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The Influence of Academic Supervision and the Use of the Merdeka Mengajar Platform on the Teaching Quality of High School Teachers in the Rambang Kuang Sub-district

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ABSTRACT

This research, conducted under the PGRI Palembang University Education Management Postgraduate Program with Main Supervisor Mr. Assoc. Prof. Dr. Yasir Arafat, S.E., M.M. and Co-supervisor Mrs. Assoc. Prof. Dr. Rohana, M.Pd CIQnR, aims to determine and describe the partial and simultaneous influence of academic supervision and the use of the PMM (Platform Merdeka Mengajar) on the teaching quality of teachers in state high schools in the Rambang Kuang District. The population for this study consisted of all teachers at State High School 1 and State High School 2 in the Rambang Kuang District, totaling 53 teachers, with a total sample size of 53 using the saturated sampling technique. A descriptive analysis method with a quantitative approach was applied, utilizing observation, questionnaires, and documentation for data collection, and data analysis was performed using the t-test and F-test. The findings of the study indicate that: (1) the principal's academic supervision has an influence on the teaching quality of teachers in State High Schools in the Rambang Kuang District; (2) the use of PMM positively impacts the teaching quality of teachers in the district; and (3) a combination of the principal's academic supervision and the use of PMM simultaneously influences the teaching quality of teachers in State High Schools in the Rambang Kuang District by 94.6%, with the remaining 3.4% influenced by other variables not examined in this research.

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INTRODUCTION

The Industrial Revolution 4.0 has transformed perspectives on 21st-century education, where digital technology is widely utilized in the teaching and learning process (Surani, 2019). This shift presents both opportunities and challenges for all sectors. This revolution affects not only teaching

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methods but also the fundamental concepts of education (Munir et al., 2022). The curriculum plays a crucial role in achieving educational goals. In Indonesia, the government introduced the Merdeka Belajar Curriculum (KMB) in 2019 (Vhalery et al., 2022). This curriculum aims to help students face the impacts of the 4.0 revolution by changing learning methods, ways of acting, and mindsets to foster creative innovation (Yusnaini & Slamet, 2019). However, the quality of education in Indonesia is still lower compared to other Southeast Asian countries (Abidin, 2017). Therefore, teachers need to enhance their competencies to educate the generation in the era of the Industrial Revolution 4.0 (Nababan et al., 2020).

The current industrial revolution significantly impacts the development of 21st-century education, especially in the implementation of the Merdeka Belajar Curriculum. This curriculum aims to produce graduates with character but faces challenges such as changes in the mindset of educators and students, as well as the readiness of educational infrastructure. This research employs a descriptive analysis method with a literature review. The main challenges in implementing the Merdeka Belajar Curriculum include mindset shifts and infrastructure limitations. Solutions include training, internet access, support facilities, government support, and stakeholder involvement. The Merdeka Mengajar Platform (PMM) serves as an essential tool in implementing this curriculum.

Teachers are central figures in the implementation of education, holding a vital role, function, and position in ensuring the success of education. The quality of teacher performance is influenced by various factors such as training, work experience, education, attitude, organization, leadership, social conditions, and work motivation (Sutermeister in Suhardjono, 2012). Principals play a significant role in managing schools and improving the quality of education. Understanding educational quality is essential for teachers (Hadi, 2018). Teacher quality can be improved through alignment between work and their expertise (Fitria et al., 2018). Educating means developing students' knowledge and skills (Susanto, 2016). Teachers' teaching performance is influenced by various factors, including work motivation, knowledge, and work environment (Muspawi, 2021). The leadership of school principals greatly influences teacher performance, where principals act as leaders, motivators, and organizers of the work environment.

According to UNESCO data in the Global Education Monitoring (GEM) Report 2021, the quality of education in Indonesia ranks 10th out of 14 developing countries, while the quality of its teachers ranks last among those 14 countries (Utami, 2019). The Programme for International Student Assessment (PISA) survey shows that Indonesia's education quality ranks 72nd out of 78 countries (Alifa, 2021). Therefore, further research is needed to improve the quality of teachers and education in Indonesia. Academic supervision, which aims to improve teaching through cycles of planning, observation, and analysis, is one of the effective methods (Purwanto, 2014). Principals play

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an essential role in academic supervision to support the learning process and improve teaching quality (Wibowo, 2014).

