



Exploring the Impact of Zoning Education and Teacher Performance on Student Success in Kendari's Senior High Schools

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ABSTRACT

Purpose of the Study: This research investigates the interplay between the educational zoning system, teacher performance, and student academic achievement in high schools. Given the increasing implementation of zoning policies in Indonesia's education system, understanding their direct and combined effects on teacher performance and student outcomes is critical for shaping equitable and adequate education policies.

Methodology: The study focuses on six high schools in Kendari City, employing a quantitative approach to analyze the relationships between zoning policies, teacher performance, and student achievement. Data were collected through surveys and analyzed using statistical tests, including multiple regression analysis, with a significance threshold of $\alpha = 0.05$.

Main Findings: The results indicate that the educational zoning system positively and significantly impacts student academic outcomes, with a significance value and a contribution of 10.00%. Similarly, teacher performance significantly influences student achievement, with a significance value and a contribution of 10.00%. However, the zoning system does not directly affect teacher performance, as indicated by a non-significant, contributing only 3.4%. When combined, the zoning system and teacher performance significantly influence student achievement ($p = 0.001$), underscoring the complementary nature of policy and teacher effectiveness in improving academic performance.

Novelty/Originality of the Study: This study provides new insights into the nuanced relationship between zoning policies and education quality, emphasizing the critical role of teacher performance in mediating policy outcomes and highlighting the importance of integrating zoning reforms with teacher development programs to maximize their collective impact on student achievement.

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1. INTRODUCTION

National Education functions to develop the abilities and character, as well as the dignified civilization of the nation in order to enlighten the life of the nation. It aims to develop the potential of students to become humans who are faithful and devoted to God Almighty, have noble character, are knowledgeable, skilled, creative, independent, and become democratic and responsible citizens [1]. In Law No. 20 of 2003 concerning the National Education System, Article 13 paragraph 1 states that there are three pathways of education: formal, non-formal, and informal [2]. Formal education is education that is generally carried out in schools. This educational path has a clear educational level, starting from basic education, secondary education, to higher

education [3]. Non-formal education is an educational path that can be implemented in a structured and tiered manner, but its implementation is outside of schools or outside of formal education. Informal education is education that takes place in the family and community in the form of independent learning activities that are carried out consciously and responsibly [4]. In formal education, the initial stage to start the educational level is through the admission of new students. Admission of new students is a selection process that will determine the students who are accepted into a school. This process is expected to run objectively, accountably, transparently, and without discrimination so that it can encourage increased access to services and equitable education.

In an effort to achieve equitable education, the Indonesian government has issued a new regulation on student admissions through Minister of Education and Culture Regulation No. 17 of 2017 concerning the Admission of New Students (PPDB) [5]. This regulation mandates the implementation of a zoning system by schools in admitting new students. Priority for Local Residents: According to Permendikbud No. 17 Tahun 2017, schools operated by the local government must prioritize the admission of new students who reside within the nearest zone radius from the school. This priority group must comprise at least 90% of the total number of admitted students. The domicile of prospective students is determined based on the address on their family cards, which must be issued no later than six months before the PPDB implementation.

The radius of the nearest zone is determined by the local government based on local conditions. Ten percent of the total student intake is divided into two criteria: 5% for the achievement pathway and 5% for students with a change of domicile. However, the zoning system does not apply to SMK (Vocational High Schools). With the implementation of this zoning system, it is hoped that the admission of new students can proceed without discrimination and provide equal opportunities for every student to receive formal education, regardless of their cognitive or economic abilities. In practice, the implementation of this zoning system has encountered various issues, including the fact that students accepted through the zoning system tend to have lower cognitive abilities and learning motivation compared to those accepted through achievement tracks [6]. The objectives of this study are: First, to determine the impact of the education zoning system on the academic achievement of high school students in Kendari City. Second, to determine the impact of teacher performance on the academic achievement of high school students in Kendari City. Third, to determine the impact of the education zoning system on the performance of high school teachers in Kendari City. Fourth, to determine the combined impact of the education zoning system and teacher performance on the academic achievement of high school students in Kendari City.

Although educational zoning policies have become a prominent feature of educational reform in various countries, including Indonesia, there is limited research specifically addressing the impact of zoning on student achievement at the senior high school level. Most existing studies on zoning focus on its broader effects on primary or secondary education, without delving into its specific influence at the high school level. Moreover, there is a lack of research exploring how teacher performance interacts with zoning policies to affect student outcomes, especially in cities like Kendari, which have unique educational contexts and challenges. This leaves a significant gap in understanding how zoning policies at the senior high school level work in conjunction with teacher performance to influence academic achievement. Additionally, while teacher performance is widely acknowledged as a critical factor in determining educational quality, its direct relationship with zoning policies has not been thoroughly investigated. Although several studies have examined the impact of teacher quality on student achievement independently, few have explored how zoning systems might impact teacher effectiveness. This gap prevents a fuller understanding of how education policies, such as zoning, intersect with teacher performance to influence student success.

This study is important for several reasons. It aims to address these gaps by specifically examining how zoning education policies, teacher performance, and student achievement are interrelated within the context of senior high schools in Kendari City. Gaining insight into this relationship is vital for policymakers seeking to improve education quality in the area. By investigating these variables together, the research will offer valuable insights that can inform future policies aimed at enhancing educational outcomes. The findings can also provide practical recommendations for other cities in Indonesia and internationally that are implementing zoning policies, enabling them to fine-tune their approaches to better support both teachers and students. Ultimately, this research contributes to a more comprehensive understanding of how education policies, teacher effectiveness, and student achievement interact, laying the groundwork for targeted interventions that can improve educational outcomes at the senior high school level. The research findings can inform policymakers in Kendari City to refine and improve existing education policies, particularly those related to the zoning system and teacher performance management. By understanding the impact of these factors on student achievement, policymakers can make informed decisions aimed at achieving the goal of enhancing educational quality. The research outcomes also serve as a benchmark for other cities implementing zoning education policies, enabling them to consider teacher performance as a key determinant of educational success.

2. RESEARCH METHOD

The study employs a quantitative approach utilizing a survey method to gather data. This methodology is well-suited for analyzing the influence of independent variables (exogenous variables) on dependent variables (endogenous variables) [7]. It analyzes the influence of exogenous variables on endogenous variables. Based on the background and literature review on the constructs of student admission through the zoning system on teacher performance and student academic achievement, a structural model has been developed, as depicted in this theoretical framework, which will be used as a working reference for data analysis. The model can be presented as shown in the figure 1.

