Journal of Management Science (JMAS)
Volume 7, No. 3, July 2024, pp 367-372 ISSN 2684-9747 (Online)
www.exsys.iocspublisher.org/index.php/JMAS Published by: Institute of Computer Science (IOCScience)

Analysis of work environment, discipline and ability of teachers at SMAN 3 Pontianak

Deasy Rinayanti Pelealu

Manajemen, Universitas Widya Dharma Pontianak, Pontianak, Indonesia

ARTICLE INFO

Article history:

Received Jun 12, 2024
Revised Jul 10, 2024
Accepted Jul 12, 2024

Keywords:

Multiple linear regression;
Teacher performance;
Work ability;
Work discipline;
Work environment.

ABSTRACT

This study investigates the impact of the work environment, work discipline, and work ability on teacher performance using multiple linear regression analysis. The regression model reveals that, in the absence of influence from these variables, the predicted teacher performance score is 64.376. The analysis indicates that while work discipline ($\beta = 0.188$) and work ability ($\beta = 0.111$) positively influence performance, the work environment ($\beta = -0.484$) has a negative impact. Correlation coefficient analysis shows that the work environment has a low and negative correlation with teacher performance ($r = -0.335$), whereas work discipline ($r = 0.181$) and work ability ($r = 0.212$) have very low to low positive correlations. The coefficient of determination ($R^2 = 0.176$) suggests that only 17.6% of the variation in teacher performance is explained by these variables, indicating that 82.4% of the variance is due to other unexamined factors. These findings highlight the complexity of factors affecting teacher performance and suggest the need for further research to explore additional influential variables.

Corresponding Author:

Deasy Rinayanti Pelealu,
Manajemen,
Universitas Widya Dharma Pontianak,
Jl. Hos Cokroaminoto No.445, Darat Sekip, Pontianak, Kalimantan Barat, 78243, Indonesia.
Email: dcdeasy.26@gmail.com

1. Introduction

SMAN 3 Pontianak is a prestigious high school located in the city of Pontianak, Indonesia. Known for its academic excellence and strong emphasis on character development, SMAN 3 Pontianak has produced numerous successful graduates who have gone on to excel in various fields. With a dedicated team of teachers and staff, the school is committed to providing a well-rounded education that prepares students for the challenges of the modern world. The school offers a wide range of extracurricular activities, including sports teams, clubs, and community service opportunities, allowing students to explore their interests and develop leadership skills. SMAN 3 Pontianak also prioritizes the use of technology in the classroom, providing students with access to modern tools and resources to enhance their learning experience. Overall, SMAN 3 Pontianak is not just a place for academic growth, but also a nurturing environment where students can grow into well-rounded individuals ready to make a positive impact on society (Nurdyansyah & Andiek, 2017; Rahmat, 2019; Wahyuni, 2021).

The school also recognizes the importance of analyzing the work environment, ensuring that it is conducive to learning and promotes a sense of community among students and staff (Kruse & Louis, 1993; Kutsyuruba et al., 2015; Royal & Rossi, 1996). Discipline is emphasized to create a structured and focused learning environment, helping students develop important life skills such as time management and responsibility (Fatima, 2023; Leu & Price-Rom, 2006). Additionally, the ability of teachers is crucial in providing quality education, and SMAN 3 Pontianak ensures that its educators are well-trained and equipped to support student growth and success. These factors contribute to the overall success of the school in preparing students for their future endeavors. The school also offers a variety of extracurricular activities to further enrich the educational experience and foster a well-rounded student body (Marsh & Kleitman, 2002; Ringley, 2017;

Wise, 2022). This helps students discover their passions and talents outside of the classroom, promoting personal growth and development. By providing a supportive and nurturing environment, SMAN 3 Pontianak empowers students to reach their full potential and achieve their goals, setting them up for success in their future academic and professional pursuits.

