



Effect of Physical Work Environment, Workload and Tenure on Teacher Performance at High School

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Abstract:

Teacher performance is a crucial factor in determining the quality of education, but is still heavily influenced by various aspects of the work environment and individual characteristics. This study aims to analyze the effect of physical work environment, workload, and tenure on teacher performance at SMAN 1 Basa Ampek Balai, Pesisir Selatan Regency. This study used a quantitative approach with total sampling technique, involving the entire population of 50 teachers as samples. Data were collected through questionnaires and analyzed using multiple linear regression to test the effect of each variable partially or simultaneously. The results showed that the physical work environment has a positive and significant effect on teacher performance, workload has a negative and significant effect, while tenure has a positive and significant effect. Simultaneously, the three variables also have a positive and significant effect on teacher performance. This finding confirms the importance of creating a conducive work environment, managing workload proportionally, and paying attention to teacher tenure as part of a strategy to improve educator performance in schools.

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Introduction

Human resources are an element that must be considered by every agency, especially when considering that government agencies are related to public services. This forces every agency to be able to work more effectively, efficiently and productively. In providing public services, of course, this will spur government agencies to be able to maintain their survival. In this case, government agencies must pay attention to the aspect of human resources. So humans can be seen as a determining factor, because it is in the hands of humans that all innovations will be realized in an effort to realize the goals of government agencies.

The achievement of the goals of an agency is very much guided by the potential of human resources owned by each teacher of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan.

Therefore, agencies must have good human resource management because human resource management is not just a strategic activity, but also something that is central to achieving organizational goals. In an organization, human resources have an important role. Its position is far from being just a means of production and driving organizational activities, human resources have a role in determining the progress or development of an organization.

Teachers are a key element in the education system, especially in schools. All other components, starting from the curriculum, infrastructure, costs, and so on will not mean much if the essence of learning, namely the interaction between teachers and students, is not qualified. All other components, especially the curriculum, will come to life when implemented by teachers. So important is the role of teachers in transforming educational inputs that many experts state that in schools there will be no change or improvement in quality without changes and improvements in the quality of teachers.

The following is a table of targets and realization of performance of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan teachers for the last 3 (three) years.

Table 1. Target and Realization of Teacher Performance of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

No.	Performance Indicators	Target (%)	Realization 2022(%)	Realization 2023(%)	Realization 2024(%)	Average (%)
1.	Improved development of performance achievement reporting system	100	72	74	77	74
2.	Mobilizing environmentally conscious students	100	79	81	84	81
3.	Improved learning quality	100	59	61	64	61
	Total	100	71	72	75	73

Source: Performance Report of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

When viewed from the table above, the realization of the work program of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan for the last 3 (three) years has not reached the target. In the first indicator, from the planned target of 100%, only 74% was achieved. In the second indicator, although the achievement was quite high, the average was 81% but still did not reach the target. Likewise, the third indicator was targeted at 100% but only achieved an average of 61%. It can be said that on average the achievement of the performance of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan teachers in the last three years is only 73%. From these results it can be concluded that there are problems with the performance of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan teachers because the realization does not reach the target. From these data it can be concluded that the performance of teachers and agencies is not good enough, this could have been influenced by several factors such as the physical work environment, the workload of the teacher, the tenure of a teacher in the agency.

Three factors that are thought to have an influence on teacher performance are physical work environment, workload and tenure. The selection of these three variables is based on theoretical review and previous scientific findings. A conducive physical work environment, such as clean classrooms, good ventilation and lighting, and adequate supporting facilities, has been shown to improve teachers' work comfort and effectiveness (Sedarmayanti, 2018). A balanced teacher workload, which is a reasonable proportion of

teaching hours and administrative duties, also contributes to work productivity and motivation (Gibson et al., 2012). Meanwhile, tenure reflects the accumulation of experience and pedagogical skills that impact teachers' professionalism in carrying out their duties (Robbins & Judge, 2017).

However, most previous studies tend to examine variables such as physical work environment, workload, and tenure separately, without integrating them simultaneously in a comprehensive analytical framework. This is especially true in the context of public schools in non-metropolitan areas such as SMA Negeri 1 Basa Ampek Balai Pesisir Selatan, which has its own challenges in terms of geography, facilities, and human resource management. A simultaneous approach to these three variables is important because they are interrelated and can influence teacher performance simultaneously. According to Armstrong and Taylor (2020), a strategic approach to human resource management must consider the various factors that interact dynamically in influencing individual performance in the organization. Thus, this research is important to fill the gap of limited studies and contribute to improving teacher performance through a more integrative approach.

Performance basically focuses on the problem of the planning process, implementation, and also the results obtained after carrying out the work. In government agencies, performance is usually referred to as an answer to the success or failure of the initial objectives of the work program and policies that have been set. Matters regarding performance are very important, because performance is one of the most important benchmarks of organizational quality. Improving the performance of government apparatus is one of the development strategies for a country in carrying out its state process. Performance (work performance) is the quality and quantity of work achieved by a teacher in carrying out his duties in accordance with the responsibilities given to him Mangkunegara, (2020). A teacher is said to have good performance if the teacher is able to produce work results that are equal to or exceed the standards or criteria that have been set together in the organization. Conversely, teachers are said to have no performance if the work results are less than the standards or criteria that have been set together. A successful and effective organization is an organization with individuals in it who have good performance Sudarmanto, (2021). If the teachers in the organization have good performance, the effectiveness or success of the organization will be achieved.

The work environment where the teacher works is no less important in improving teacher performance. The work environment is everything that is around the workers who can affect him in carrying out the tasks assigned Alex, (2019). Sedarmayanti, (2021), suggests that the work environment is the overall tooling and materials faced, the surrounding environment in which a person works, his work methods, and his work arrangements both as an individual and a group. The physical work environment can be one of the factors that trigger a decrease and increase in teacher work productivity if it is not arranged in such a way as to create a comfortable atmosphere at work, of course it can have an impact on teacher performance.

