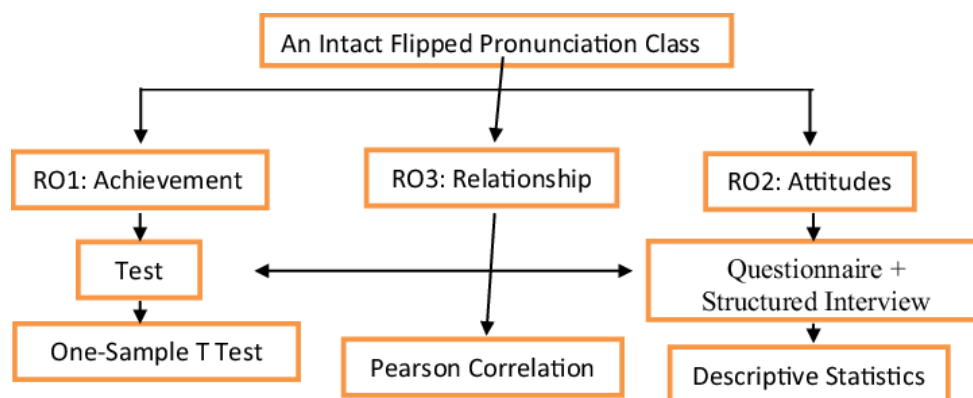


Figure 1. Correlational Research Design

Before carrying out the hypothesis test, the researcher carried out an instrument accuracy test (validity) and an instrument consistency (reliability) test to determine the feasibility of each question item in defining variables. It is appropriate when comparing r-count with r-table with $df = n-2$ and Sig 5% if r-count > r-table and Cronbach's alpha value > 0.60 (Hasbi et al., 2021).

The research hypothesis test uses multiple regression analysis models to determine how much influence Pedagogic Competence and Teacher Discipline have on Teacher Performance in Kunduran District. The researcher describes the independent and dependent variables as a distribution table and histogram to test this hypothesis. After that, the researcher tests the terms for normality, multicollinearity and homogeneity. After that, tests the hypothesis with the multiple linear regression formula, namely:

Formula:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + e$$

Y = criteria (dependent variable)

a = constant

β_1 and β_2 = predictor coefficient values

X_1 and X_2 = predictor (independent variable)

e = errors

The purpose of the t-test is to determine how much influence the independent variable has on the dependent variable. The criteria for deciding by comparing the significance value of 0.05 ($\alpha = 5\%$). The F-test is a test where the independent variable can simultaneously affect the dependent variable at a significance level of 0.05 ($\alpha = 5\%$).

C. Result and Discussion

Test research instrument

1. Validity Test

Table 1. Instrument Validity Test

No	Questionnaire	The amount Items	Amount Items Valid
1	Competence Teacher	46	43
2	Discipline Teacher	25	25
3	Performance Teacher	25	22

Table 1. It is known that there are 46 items for Teacher Competency, but there are three that need to be validated, so there are 43 items left. For Teacher Discipline, all are valid, and for Teacher Performance, there were originally 25. There were three which were invalid, so there were 22 items left. Researchers then test this valid instrument for reliability.

2. Reliability Test

Table 2. Instrument Reliability Test

No	Questionnaire	The amount Items	Amount Items Valid
1	Competence Teacher	43	43
2	Discipline Teacher	25	25
3	Performance Teacher	22	22

Table 2. shows that the items the researcher tested were all reliable.

3. Classical Assumption Test

The next step is that the researcher carries out the classic assumption test, which consists of the following:

a. Normality Test

According to [Widyastuti & Kremer \(2021\)](#), the distribution test (normality) is a test used to find out whether the data of a population is normally distributed or in a normal distribution, with a symmetrical distribution with data that often appears (modus), average (mean), and values the middle (median) is in the centre. The normality of the residuals can be seen in the histogram plot and probability plot, which compares the cumulative distribution with the normal distribution ([Ghozali, 2016](#)). Data is normally distributed if it forms a straight diagonal line and the residual data plot is parallel to the diagonal line ([Saleh, 2018](#)).