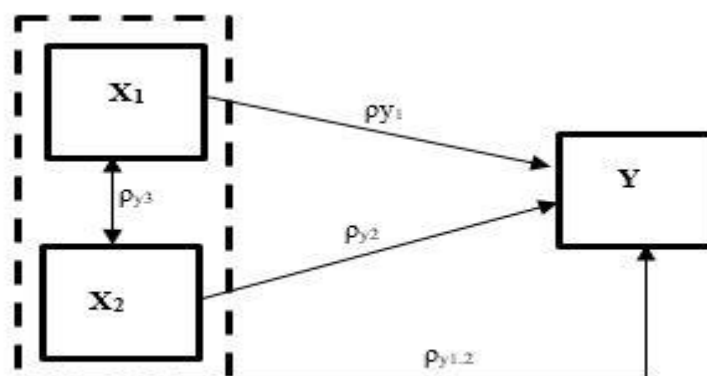


Figure 1. Theoretical Framework

Description:

X_1 = Education zoning system

X_2 = Teacher performance

Y = Student academic achievement

p_{y1} = Influence of the education zoning system on student academic achievement

p_{y2} = Influence of teacher performance on student academic achievement

p_{y3} = Influence of the education zoning system on teacher performance

$p_{y1,2}$ = Combined influence of the education zoning system and teacher performance on student academic achievement

This research was conducted from August to October 2021. The locations of this study were Senior high school 1 Kendari, Senior high school 4 Kendari, Senior high school 5 Kendari, and Senior high school 6 Kendari. The stages of the research implementation included: field observations, managing research administration, conducting trial and validation phases of the research instruments, data collection in the field, data processing, and compiling the research report.

The population refers to the entire group of subjects within the scope of the study. The number of observations or members in a population is called the population size, while a value that describes a characteristic of the population is called a parameter [7]. The population in this study includes all students at Senior high school 1 Kendari, Senior high school 4 Kendari, Senior high school 5 Kendari, and Senior high school 6 Kendari, totaling 5060 students. The target population for this study consists of all students from the four schools in Kendari. The sampling technique used is proportional random sampling. The sample size for this study was determined using formula, which is as follows:

$$n = \frac{N}{N \cdot d^2 + 1} \dots (1)$$

Description:

n = Sample Size

N = Population Size

d^2 = Precision set at 0.1%

The total number of students (N) = 5060 and the precision (d^2) = 10%. The calculation is as follows:

$$n = \frac{N}{N \cdot d^2 + 1} = \frac{5060}{5060 \cdot 0.1^2 + 1} = \frac{5060}{50,60} = 83$$

Based on the calculation above, the sample size for this study is 83 students. The determination of the sample in each class is done through purposive sampling, while the technique for drawing samples within each class is done through random sampling [7]. In this study, data collection was conducted using a questionnaire containing a set of written statements to be answered by respondents. The questionnaire uses a Likert scale with five options: 1) strongly agree, 2) agree, 3) neutral, 4) disagree, and 5) strongly disagree [8]. The researcher chose the Likert scale because it is visually more appealing and easier for respondents to complete.

Table 1. Questionnaire Instrument Rating Scale

Answer Score	SS	S	RG	TS	STS
Positive Statement	5	4	3	2	1
Negative Statement	1	2	3	4	5

Description:

SS = strongly Agree

S = Agree

RG = Neutral

TS = Disagree

STS = Strongly Disagree

The data analysis techniques in this study include: 1) Descriptive Analysis, descriptive statistics are techniques used to describe or summarize data through measures such as mean, standard deviation, mode, variance, maximum, minimum, sum, and range, without aiming to test hypotheses, 2) Analysis Requirements, The analysis requirements used in this study include normality tests, linearity tests, multicollinearity tests, and autocorrelation tests.

The normality test is used to determine whether the data of the variables being studied follow a normal distribution. Good data should be normally distributed, meaning it follows or approximates a normal curve. The normality test is performed using the One Sample Kolmogorov-Smirnov test with SPSS 26 for Windows. To identify normally distributed data, we look at the 2-tailed significance probability value. If the significance value for each variable is greater than 0.05, it can be concluded that the research variables are normally distributed. The linearity test is used to determine whether there is a linear relationship between independent and dependent variables in the study. Data analysis is conducted with SPSS 26 for Windows. If the calculated F value (Fhitung) is less than or equal to the F table value (Ftabel) with a significance level of 5%, the relationship between the independent and dependent variables is linear. Specifically, if the significance value is 0.05 or less, the two variables have a linear relationship; if the value is greater than 0.05, the relationship is non-linear. The multicollinearity test is used to examine whether there is correlation among the independent variables in the regression model. A good regression model should not have correlation among independent variables. Multicollinearity is detected using the tolerance value and the Variance Inflation Factor (VIF). A low tolerance value corresponds to a high VIF value (since $VIF = 1/Tolerance$). A common cut-off value to indicate multicollinearity is a tolerance value ≤ 0.10 or a $VIF \geq 10$. The autocorrelation test examines correlation among data points in a time series or cross-sectional data. Autocorrelation is a time series correlation (focusing on sequential data points). To detect autocorrelation, the Durbin-Watson (DW) statistic is used. A DW value around 2 indicates no perfect autocorrelation. If the DW value is between 1.5 and 2.5, it suggests no significant autocorrelation.

Hypotheses provide provisional answers to research problems and must be tested empirically. This study involves two types of hypotheses: the null hypothesis (H_0), which states there is no effect between variables, and the alternative hypothesis (H_1), which states there is an effect between variables. Before conducting statistical analysis to test the proposed alternative hypothesis, it is necessary to state the null hypothesis. This ensures that the hypothesis testing is unbiased and not influenced by the alternative hypothesis. If the significance value (p-value) is ≤ 0.05 , then H_1 is accepted and H_0 is rejected. Conversely, if the significance value (p-value) is > 0.05 , then H_1 is rejected and H_0 is accepted.