According to Sedarmayanti, (2021) that the physical work environment is all physical conditions that exist around the workplace that can affect teachers either directly or indirectly. Furthermore, according to Sastradipoera, (2020) defines the physical work environment "as the whole or every aspect of the physical and socio-cultural symptoms that surround or affect individuals". Then Alex, (2019) defines the physical work environment "as everything that is around the workers that can affect him in carrying out the tasks assigned, for example lighting, air temperature, space for movement, security, cleanliness, music and others. The following is the initial survey data on the physical work environment at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan.

Table 2. Initial Survey of the Physical Work Environment of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

No.	Area/Location	Physical Problems Found	Potential Impact
1	Teacher's Room	Poor ventilation, stale air	Reduced comfort and productivity
2	Science Laboratory	Insufficient lighting	Visual impairment, accidents
3	Class XI IPA 2	Chairs and tables are broken / not ergonomic	Back injury, posture disorder
4	Girls' restroom	Unclean and clogged drains	Infectious diseases, inconvenience
5	Counseling Room	AC not working, hot room	Lower counseling comfort

Based on the results of an initial survey of the physical work environment at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan, several problems were found that could potentially affect the comfort and effectiveness of teachers' work. In the teachers' room, poor ventilation causes the room to feel stuffy, which can reduce teachers' comfort and productivity in carrying out administrative tasks and discussing among peers. The teachers' room should be a conducive place to think, take a break and do academic work; however, the poor physical conditions can lead to a decrease in motivation and focus.

Another problem occurs in the Science Laboratory, where insufficient lighting not only impairs vision but also increases the risk of accidents, especially during lab work. This certainly interferes with the performance of science teachers who need a bright and safe atmosphere to conduct experiment-based teaching. In class XI IPA 2, the condition of tables and chairs that are damaged and not ergonomic is also a serious concern. This condition not only affects students, but also teachers who have to stand or sit for a long time while teaching. This physical discomfort can lead to fatigue or long-term health problems, thus reducing the quality of learning provided.

In addition, the condition of the girls' toilets, which are not clean and have clogged drains, also reflects the lack of attention to school sanitation. Although this is not directly used by teachers, an unhygienic school environment will affect the overall working atmosphere and lower the professional image of the school, which in turn may affect teachers' morale. Finally, in the Guidance and Counseling (BK) room, the non-functioning air conditioner makes the room hot and uncomfortable. This hampers the counseling process, which should be conducted in a calm and comfortable atmosphere. BK teachers may find it difficult to build an atmosphere conducive for students to be open. so that the function of coaching and mentoring students is not optimal. Overall, the inadequate physical condition of the working environment indicates an urgent need for improved facilities to support teacher performance. A healthy, safe and comfortable environment is an important requirement for creating a quality education process.

Various studies show that a conducive physical work environment such as comfortable workspaces, adequate facilities, lighting, and safety are positively and significantly correlated with improved teacher performance. Studies in elementary, middle, and high schools found that a good physical environment increases teacher motivation, productivity, and effectiveness (Aladetan, 2023; Anwar et al., 2022). This influence is also seen in aspects such as job satisfaction, self-efficacy, and teacher welfare (Ferreira et al., 2024).

The next factor that affects performance is workload, both physical workload and mental workload. Workload is very important for a company/agency. By providing an effective workload, the company can find out the extent to which its employees can be given

the maximum workload and the extent to which it affects the performance of the company itself. Teachers who are not disciplined in utilizing work time will have an impact on the workload that accumulates, thus requiring more time than the normal working time determined to complete the assigned tasks. The following is the initial workload survey data

Table 3. Initial Survey of Teacher Workload of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

No.	Teacher	Teaching Hours/Week	Additional Duties	Problems
1	Bahasa Indonesia	28 hours	Homeroom Teacher + Literacy Coordinator	Workload exceeds standard hours, multiple responsibilities
2	Math	26 hours	Student Advisor Council	The demands of extracurricular activities outside of class hours
3	Biology	30 hours	None	High hour load, not proportional to the number of similar subject teachers
4	Physical Education	18 hours	Vice Principal for Student Affairs	Teaching hours are few, but managerial responsibilities are huge
5	BK (Guidance Counseling)	24 hours student consultation	UKS Assistant + Student Case Handling Team	Many student cases, not enough counseling time, not well scheduled

Based on Table 3 regarding the initial survey of teacher workload at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan, it can be seen that most teachers experience an unbalanced workload, both in terms of the number of teaching hours and additional responsibilities. Indonesian Language and Biology teachers teach more than the ideal standard hours (24 hours/week), which can lead to burnout and reduce learning effectiveness as time for material preparation is limited. Mathematics teachers also experience the added pressure of being actively involved in extracurricular activities as student council coaches, which reduces rest time and increases the risk of burnout. Meanwhile, Physical Education teachers, despite having fewer teaching hours, are burdened with structural responsibilities as Vice Principals for Student Affairs, which demands greater focus and time for school managerial matters. The same condition is also experienced by counseling teachers, where despite having no formal teaching hours, the high burden of counseling services and involvement in student case handling teams creates psychological pressure and reduces the effectiveness of student guidance. These problems indicate that the distribution of workload is uneven and disproportionate, potentially reducing the overall quality of teacher performance.

According to the statement of Pemendagri No.12/2018 in the journal Agripa Toar Sitepu, (2021) Workload is the amount of work that must be carried by an organizational position/unit and is the product of work volume and time norms. Workload is a worker's demand when receiving requests, orders or demands that will result in a form and level of performance. So that indirectly, worker productivity is influenced by the workload he receives, which is indicated through his performance. Increased workload will affect the decrease in the ability of teachers to work as a result the quality of teacher work will be very low in completing a job.