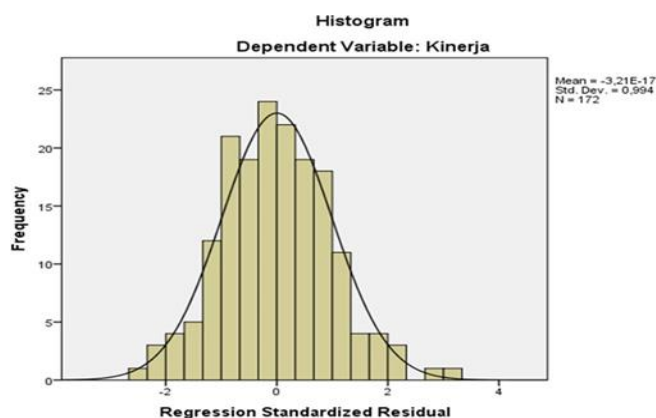


Figure 2. Normality Test Histogram

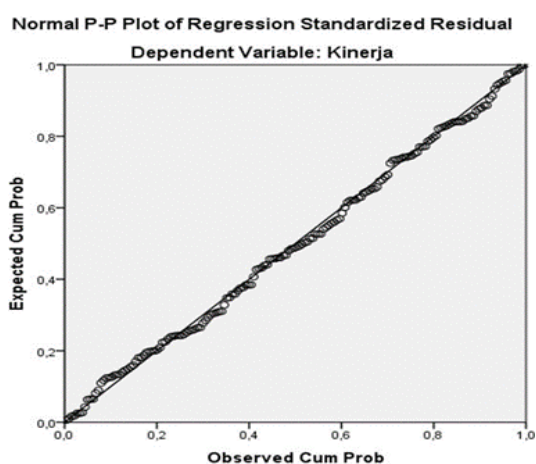


Figure 3. Normal Plot Graph

The histogram and normal plot graphs show that the vertical graph does not slant either to the right or the left, and the distribution of the dots is around the diagonal line. From the picture above, the researcher can conclude that the research data is usually distributed. Another basis for decision-making is based on the Kolmogorov-Smirnov test, and data is considered generally distributed if the significance value is above 5% (Ghozali, 2016).

Table 3. Kolmogorov Smirnov Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		172
Normal Parameters ^{a,b}	Mean	0E-7
	Std. Deviation	11,16358200
Most Extreme Differences	Absolute	,034
	Positive	,032
	Negative	-,034
Kolmogorov-Smirnov Z		,441
Asymp. Sig. (2-tailed)		,990

a. Test distribution is Normal.

b. Calculated from data.

Based on Table 3, the researcher can find the significance value of Asymp. Sig (2-tailed) is 0.990 0.05 higher, so the researcher can conclude that the data is usually distributed. From the three test results above, the researcher concludes that the research data is usually distributed to be used in parametric statistics (inferential statistics).

b. Multicollinearity Test

The multicollinearity test means that the independent variable of the regression model has an almost perfect linear relationship (Arifah, 2018). For this study, researchers used two ways, namely:

- 1) Comparing the value of the individual determination coefficient (r^2) with the determination value simultaneously (R^2)
- 2) The regression model's tolerance and inflation factor (VIF) values.

The test criteria are as follows: if $r^2 > R^2$, then multicollinearity occurs; if $r^2 < R^2$, multicollinearity does not.

Table 4. Multicollinearity Test Results

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	33,304	10,103		3,296	,001		
Komp Pedg (X1)	,132	,064	,160	2,071	,040	,821	1,219
Disiplin (X2)	,304	,073	,322	4,167	,000	,821	1,219

a. Dependent Variable: Kinerja (Y)

In the table above, can the researcher explain that:

- 1) Tolerance value acquisition for the variables X_1 and X_2 is 0.821 more than 0.10.
- 2) The value of the Variance Inflation Factor (VIF) for the variables X_1 and X_2 is 1.219 and less than 10.00

Based on the test results above, the researcher can conclude that there are no symptoms of multicollinearity in this regression test.

c. Heteroscedasticity Test

The heteroscedasticity test tests the multiple regression model that the researchers did. There is an unequal variance from the residual from one observation to another. Good regression does not occur in heteroscedasticity (Ghozali, 2016).