The purpose of the research study is to evaluate the effectiveness of the school's holistic approach to education and its impact on student success. By examining the correlation between participation in extracurricular activities and academic achievement, the study aims to provide valuable insights into the benefits of a well-rounded education. Additionally, the research will assess the overall satisfaction and level of engagement of students at SMAN 3 Pontianak, helping to identify areas for improvement and further enhance the school's ability to support student growth and development. Through surveys, interviews, and analysis of academic records, the researchers will gather data on the various extracurricular activities offered at the school and their impact on student performance. This comprehensive approach will allow for a thorough evaluation of the school's holistic education model and provide actionable recommendations for enhancing student success. Ultimately, the findings of this study will contribute to the ongoing efforts to improve the quality of education at SMAN 3 Pontianak and ensure that students are equipped with the skills and knowledge needed for future success (Greenberg et al., 2003; Louis et al., 2010).

Previous studies on work environment in educational settings have shown that a positive school culture, supportive teachers, and engaging extracurricular activities can significantly improve student performance and overall well-being. By examining the existing research on these factors, we can better understand how they influence student outcomes and identify potential areas for improvement within SMAN 3 Pontianak. This literature review will serve as the foundation for our study, guiding our research methodology and helping us draw meaningful conclusions about the impact of extracurricular activities on student success in this particular school setting. Additionally, exploring the specific ways in which these factors interact with each other will provide valuable insights into the overall effectiveness of the school's educational environment. By focusing on both the individual and collective impact of positive school culture, supportive teachers, and engaging extracurricular activities, we can develop targeted strategies to enhance student achievement and well-being at SMAN 3 Pontianak. Ultimately, our goal is to create a comprehensive understanding of how these elements contribute to student success, allowing us to make informed recommendations for improvement and ultimately create a more enriching educational experience for all students (Lombardi et al., 2019; Pietarinen et al., 2014).

The discipline of teachers plays a crucial role in shaping student outcomes at SMAN 3 Pontianak. By maintaining a structured and respectful classroom environment, teachers can create a positive and conducive atmosphere for learning. When teachers demonstrate consistent discipline and high expectations, students are more likely to stay focused, engaged, and motivated to succeed. This, in turn, can lead to improved academic performance, increased attendance, and overall student well-being. As we continue to explore the impact of teacher discipline on student outcomes, we can further refine our strategies and practices to optimize student success at our school. By implementing a combination of positive reinforcement and clear consequences for misbehavior, teachers can effectively manage their classrooms and foster a sense of responsibility among students. When students feel supported and challenged in their learning environment, they are more likely to develop the skills and confidence needed to excel academically. It is vital for teachers to consistently reflect on their disciplinary approaches and make adjustments as needed to ensure that all students have the opportunity to thrive at SMAN 3 Pontianak (Franklin & Harrington, 2019).

The relationship between teacher ability and student performance is crucial in determining the success of a classroom. When teachers are able to effectively manage their classrooms and create a positive learning environment, students are more likely to engage with the material and participate in class. This, in turn, leads to improved academic performance and a greater sense of achievement among students. By continuously refining their disciplinary strategies and staying attuned to the needs of their students, teachers at SMAN 3 Pontianak can ensure that all students have the support and guidance they need to reach their full potential. This commitment to excellence in classroom management not only benefits the students academically, but also helps to foster a sense of community and mutual respect within the school. When students feel supported and valued by their teachers, they are more likely to feel motivated and empowered to succeed. As a result, the school as a whole can experience higher levels of achievement and a positive reputation in the community. By prioritizing effective classroom management, teachers at SMAN 3 Pontianak are able to create an environment where all students can thrive and reach their goals (K. R. Kim & Seo, 2018; L. E. Kim et al., 2018).

2. Research Method

The method used in this research is a quantitative method used to research a certain population or sample, data collection uses research instruments, data analysis is quantitative / statistical in nature (Sugiyono, 2019). Using

saturated sampling. This research is associative in nature, it aims to determine the influence or relationship between two or more variables, namely how much influence the independent variable has on the dependent variable. Data collection techniques used in this research include interviews, questionnaires, observation and a combination of the three. "The sampling technique used in this research is a saturated sampling technique or census." According to (Sugiyono, 2017)saturated sampling is "a sampling technique when members of the population are used as samples. This is often done when the population size is relatively small or the research wants to make generalizations with very small errors."

After the data has been collected, with a questionnaire as a data collection tool, it must be tested first, including by carrying out Validity and Reliability tests. After that, the Classic Assumption Test was carried out, including the Normality Test, Multicollinearity, Autocorrelation and Heteroscedasticity Test. After the research instrument test has been carried out and has met the requirements, the next step is to test the relationship between variables using multiple linear analysis, namely predicting the condition (up and down) of the dependent variable (criterium), if two or more independent variables as prediator factors are manipulated (the value increases and decreases).