A person's workload has been determined in the form of agency work standards according to the type of work. If most teachers work according to the agency's standards, this is not a problem. Conversely, if teachers work below the standard then the workload is

excessive. Workload according to Maharja, (2020) can be defined as a difference between the capacity or ability of workers and the demands of the work that must be faced. Given that human work is mental and physical, each has a different level of loading. A loading level that is too high allows excessive energy usage and overstress, while a loading intensity that is too low allows boredom and saturation or understress. Therefore, it is necessary to strive for an optimum level of loading intensity that is between the two extremes and of course differs from one individual to another.

From the results of research conducted by Adhar Arifuddin, (2022) that there is a relationship between workload and nurse performance in the Inpatient Room of Undata Palu Hospital. In line with the results of research by Permatasari and Sufia (2019) that workload affects teacher performance. As well as the results of Jecky, et al., (2019) that workload affects employee performance at PT Asuransi Jiwasraya Manado City Branch.

Increasing high teacher performance is also inseparable from the tenure of the teacher himself, according to Dani, Mujanah, (2020) The tenure can be said to be employee loyalty to the company. A sufficient span of working time is the same as a person who has extensive experience in both obstacles and successes. Time shapes a person's experience. So the length of service is the time that a technician has lived while being a laborer / employee of the company. The working period provides work experience, knowledge and work skills of an employee. Work experience makes a person have a work attitude that is skilled, fast, steady, calm, can analyze difficulties and is ready to overcome them. The following is the initial survey data for the length of service.

Table 4. Initial Survey of Tenure of Teachers of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

No.	Teacher	Length of Service	Problems
1	Bahasa Indonesia	27 years old	Approaching retirement age, lack of regeneration of similar teachers
2	Math	24 years old	Difficult to adapt to digital learning technology
3	Biology	2 years	Still lacking experience, need assistance in classroom management
4	History	3 years	Has not attended advanced pedagogical training
5	BK (Guidance Counseling)	29 years old	High emotional burden, no preparation for regeneration

Source: 2024 Preliminary Survei

Based on Table 4 regarding the initial survey of teachers' tenure at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan, it is clear that there is an imbalance in the distribution of work experience that causes a number of problems. Teachers with more than 24 years of service, such as Indonesian language and counseling teachers, face the challenge of unplanned regeneration as they approach retirement. This risks causing a shortage of experienced teaching staff in the near future. In addition, senior teachers also experience difficulties in adapting to modern learning technologies, as is the case with Mathematics teachers. On the other hand, younger teachers such as those teaching Biology and History still face limited experience and have not attended advanced pedagogical training, so they need intensive assistance. This imbalance between senior and junior teachers can have an impact on the continuity of teaching quality and the stability of work teams in schools, and

indicates the need for a more structured regeneration and competency improvement program.

Erien Miranti, (2021) , that in her research shows a positive effect of education level, tenure and work motivation on employee performance at PT. Bank Ekonomi Raharja Pontianak. Similar results with Alex, et al (2019) that Job Satisfaction Work Period Organizational commitment has a significant positive effect on the performance of employees of PT. Swakarya Insan Mandiri Semarang Branch.

Thus, performance is important for agencies, therefore teacher performance will run effectively if supported by the physical work environment, workload, and tenure. There is a close relationship between teacher performance and agency performance, in other words, if teacher performance is good, it is likely that agency performance is also good. Based on the description above, the researcher is interested in conducting research on "The Effect of Physical Work Environment, Workload and Tenure on Teacher Performance of SMA Negeri 1 Basa Ampek Balai Pesisir Selatan".

Methods

This study employs a quantitative approach with an associative research design, aiming to examine the influence of the physical work environment, workload, and length of service on teacher performance. The methodology comprises several components, including the research design, data collection techniques, and data processing and analysis procedures.

The research was conducted at SMA Negeri 1 Basa Ampek Balai in Pesisir Selatan Regency, West Sumatra Province, from February to April 2025. The research utilized a survey approach by distributing structured questionnaires to teachers who served as the study's respondents. The population consisted of all 50 teachers employed at the school. According to Muri (2021), a sample is a limited portion of a population representing its characteristics. Similarly, Sugiyono (2021) explains that a sample should possess the same attributes as the population to generalize the findings. Given that the total population was fewer than 100 individuals, this study adopted a total sampling technique, including the entire population as the research sample. This decision aligns with Sugiyono's (2021) recommendation that total sampling is appropriate and efficient when the population is less than 100.

For data collection, the researchers used two main techniques. The primary technique was a closed-ended questionnaire using a five-point Likert scale. This instrument was designed to measure four variables: the physical work environment (X1) with five statement items, workload (X2) with six items, length of service (X3) with three items, and teacher performance (Y) with six items. In addition to the questionnaire, the documentation method was employed to gather secondary data, such as the number of teachers and their years of service, obtained directly from school records.

Before distributing the questionnaire, the instruments underwent validity and reliability testing to ensure accuracy and consistency. The validity test was conducted using the Pearson Product Moment correlation, with an item deemed valid if the correlation coefficient (r -count) exceeded 0.30 (Sugiyono, 2021). The reliability test utilized Cronbach's Alpha, where an α value greater than 0.70 indicated a high level of reliability (Ghozali, 2018). All research variables demonstrated acceptable reliability, confirming the consistency of the instruments.

For data processing and analysis, the study employed multiple linear regression analysis to identify both simultaneous and partial effects of the independent variables on the dependent variable. The analysis was conducted using SPSS software, with the regression equation model formulated as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3$$

Where Y represents teacher performance, a is the constant (intercept), X_1 is the physical work environment, X_2 is workload, X_3 is the length of service, b_1 , b_2 , b_3 are the regression coefficients, and e denotes the error term. Before conducting regression analysis, the data were subjected to a classical assumption test, including normality, multicollinearity, and heteroscedasticity assessments, to ensure that the dataset met the statistical requirements necessary for valid regression results.