In addition to the correlation analysis used, linear regression analysis can also be applied. Specifically, simple linear regression is used for testing the first and second hypotheses, while multiple regression analysis is used for testing the third hypothesis. Simple Linear Regression Analysis, The regression analysis in this study begins with simple linear regression. This analysis is used to determine the extent of the effect between each independent variable and the dependent variable. Hypothesis testing is performed using SPSS version 26 for Microsoft Windows. The acceptance or rejection criteria are as follows: 1) If the significance value (p-value) is less than or equal to $\alpha = 0.05$, then H_0 is rejected, indicating a significant effect; 2) If the significance value (p-value) is greater than $\alpha = 0.05$, then H_0 is accepted, indicating no significant effect. Multiple Linear Regression Analysis, The next stage of analysis involves multiple linear regression. This analysis assesses the combined effect of two independent variables on the dependent variable. Hypothesis testing is conducted using SPSS version 26 for Microsoft Windows. The results can be found in the ANOVA table (hypothesis test results), the Coefficients table (regression equations), and the Model Summary (coefficient of determination). The acceptance or rejection criteria are as follows: 1) If the significance value (Sig. (F)) is less than or equal to $\alpha = 0.05$, then H_0 is rejected, indicating a significant effect. 2) If the significance value (Sig. (F)) is greater than $\alpha = 0.05$, then H_0 is accepted, indicating no significant effect. After hypothesis testing through multiple linear regression analysis with SPSS 26 for Windows, the results will show the contribution (coefficient of determination) of the combined effect of variables X_1 and X_2 (independent) on variable Y (dependent), specifically by examining the R^2 or *R Square* value.

The hypotheses tested in this study are as follows:

1. First Hypothesis
 $H_0 : \rho_{y1} = 0$, meaning: The education zoning system does not affect the academic achievement of high school students in Kendari City
 $H_1 : \rho_{y1} > 0$, meaning: The education zoning system affects the academic achievement of high school students in Kendari City..
2. Second Hypothesis
 $H_0 : \rho_{y2} = 0$, meaning: Teacher performance does not affect the academic achievement of high school students in Kendari City.
 $H_1 : \rho_{y2} > 0$, meaning: Teacher performance affects the academic achievement of high school students in Kendari City.
3. Third Hypothesis
 $H_0 : \rho_{y3} = 0$, meaning: The education zoning system does not affect teacher performance in high schools in Kendari City.
 $H_1 : \rho_{y3} > 0$, meaning: The education zoning system affects teacher performance in high schools in Kendari City.
4. Fourth Hypothesis
 $H_0 : \rho_{y1.2} = 0$, meaning: The education zoning system and teacher performance together do not affect the academic achievement of high school students in Kendari City.
 $H_1 : \rho_{y1.2} > 0$, meaning: The education zoning system and teacher performance together affect the academic achievement of high school students in Kendari City.

3. RESULTS AND DISCUSSION

This study is a quantitative research involving three variables: the education zoning system and teacher performance as independent variables, and student academic achievement as the dependent variable. The research was conducted at several high schools in Kendari City from August 2021 to October 2021. Based on the data collected, the description of the data for the education zoning system, teacher performance, and student academic achievement in high schools in Kendari City can be outlined according to the scores obtained for each research variable.

Data on the Education Zoning System

The education zoning system in this study refers to the total score obtained by respondents after answering the instrument used to measure the education zoning system in high schools in Kendari City. Data on the education zoning system were collected using a questionnaire distributed to 83 respondents. The scores for the education zoning system ranged from a minimum of 1 to a maximum of 5 for each statement item on the questionnaire, divided into 5 options. The data for the education zoning system are presented in Table 2.

Education Zoning System		
N	Valid	83
	Missing	0
Mean		109.50
Median		110.00
Mode		112.00
Std. Deviation		4.859
Variance		23.619
Range		24.00
Minimum		100.00
Maximum		124.00
Sum		9089.00

Table 2 shows that the average value of the education zoning system variable is 109.50, with a median of 110.00, a mode of 112.00, a standard deviation of 4.859, variance of 23.619, a range of 24.00, a minimum value of 100.00, a maximum value of 124.00, and a total sum of 9089.00. Next, the data on student responses regarding the education zoning system can be seen in the frequency distribution table 3.

Table 3: Frequency Distribution of Education Zoning System Data

No	Category	Value Interval (%)	Absolute Frequency	Relative Frequency (%)
1	Very Good	120-124	2	2.41
2	Good	115-119	8	9.64
3	Enough	110-114	32	38.55
4	Poor	105-109	28	33.73
5	Very Poor	100-104	13	15.66
Amount			83	100.00

Table 3 clearly shows that out of 83 respondents, 2 students (2.41%) rated the system as very good, 8 students (9.64%) rated it as good, 32 students (38.55%) rated it as adequate, 28 students (33.73%) rated it as poor, and 13 students (15.66%) rated it as very poor in response to the education zoning system. The distribution of the education zoning system data for high schools in Kendari City can be visualized in Figure 2.

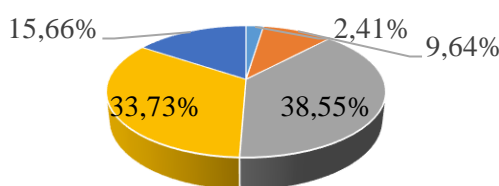


Figure 2. Graph of Education Zoning System Data

Based on Figure 2, it is evident that the education zoning system, according to respondent feedback, is generally categorized as adequate. This suggests that the education zoning system at the high school level in Kendari City still requires optimization.

Data on Teacher Performance

Teacher performance in this study refers to the total score obtained by respondents after answering the instrument measuring teacher performance in high schools in Kendari City. Data on teacher performance were collected using a questionnaire distributed to 83 respondents. The scores for teacher performance ranged from a minimum of 1 to a maximum of 5 for each item on the questionnaire, divided into 5 options. The data on teacher performance are presented in Table 4.

Table 4. Data on Teacher Performance

Teacher Performance		
N	Valid	83
	Missing	0
Mean		124.19
Median		124.00
Mode		124.00 ^a
Std. Deviation		5.164
Variance		26.670
Range		24.00
Minimum		109.00
Maximum		133.00
Sum		10308.00

Table 4 shows that the average value of the teacher performance variable is 124.19, with a median of 124.00, a mode of 124.00, a standard deviation of 5.164, variance of 26.670, a range of 24.00, a minimum value of 109.00, a maximum value of 133.00, and a total sum of 10308.00. Next, the data on teacher performance in high schools in Kendari City, based on student responses, can be seen in the frequency distribution table 5.

Table 5. Frequency Distribution of Teacher Performance Data

No	Category	Value Interval(%)	Absolute Frequency	Relative Frequency (%)
1	Very Good	129-133	18	21.69
2	Good	124-128	32	38.55
3	Enough	119-123	24	28.92
4	Poor	114-118	6	7.23
5	Very Poor	109-113	3	3.61
Ammount			83	100,00

Table 5 shows that out of 83 respondents, 18 students (21.69%) rated teacher performance as very good, 32 students (38.55%) rated it as good, 24 students (28.92%) rated it as adequate, 6 students (7.23%) rated it as poor, and 3 students (3.61%) rated it as very poor. The distribution of teacher performance data can also be visualized in Figure 3.