Educational supervision encompasses all learning activities, including the preparation, implementation, and evaluation of teaching by supervisors or inspectors. The goal of academic supervision is to enhance the quality of learning and teaching situations by developing the teaching profession. A case study in State High Schools in the Rambang Kuang sub-district demonstrates the importance of the role of school principals and socioeconomic conditions in educational quality. High-quality education is a societal need, and the education system must address existing challenges (Anwar, 2013). Educational innovation is needed to solve issues in education, and educational technology can help improve the quality of learning (Aziz, 2018). However, teachers' skills in information and communication technology (ICT) remain inadequate, affecting the quality of teaching (Toheri et al., 2022).

The optimal implementation of academic supervision and the use of the Merdeka Mengajar Platform are crucial for improving the quality of learning. Community leaders and co-leaders of belajar.id play an essential role in facilitating the use of belajar.id accounts and resetting passwords for educators and students. Principals must lead and guide teachers to achieve the school's vision and mission. The situation in State High Schools in the Rambang Kuang sub-district highlights the importance of utilizing the Merdeka Mengajar Platform to improve the quality of learning and education in rural areas. This research aims to analyze the impact of academic supervision and the use of the Merdeka Mengajar Platform on the teaching quality of teachers in State High Schools in the Rambang Kuang sub-district. The use of the Merdeka Mengajar Platform serves as an alternative in organizing schools efficiently and effectively, with the goal of improving learning quality and educational standards. Therefore, the author is interested in researching "The Influence of Academic Supervision and the Use of the Merdeka Mengajar Platform on the Teaching Quality of Teachers in State High Schools in the Rambang Kuang Sub-district."

METHOD

The method used in this research is a quantitative approach, which is applied when the researcher aims to test the influence of independent variables on dependent variables under controlled conditions (Sugiyono, 2019). Multiple linear regression analysis is employed to evaluate the influence of each variable. Creswell (2013) in Kadir (2019) states that quantitative research is a method used to test theories by examining the relationships between variables. This study measures variables using instruments that produce data in numerical form. The philosophy of positivism underlies this research,

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which views reality as something concrete, observable, categorizable based on type, form, color, and behavior, and measurable and verifiable. The focus of this study is on academic supervision and the use of the Merdeka Mengajar Platform on the teaching quality of teachers in State High Schools in the Rambang Kuang sub-district.

After determining the method, the next step is to select an appropriate data collection technique. This quantitative research will use a descriptive analytical survey approach. According to Kesumawati and Aridanu (2018), a descriptive analytical survey aims to describe the current situation related to a particular study topic, explain the reasons behind the phenomenon, and illustrate its conditions. Although it does not involve a control group like experimental research, the generalization of this survey can be considered accurate if a representative sample is used.

RESULTS AND DISCUSSION

Data Description

The research data was obtained from the selected sample schools, namely the State High Schools in the Rambang Kuang sub-district. Data on the variables of academic supervision, the use of the Merdeka Mengajar Platform (PMM), and teaching quality were collected through questionnaires with Likert scale responses, distributed to 53 participants—29 from State High School 1 Rambang Kuang Barat and 24 from State High School 2 Rambang Kuang.

The academic supervision questionnaire initially contained 30 items. After conducting validity and reliability tests with 25 respondents outside the research sample, 2 items were found invalid, leaving 28 valid and reliable items, with reliability coefficients above the threshold of > 0.8. Similarly, the PMM usage questionnaire initially had 30 items, but 3 were invalidated through testing, resulting in 27 valid and reliable items. The teaching quality questionnaire also began with 30 items, with 2 items invalidated, leaving 28 valid and reliable items. All validated instruments were then administered to the 53 teachers in the study sample.

