

## WORK ENVIRONMENT ON THE QUALITY OF EDUCATIONAL INSTITUTIONS: A QUANTITATIVE STUDY

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### ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh lingkungan kerja terhadap kualitas lembaga pendidikan di Sekolah Menengah Kejuruan Ma'arif 5 Gombong. Penelitian ini merupakan penelitian kuantitatif. Data diperoleh dari guru dan karyawan Sekolah Menengah Kejuruan Ma'arif 5 Gombong dengan jumlah 30 sampel. Data dikumpulkan dengan teknik angket. Analisis data dilakukan dengan melakukan uji prasyarat, uji regresi, dan hipotesis dengan korelasi parsial. Hasil penelitian menunjukkan bahwa terdapat pengaruh yang positif dan signifikan lingkungan kerja terhadap kualitas lembaga pendidikan di SMK Ma'arif 5 Gombong yang dibuktikan dengan perolehan  $t_{hitung}$  sebesar 3.575 lebih besar dibandingkan  $t_{tabel}$  sebesar 2.052. Dengan demikian, dapat disimpulkan bahwa terdapat pengaruh lingkungan kerja terhadap kualitas lembaga pendidikan di Sekolah Menengah Kejuruan Ma'arif 5 Gombong.

**Kata kunci** : kualitas lembaga pendidikan, lingkungan kerja, pengaruh

### ABSTRACT

*This research aims to determine the influence of the work environment on the quality of educational institutions at Ma'arif 5 Gombong Vocational High School. This research is quantitative. Data was obtained from teachers and employees of Ma'arif 5 Gombong Vocational High School with a total of 30 samples. Data was collected using questionnaire techniques. Data analysis was carried out by carrying out prerequisite tests, carrying out regression, and hypothesis tests with partial correlation. The results of the research show that there is a joint positive and significant influence of the work environment on the quality of educational institutions at Vocational School Ma'arif 5 Gombong as evidenced by the  $t_{count}$  of 3.575 which is greater than the  $t_{table}$  of 2.052. Thus, it can be concluded that there is an influence of the work environment on the quality of educational institutions at Ma'arif 5 Gombong Vocational High School.*

**Keywords:** *quality of educational institutions, work environment, influence*

## INTRODUCTION

Educational success can be measured by the development of the quality of educational institutions. The quality of educational institutions can be reflected in the design and curriculum implemented (Simanjuntak et al., 2022; Žalėnienė & Pereira, 2021). The quality of education also talks about things that support learning in educational institutions. For example, the availability of facilities and infrastructure, the work environment, the leadership of the school principal, the welfare of teachers, the learning models/methods used, and the support of student guardians for school programs.

Physically, the quality of educational institutions will be seen from sturdy buildings, achievements, school programs, teacher performance, school cleanliness, relationships between teachers, and others (Yangambi, 2023). Meanwhile, non-physically, the quality of educational institutions can be seen from teacher comfort, work motivation, job satisfaction, school productivity, and so on (Basalamah & As'ad, 2021; Erlangga, 2021). These physical and non-physical qualities better describe the condition of all stakeholders in an educational institution. This condition refers to the environment around teachers and students.

Unfortunately, the current phenomenon shows that the quality of educational institutions is unhealthy. For example, there is a lack of educational facilities in schools (Onyema et al., 2020), there are no personal development services available (Vikulova et al., 2020), the school's relationship with the community is not well established (Jumriani et al., 2022), the condition of buildings and facilities is worrying (Ezeaku et al., 2021), and so on. Furthermore, another urgent problem is related to the work environment which often makes teachers shackled in toxic work relationships (Rasool et al., 2021). Previous findings found data that several teachers in the same educational unit had inappropriate relationships (Teo et al., 2020). For example, there is competition between teachers to outperform each other and receive special attention from school principals and student guardians.

Other problems related to the work environment are not far from real conditions at school, such as classroom conditions. Observation results show that each classroom does not meet the established standards. For example, there are no fans available, broken benches, dirty rooms, weak walls, and lack of ventilation in the classroom. Such classroom conditions can affect the learning process and teacher performance. Therefore, the school principal needs to propose room renovation or replacement of facilities so that the classroom can feel comfortable for both teachers and students.

The problems mentioned above refer to the work environment in educational institutions. The work environment is a factor that can influence the sustainability of educational institutions (Laseinde et al., 2020). The work environment has an impact on the tasks assigned to each individual, such as facilities and infrastructure, lighting, temperature, ventilation, relations between workers, comfort, cleanliness, etc (Oluwafemi et al., 2019). A comfortable work environment can influence the performance and quality of education. On the other hand, a bad work environment can also reduce employee performance at the institution they work for. Work environment factors are useful for creating stimulation and productivity of employee performance. This has an impact on the work being completed on time and according to standards.