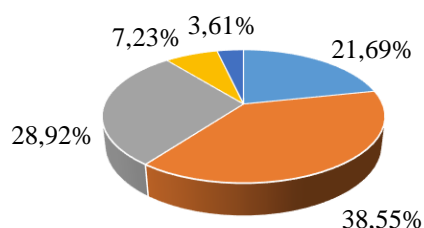


Figure 3. Graph of Teacher Performance Data

Based on Figure 3, it is evident that the teacher performance in high schools in Kendari City, according to respondent feedback, is generally categorized as good. This indicates that teachers have demonstrated good performance in carrying out their teaching duties and responsibilities.

Data on Student Learning Achievement

Student learning achievement in this study refers to the grades obtained by students after undergoing the learning process. Data on student learning achievement were collected by the researcher through reviewing or gathering student grades from grade books or records. The data on student learning achievement are presented in Table 6.

Table 6. Data on Student Learning Achievement

Student Learning Achievement		
N	Valid	83
	Missing	0
Mean		84.87
Median		85.00
Mode		85.00
Std. Deviation		3.683
Variance		13.571
Range		15.00
Minimum		78.00
Maximum		93.00
Sum		7045.00

Table 6 shows that the average value of student learning achievement is 84.87, with a median of 85.00, a mode of 85.00, a standard deviation of 3.683, variance of 13.571, a range of 15.00, a minimum value of 78.00, a maximum value of 93.00, and a total sum of 7045.00. Next, the data on student learning achievement in high schools in Kendari City can be seen in the frequency distribution table 7.

Table 7. Frequency Distribution of Student Learning Achievement Data

No	Category	Value Interval (%)	Absolute Frequency	Relative Frequency (%)
1	Very High	91-100	5	6.02
2	High	81-90	68	81.91
3	Medium	71-80	10	12.05
4	Fail	<71	0	0.00
Total			83	100.00

Table 7 clearly shows that out of 83 students, 5 students (6.02%) had very high learning achievement, 68 students (81.91%) had high achievement, 10 students (12.05%) had medium achievement, and no students had failing achievement. The distribution of student learning achievement data can also be visualized in Figure 4.

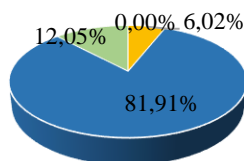


Figure 4. Graph of Student Learning Achievement Data

Based on Figure 4, it is evident that the learning achievement of students after undergoing the learning process in high schools in Kendari City is generally categorized as high.

Assumption Testing

Once the data collection for each research variable is confirmed, assumption testing is conducted to ensure that the assumptions required for hypothesis testing, particularly linear regression, are met. The purpose of testing these regression assumptions is to avoid bias in data analysis and to prevent model specification errors in the regression model used in this research. Assumption testing for regression, which is a prerequisite for hypothesis testing, involves the following steps:

Data Normality Test

The normality test is used to determine whether the data population is normally distributed. If the normality test uses a parametric method, the analysis requirement is that the data should be normally distributed. In this study, the One-Sample Kolmogorov-Smirnov test with a significance level of 0.05 is used. Data is considered normal if the significance value is greater than 5% or $\alpha = 0.05$, with the testing criterion being: if the probability (Sig) > 0.05, then H0 is accepted, and it is concluded that the residual values (errors) are normally distributed. If the probability (Sig) < 0.05, then H0 is rejected, and it is concluded that the residual values (errors) are not normally distributed. Based on the research data on the variables of the education zoning system, teacher performance, and student learning achievement, after conducting the normality test using SPSS version 26, the results are as table 8.

Table 8 Results of the Normality Test for Education Zoning System, Teacher Performance, and Student Learning Achievement Data

Parameter Statistics	Education Zoning System	Teacher Performance	Student Learning Achievement
N	83	83	83
No normal Parameters ^{a,b}	109,5060	124,1928	84,8795
	4,85992	5,16427	3,68384
Most Extreme Differences	,090	,088	,072
	,090	,050	,072
	-,082	-,088	-,067
Kolmogorov-Smirnov Z	,090	,088	,072
Asymp. Sig. (2-tailed)	,094 ^c	,173 ^c	,200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

From the SPSS 26 output shown in Table 8 above, it can be understood that for all the tested independent and dependent variables, the significance values are greater than $\alpha = 0.05$; specifically, for the education zoning system variable (X1) with Sig. 0.094, teacher performance (X2) with Sig. 0.173, and student learning achievement (Y) with Sig. 0.200. This indicates that the significance values for all three variables are greater than $\alpha = 0.05$. This means that all the data for the independent and dependent variables used in this study, when tested through Kolmogorov-Smirnov, have a normal data distribution. Thus, further testing can be conducted as the assumption of data normality has been met.

Linearity Test of Data

The linearity test aims to find the regression equation of independent variables against the dependent variable (Y) and to determine whether the two variables have a significant linear relationship. This test is used as a prerequisite in correlation or regression analysis. The linearity test uses SPSS-26's Test for Linearity with a significance level set at $\alpha = 0.05$, where two variables are considered linear if the probability or significance value is < 0.05 . The results of the linearity test using SPSS-26 for the educational zoning system against student achievement and teacher performance against student achievement are presented as follows.

Linearity Test of the Educational Zoning System against Student Achievement

Based on the educational zoning system and student achievement data from Senior high school Kota Kendari, the linearity test was conducted using SPSS 26, with the results shown in Table 10.

Table 10. Results of Test for Linearity of the Educational Zoning System against Student Achievement

			Sum of Squares	Df	Mean Square	F	Sig.
Y *	Between	(Combined)	428.237	21	20.392	1.817	.037
X ₁	Groups	Linearity	111.193	1	111.193	9.908	.003
		Deviation from Linearity	317.044	20	15.852	1.413	.152
	Within Groups		225.533	684.558	61	11.222	
	Total		566.595	1112.795	82		

The results of the linearity test, as shown in Table 4.8 above, indicate that the significance value for Deviation From Linearity for the educational zoning system against student achievement is 0.152. Thus, since the significance value is greater than $\alpha = 0.05$, it can be concluded that the regression line for this variable is linear, making it suitable for predicting student achievement in Senior high school Kota Kendari.

Linearity Test of Teacher Performance against Student Achievement

Based on teacher performance and student achievement data from Senior high school Kota Kendari, the linearity test was conducted using SPSS-26, with the results shown in Table 11.