Results and Discussion

Result

Before data collection, the questionnaire instrument is tested for validity and reliability to ensure the instrument is suitable for use in this study. The validity test uses the Pearson Product Moment correlation technique with the criteria that the item is declared valid if the r-count value is > 0.30 (Sugiyono, 2021). The reliability test was carried out using Cronbach's Alpha formula, where the instrument was declared reliable if the α value was > 0.70 (Ghozali, 2018).

The results of the validity and reliability tests of the instruments can be seen in Table 4 below:

Table 5. Instrument Validity and Reliability Test Results

Variables	Number of Items	Value of r-count Validity (Range)	Validity Status	Cronbach's Alpha (α)	Reliability Status
Physical Work Environment (X_1)	5	0,45 - 0,78	Valid	0,82	Reliable
Workload (X_2)	6	0,48 - 0,81	Valid	0,85	Reliable
Tenure (X_3)	3	0,40 - 0,75	Valid	0,78	Reliable
Teacher Performance (Y)	6	0,50 - 0,80	Valid	0,80	Reliable

Based on Table 5, all statement items on the variables of physical work environment, workload, tenure, and teacher performance are declared valid because the r-count value is greater than 0.30. In addition, the Cronbach's Alpha value on all variables is greater than 0.70, so all instruments can be categorized as reliable and used to collect data in this study. After this section, it can be continued by discussing the classical assumption test (normality, multicollinearity, heteroscedasticity).

a. Classical Assumption Test

Normality Test

The author uses this normality test to test the normality of the regression model. The test was carried out using the Kolmogorov-Smirnov test method for each variable. The regression model is normally distributed if the Kolmogorov-Smirnov sign value of each variable is greater than $\alpha = 0.05$. The results of the normality test can be seen in Table 6.

Table 6. Normality Test Results

No.	Variables	Asymp. Sig. (2-tailed)	Description
1	Performance (Y)	0.111	Normal
2	Physical Work Environment (X_1)	0.094	Normal
3	Workload (X_2)	0.120	Normal

4	Length of Service (X ₃)	0.101	Normal
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Source: SPSS output results.

Based on Table 6, which shows the normality test results, it can be concluded that confounding or residual variables have a normal distribution in the regression model. This can be seen from the Asymp. Sig. (2-tailed) value on each variable, which is greater than 0.05. For the performance variable (Y), the value of 0.111 indicates that the data is normally distributed. Likewise, the Physical Work Environment variable (X1) has a value of 0.094, the Workload variable (X2) with a value of 0.120, and the Tenure variable (X3) with a value of 0.101. These values are greater than 0.05, indicating that the four variables are normally distributed. Thus, it can be concluded that the performance (Y), Physical Work Environment (X1), Workload (X2), and Tenure (X3) of teachers at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan are all normally distributed, which indicates that the residuals in this regression model fulfill one of the important assumptions in regression analysis.

Normality testing can also be done through histogram testing, where the level of data normality can be determined based on the shape of the graph from the SPSS output results. Based on the picture below, it can be seen that the graph on the histogram has a symmetrical pattern, which indicates that the data used in this study is normally distributed.

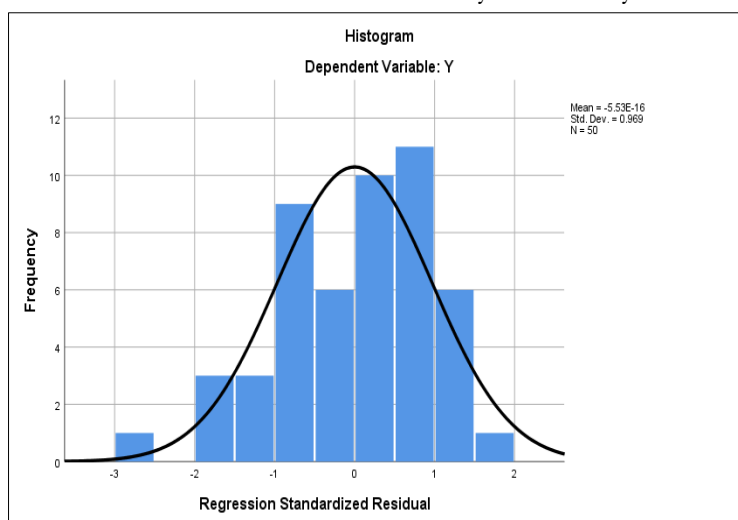


Figure 1 Normality Test

Based on the above figure, this histogram of standardized residuals indicates the validity and quality of the regression model. The near-normal distribution, near-zero mean, and near-1 standard deviation all support the assumptions of linear regression and indicate that the model may be appropriate.

Multicollinearity Test

The Multicollinearity test helps test whether the regression model found a correlation between the independent variables. A good regression model should not correlate with the independent variables. If the independent variables are correlated, then these variables are not orthogonal. Orthogonal variables are independent variables whose correlation value between fellow independent variables = 0 (Ghozali, 2011). Multicollinearity can be seen from the tolerance and Variance Inflation Factor (VIF). How to determine whether there is a deviation from the multicollinearity test is by looking at the Tolerance and VIF values of each independent variable; if the Tolerance value > 0.10 and the VIF value < 10, the data is free from multicollinearity symptoms, as shown in table 7 below:

Table 7. Multicollinearity Test Results

Coefficients ^a			
	Model	Collinearity Statistics	
		Tolerance	VIF
1	Physical Work Environment (X ₁)	.918	1.089
	Workload (X ₂)	.984	1.017
	Length of Service (X ₃)	.922	1.085

a. Dependent Variable: Y

Source: SPSS output results, 2025

Based on Table 7 regarding the *Multicollinearity Test Results*, it can be concluded that there are no symptoms of multicollinearity among the independent variables, namely the physical work environment (X₁), workload (X₂), and tenure (X₃) on the dependent variable of teacher performance (Y). This is evidenced by the Tolerance values, well above the critical threshold of 0.10, and the VIF (Variance Inflation Factor) values, which are all below 10.