Multiple Regression Analysis (Multiple Regression)

According to (Ghozali, 2017) regression analysis aims "to measure the strength of the relationship between two or more variables and determine the relationship between the dependent variable and the independent variable." This analysis is used to predict changes in the value of certain variables when other variables change. Meanwhile, according to (Ningsih & Dukalang, 2019) it is "analysis to determine the relationship between independent variables and dependent variables using linear equations."
The multiple linear regression equation according to (Ningsih & Dukalang, 2019) is as follows:

$$\mathbf{Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e} \quad (1)$$

Information : X_1 : work environment, Y : teacher performance, X_2 : Work discipline, a : Constant, X_3 : work ability, e: *Error.*

Correlation coefficient

According to(Widhiarso, 2010) the correlation coefficient is used to "find out the relationship between a variable and other variables." The correlation coefficient formula is as follows:

$$\boldsymbol{r} = \frac{\boldsymbol{n}\sum \boldsymbol{XY} - (\sum \boldsymbol{X})(\sum \boldsymbol{Y})}{\sqrt{\{(\boldsymbol{n}\sum \boldsymbol{X^2}) - (\sum \boldsymbol{X^2})\}\{(\boldsymbol{n}\sum \boldsymbol{Y^2}) - (\sum \boldsymbol{Y^2})\}}} \quad (2)$$

Information : X: Independent variable, Y: Dependent variable, r : Degree of correlation of variables X and Y, n : The amount of data

Coefficient of Determination

The coefficient of determination according to (Priyatno, 2016) is "the amount of contribution (contribution) of the independent variable affecting the dependent variable which is expressed in percentage," while according to (Gozalie&Anastasia, 2015) the coefficient of determination (R2) "in essence measures how far the model's ability to explain variations in the dependent variable." The R2 value is close to 1 (one) indicating that the variables in the model can represent or explain the problem being studied. In other words, a value close to one means that the independent variables provide almost all the information needed to predict variations in the dependent variable, while a small R2 value means that the ability of the independent variables to explain variations in the dependent variable is very limited. The formula for the coefficient of determination:

$$KD = r^2 \times 100\% \quad (3)$$

Information: KD: Coefficient of determination value, r : Correlation coefficient value.

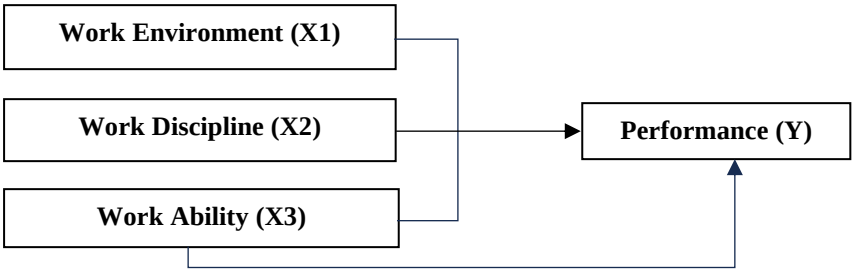

Figure 1. Research Paradigm

3. Results And Discussions

1. Multiple Linear Regression Analysis

Multiple linear regression analysis is used to predict changes in the dependent variable if the independent variable changes (its value increases and decreases). And the results of multiple linear analysis are as follows:

Table 1. Results of Multiple Linear Regression Analysis

Model	Regression Coefficient (B)
Constant	64.376
Working environment (X_1)	-0.484
Work discipline (X_2)	0.188
Work ability (X_3)	0.111

The regression equation is as follows:

$Y = 64.376 - 0.484X_1 + 0.188X_2 + 0.111X_3$

From the regression equation above it can be interpreted: a). If the work environment (X1), work discipline (X2), and work ability (X3) have no influence (constant/fixed), then performance is 64,376. b). Variable regression coefficient (X1) = -0.484. This means that if the work environment (X1) experiences an increase of one unit, assuming that the other independent variables are considered constant, then teacher performance (Y) will decrease by -0.484. c). Variable regression coefficient (X2) = 0.188. This means that if work discipline (X2) increases by one unit, assuming the other independent variables are considered constant, then teacher performance (Y) will increase by 0.188. d). Variable regression coefficient (X3) = 0.111. This means that if the other independent variables are considered constant, and work ability (X3) increases by one unit, assuming the other independent variables are considered constant, then teacher performance (Y) will increase by 0.111.