Table 11. Results of Test for Linearity of Teacher Performance against Student Achievement

			Sum of Squares	df	Mean Square	F	Sig.
Y*	Between	(Combined)	271.134	20	13.557	.999	.477
X ₂	Groups	Linearity	114.283	1	114.283	8.419	.005
		Deviation from Linearity	156.851	19	8.255	.608	.886
	Within Groups		296.283	841.661	62	13.575	
	Total		566.595	1112.795	82		

The results of the linearity test, as shown in Table 11 above, indicate that the significance value for Deviation From Linearity for teacher performance against student achievement is 0.886. Thus, since the significance value is greater than $\alpha = 0.05$, it can be concluded that the regression line for this variable is linear, making it suitable for predicting student achievement in Senior high school Kota Kendari.

Multicollinearity Test of Data

The multicollinearity test aims to determine whether there is correlation among independent variables in the regression model. A good regression model should not have correlations among independent variables, as this indicates the variables are not orthogonal or there is redundancy. Orthogonal variables are those with zero correlation among them. This test helps avoid problems in assessing the partial influence of each independent variable on the dependent variable. To detect multicollinearity problems, one can examine tolerance values and

the Variance Inflation Factor (VIF). Multicollinearity testing with SPSS is done using regression analysis, with criteria based on VIF and correlation coefficients among independent variables. The criteria are:

- 1) If the VIF value is around 1 or tolerance is close to 1, there is no multicollinearity issue in the regression model.
- 2) If the correlation coefficient among independent variables is less than 0.5, there is no multicollinearity issue.

The results of the multicollinearity test in the regression of the educational zoning system and teacher performance against student achievement are shown in Table 12.

Table 12. Results of Multicollinearity Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	38.721	11.367		3.407	,001		
X ₁	.202	.078	.266	2.571	,012	,966	1,035
X ₂	.194	.074	.272	2.623	,010	,966	1,035

a. Dependent Variable: Y

Based on Table 12, the VIF values are close to 1 for all independent variables, and the tolerance values are also close to 1. Therefore, it can be concluded that there is no multicollinearity among the independent variables, namely the educational zoning system (X1) and teacher performance (X2), in relation to the dependent variable, student achievement (Y).

Autocorrelation Test of Data

The autocorrelation test aims to check if there is a correlation between the errors at time t and the errors at the previous period in a linear regression model. If such correlation exists, it is called autocorrelation. Several methods to detect autocorrelation include the Durbin-Watson (DW) test, Lagrange Multiplier (LM) test, Q statistic, and Run Test [9]. In this study, the Durbin-Watson test was used, which showed that there is no autocorrelation between the educational zoning system and teacher performance against student achievement. The results of the autocorrelation test are shown in Table 13.

Tabel 13. Results of Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.414 ^a	.171	.150	3.39539	1.433

a. Predictors: (Constant), X₁, X₂

b. Dependent Variable: Y

The Durbin-Watson coefficient obtained is 1.433, which is close to 2. Therefore, it can be concluded that there is no autocorrelation in the regression between the educational zoning system and teacher performance concerning student achievement at Senior high school Kota Kendari. Based on these assumption tests, it is concluded that all prerequisites for hypothesis testing have been met.

After the data has been presented descriptively and the assumption tests have been conducted, hypothesis testing is performed on the data [10]. The hypothesis testing in this study uses simple linear regression and multiple regression analysis techniques. The purpose of hypothesis testing in this study is to determine whether there is: (1) an effect of the educational zoning system on student achievement, (2) an effect of teacher performance on student achievement, (3) an effect of the educational zoning system on teacher performance, (4) An effect of teacher performance on student achievement, and (5) A combined effect of the educational zoning system and teacher performance on student achievement in Senior high school Kota Kendari.

The hypotheses tested in this study are null hypotheses (H0) which state that:

1. There is no significant effect of the educational zoning system on student achievement,
2. There is no significant effect of teacher performance on student achievement,
3. There is no significant effect of the educational zoning system on teacher performance,
4. There is no significant effect of the educational zoning system and teacher performance together on student achievement at Senior high school Kota Kendari.

Data processing in this study uses SPSS version 26, and hypothesis testing is done by comparing the obtained probability (Sig) values with the significance level $\alpha = 0.05$. The decision rule is that if the probability value (Sig) $> \alpha = 0.05$, then H0 is accepted; if the probability value (Sig) $< \alpha = 0.05$, then H0 is rejected. "Next, to test the proposed research hypotheses, the following is outlined sequentially:

The first hypothesis tested in the study is the effect of the education zoning system on the academic performance of high school students in Kendari. The null hypothesis (H0) states that there is no effect of the

education zoning system on students' academic performance. This hypothesis is tested using simple linear regression analysis, with a summary of the results presented in Table 14.

Table 14. ANOVA Results of the Education Zoning System on Student Academic Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	111,193	1	111.193	8.992	.004 ^b
	Residual	1001,603	81	12.365		
	Total	1112,795	82			

a. Dependent Variable: Prestasi Belajar Siswa

b. Predictors: (Constant), Sistem Zonasi Pendidikan

The ANOVA results in Table 14 show a positive effect of the education zoning system on the academic performance of high school students in Kendari, as the significance value is less than $\alpha = 0.05$ ($\rho = 0.004 < \alpha = 0.05$). Therefore, H_0 is rejected, indicating a positive effect of the education zoning system on students' academic performance.

Table 15. Simple Linear Regression Analysis of Education Zoning System on Student Academic Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	58.641	8.758		6.695	.000
	X1	.240	.080	.316	2.999	.004

a. Dependent Variable: y

The simple linear regression equation between the education zoning system (X1) and student academic performance $Y = 58,641 + 0,240X_1$

From this equation, it can be interpreted as follows: 1) The constant (a) = 58.641, meaning if the education zoning system (X1) remains unchanged, the student academic performance (Y) would be 58.641. 2) The regression coefficient (b1) = 0.240, indicating that for each one-unit increase or decrease in the education zoning system score, the student academic performance score will increase or decrease by 0.240 units. To determine the contribution of the education zoning system to student academic performance, the coefficient of determination analysis is used, as shown in Table 16.

Table 16. Coefficient of Determination of Education Zoning System on Student Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.316 ^a	.100	.089	3.51646

a. Predictors: (Constant), Sitem Zonasi Pendidikan

Table 16 indicates that the contribution of the education zoning system to student academic performance is represented by the R-Square value of 0.100. This means the contribution is 10.0%, with the remaining 90.0% attributed to other variables not included in the analysis. The second hypothesis tested is the effect of teacher performance on the academic performance of high school students in Kendari. The null hypothesis (H_0) states that there is no effect of teacher performance on students' academic performance. This hypothesis is tested using simple linear regression analysis, summarized in Table 17.