Data Description of Principal's Academic Supervision

Variable X1 (Principal's Academic Supervision) was measured by distributing questionnaires to 53 respondents, consisting of teachers and principals from State High School 1 (29 participants) and State High School 2 (24 participants). The collected data was then processed to describe the

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results. The processed data can be seen in the following table:

Statistics

		X1	X2	Y
N	Valid	53	53	53
	Missing	0	0	0
Mean		108.42	108.25	111.02
Std. Error of Mean		.936	1.065	1.019
Median		109.00	108.00	110.00
Mode		111	102	103
Std. Deviation		6.817	7.751	7.415
Variance		46.478	60.073	54.980
Range		27	30	26
Minimum		97	91	99
Maximum		124	121	125
Sum		5746	5737	5884

Table 1 Description of Principal's Academic Supervision Data

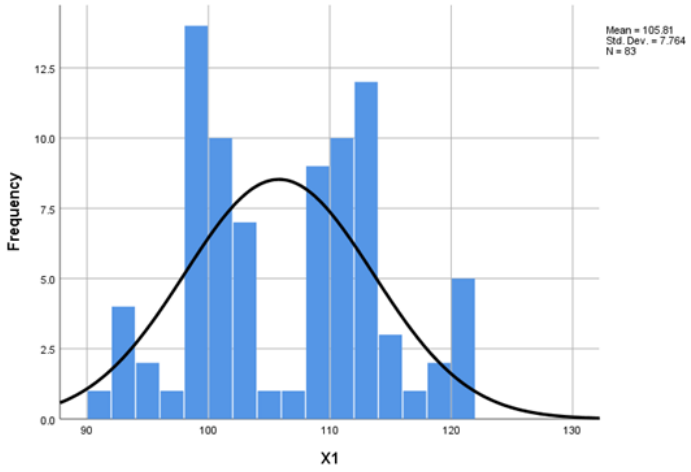

Figure 1 Histogram of the Frequency Distribution of Principal's Academic Supervision

Description of PMM Usage Dat

Variable X2 (PMM Usage) was measured by distributing questionnaires to 53 respondents, consisting of teachers and principals from State High School 1 Rambang Kuang (29 participants) and State High School 2 Rambang Kuang (24 participants). The collected data was then processed to describe the results. The processed data can be seen in the following table:

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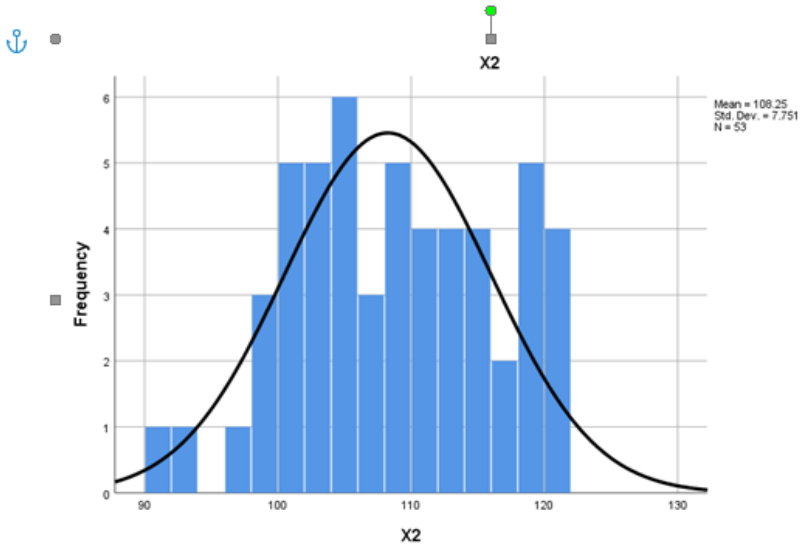
Statistics

		X1	X2	Y
N	Valid	53	53	53
	Missing	0	0	0
Mean		108.42	108.25	111.02
Std. Error of Mean		.936	1.065	1.019
Median		109.00	108.00	110.00
Mode		111	102	103
Std. Deviation		6.817	7.751	7.415
Variance		46.478	60.073	54.980
Range		27	30	26
Minimum		97	91	99
Maximum		124	121	125
Sum		5746	5737	5884

Table 2 Description of PMM Usage Data



Histogram of the Frequency Distribution of PMM Usage

Description of Teacher Teaching Quality Data

Variable Y (Teacher Teaching Quality) was measured by distributing questionnaires to 53 respondents, consisting of teachers and principals from State High School 1 Rambang Kuang (29

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participants) and State High School 2 Rambang Kuang (24 participants). The collected data was then processed to describe the results. The processed data can be seen in the following table:

Statistics

		X1	X2	Y
N	Valid	53	53	53
	Missing	0	0	0
Mean		108.42	108.25	111.02
Std. Error of Mean		.936	1.065	1.019
Median		109.00	108.00	110.00
Mode		111	102	103
Std. Deviation		6.817	7.751	7.415
Variance		46.478	60.073	54.980
Range		27	30	26
Minimum		97	91	99
Maximum		124	121	125
Sum		5746	5737	5884