Decision-based on:

- 1) If the dot scatter spreads both above and below the number 0.
- 2) If the scatter dots do not cluster.
- 3) No pattern is formed.

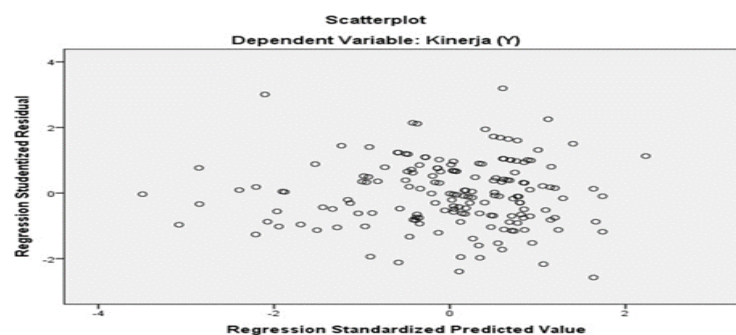


Figure 4. Scatterplot Graph

SPSS scatterplots output in figure 4

- 1) The distribution of the dots is above and below 0 or around the number 0.
- 2) The dots do not converge.
- 3) The distribution of data points does not form a pattern.
- 4) The distribution of data points does not form a wavy pattern.

From the results above, the researcher can conclude that there is no heteroscedasticity, so the prerequisites for the regression test can be fulfilled.

B. Description of Research Object

This research the researchers conducted from September 2021 to September 2022 on 172 (one hundred and seventy-two) teachers who taught in 42 (forty-two) public elementary schools in Kunduran District, Blora Regency.

1. Age

Table 5. Description of Respondents' Age

Range Age	Frequency	Percentage%
<25 year	3	1,7
26 - 35 year	31	18.0
36 - 45 year	61	35.5
46 - 55 year	43	25.0
>56 year	34	19,8
Amount	172	100

Table 5. above illustrates that 95 or 55.2% of respondents are between the ages of 25 and 45. This means teachers in schools throughout the Kunduran District are still in reasonably prime condition.

2. Gender

Table 6. Description of Respondents' Gender

Type Sex	Frequency	Percentage %
Man	48	27,9
Woman	124	72,1
Amount	172	100

The conditions are in table 6. this may not be good because there needs to be more balance between men and women.

3. Employment Status

Table 7. Description of Respondents' Employment Status

Type Sex	Frequency	Percentage %
Civil Servant	97	56,4
CPNS	11	6,4
First Aid	62	36,0
Honorary	2	1,2
Amount	172	100

This staffing status is excellent because almost 98.8 % of elementary school teachers in the Kunduran District are classified as ASN.

4. Working Period

Table 8. Description of Respondents' Working Period

Period Work (th)	Frequency	Percentage%
0 until 5	92	53.5
Six until 10	18	10.5
11 until 15	8	4,6
16 until 20	18	10.5
21 until 25	3	1,7
more from 26	33	19,2
Amount	172	100

Table 8. shows the work experience of respondents who have worked for more than ten years. There are 62 people, or 36%. There are still 110 teachers with less than ten years of teaching experience.

5. Educational Qualifications

Table 9. Description of Respondents' Working Period

Period Work	Frequency	Percentage %
Senior High School	5	2,9
D-II	2	1,2
S1	164	95.3
S2	1	0.6
Amount	172	100

Table 9. shows that the most extensive education is S1, as much as 164 or 95.3%. This condition is excellent because the minimum requirement for an elementary school teacher's diploma is a bachelor's degree.