2. Correlation Coefficient Analysis

The purpose of correlation coefficient analysis is to see the strength of the directional relationship between variables. The correlation coefficient values obtained are interpreted using the correlation coefficient value guidelines in the table below:

Table 2. Guidelines for Interpreting Correlation Coefficients

Coefficient Interval	Relationship Level
0.00 - 0.199	Very low
0.20 - 0.399	Low
0.40 - 0.599	Currently
0.60 - 0.799	Strong
0.80 - 1.000	Very strong

The correlation coefficient values obtained are presented in the table below:

Table 3. Results of Correlation Coefficient Analysis

Correlation coefficient	Teacher Performance (Y)
Working environment (X_1)	-0.335
Work discipline (X_2)	0.181
Work ability (X_3)	0.212

The correlation coefficient value of the work environment and teacher performance = -0.335, which means that the strength of the relationship between the work environment and teacher performance is categorized as low and the direction of the relationship is not in the same direction (negative). The correlation coefficient value of work discipline and teacher performance = 0.181, which means that the strength of the relationship between work discipline and teacher performance is categorized as very low and in the same direction (positive). The correlation coefficient value of ability with teacher performance = 0.212, which means that the strength of the relationship between work ability and teacher performance is categorized as low and in the same direction (positive).

3. Analysis of the Coefficient of Determination

According to (Ghozali, 2016) the coefficient of determination (R2) "essentially measures how far the model's ability is to explain variations in the dependent variable."

Table 4. Results of Determination Coefficient Analysis

Model	R	R *Square*
1	0.420[a]	0.176

Based on the table above, the R2 value is 0.176 or 17.6%. This shows that the percentage contribution of the influence of independent variables consisting of work environment, work discipline and work ability on teacher performance can be explained as 17.6%. while the remaining 82.4% was influenced or explained by other factors not examined in this study.

Discussion

The results of the multiple linear regression analysis reveal key insights into the relationship between teacher performance and the independent variables of the work environment, work discipline, and work ability. The regression equation $Y=64.376-0.484X_1+0.188X_2+0.111X_3$ indicates that, in the absence of any influence from the independent variables, teacher performance is predicted to be 64.376. The negative regression coefficient for the work environment (X_1) implies that an improvement in the work environment actually leads to a decrease in teacher performance, with each unit increase in the work environment resulting in a 0.484 unit decrease in performance. Conversely, work discipline (X_2) and work ability (X_3) positively impact teacher performance, with each unit increase in work discipline and work ability contributing to increases in performance by 0.188 and 0.111 units, respectively. These findings suggest that while work discipline and work ability are beneficial for teacher performance, the work environment might have adverse effects, potentially due to factors such as stress or distractions.

The correlation coefficient analysis further elucidates the relationships among the variables. The work environment has a low and negative correlation with teacher performance ($r=-0.335$), indicating a weak but inverse relationship. Work discipline shows a very low positive correlation with performance ($r=0.181$), while work ability has a low positive correlation ($r=0.212$). These correlations imply that although work discipline and ability are positively associated with performance, the strength of these relationships is weak. The coefficient of determination ($R^2 =0.176$) reveals that only 17.6% of the variance in teacher performance is explained by the combined influence of the work environment, work discipline, and work ability. This indicates that a significant portion (82.4%) of the variation in performance is due to other unexamined factors, highlighting the complexity of the variables affecting teacher performance and suggesting areas for further research to uncover additional influential factors.

4. Conclusion

The multiple linear regression analysis reveals that work discipline and work ability have positive but relatively small effects on teacher performance, while the work environment has a negative impact, suggesting that improvements in the work environment may inadvertently lower performance. The correlation analysis supports these findings, indicating weak relationships between the variables and teacher performance. Furthermore, the coefficient of determination shows that only 17.6% of the variance in teacher performance is explained by the combined effects of the work environment, work discipline, and work ability, with the majority of the variance attributable to other unexamined factors. This underscores the need for further research to identify additional variables influencing teacher performance.