Table 3 Description of Teacher Teaching Quality Data

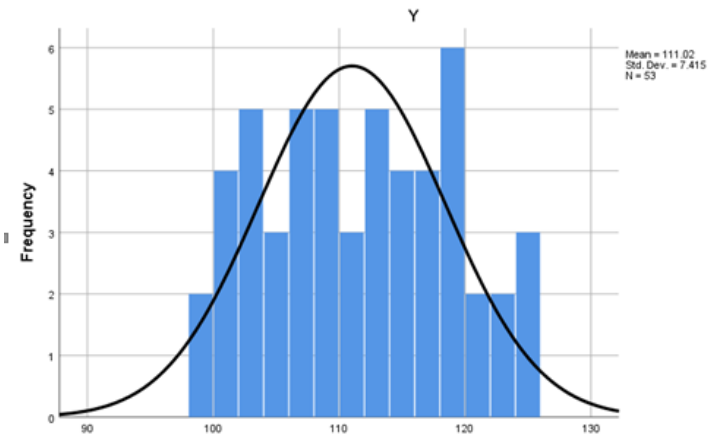

Figure 3 Histogram of the Frequency Distribution of Teacher Teaching Quality

Testing the Requirements for Data Analysis

Normality Test of Data

The normality test is a crucial step before conducting multiple linear regression analysis. Its purpose is to verify that the data used in the analysis meets the assumption of normal distribution,

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which is an essential prerequisite for various statistical methods. Several methods can be employed for normality testing, including Kolmogorov-Smirnov, Shapiro-Wilk, and visual analyses such as histograms or Q-Q plots (Alma B., 2018).

Using statistical software like SPSS is highly recommended for conducting normality tests, as it streamlines the analysis process and provides more accurate output. SPSS allows researchers to easily visualize data distribution and obtain p-values to test normality hypotheses.

The importance of the normality test lies in understanding the residual values produced by the regression model. Residuals are the differences between predicted values and actual observed values. If the residuals are normally distributed, the regression model is considered more reliable and valid. Conversely, non-normally distributed residuals may lead to less accurate analyses and potentially erroneous conclusions.

If the data is normally distributed, researchers can proceed to use parametric statistical tests, such as multiple linear regression. Parametric tests are generally stronger and provide more efficient estimates than non-parametric tests, especially when basic assumptions are met. The normality test for this study was conducted using the Kolmogorov-Smirnov method with SPSS version 26.0, following these criteria: a. If the probability value (Significance) ≥ (α = 0.05), the data is normally distributed. b. If the probability value (Significance) < (α = 0.05), the data is declared not normally distributed.
The results of the normality test for this research are presented below:

Table 4 Results of Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		53
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.40710205
Most Extreme Differences	Absolute	.100
	Positive	.100
	Negative	-.068
Test Statistic		.100
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

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Based on Table 4 above, the results of the Kolmogorov-Smirnov normality test show an asymp.sig value of 0.200. This means that the significance value (α) is greater than 0.05 (asymp.sig > 0.05). Statistically, at a 95% confidence level, it can be concluded that the obtained data have residual values that are normally distributed.

Linearity Test of Data

The linearity test aims to determine whether the relationship between the independent and dependent variables is linear. This test was conducted using SPSS 26.0, and the results will dictate the data analysis method to be used. If the results indicate a linear relationship, the regression analysis will proceed. However, if the analysis shows a non-linear relationship, non-linear regression will be considered as an alternative analysis method. The decision criteria are as follows: a. If the significance value ≥ (α = 0.05), the data is considered linear. b. If the significance value < (α = 0.05), the data is considered non-linear.

The following presents the results of the linearity test conducted with SPSS 26.0:

Table 5 Results of the Linearity Test

(Academic Supervision of the Principal and the Quality of Teacher Instruction)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X1	Between Groups	(Combined)	2712.848	22	123.311	25.315	.000
		Linearity	2635.014	1	2635.014	540.947	.000
		Deviation from Linearity	77.834	21	3.706	.761	.740
	Within Groups		146.133	30	4.871		
	Total		2858.981	52			

Based on the data processing results in Table 4.5, the linearity test using SPSS version 26.0 shows a significance value of 0.740. Since this significance value is greater than the established error level (0.740 > 0.05), it can be concluded that there is a linear relationship between the variable of academic supervision by the principal (X1) and the variable of teacher instruction quality (Y).