Table 17. ANOVA Results of Teacher Performance on Student Academic Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	114.283	1	114.283	9.271	.003 ^b
	Residual	998.512	81	12.327		
	Total	1112.795	82			

a. Dependent Variable: Prestasi Belajar Siswa

b. Predictors: (Constant), X₂

The ANOVA results in Table 17 show a positive effect of teacher performance on student academic performance, as the significance value is less than $\alpha = 0.05$ ($\rho = 0.003 < \alpha = 0.05$). Therefore, H_0 is rejected, indicating a positive effect of teacher performance on students' academic performance.

Table 18. Simple Linear Regression Analysis of Teacher Performance on Student Academic Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	56.489	9.332		6.053	.000
	X ₂	.229	.075	.320	3.045	.003

a. Dependent Variable: Y

The simple linear regression equation between teacher performance and student academic performance is: $Y=56.489+0.229X_2$ $Y = 56.489 + 0.229X_2$ From this equation: The constant (a) = 56.489, meaning if teacher performance (X₂) remains unchanged, the student academic performance (Y) would be 56.489. The regression coefficient (b₂) = 0.229, indicating that for each one-unit increase or decrease in teacher performance score, the student academic performance score will increase or decrease by 0.229 units.

To determine the contribution of teacher performance to student academic performance, the coefficient of determination analysis is used, as shown in Table 19.

Table 19. Coefficient of Determination of Teacher Performance on Student Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.320 ^a	.103	.092	3.51103

a. Predictors: (Constant), Kinerja Guru (X₂)

Table 19 indicates that the contribution of teacher performance to student academic performance is represented by the R-Square value of 0.103. This means the contribution is 10.3%, with the remaining 90.0% attributed to other variables not included in the analysis.

The third hypothesis tested is the effect of the education zoning system on teacher performance. The null hypothesis (H₀) states that there is no effect of the education zoning system on teacher performance. This hypothesis is tested using simple linear regression analysis, summarized in Table 20.

Table 20. Results of ANOVA for X1 on X2

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	73.738	1	73.738	2.826	.097 ^b
	Residual	2113.178	81	26.089		
	Total	2186.916	82			

a. Dependent Variable: X₁

b. Predictors: (Constant), X₂

The ANOVA results shown in Table 20 indicate that there is no significant effect of the education zoning system on teacher performance, as the significance value is greater than $\alpha = 0.05$ ($p = 0.097 > \alpha = 0.05$), thus H₀ is accepted. This means there is no positive effect of the education zoning system on teacher performance in Kendari City.

Table 21 Results of Simple Linear Regression of Education Zoning System on Teacher Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	102.826	12.722		8.083	.000
	X ₂	.195	.116	.184	1.681	.097

a. Dependent Variable: Y

Based on Table 21, the simple linear regression equation between the education zoning system (X₁) and teacher performance (X₂) is: $X_2 = 102.826 + 0.195X_1$. From this equation, X₂ = 102.826 + 0.195X₁, the constant value (a) is 102.826, and the regression coefficient for variable X₂ (b₂) is 0.195. The interpretation of these values is as follows: The constant value (a) = 102.826 means that if the education zoning system (X₁) remains constant or unchanged, the teacher performance value (X₂) will be 102.826. The regression coefficient (b₂) = 0.195 means that for each unit increase or decrease in the education zoning system score, the teacher performance score will increase or decrease by 0.195 units, with the constant value being 102.826.

To determine the contribution of the education zoning system (X₁) to teacher performance (X₂), the coefficient of determination analysis was used, as shown in Table 22.

Table 22. Coefficient of Determination of Education Zoning System (X1) on Teacher Performance (X2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.184 ^a	.034	.022	5.10770

a. Predictors: (Constant), Sistem zonasi pendidikan (X₂)

Table 22 shows that the contribution of the education zoning system to teacher performance is indicated by the coefficient of determination (R-Square) of 0.034. This means that the contribution of the education zoning system to teacher performance is 3.4%, and the remaining 96.6% is attributed to other variables not included in the analysis.

The fourth hypothesis tested in the study is the effect of the education zoning system and teacher performance together on student achievement in Senior high school in Kendari City. The hypothesis (H₀) states that there is no effect of the education zoning system and teacher performance together on student achievement. This hypothesis is tested using multiple linear regression analysis, with a summary of the hypothesis testing results shown in Table 23.

Table 23. ANOVA Results of Education Zoning System and Teacher Performance on Student Achievement

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	190,500	2	95,250	8,262	,001 ^b
Residual	922,295	80	11,529		
Total	1112,795	82			

a. Dependent Variable: Y

b. Predictors: (Constant), X₂, X₁

Table 23 shows that the F-value is 8.262 with a significance value (ρ) = 0.001, which is less than the significance level ($\rho = 0.001 < \alpha = 0.05$), so H₀ is rejected. This indicates that there is a positive and significant effect of the education zoning system and teacher performance together on student achievement in Senior high school Kendari City.

Table 24 Results of Multiple Linear Regression of Education Zoning System and Teacher Performance on Student Achievement

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	38.721	11.367		3.407	.001
X ₁	.202	.078	.266	2.571	.012
X ₂	.194	.074	.272	2.623	.010

a. Dependent Variable: Y

Based on Table 24, the multiple linear regression equation between the education zoning system, teacher performance, and student achievement is: $Y = 38.721 + 0.202X_1 + 0.194X_2$. From this equation, $Y = 38.721 + 0.202X_1 + 0.194X_2$, it indicates that the regression coefficients for the education zoning system and teacher performance are positive. This means that increasing the values of these independent variables will contribute to improving student achievement. The detailed interpretation of this regression equation is as follows: The constant value (a) = 38.721 means that if both the education zoning system (X₁) and teacher performance (X₂) remain constant (unchanged), the student achievement value (Y) will be 38.721. The regression coefficient for the education zoning system (b₁) = 0.202 means that for each unit increase or decrease in the education zoning system score, the student achievement score will increase or decrease by 0.202 units, assuming that other variables (teacher performance) remain constant. The regression coefficient for teacher performance (b₂) = 0.194 means that for each unit increase or decrease in the teacher performance score, the student achievement score will increase or decrease by 0.194 units, assuming that other variables (education zoning system) remain constant.

Table 25 Coefficient of Determination of Education Zoning System and Teacher Performance on Student Achievement

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.414 ^a	.171	.150	3.39539

a. Predictors: (Constant), X₂, X₁

Based on Table 25, the contribution of the education zoning system and teacher performance together on student achievement is indicated by the coefficient of determination (R-Square) of 0.171. This means that the combined contribution of the education zoning system and teacher performance to student achievement is 17.1%, while the remaining 82.9% is attributed to other variables not included in the analysis.