C. Hypothesis Test

The data was obtained by researchers from a questionnaire distributed to 172 respondents. This test is to find out how much influence the Pedagogic Competence (X_1) and Teacher Discipline (X_2) variables have on Teacher Performance (Y), both individually and together. The results of Multiple Linear Regression are as follows:

Table 10. Multiple Regression Test Results

	Coefficient Regression	t-count	Sig	Information
Constant	33,304	3,296	0.001	
Competence Pedagogic (X_1)	0.132	2,071	0.040	
Discipline (X_2)	0.304	4,167	0.000	
R	= 0.416		F count	= 17,648
R Square	= 0.173		Q table	= 1,974
adjusted R Square (R^2)	= 0.163		F table Sig. f	= 3,050 = 0.000

Based on table 10 it can be explained as:

1. Multiple Linear Regression

Researchers use regression analysis (*regression analysis*) to estimate or predict the magnitude of the cause-and-effect relationship between variable X or independent and variable Y or dependent (Sobur, 2019). In addition, it also aims to find out how much influence teacher competence (X_1) has on teacher performance (Y) and how much teacher discipline (X_2) has on teacher performance (Y) and together teacher competence (X_1) and teacher discipline (X_2) effect on teacher performance (Y). (Sugiyono 2018) argues that independent variables are often referred to as *stimulus*, *predictor*, and *antecedent variables*, whereas if they are Indonesianized, they become independent variables.

The multiple linear regression equation is as follows:

$$Y = 33.304 + 0.132X_1 + 0.304X_2 + e$$

Which mean :

- a. If the value of the Performance constant (Y) is 33.304, which states that if the variables X_1 and X_2 are equal to zero, namely for Pedagogic Competence and Discipline, then the value of Teacher Performance is 33.304.
- b. While the X_1 coefficient of 0.132 means that if the X_1 variable (Pedagogic Competence) strengthens by 1%, the teacher's performance will strengthen by 0.132 (13.2%) or vice versa if the value decreases for the X_1 variable (Pedagogic Competence) by 1%, the performance teachers also decreased by 0.132 (13.2%).
- c. While the X_2 coefficient of 0.304 means that if the X_2 (Discipline) variable strengthens by 1%, then the teacher's performance will strengthen by 0.304 (30.4%) or vice versa if the value decreases for the X_2 (Discipline) variable by 1%, then the teacher's performance also decreased by 0.304 (30.4%).

From the description that the researcher conveyed, it can be concluded that Teacher Pedagogic Competence and Discipline affect Teacher Performance.

2. T-test

Based on table 1, the SPSS "Coefficients" output above is known:

- a. If based on the value of t count with t table, it can be explained: Looking for t table:

t table = $t(\alpha/2; nk-1)$ Description:

α = alpha, level of confidence

n = the sample that the researcher uses k = the number of X variables

From the research data obtained:

$\alpha = 0.05$

n = 172

k = 2

1 = constant So:

t table = $t(\alpha/2; nk-1)$

= $t(0.05/2; 172-2-1)$

= $t(0.025; 169)$

= 1.974

Based on table 1 of the SPSS "Coefficients" output above

1. it is known that the t-count value of the Competency variable (X_1) is 2.071 greater than t table 1.974, so the researcher concludes that hypothesis one (1) is accepted, which means that there is an effect of Pedagogic Competence (X_1) on Performance (Y)
2. it is known that the calculated t value of the Discipline variable (X_2) is 4.167 greater than t table 1.974, so the researcher concludes that the second hypothesis (2) is accepted, which means that there is an effect of Discipline (X_2) on performance

From the results above, the researcher concludes that Teacher Pedagogic Competence and Discipline individually affect Teacher Performance.

b. If based on the Significance value (Sig.)

- 1) The Significance Value (Sig.) of the Competency variable (X_1) is 0.040, less than 0.05, so the researcher concludes that the first hypothesis is accepted.
This means that there is an influence of Pedagogic Competence (X_1) on Performance (Y).
- 2) The significance value (Sig.) of the Discipline variable (X_2) is 0.000 less than 0.05, so the researcher can conclude that the first hypothesis is accepted.
This means that there is an influence of Discipline (X_2) on Performance (Y).