Table 6 Results of the Linearity Test

(Use of PMM and the Quality of Teacher Instruction)

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ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X2	Between Groups	(Combined)	2770.064	26	106.541	31.153	.000
		Linearity	2652.922	1	2652.922	775.737	.000
		Deviation from Linearity	117.142	25	4.686	1.370	.215
	Within Groups		88.917	26	3.420		
	Total		2858.981	52			

Based on the data processing results in Table 4.6, the significance value obtained from the linearity test is 0.215. Since this value is greater than the established error level (0.215 > 0.05), it can be concluded that there is a linear relationship between the variable of PMM usage (X2) and the quality of teacher instruction (Y). After confirming that the relationship between variables X2 and Y is linear, hypothesis testing can proceed using the regression formula.

Hypothesis Testing

The hypotheses proposed in this study focus on the influence of two main variables: the academic supervision of school principals and the use of the Merdeka Mengajar Platform (PMM) on the quality of teaching by teachers at SMA Negeri Sekecamatan Rambang Kuang.

Firstly, regarding academic supervision, the alternative hypothesis suggests that there is a significant effect of the academic supervision provided by school principals on the quality of teaching by teachers at SMA Negeri Sekecamatan Rambang Kuang. Conversely, the null hypothesis posits that there is no significant effect of the academic supervision of school principals on the quality of teaching.

Secondly, concerning the use of PMM, the alternative hypothesis indicates that the utilization of PMM positively impacts the quality of teaching by teachers at SMA Negeri Sekecamatan Rambang Kuang. In contrast, the null hypothesis claims that the use of PMM does not have a significant effect on the quality of teaching.

Lastly, the study also examines the combined effect of academic supervision and the use of PMM on the quality of teaching. The alternative hypothesis in this case asserts that there is a significant combined influence of academic supervision and the use of PMM on the quality of teaching by teachers at SMA Negeri Sekecamatan Rambang Kuang. On the other hand, the null hypothesis states that there is no significant combined effect of academic supervision and the use of PMM on the quality of teaching.

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Multiple Linear Regression Analysis Test

After conducting normality and linearity tests on the survey responses, it was found that the data is normally distributed and there is a linear relationship among the variables X1, X2, and Y. Therefore, the research can proceed with hypothesis testing. The hypothesis test in this study employs multiple linear regression using SPSS version 26.0. The criteria for this hypothesis testing uses a 95% confidence level (α = 0.05), with the following provisions: if the significance level > α (5% or 0.05), then H0 is accepted and Ha is rejected; however, if the significance level ≤ α (5% or 0.05), then H0 is rejected and Ha is accepted. Below are the results of the multiple linear regression analysis using SPSS version 26.0:

Table 7 Results of Multiple Linear Regression Analysis of Academic Supervision and the Use of PMM on Teacher Quality

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.311	3.187		.098	.923
	X1	.523	.074	.481	7.076	.000
	X2	.499	.065	.521	7.666	.000

a. Dependent Variable: Y

Berdasarkan tabel 7 di atas, nilai konstanta persamaan regresi (a) adalah 0,311, sedangkan nilai koefisien untuk variabel bebas b1 adalah 0,523 dan untuk variabel bebas b2 adalah 0,499. Oleh karena itu, persamaan regresi linear berganda yang diperoleh adalah sebagai berikut:

$$Y = a + b1X1 + b2X2$$
$$= 0{,}311 + 0{,}523 + 0{,}499$$

Maka dapat disimpulkan bahwa makna dari persamaan regresi linear di atas adalah sebagai berikut:

1. Konstanta (a) sebesar 0,311 berarti jika nilai variabel supervisi akademik kepala sekolah (X1) dan penggunaan PMM (X2) adalah 0, maka nilai kualitas mengajar guru (Y) adalah 0,311.
2. Koefisien regresi X1 (b1) sebesar 0,523 menunjukkan bahwa X1 berhubungan positif dengan Y; jadi, jika X1 meningkat 1 poin, nilai variabel Y akan meningkat sebesar 0,523.