The existence of an appropriate work environment is vital and must be maintained to maintain the quality of educational institutions. Several similar studies have been carried out by previous researchers. As Tampi et al. (2022) highlights the influence of the work environment on teacher performance. Furthermore, there is research that highlights the influence of the principal's leadership, work environment, and work motivation on teacher performance (Nguyen et al., 2020). From several similar studies, there is novelty in this research, namely the research location has never been studied before and the object to be tested. In this research, researchers focused on the work environment and quality of educational institutions, along with location selection at SMK Ma'arif 2 Gombong. This notion of novelty aroused researchers' interest in examining the influence of the work environment on the quality of educational institutions at Vocational School Ma'arif 5 Gombong.

This research is quantitative. Quantitative methods are research methods that can be measured numerically to answer questions and test hypotheses (Creswell & Creswell, 2022). The research was conducted at Ma'arif 5 Vocational High School Gombong Kebumen with a sample size of 30 people (consisting of teachers and education staff). The research will be carried out during December 2023.

The work environment is referred to as the independent variable and the quality of the educational institution is referred to as the dependent variable. Data was collected using a questionnaire method. Questionnaires are used to collect data about the quality of educational institutions and work environments. A closed questionnaire was used in this research. The Likert scale is used to measure indicators of each variable in the form of strongly agree (4), agree (3), disagree (2), and strongly disagree (1).

The work environment instrument grid is as in Table 1.

Table 1. Work environment instrument grid

Indicator	Item	Total
Cooperation	27,28,29,30,31,32, 33,34,35,36	10
Smooth communication	37,38,39,40,41,42, 43,44,45,46	10
Job Responsibilities	47,48,49,50,51,52, 53,54,55,56	10
Total		30

The grid for research instruments on the quality of educational institutions is in Table 2.

Table 2. Grid of educational institution quality instruments

Indicator	Item	Total
Quality of graduates	57,58,59,60,61,62, 63,64,65,66,67,68, 69	13
Learning process	70,71,72,73,74,75, 76,77,78	9
Teacher quality	79,80,81,82,83	5

School management	84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100	17
Total		44

The instrument is validated to measure each statement item in the questionnaire. The instrument was tested for validity using the product moment correlation technique. Meanwhile, reliability testing is also needed to determine the consistency of the questionnaire instrument. Measurements were carried out using the Cronbach's alpha formula.

Data were analyzed using descriptive statistical methods to gain an understanding of the basic characteristics of the data obtained. The steps in descriptive analysis are data collection, organizing data, describing data, calculating central size, calculating distribution size, and interpretation (Creswell & Creswell, 2022). Prerequisite tests are also carried out to find out whether the data meets the requirements. The last, this research tested the hypothesis using the t-test.

Prerequisite tests carried out include normality, linearity, multicollinearity, and heteroscedasticity tests. The normality test is carried out to find out whether the data is normally distributed or not. The technique used is one sample analysis of Smirnov's Kolmogorov. The linearity test is carried out to test whether there is a linear relationship between the models being tested. The linearity test uses the F test. Then, a multicollinearity test is carried out to ensure the data has a perfect direct relationship. The heteroscedasticity test is used to see the heterogeneous nature of research data.

**DISCUSSION**

The first research results presented are descriptive analysis data for each research variable. The results are in Table 3.

Table 3. Descriptive statistics of research variables

	Work environment	Quality of educational institutions
N Valid	30	30
Missing	0	0
Mean	108,17	156,70

Median	109,50	160,50
Mode	118	132 <sup>a</sup>
Std. Deviation	9,570	16,447
Range	31	44
Minimum	89	132
Maximum	120	176
Sum	3245	4701

a. Multiple modes exist. The smallest value is shown

From these data, it is known that the two research variables obtained quite far average values, namely between 108.17 and 156.70.

Next, the researcher carried out a prerequisite test by first testing the normality of the research data. The results of the normality test with the help of the SPSS application and the Kolmogorov Smirnov formula were determined with a degree of confidence or significance level of 5%. If the p-value is greater than 0.05, then the data is normally distributed. The results of normality calculations for work environment variables are as in Table 4.

Table 4. One-sample Kolmogorov Smirnov test on work environment variables

		Work environment
N		30
Normal parameters <sup>a,b</sup>	Mean	108.17
	Std. Deviation	9.570
	Most extreme differences	
	Absolute	.155
	Positive	.108
	Negative	-.155
Test statistic		.155
Asymp. Sig. (2-tailed) <sup>c</sup>		.063
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.	.061
	99% Confidence interval	
	Lower bound	.054
	Upper	.067

bound
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Description:

- a. Test distribution is normal
- b. Calculated from data
- c. Lilliefors significance correction
- d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 1299883525

Based on Table 4, it can be concluded that the research data on work environment variables is normally distributed because it obtained a test score of .063 or more than 0.05.