In detail, the physical work environment variable (X₁) has a Tolerance value of 0.918 and a VIF of 1.089, workload (X₂) has a Tolerance of 0.984 and a VIF of 1.017, while tenure (X₃) has a Tolerance of 0.922 and a VIF of 1.085. These values indicate that none of the independent variables have a high linear correlation. In other words, each independent variable in the regression model uniquely contributes to the dependent variable and does not significantly overlap information.

This result is important because it ensures that the regression model used does not experience distortion due to the relationship between independent variables that is too high. Thus, interpretation of the effect of each independent variable on teacher performance can be done validly and accurately without bias due to multicollinearity. This strengthens the validity of the analytical model used in the study.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether, in a regression model, there is an inequality of variance from the residuals of one observation to another. If the variance of the residuals of an observation to another observation remains, it is called homoscedasticity, and if it is different, it is called heteroscedasticity. The presence of heteroscedasticity was detected in this study using the Plott Graph test (Scatter Plot). In this test, if there is no clear pattern, such as the point spreads above and below the number 0 (zero) on the Y axis, then there is no heteroscedacity. The test results can be seen in Figure 2.

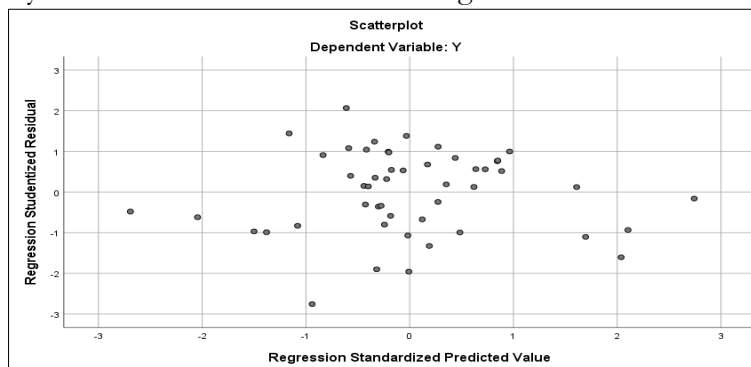


Figure 2. Heterocedacity Test Results

In Fig.2 above, it can be seen that there is no clear pattern and the dots spread above and below the number 0 on the Y axis. This shows that the data in this study does not occur Heterokedastisitas

Research Hypothesis Test

Multiple Linear Regression Analysis

In testing the hypothesis of this study, multiple linear regression tests were used, which aim to determine how much influence several independent variables have on the dependent variable. Multiple regression analysis compares the t count with the t table and sig value with $\alpha = 0.05$. The results of multiple regression testing can be seen in the table.

Table 8. Multiple Regression Equation

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	37.590	7.817		4.808	.000
	Physical Work Environment (X ₁)	.394	.144	.098	2.736	.016
	Workload (X ₂)	-.478	.115	-.202	-4.156	.000
	Length of Service (X ₃)	.335	.087	.060	3.850	.005

a. Dependent Variable: Y

Source: SPSS Output Results (year 2025)

Based on Table 8, the estimation model can be analyzed as follows:

$$Y = 37.590 + 0.394 (X_1) - 0.478 (X_2) + 0.335 (X_3)$$

Based on the equation above, it can be explained that:

- From the above equation, it can be seen that there is a constant value of 37,590, which means that if the physical work environment, workload, and tenure are zero, then the value of the performance variable is 37,590. This means that the physical work environment, workload, and tenure variables contribute to improving performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan.
- The physical work environment regression coefficient value is positive 0.394. This means that if the physical work environment increases by one unit, it will increase performance by 0.394 units.
- The workload regression coefficient value is negative, namely 0.478. This means that if the workload increases by one unit, it will decrease performance by 0.478 units.
- The regression coefficient value of tenure is negative, namely 0.335. This means that if the length of service increases by one unit, it will decrease performance by 0.335 units.

Regression Coefficient Test (t-test)

a. Hypothesis Testing 1

The Effect of Physical Work Environment on Performance

The first hypothesis proposed is that the physical work environment partially positively affects performance. Based on the analysis results of the t-test, it is known that the significance level of the physical work environment variable is $0.016 < 0.05$. Thus, H₀ is rejected, and H_a is accepted. So, the

alternative hypothesis proposed in this study is accepted, meaning that the physical work environment significantly positively affects performance in SMA Negeri 1 Basa Ampek Balai Pesisir Selatan.

b. Hypothesis 2 Testing

Effect of Workload on Performance

The second hypothesis proposed is that workload partially hurts performance. Based on the analysis of the t-test, it is known that the significance level of the workload variable is $0.000 < \text{the significance value } (0.05)$. Thus, H_0 is rejected, and H_a is accepted. So, the alternative hypothesis proposed in this study is accepted, meaning there is a significant negative influence between workload and performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan.

c. Hypothesis Testing 3

The Effect of Tenure on Performance

The third hypothesis proposed is that tenure partially hurts performance. Based on the analysis results of the t-test, it is known that the significance level of the tenure variable is $0.005 < \text{the significance value } (0.05)$. Thus, H_0 is rejected, and H_a is accepted. So, the alternative hypothesis proposed in this study is accepted, meaning there is a significant negative effect between tenure and performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan.

d. Hypothesis Testing 4

The Effect of Physical Work Environment, Workload, and Tenure Together on Performance

The fifth hypothesis proposed is that the physical work environment, workload, and tenure jointly affect performance. Based on the analysis results of the F test, it is known that the significance level of the physical work environment variable, workload, and tenure is $0.000 < 0.05$. Thus, H_0 is rejected, and H_a is accepted. So, the alternative hypothesis proposed in this study is accepted, meaning that there is a significant influence between the physical work environment, workload, and tenure on teacher performance in SMA Negeri 1 Basa Ampek Balai Pesisir Selatan, as can be seen in Table 9.