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3. Koefisien regresi X2 (b2) sebesar 0,499 menunjukkan bahwa X2 berhubungan positif dengan Y; jadi, jika X2 meningkat 1 poin, nilai variabel Y akan meningkat sebesar 0,499.

Kesimpulannya, persamaan regresi di atas menunjukkan bahwa kualitas mengajar guru akan mengalami peningkatan secara positif dengan peningkatan supervisi akademik dan penggunaan PMM.

Partial Test (t-test)

The partial test (t-test) is a statistical method used to evaluate the influence of each independent variable on the dependent variable separately. In this study, the t-test is employed to determine whether academic supervision and the use of the Quality Management Program (PMM) significantly impact teacher quality.

By conducting the t-test, the researcher can identify the individual contributions of each independent variable. For instance, when examining academic supervision, the researcher assesses the extent to which the support and guidance provided to teachers affect their teaching abilities. A significant p-value (typically $p < 0.05$) would indicate that academic supervision positively influences teaching quality.

Similarly, the use of PMM can be tested to determine whether this program contributes to improving teaching quality. The t-test will reveal if changes in independent variables, such as increased supervision frequency or the effectiveness of the PMM, have a tangible impact on the dependent variable.

The results of the t-test are typically presented as regression coefficients and t-values. The regression coefficients indicate the direction and magnitude of the influence, while the t-value provides information about the strength of that influence. If the t-value exceeds the critical value for the appropriate degrees of freedom, the null hypothesis, which states that there is no effect, can be rejected.

Overall, the partial test (t-test) is a crucial tool in regression analysis, helping researchers understand the relationships between variables and providing a basis for policy recommendations or strategies in educational contexts.

In this study, the hypothesis testing utilizes the t-test with the assistance of SPSS version 26.0. The criteria for hypothesis testing, at a 95% confidence level ($\alpha = 0.05$), are as follows: if the significance level is greater than α (5% or 0.05), the null hypothesis (H0) is accepted, and the

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alternative hypothesis (Ha) is rejected; conversely, if the significance level is less than or equal to α, the null hypothesis is rejected, and the alternative hypothesis is accepted.

The following presents the data from the t-test conducted using SPSS 26.0:

Table 8 Results of the T-Test (Partial Test)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	30.404	5.563		5.465	.000
	X1	.511	.080	.559	6.419	.000
	X2	.249	.061	.354	4.062	.000
a Dependent Variable: Y						

The alternative hypothesis (Ha1) states that there is a significant effect of academic supervision on the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang, while the null hypothesis (Ho1) asserts that there is no significant effect.

Based on the results from the t-test shown in Table 4.8 Coefficients, the significance level for the effect of academic supervision on teaching quality is 0.00, which is less than 0.05. Therefore, Ha1 is accepted and Ho1 is rejected, concluding that academic supervision significantly affects the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang.

Similarly, for the effect of PMM usage, the alternative hypothesis (Ha2) posits that there is a significant effect on teaching quality, while the null hypothesis (Ho2) states there is none. The significance level for PMM usage is also 0.00, leading to the acceptance of Ha2 and rejection of Ho2. This indicates that PMM usage significantly influences the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang.

Simultaneous Testing (F-test)

After conducting the Partial Test (t-test) to assess the influence of each independent variable, the next step is to examine the simultaneous effect of the independent variables—academic supervision (X1) and the use of the Quality Management Program (PMM) (X2)—on the dependent variable (Y), which is the teaching quality of teachers. This evaluation is performed using the Simultaneous Test (F-test).

The F-test assesses whether the independent variables collectively have a significant effect on the dependent variable. In this context, it evaluates the simultaneous impact of academic supervision

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and PMM usage on the teaching quality of teachers. In essence, the F-test helps determine if the combination of these two independent variables significantly contributes to improving teaching quality.

In regression analysis, the F-test is performed by comparing the variance explained by the regression model with the variance not explained. If the explained variance is significantly greater than the unexplained variance, it indicates that the regression model is significant. The results of the F-test are typically presented as the F-statistic and p-value. A p-value less than 0.05 allows for the rejection of the null hypothesis, suggesting that the independent variables together have a significant effect on the dependent variable.