The Impact of the Education Zoning System on Student Achievement in Senior high school in Kendari City

According to Law No. 20 of 2003 on the National Education System, Article 13, paragraph 1, education paths include formal, non-formal, and informal education. Formal education is provided in schools with clear educational levels, from primary to higher education. Non-formal education occurs outside of formal schools but is structured and tiered. Informal education happens within the family and community through independent learning activities done consciously and responsibly. In formal education, the initial stage of starting the education level involves new student admissions. This process is intended to be objective, accountable, transparent, and non-discriminatory to enhance access and equity in education. To support this, the government has introduced new regulations for student admissions through the Minister of Education and Culture Regulation No. 17 of 2017 on New Student Admissions (PPDB), which includes guidelines for implementing a zoning system [11].

The zoning system is a policy regulating new student admissions based on geographical zones. This policy, outlined in Permendikbud No. 14 of 2018, requires new students to attend schools closest to their residence. With a quota of 90%, students living near the school are guaranteed admission. Students can choose up to three schools within the nearest zoning radius from their residence. The education zoning policy aims to build equitable access and quality in education. Essentially, zoning is an advancement of the previous rayonization system; while rayonization was about dividing regions based on agreements, zoning focuses on dividing areas according to their function and management goals [12]-[15]. The goal of the zoning system is to accelerate the equitable distribution of education quality across educational units in Indonesia.

Student achievement reflects the success in achieving learning objectives. It indicates how well students have learned the material covered during teaching activities. Achievement is influenced by both internal factors, such as motivation, interest, and talent, and external factors, such as the school environment, teachers, family, and community. Although the zoning system is normatively considered very good, many challenges arise during its implementation. Government preparation, especially in organizing zoning and registration procedures, has been lacking, causing confusion among the public due to insufficient prior socialization and information. Despite this, the education zoning system is expected to impact student achievement in Senior high school in Kendari City positively.

The data analysis results show that the education zoning system has a positive and significant effect on student achievement with a significance value (ρ) = 0.004 < α = 0.05, contributing 10.00%. This indicates that effective implementation of the education zoning system can improve student achievement in Senior high school in Kendari City. The data suggest that while the zoning system has not yet optimally contributed (10.10%) to student outcomes, addressing implementation challenges could positively affect educational outcomes. This finding is supported by research indicating that the school zoning policy significantly impacts student achievement, as statistically validated and reinforced by categorical results. The zoning policy helps increase student motivation. Both statistical and categorical results suggest that the zoning policy implemented by the government can influence student achievement.

According to Permendikbud No. 17 of 2017, Article 15, schools organized by local governments must accept at least 90% of students residing within the closest zoning radius, based on the family card address issued no later than six months before PPDB [16]. The closest zoning radius is determined by local governments based on regional conditions. The remaining 10% of students are divided into two criteria: 5% for achievements and 5% for students with changes in domicile. Students admitted to Senior high school in Kendari City are affected by the zoning system. They may not be accepted into their preferred schools or programs, feeling restricted in their choices. As a result, students must choose available schools and programs. Therefore, the education zoning policy needs to be improved in terms of resources, policy standards and targets, organizational characteristics, implementing attitudes, inter-organizational communication, implementation activities, and the social, economic, and political environment.

The zoning system should minimize or eliminate the quality gap between the highest and lowest schools, aiming for equal quality across all schools. The zoning system is seen as a solution for economically

disadvantaged students to access quality education near their homes. Nurlailiyah states that the application of the PPDB zoning system automatically eliminates the label of favored schools, which is one of the goals of zoning to prevent educational segregation [17]. The Minister of Education and Culture, Effendy, says, "This zoning system is the culmination of a series of education policies we've implemented over the past two years. Its goal is to reduce, if not eliminate, disparities in education quality, especially in the schooling system." Unlike previous practices where favored schools selected new students based on their scores, the zoning system prioritizes students within the designated zoning area rather than their scores. Gunarti Ika Pradewi & Rukayati (2019:29) similarly note that this practice differs from the zoning system, which emphasizes zoning areas over student scores. Thus, the PPDB zoning system is seen as a preliminary step towards a quality education zoning system, addressing not just how to admit new students but also ensuring equitable access to quality education across regions, fulfilling societal justice expectations.

The Impact of Teacher Performance on Student Achievement in Senior high school in Kendari City

Teachers play a crucial role in determining the depth and breadth of lesson content. They are responsible for selecting and presenting the material to students. Since each student has different abilities, their outcomes will also vary. However, through the guidance of a teacher and the student's dedication to learning, students will find a common level of capability. Teachers with good performance positively influence their students, so they must continually assess and improve their own shortcomings. Student achievement is measured by the abilities students have after gaining learning experiences and acquiring knowledge, resulting in outcomes that meet established standards. Teachers assess students in class to categorize them as smart, average, or below average. Achievement is the result of evaluating a student's progress during their education. Assessment involves determining the level of achievement. Thus, achievement reflects the results obtained from the learning process and the level of accomplishment reached. A person achieves success when they have participated in and completed a learning process according to guidelines, leading to evaluable results, which then reflect the student's achievements. Teacher performance has a positive and significant impact on student achievement, with a significance value (ρ) = 0.003 < α = 0.05 and a contribution of 10.00%. This means that good teacher performance can positively affect the improvement of student achievement in Senior high school in Kendari City.

According to R. Gagne as cited in Djamarah, learning has two definitions: (1) Learning is a process to acquire motivation in knowledge, skills, habits, and behaviors, and (2) Learning is the knowledge or skills acquired from instruction. Syah, as mentioned in Komara, defines achievement as the level of success a student has in learning school subjects, expressed as a score from tests on specific materials. Achievement reflects the result of a thorough assessment of learning progress. Sofyana, reinforces this by stating that achievement is the abilities a student has after receiving learning experiences [18]. Based on these definitions, it can be concluded that achievement is the outcome of a good learning process, characterized by mastery of the subject matter and a comprehensive assessment.

Thaib broadly classifies factors influencing student achievement into two categories: (1) Internal factors, which are those originating from within the student that can affect learning outcomes, including physiological factors related to health and senses, and (2) External factors, which are aspects outside the student that can influence learning outcomes, such as family environment, school environment, and community environment.

The Impact of the Zoning System on Teacher Performance in Senior high school in Kendari City

Teachers, as educators, are the most decisive component in the education system. They are responsible for making the curriculum, learning resources, facilities, and learning environment meaningful for students. This underscores the importance of teachers. Teachers are a crucial component of the entire education system and should receive central, primary, and foremost attention. Teachers are strategically significant in educational discussions, as they are always linked to any component within the education system. They are also crucial for student success, particularly concerning the teaching and learning process. Teachers significantly influence the creation of quality educational processes and outcomes. Therefore, any improvement efforts to enhance education quality will not make a significant contribution without the support of professional and high-quality teachers. In other words, improvements in education quality must start with teachers and end with teachers.