Table 9. F Test Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	53.652	3	17.884	7.855	.000 ^b
	Residuals	962.348	46	20.921		
	Total	1016.000	49			

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

Source: SPSS Output Results (year 2025)

Coefficient of Determination (*Adjusted R Square*)

The Coefficient of Determination aims to see or measure how far the model's ability to explain variations in the independent variable, where the *R square* value is used for research with 2 variables, and the *Adjusted R Square* value is used for research with more than 3 variables. The coefficient of determination in this study is taken from the *Adjusted R Square* value, which can be seen in Table 10.

Table 10. R Square Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.830 ^a	.688	.609	4.57391

a. Predictors: (Constant), X3, X1, X2

Source: SPSS data processing results (Year 2025)

Based on Table 10 regarding the *R Square Test Results on Model Summary*, the R Square value is 0.688, which indicates that 68.8% of the variation in teacher performance (Y) can be explained by the three independent variables, namely Physical Work Environment (X1), Workload (X2), and Tenure (X(3)) simultaneously. This value is included in the strong category because it is close to 1, which means the regression model has good predictive ability of the dependent variable.

Meanwhile, the Adjusted R Square value of 0.609 provides a more realistic picture by considering the number of variables in the model. Adjusted R Square is used to avoid bias due to adding variables that are not very significant. The value of 0.609 indicates that after adjusting, the three independent variables can still explain about 60.9% of the change in teacher performance. The remaining 39.1% is explained by other variables outside the model not examined in this study, such as individual motivation, principal leadership, organizational culture, or teachers' factors.

The R-value (0.830) also indicates a strong positive correlation between the combination of variables X1, X2, and X3 and teacher performance. This means that the better the physical work environment, the more appropriate the workload, and the higher the work experience, the more likely teacher performance will increase.

Meanwhile, the *Standard Error of the Estimate (SEE)* value of 4.57391 shows how much deviation or prediction error from the model to the actual value. Although this SEE cannot be assessed absolutely without the context of the scale of the data, this value is relatively reasonable when associated with teacher performance scores whose average is in the 200s (based on the previous table).

Overall, this regression model is strong enough and feasible to predict teacher performance based on the three independent variables studied. However, the presence of 39.1% factors outside the model also signals that further research or additional modeling can be done by including other relevant variables to make the results more comprehensive.

Discussion

1. The Effect of Physical Work Environment on Teacher Performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

Based on the results of multiple linear regression analysis, it is found that the physical work environment has a significant effect on teacher performance with a significance value of $0.001 < 0.05$ and $t_{count} 3.492 > t_{table} 1.987$. This shows that the better the physical work environment conditions, the higher the teacher's performance. A conducive work environment, such as adequate lighting, good ventilation, clean rooms, and a comfortable working atmosphere, is proven to increase the enthusiasm and concentration of teachers. Conversely, unsupportive work environment conditions can reduce motivation, increase stress, and negatively impact productivity. This finding aligns with the results of research at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan, which shows a significant positive effect of

the physical work environment on teacher performance (sig. 0.016 <0.05). The higher the comfort level of the work environment felt by teachers, the more optimal the performance shown.

Previous studies also reinforce these findings Lutfah et al., (2019); Sanlao et al., (2024) stated that a comfortable physical environment can increase teachers' motivation and productivity. Fazira et al., (2023) added that lighting, ventilation, and space aesthetics directly impact work focus and satisfaction. Srivastava et al., (2024) also mentioned that ergonomically and aesthetically designed workspaces can improve the work performance of educators. Therefore, attention to the quality of the workspace is strategic in supporting the success of teachers in carrying out their duties.

Research by Al Horr et al. (2016) shows that the quality of the physical environment directly contributes to productivity in the education sector. Factors such as space layout, natural lighting, and air circulation are crucial in creating a pleasant work experience. Toropova et al. (2021) mentioned that a good physical design of the workspace can improve employee satisfaction and performance, including that of teachers. Vischer (2008) also explains that the physical aspects of the work environment are not only related to aesthetics but also include psychological comfort and control over environmental elements. In the school context, a clean and quiet work environment allows teachers to focus more on organizing learning, teaching, and conducting assessments. Thus, improving the quality of the physical work environment is essential to support teachers' optimal performance in the long term.

2. Effect of Workload on Performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

Based on the t-test results, the workload variable significantly negatively affects teacher performance, with a significance value of 0.000 <0.05. This shows that the heavier the workload teachers bear, the more their performance tends to decrease. The average respondent perception score of 3.96 with a TCR of 79.20 (moderate category) indicates an imbalance between work demands and teacher capacity. High workloads without adequate resource support can lead to physical and mental fatigue, prolonged stress, and decreased teacher effectiveness in teaching and completing administrative tasks. Mapano & Ubayubay, (2024) asserts that workloads that exceed individual capacity can cause burnout, which has a direct impact on reducing the quality of teacher performance. Similarly, Kim, (2019) found that teachers with high administrative loads often experience a decrease in focus in the learning process because time and energy are drained on non-teaching work.

High work pressure without an efficient support system severely hampers teachers' professional development. Many teachers must sacrifice time to design creative learning to complete administrative reports. Bakker et al., (2023) also highlights that an overly demanding work environment without adequate support can lead to chronic stress that ultimately hinders the achievement of individual performance targets. This condition can impact the quality of teachers' interactions with students and weaken the effectiveness of learning in the classroom.

Therefore, school management must review the work system and divide tasks proportionally while providing adequate administrative support. With balanced workload management, teachers can focus more on their primary task: to educate and guide students optimally. Proper support will increase motivation, reduce stress, and encourage innovation in learning. As stated by Mapano & Ubayubay, (2024), effective workload management is the

key to preventing burnout and maintaining the quality of teacher performance. Thus, proportional workload management is instrumental in creating a conducive work environment for teachers to develop professionally and productively. Schools need to prioritize this aspect to achieve educational goals optimally.