Additionally, the F-test is important for educational policy and strategy analysis, helping decision-makers understand the factors contributing to overall teaching quality. The findings from the F-test can inform necessary improvements and development strategies in the educational environment.

In summary, the Simultaneous Test (F-test) is a crucial analytical tool for evaluating complex relationships among multiple variables, providing a comprehensive overview of the factors influencing educational quality.

The hypothesis for this study posits that there is a significant joint effect of academic supervision and PMM usage on the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang. The hypothesis testing uses the F-test with SPSS version 26.0. The criteria for hypothesis testing at a 95% confidence level ($\alpha = 0.05$) state that if the significance level is greater than α, the null hypothesis is accepted; if it is less than or equal to α, the null hypothesis is rejected.

The following presents the results of the F-test conducted using SPSS version 26.0:

Table 9

Results of the F-Test (Simultaneous Test) for academic supervision and PMM usage on teaching quality.

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2756.024	2	1378.012	669.219	.000[b]
	Residual	102.957	50	2.059		
	Total	2858.981	52			

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

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Based on the results of the simultaneous test (F-test) in Table 4.9, it can be observed that the significance level obtained from the strategic management and principal competency variables concerning teacher performance is 0.00, which is less than 0.05. Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted. This indicates a significant influence of academic supervision and the use of PMM collectively on the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang.

To assess the extent of the independent variables' influence on the dependent variable simultaneously, the following model summary table provides the coefficient of determination:

Table 10 Coefficient of Determination Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982[a]	.964	.963	1.435
a. Predictors: (Constant), X2, X1				

Based on Table 4.10, the R-squared value obtained is 0.982, indicating a coefficient of determination of 96.4%. This suggests that the combined influence of academic supervision and the use of the Merdeka Mengajar Platform (PMM) significantly impacts the teaching quality of teachers by 96.4%, while the remaining 3.6% is determined by other factors not examined in this study.

The Influence of Academic Supervision on the Quality of Teacher Instruction at Public High Schools in the Rambang Kuang Sub-District.

The research conducted at Public High Schools in the Rambang Kuang Sub-District demonstrates that the initial hypothesis stating that academic supervision does not significantly affect the quality of teacher instruction has been rejected. The hypothesis testing revealed that the significance level (sig) for the variable of academic supervision by the school principal (X1) is 0.00, which is less than α (0.05). This indicates that Ha is accepted and Ho is rejected, concluding that the principal's academic supervision significantly influences the quality of teaching.

The principal's role is primarily to lead the school by managing the learning process, analyzing issues, providing direction, leading the organization, communicating effectively, and resolving

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problems. These efforts are aimed at guiding teachers to enhance their teaching quality and maximize contributions to students.

Academic supervision is a planned development activity aimed at providing technical assistance to teachers in executing the learning process to improve their capabilities in fulfilling their responsibilities effectively. Enhancing the teaching quality by principals can be achieved through specific strategies, including their roles as educators, managers, administrators, supervisors, leaders, innovators, and motivators.

According to Sagala, educational quality can be improved through two main strategies: enhancing academic quality and developing essential life skills, supported by substantial and meaningful education. The strategic management implemented by principals encompasses planning, management, supervision, and evaluation of teacher performance, focusing on teaching quality in schools.

Schools that successfully implement the concept of independent learning emphasize the quality of input, process, output, and outcomes, supported by high-quality components. Good strategic management in schools is characterized by organizational leadership, curriculum leadership, and effective management.

Previous research by Astuti et al. (2021) highlighted the importance of the principal's managerial skills and work motivation in effectively applying school-based management. This finding aligns with the current study, which investigates the independent variables' roles in enhancing teaching quality.

Additionally, research by Sufiyadi et al. (2020) indicated that academic supervision significantly impacts teacher performance in South Jawai District elementary schools, with a correlation coefficient of 82.6%. The principal's leadership also plays a significant role in improving teacher performance, aligning with current research on the impacts of supervision and leadership on teacher performance.

Conversely, Rastina's (2017) study on "The Influence of Principal Competence and Supervision on Teacher Performance at SD in Palu Barat District" found that managerial competence and supervision do not significantly impact teacher performance, either individually or collectively.