3. F-test

Calculation results and SPSS

a. With F table compared to F count F table = (k; nk)

Information:

α = alpha, confidence level n = number of samples

k = number of variables X

From the research data obtained: $\alpha = 0.05$

n = 172

k = 2 So:

F table = (k ; nk)

= (2; 172-2)

= (2 ; 170)

The result of the F table is 3.05

After the researcher calculates and compares the calculated F with the F table is 17.648, more significant than 3.05, the researcher can conclude that the hypothesis can be accepted. In other words, Competence (X_1) and Discipline (X_2) together can affect performance (Y).

b. With significance value

After the researchers calculated and compared the Sig. is 0.000 less than 0.05, the researcher can conclude that the hypothesis is accepted. In other words, Competence (X_1) and Discipline (X_2) can simultaneously influence performance (Y). From the description above, it can be concluded that Competence (X_1) and Discipline (X_2) can simultaneously affect Teacher Performance (Y).

4. Coefficient of determination (R Square)

Based on table 1 from the SPSS Model Summary output results, the coefficient of determination or R Square value is 0.173 or 17.3%. This figure means that the pedagogic competency variable (X_1) and the discipline variable (X_2) together influence the performance variable (Y) by 17.3%. While the rest ($100\% - 17.3\% = 82.7\%$) is influenced by other variables outside the regression equation or variables that the researchers did not use

Discussion

There needs to be more clarity about what distance learning anticipates to maintain and enhance teacher effectiveness. Changes in the standard learning system, the teacher's lack of preparation, or other factors may be to blame. Of course, travelling a long distance can contribute to a lack of interest and discipline in the classroom (Sailer et al., 2021). Qualified teachers can raise the quality of the learning process. Teachers must maintain professionalism and quick response times if the educational system changes. Teachers' ability to accomplish their obligations in quality and quantity may be seen in general from their teaching abilities. Therefore teacher performance is not lacking duties as a teacher. Explicitly regarded from the following perspectives: (1) the teacher's personality, including work motivation, attitudes, and characteristics; (2) educators, including inspirers, proofreaders, and discipline guardians; (3) expertise in subject matter mastery, class-leading style, communicate with students, and language skills; and (4) attitudes toward professional colleagues. The relationship or association between work motivation, work discipline, and teacher performance is explicitly covered in more detail in this article. Instructor effectiveness to achieve disciplined results, work motivation and the influence of discipline on teacher performance have a positive and significant impact on teacher performance.

In contrast to the present research being undertaken during the Covid-19 epidemic, where learning is conducted remotely, this research was conducted on the learning process, which is still carried out conventionally through face-to-face learning. The original version of this research was done at the SMA level; the update was done at the elementary level. As only some kids have a smartphone, distant learning is recognized to be challenging to adopt at the elementary school level. This study aims to ascertain whether there is a link or relationship between work motivation and considering the significance of teacher effectiveness in education, which is backed by work motivation and teacher work discipline to enhance the standard of the educational process in schools.

The results of earlier research related to these findings and that Rohma et al (2020) conducted regarding the relationship between work discipline and innovative attitude with teacher performance state that work discipline has a positive and significant relationship. According to Angraini et al (2021), organizations that have regulations, implementation guidelines, consequences, and punishments, as well as awareness and a willingness to abide by the rules, impact increasing teacher performance. A teacher needs work discipline to perform his tasks. Human resources' operational function of discipline. According to the research that has been done, teacher performance increases with increased work discipline among them.

D. Conclusion

From the description of the discussion of the research results that the researchers have done, the researcher can conclude that increasing pedagogical competence can

improve teacher performance. This shows that increasing teacher pedagogic competence will increase the performance of elementary school teachers in Kunduran District, Blora Regency.

Increasing teacher discipline can also improve teacher performance. This shows that increasing teacher discipline will increase the performance of elementary school teachers in Kunduran District, Blora Regency. There is an influence of teacher pedagogic competence and discipline on teacher performance. This shows that if there is an increase in teacher pedagogic competence and discipline, it will increase the performance of elementary school teachers in Kunduran District, Blora Regency.

There is a significant relationship between work motivation and discipline, and teacher performance. This study's results mean that teachers with high motivation in working and high work discipline can provide the best performance results to improve the quality of learning.

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