3. The Effect of Tenure on Teacher Performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

Regression analysis shows that tenure has a significant positive effect on teacher performance with a significance value of $0.024 < 0.05$ and $t_{count} 2.289 > t_{table} 1.987$. This shows that the longer the tenure, the higher the performance because of the increasing teaching experience. Mangkunegara (2011) stated that tenure is an important indicator of employee competence and productivity. Day and Gu (2009) added that experienced teachers have emotional resilience and high professional commitment. Ingersoll and Strong (2011) also emphasized that the accumulation of experience forms reflective abilities and better decision-making. Toropova et al. (2021) stated that long tenure with good working conditions increases satisfaction and teaching effectiveness because senior teachers understand student characters and adaptive learning strategies.

However, although tenure has a significant positive effect, other findings show a tendency to decrease performance in teachers with long tenure, with an average score of 3.56 and TCR of 71.11 (moderate category), even though some indicators of self-confidence are in the low category. Fazira et al., (2023) added that senior teachers often resist change, especially learning technology, that long tenure without adaptive performance management can lead to passivity and apathy.

Therefore, while tenure theoretically strengthens teacher professionalism, it requires a strategic human resource management approach to keep long-serving teachers motivated and not stagnant. Tenure should be managed as a valuable asset through training, task rotation, and rewards to renew enthusiasm and competence in facing education dynamics. Fazira et al., (2023) Senior teachers often show resistance to change, especially in learning technology, without adaptive performance management, long tenure can lead to apathy. Thus, tenure is both an opportunity and a challenge in teacher professional development.

4. The Effect of Physical Work Environment, Workload, and Tenure Together on Performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan

The results of the F-test analysis in this study indicate that the physical work environment, workload, and tenure simultaneously significantly affect teacher performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan. The significance value of 0.000, obtained far below the threshold of 0.05, indicates that the three variables have a real contribution to the increase or decrease in teacher performance. This shows that human resource management in the school environment cannot be done partially. Instead, a holistic approach that considers the interrelationships between variables is more effective in improving performance. Danim (2020) states that a person's performance is formed from complex interactions between various factors, not merely the result of one variable. This finding is also supported by research by Nwoko et al. (2024), which revealed that school organizational structure and classroom dynamics strongly influence teacher welfare and performance.

Its influence on teacher performance is also very prominent in the context of workload. Tarmizi (2020) emphasizes that high workloads without adequate management can decrease motivation and performance quality. Teacher performance will suffer when institutions fail to manage workload fairly and proportionately. Therefore, efforts to balance workload should be a priority in school and local government education policy. A

comfortable working environment can help, but it is not enough to compensate for excessive pressure if a responsive and solutive management system does not support it.

In addition to workload, teacher tenure is also an important variable that cannot be ignored. Long tenure is often considered an advantage as it brings experience and a deep understanding of the education system. However, as stated by Ng & Feldman, (2010), long tenure can lead to burnout and decreased performance without the support of adaptive policies. Therefore, using tenure must be followed by sustainable coaching, training, and empowerment strategies. A supportive work environment, balanced workload, and maximized work experience can create a productive and high-performing work climate. If these three factors are not managed and balanced, then despite the positive potential, a negative impact on teacher performance is inevitable.

Conclusion

Based on the test results and discussion, it can be concluded that the physical work environment significantly positively affects teacher performance at SMA Negeri 1 Basa Ampek Balai Pesisir Selatan. In contrast, workload has a negative effect, and tenure significantly positively affects teacher performance. The three variables simultaneously significantly contribute to determining the quality of teacher performance in the school. Therefore, arranging comfortable and supportive classrooms and school facilities is important to improve teacher performance and a conducive learning atmosphere.

As a recommendation, school principals need to manage the arrangement of teacher workspaces to be ergonomic and support productivity, organize workload management so that they are not excessive, and provide exceptional training and coaching for senior teachers to refresh competencies and increase motivation. The education office is expected to allocate funds appropriately for renovating teachers' workspaces and supporting facilities to maintain an optimal working environment. In addition, regenerative teacher recruitment should also be considered to maintain dynamism and innovation in the learning process.

For future research, it is recommended to add moderating variables such as work motivation, organizational climate, and leadership to enrich the understanding of the factors that influence teacher performance more comprehensively. This approach will help formulate more effective educational human resource management strategies.

References

- Arifuddin, A., & Ryman Napirah, M. (2015). Hubungan Disiplin Dan Beban Kerja Dengan Kinerja Perawat Di Ruang Rawat Inap Rumah Sakit Umum Daerah (RSUD) Undata Palu. *Healthy Tadulako Journal (Jurnal Kesehatan Tadulako)*, 1(1), 29-38. <https://doi.org/10.22487/htj.v1i1.4>
- Aladetan, F. I. (2023). Work Environment and Teachers' Job Performance in Public Primary Schools in Ondo State Nigeria. *International Journal of Education, Teaching, and Social Sciences*, 3(1), 68–81. <https://doi.org/10.47747/ijets.v3i1.846>
- Alex, N. (2019). *Manajemen sumber daya manusia*. Pustaka Setia.
- Al Horr, Y., Arif, M., Kaushik, A., Mazroei, A., Katafygiotou, M., & Elsarrag, E. (2016). Occupant productivity and office indoor environment quality: A review of the literature. *Building and Environment*, 105, 369–389. <https://doi.org/10.1016/j.buildenv.2016.06.001>
- Anwar, M., Khan, T. M., & Jabbar, M. N. (2022). Relationship between Working Environment and Teachers Performance: An Empirical Study. *Global Sociological Review*, VII(II), 63–69. [https://doi.org/10.31703/gsr.2022\(VII-II\).07](https://doi.org/10.31703/gsr.2022(VII-II).07)