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The Impact of Using the Merdeka Mengajar Platform (PMM) on Teacher Quality at Public High Schools in Rambang Kuang Sub-District

Based on the significance test results for the variable of school principal competency on teacher performance at public high schools in Rambang Kuang Sub-District, a significance value of 0.00 was obtained, which is less than α (0.05) for a one-tailed test. This indicates that the alternative hypothesis (Ha) is accepted, while the null hypothesis (Ho) is rejected. Therefore, it can be concluded that there is a significant impact of the use of the Merdeka Mengajar Platform (PMM) on teacher quality.

The implementation of PMM has been effective in assisting, directing, and providing learning resources for teachers, serving as a reference for developing teaching media suited to the needs of today's students. This positively impacts teachers' performance, motivating students to enhance their potential at public high schools in the Rambang Kuang Sub-District.

The discussion highlights that utilizing the PMM is a significant approach to improving teacher competency and independent learning quality by 73.6%. This is crucial for supporting the implementation of the Merdeka curriculum, which presents new challenges for teachers by providing references and insights for effectively implementing the curriculum in schools. Teachers benefit from running learning activities, promoting progress, and overcoming obstacles encountered during the learning process. PMM includes numerous features accessible to teachers and school principals, such as inspirational videos about the Merdeka curriculum.

Quality learning is fundamental to educational activities and a key determinant of school success. The quality of teaching positively correlates with overall educational quality. Effective teaching involves guiding and directing students' learning experiences in formal situations, requiring teachers to be competent in designing and developing various learning resources. The quality of learning results from the systemic and synergistic interaction between teachers, students, the learning environment, and educational media to achieve optimal learning processes and outcomes.

Teachers must possess adequate competencies to motivate students to learn, utilizing modern applications that align with current technology. Strategies and approaches for teachers include creating democratic, cooperative learning environments and adapting the triple paradigm. Integration of teacher abilities and skills is essential for enhancing teaching quality.

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Previous research indicates that the supervision of school principals significantly influences teacher performance. Additionally, a study by BGV in Banten Province found that utilizing PMM improves teachers' understanding of its application in the learning process, with research showing a gradual increase in learning quality by 87%.

The Impact of Academic Supervision and the Use of the Merdeka Mengajar Platform (PMM) on Teacher Quality at Public High Schools in Rambang Kuang Sub-District.

Based on the hypothesis testing results for the variables of academic supervision and the use of the Merdeka Mengajar Platform (PMM) on teacher quality at Public High Schools in Rambang Kuang Sub-District, a simultaneous test (F-test) revealed a significance value of 0.00. This value is less than 0.05, indicating a significant joint effect of strategic management and school principal competence on teacher quality. The combined effect of academic supervision and the use of PMM on teacher quality is 94.6%, while the remaining 3.4% is influenced by other unexamined variables.

The study's findings indicate that if the principal's academic supervision is conducted effectively and continuously, aligning with its intended goals, functions, techniques, and principles, it will positively impact teacher quality.

This research aligns with previous studies, such as Erwinsyah (2017), which emphasized the crucial role of teachers in determining both the quantity and quality of learning outcomes. Teachers must meticulously plan lessons to enhance student learning opportunities and improve teaching quality. As learning managers, they should create effective learning environments, develop instructional materials properly, and enhance student capabilities to achieve educational objectives.

Similar independent variable studies have been conducted by Alpian (2018), examining the "Impact of Academic Supervision and Teaching Administration Completeness on Teacher Quality at Public High Schools in Pemulutan." Alpian's quantitative study found that administrative completeness positively and significantly influenced teacher quality (significance level of 0.01, less than 0.05, thus accepting Ha), while there was no significant effect from the principal's supervision (significance level of 0.14). This study indicates that teacher quality can be realized through effective school management and well-planned educational administration, facilitating teaching processes.

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CONCLUSION

Based on the research findings and discussion, it can be concluded that there is a significant influence of academic supervision on the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang, with a significance value of 0.00, which is less than α (0.05). Additionally, the use of the Merdeka Mengajar Platform (PMM) also shows a significant effect on the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang, with a significance value of 0.00, which is also less than α (0.05).

Furthermore, there is a significant joint effect of both academic supervision and the use of PMM on the teaching quality of teachers at SMA Negeri Sekecamatan Rambang Kuang, with a significance value of 0.00, which is less than α (0.05). The total effect of all independent variables on the teaching quality of teachers is 96.4%, while the remaining 3.6% is influenced by other variables not examined in this study.

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