References

Fatima, I. (2023). Role of Teachers to impart quality education for equitable learning. *Shodh Sari-An International Multidisciplinary Journal*, *2*(3), 462–471.

Franklin, H., & Harrington, I. (2019). A review into effective classroom management and strategies for student engagement: Teacher and student roles in today's classrooms. *Journal of Education and Training Studies*.

Ghozali, I. (2016). Aplikasi Analisis multivariete dengan program IBM SPSS 23 (Edisi 8). *Cetakan Ke VIII. Semarang: Badan Penerbit Universitas Diponegoro*, *96*.

Ghozali, I. (2017). *Aplikasi Analisis Multivariate dengan Program SPSS*. Universitas Diponegoro.

Gozalie&Anastasia. (2015). Pengaruh Perilaku Heuristics dan Herding Terhadap Pengambilan Keputusan Investasi Properti Hunian. *Finesta*, *3*(2), 28–32.

Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, *58*(6–7), 466.

Kim, K. R., & Seo, E. H. (2018). The relationship between teacher efficacy and students' academic

achievement: A meta-analysis. *Social Behavior and Personality: An International Journal*, *46*(4), 529–540.

Kim, L. E., Dar-Nimrod, I., & MacCann, C. (2018). Teacher personality and teacher effectiveness in secondary school: Personality predicts teacher support and student self-efficacy but not academic achievement. *Journal of Educational Psychology*, *110*(3), 309.

Kruse, S. D., & Louis, K. S. (1993). *An emerging framework for analyzing school-based professional community*.

Kutsyuruba, B., Klinger, D. A., & Hussain, A. (2015). Relationships among school climate, school safety, and student achievement and well-being: a review of the literature. *Review of Education*, *3*(2), 103–135.

Leu, E., & Price-Rom, A. (2006). Quality of education and teacher learning: A review of the literature. *Washington, DC: USAID Educational Quality Improvement Project*, *1*.

Lombardi, E., Traficante, D., Bettoni, R., Offredi, I., Giorgetti, M., & Vernice, M. (2019). The impact of school climate on well-being experience and school engagement: A study with high-school students. *Frontiers in Psychology*, *10*, 482084.

Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). Investigating the links to improved student learning. *The Wallace Foundation*.

Marsh, H., & Kleitman, S. (2002). Extracurricular school activities: The good, the bad, and the nonlinear. *Harvard Educational Review*, *72*(4), 464–515.

Ningsih, S., & Dukalang, H. H. (2019). Penerapan metode suksesif interval pada analsis regresi linier berganda. *Jambura Journal of Mathematics*, *1*(1), 43–53.

Nurdyansyah, N., & Andiek, W. (2017). *Manajemen Sekolah Berbasis ICT*. Universitas Muhammadiyah Sidoarjo.

Pietarinen, J., Soini, T., & Pyhältö, K. (2014). Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *International Journal of Educational Research*, *67*, 40–51.

Priyatno, T. (2016). Upaya meningkatkan pemahaman eksplorasi karir melalui layanan bimbingan kelompok dengan teknik diskusi kelompok. *Psikopedagogia*, *5*(1), 49–56.

Rahmat, S. T. (2019). Peran keluarga sebagai basis pembentukan karakter anak dalam menyongsong era bonus demografi. *Jurnal Lonto Leok Pendidikan Anak Usia Dini*, *2*(1), 1–20.

Ringley, A. C. (2017). *Middle School Engagement Benefits Of Offering Extracurricular Activities During The School Day*.

Royal, M. A., & Rossi, R. J. (1996). Individual-level correlates of sense of community: Findings from workplace and school. *Journal of Community Psychology*, *24*(4), 395–416.

Sugiyono. (2017). *Metode Penelitian Bisnis*. Alfabeta.

Sugiyono, P. D. (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D (Sutopo. *Bandung: CV. Alfabeta*.

Wahyuni, A. (2021). *Pendidikan karakter: membentuk pribadi positif dan unggul di sekolah*. Umsida Press.

Widhiarso, W. (2010). Catatan pada uji linieritas hubungan. *Yogyakarta: Fakultas Psikologi Universitas Gadjah Mada*.

Wise, M. W. (2022). *Student Development through Participation in School Sponsored Extracurricular Activities in an Elementary School Setting*. California State University, Fresno.