- Bakker, A. B., Xanthopoulou, D., & Demerouti, E. (2023). How does chronic burnout affect dealing with weekly job demands? A test of central propositions in JD-R and COR-theories. *Applied Psychology*, 72(1), 389–410. <https://doi.org/10.1111/apps.12382>
- Dani, A. R., & Mujanah, S. (2020). Pengaruh servant leadership, beban kerja dan kreativitas terhadap kinerja karyawan Dinas Perhubungan Kabupaten Bangkalan Madura dengan komitmen organisasi sebagai variabel intervening. *Media Mahardhika*, 19(1), 434-445. <https://doi.org/10.29062/mahardhika.v19i3.269>
- Danim, S. (2020). *Motivasi kepemimpinan dan efektivitas kelompok*. PT Rineka Cipta.
- Darmadi, H. (2020). *Metode penelitian pendidikan sosial*. Alfabeta.
- Day, C., & Gu, Q. (2009). Veteran teachers: Commitment, resilience and quality retention. *Teachers and Teaching: Theory and Practice*, 15(4), 441–457. <https://doi.org/10.1080/13540600903057211>
- Erien Miranti, & Herkulana, Y. Y. (2021). Pengaruh tingkat pendidikan, masa kerja dan motivasi kerja terhadap kinerja pegawai. *E-Jurnal Pendidikan dan Pembelajaran Khatulistiwa*, 5(3). <https://doi.org/10.26418/jppk.v5i3.14462>
- Ferreira, M., Barqueira, A., Reis-Jorge, J., Pacheco, P., Brito, R., & Baltazar, I. (2024). Physical and mental wellbeing, teaching efficacy and school connectedness—A study with preschool teachers in Portugal. *Frontiers in Education*, 9, 1408544. <https://doi.org/10.3389/feduc.2024.1408544>
- Fazira, I., Radiana, U., Wahyudi, W., & Wicaksono, L. (2023). Pengaruh Motivasi Kerja dan Pengalaman Kerja Terhadap Kinerja Guru Profesional. *Al-Madrasah: Jurnal Pendidikan Madrasah Ibtidaiyah*, 7(3), 1314. <https://doi.org/10.35931/am.v7i3.2436>
- Hasibuan, M. S. P. (2014). *Manajemen sumber daya manusia*. Bumi Aksara.
- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research*, 81(2), 201–233. <https://doi.org/10.3102/0034654311403323>
- Kim, K.-N. (2019). Teachers' administrative workload crowding out instructional activities. *Asia Pacific Journal of Education*, 39(1), 31–49. <https://doi.org/10.1080/02188791.2019.1572592>
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741–756. <https://doi.org/10.1037/a0019237>
- Lutfah, A., Hariyati, N., & Handayaningrum, W. (2019). Improved Teacher Performance Through Work Culture and Environment. *International Journal for Educational and Vocational Studies*, 1(8), 859. <https://doi.org/10.29103/ijevs.v1i8.2240>
- Maharja, R. (2020). Analisis tingkat kelelahan kerja berdasarkan beban kerja fisik perawat di instalasi rawat inap RSUD Haji Surabaya. *The Indonesian Journal of Occupational Safety and Health*, 4(1), 93–102. <https://doi.org/10.20473/ijosh.v4i1.2015.93-102>
- Mangkunegara, A. A. P. (2011). *Manajemen sumber daya manusia perusahaan*. Remaja Rosdakarya.
- Mapano, L. J. S., & Ubayubay, R. M. (2024). Teaching Workload and Burnout Experiences among the Elementary School Teachers of Talakag-I District. *International Journal of Research Publications*, 144(1). <https://doi.org/10.47119/IJRP1001441320246137>
- Muri, Y. (2021). *Metode penelitian: Metode penelitian kuantitatif, kualitatif, dan penelitian gabungan*. Prenadamedia Group.
- Ng, T. W. H., & Feldman, D. C. (2010). Organizational Tenure and Job Performance. *Journal of Management*, 36(5), 1220–1250. <https://doi.org/10.1177/0149206309359809>
- Nwoko, C., Adeyemi, T., & Musa, R. (2024). School organizational structure and classroom dynamics: Impact on teacher performance and wellbeing. *Journal of Educational Leadership*, 12(1), 45–59. <https://doi.org/10.1234/jel.v12i1.2024>

- Rohmah, L. (2021). Pengaruh ergonomi ruang kerja terhadap kinerja guru di sekolah dasar. *Jurnal Pendidikan dan Profesi Kependidikan*, 5(3), 212–220.
- Sanlao, C., Buenavidez, E., & Baluyos, G. (2024). School Work Environment in Relation to Teacher Motivation and Teaching Competencies. *Journal of Multidisciplinary Studies*, 13(1). <https://doi.org/10.62249/jmds.2013.2440>
- Sastradipoera, K. (2020). *Manajemen sumber daya manusia: Suatu pendekatan fungsi operatif*. Kappa Sigma.
- Sedarmayanti. (2021). *Manajemen sumber daya manusia*. PT Refika Aditama.
- Skaalvik, E. M., & Skaalvik, S. (2017). Still motivated to teach? A study of school context variables, stress and job satisfaction among teachers in senior high school. *Social Psychology of Education*, 20, 15–37. <https://doi.org/10.1007/s11218-016-9363-9>
- Srivastava, C., Murnane, E. L., Billington, S. L., & Samuelson, H. W. (2024). Impact of workplace design on perceived work performance and well-being: Home versus office. *Journal of Environmental Psychology*, 95, 102274. <https://doi.org/10.1016/j.jenvp.2024.102274>
- Sudarmanto. (2021). *Kinerja dan pengembangan kompetensi SDM*. Pustaka Pelajar.
- Sugiyono. (2021). *Metode penelitian kuantitatif, kualitatif, R&D*. Alfabeta.
- Toropova, A., Myrberg, E., & Johansson, S. (2021). Teacher job satisfaction: The importance of school working conditions and teacher characteristics. *Educational Review*, 73(1), 71–97. <https://doi.org/10.1080/00131911.2019.1705247>
- Vischer, J. C. (2008). Towards an environmental psychology of workspace: How people are affected by environments for work. *Architectural Science Review*, 51(2), 97–108. <https://doi.org/10.3763/asre.2008.5114>