According to Arikunto, teacher performance can be assessed based on teaching activities carried out through proper procedures, including: preparing for teaching, such as preparing written plans, studying the knowledge or skills to be taught or practiced in class, preparing media and other teaching tools, and developing evaluation tools; conducting classroom teaching, including starting and ending classes, providing explanations, demonstrating, operating learning tools and other aids, asking questions, providing answers, and conducting remedial programs; measuring learning outcomes, including administering quizzes (short questions), written tests, correcting, scoring, and determining final grades.

Based on the analysis of data on the impact of the zoning system on teacher performance, it is found that the zoning system does not have a positive and significant impact on teacher performance, with a significance value (p) = 0.097 > α = 0.05 and a contribution of 3.4%. This indicates that the zoning system does not significantly affect the improvement of teacher performance in Senior high school in Kendari City.

Although teacher performance in Senior high school Kendari City, according to respondent feedback, generally falls into the “good” category, this is not attributed to the presence of the zoning system but rather to other factors. According to Cambel in Mulyasa, factors influencing teacher performance include: personal/individual factors such as knowledge, skills, ability, self-confidence, motivation, and commitment; leadership factors such as the quality of encouragement, enthusiasm, direction, and support provided by managers and team leaders; team factors such as the quality of support and enthusiasm from team members, trust among team members, cohesion, and team solidarity; system factors such as work systems, work facilities or infrastructure provided by the organization, organizational processes, and performance culture within the organization; and contextual (situational) factors such as pressure and changes in the external environment.

The Impact of the Zoning System and Teacher Performance Together on Student Achievement in Kendari City

Before the implementation of the zoning system, specifically in the 2016/2017 academic year and earlier, each region had elite or favorite schools that could only be accessed by students with high academic abilities. After the zoning system was applied, all public schools were given equal status, and none were considered superior. Students were mapped to attend schools close to their residences based on various considerations to promote educational equity. This change gradually equalized the distribution of students with high and low academic abilities, meaning each school now has its own strengths and weaknesses. The immediate challenge is managing student diversity. Schools, as institutions managing students resulting from the zoning system, now face different responsibilities compared to before the zoning system was implemented. The arrival of a diverse range of new students in terms of academic abilities presents a new challenge for schools to maintain the quality of education for formerly elite schools while improving the quality for schools in underserved areas.

Several high schools in Kendari City continuously strive to improve the quality management of education. Each school works to enhance the quality and professionalism of educators who directly interact with students resulting from the zoning system. Teachers need to be encouraged to maximize their performance and be equipped with skills to manage students with varying academic abilities to ensure fair service for all students. Additionally, teachers are expected to boost students' motivation and enthusiasm for learning. To support this, teachers receive training, seminars, workshops, and other forms of professional development. Schools also pay attention to the quality of educational services in both curricular and extracurricular activities. Each high school in Kendari City strives to improve student management.

The Ministry of Education and Culture (Permendikbud) regulates the new zoning system for Student Admission (PPDB), replacing the previous zoning system. The old zoning system focused more on students' academic achievements for admission into favorite schools, while the new zoning system emphasizes the proximity of students' homes to the schools they wish to attend. The zoning system aims to eliminate the labels of favorite and non-favorite schools, leading to a more even distribution of students. However, this system has led to students feeling restricted in their choice of schools. As a result, prospective students must apply to schools that still have available spots for new students, which can reduce students' motivation and enthusiasm for learning, affecting their academic performance.

The data analysis in this study indicates that both the zoning system and teacher performance, when considered together, have a positive and significant impact on student achievement, with a significance value (p) = 0.001 < α = 0.05 and a contribution of 10.00%. This suggests that the combined application of the zoning system and good teacher performance can positively impact the academic achievement of high school students in Kendari City. This finding is consistent with research showing a significant impact of zoning system implementation on the academic performance of students in vocational schools. Learning motivation, learning facilities, and teacher motivation were significant factors affecting new student admissions [19]-[25]. Moreover, the research showed significant effects of learning motivation, learning facilities, teacher motivation, and family economics. The zoning system for new student admissions (PPDB) introduced by the government in Permendikbud No. 14 of 2018 and No. 35 of 2018 aims to create equitable educational quality across schools in Indonesia so that all schools achieve the same quality level, eliminating differences between favorite and non-favorite schools. Every student should have the same right to receive quality education. The government aims to ensure equitable educational quality so that all schools are of high quality.

Based on the findings, the zoning-based PPDB in high schools in Kendari City affects not only the characteristics of the students admitted but also classroom learning processes. The challenge is that adapting teacher capabilities cannot be done quickly, leading to suboptimal classroom processes and potential disruptions. Students also face challenges due to the heterogeneous class composition. Slow learners may fall behind, while fast learners may lose motivation without adequate challenges. The positive aspect of the zoning system is that it

ensures equitable access to education for all students [26]-[31]. Fairness in education includes equal access to teaching, facilities, and adherence to school regulations. Schools also strive to treat students fairly, providing support to those in need and rewarding high achievers. The function of academic achievement varies depending on the learning objectives. Schools have their own rules and methods for managing new students from the zoning system to remain competitive and motivated to maintain and improve academic performance. Additionally, optimal teacher performance is crucial for enhancing the quality of learning.

4. CONCLUSION

Based on the research findings and discussion, several conclusions can be drawn. First, the implementation of the zoning system has a positive and significant effect on student achievement, as evidenced by a significance value of $\rho = 0.004$, which is less than $\alpha = 0.05$, and a contribution of 10.00%. This indicates that a well-implemented zoning system can enhance the academic performance of high school students in Kendari City. Second, teacher performance also significantly affects student achievement, with a significance value of $\rho = 0.003$, which is below $\alpha = 0.05$, and a contribution of 10.00%. This suggests that effective teacher performance is crucial for improving the academic outcomes of high school students in the region. Third, however, the zoning system does not have a significant impact on teacher performance, with a significance value of $\rho = 0.097$, which exceeds $\alpha = 0.05$, and a contribution of 3.4%. This finding implies that the zoning system does not substantially influence the performance of high school teachers in Kendari City. Lastly, when considering both factors together, the zoning system and teacher performance collectively have a positive and significant impact on student achievement. This is supported by a significance value of $\rho = 0.001$, which is below $\alpha = 0.05$, and a contribution of 10.00%. Therefore, a combination of an effective zoning system and strong teacher performance can significantly improve the academic performance of high school students in Kendari City.

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