Then, a normality test was carried out on the educational institution quality variable. The normality test results are in Table 5.

Table 5. One-sample Kolmogorov Smirnov test on educational institution quality variables

		Educational institution quality
N		30
Normal parameters <sup>a,b</sup>	Mean	156.70
	Std. Deviation	16.447
Most extreme differences	Absolute	.156
	Positive	.130
	Negative	-.156
Test statistic		.156
Asymp. Sig. (2-tailed) <sup>c</sup>		.062
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.	.061
	99% Confidence interval	
	Lower bound	.055
	Upper bound	.067

Description:

- a. Test distribution is normal
- b. Calculated from data
- c. Lilliefors significance correction
- d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 926214481

Based on Table 5, it can be concluded that the research data on work environment variables is normally distributed because it obtained a test score of .062 or more than 0.05.

Next, a linearity test was carried out. This test uses the linearity test with a significance level of 0.05. Data is said to have a linear relationship if the value is less than 0.05. The results of the linearity test of the work environment on the quality of educational institutions are presented in Table 6.

Table 6. Linearity test results

				Sum of squares	df	Mean squares	F	Sig
Quality of educational institutions (Y)	Between Groups	Combined		6949.550	19	365.766	4.088	0.13
		Linearity		4810.335	1	4810.335	53.762	<.001
		Deviation from Linearity		2139.215	18	118.845	1.328	.330
Work environment (X)	Within Groups		894.750	10	89.475			
	Total		7844.300	29				

Based on Table 6, it can be concluded that the work environment data on the quality of educational institutions is linear because the p-value is 0.330 > 0.05.

Next, a multicollinearity test was carried out by calculating the variance inflation factor (VIF) and tolerance. If the VIF value is less than 10.00 and the tolerance value is more than 0.10, then the regression model does not have a multicollinearity problem. The results are in Table 7.



Table 7. Multicollinearity test

Model		Unstandardized B	Coefficients Std. error	Standardized Coefficients Beta	t	Sig.	Collinearity Tolerance	Statistics VIF
1	(Constant)	-30.841	25.457		-1.211	.236		
	Work environment	.895	.250	.521	3.575	.001	.536	1.865

Based on Table 7, it can be concluded that there is no multicollinearity because the work environment tolerance value is 0.536 and the VIF is 1.865. This value is by the criteria of the multicollinearity test.

Next, a heteroscedasticity test was carried out. This test is to observe whether there is an inequality of variance from the residuals of one observation to another in the regression model. A good regression model means that heteroscedasticity does not occur.

From the results of the SPP test with a scatterplot, it was concluded that heteroscedasticity did not occur because the data did not show a clear pattern, and the points spread above and below the number 0 on the Y-axis.

The final step is hypothesis testing. Hypothesis testing was carried out to find out whether there was an influence of the work environment on the quality of educational institutions at Vocational School Ma'arif 5 Gombong. Hypothesis testing using partial correlation technique (t-test) and SPSS application. The t-test results are in Table 8.

Table 8. Hypothesis test results

Model		Unstandardized B	Coefficients Std. error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-30.841	25.457		-1.211	.236
	Work environment	.895	.250	.521	3.575	.001

Based on Table 8, it can be concluded that the work environment has a positive effect on the quality of educational institutions with a coefficient value of 0.521 and a calculated t value of  $3.575 > 2.052$  ( $H_0$  is rejected).

The results of this research are influenced by several factors, such as performance management within an institution. Appropriate work rules can support work implementation so that teachers become enthusiastic and have an impact on teacher performance and satisfaction. A healthy work environment is also the key for an organization to answer all existing challenges. The work environment depicts good output if the teacher is suited to the job. A conducive work environment will make education and education staff feel at home and work comfortably. Finally, they work optimally. A conducive work environment requires facilities and infrastructure that support the performance of teachers and education staff. As Laseinde et al. (2020) found, the lack of school facilities hampers productivity in higher education institutions. Therefore, it is important to make conscious efforts to improve the quality of education by creating a conducive work environment to produce greater productivity.

According to Chandra & Varghese (2019), work balance is an important aspect of individual welfare. A balanced work environment has a significant impact on employee stress management. Previous research shows that a quality work life can improve overall employee performance (Nanjundeswaraswamy & Swamy, 2013).

The results of similar research state that the formation of a learning environment is influenced by infrastructure development, managerial quality of leaders, cooperation between employees, work motivation, career development and work climate. This study found that there is employee dependence in increasing work motivation in terms of the work climate and environment (Vinichenko et al., 2018). Other findings show that morale and a conducive work environment influence employees' work intentions (Ching et al., 2016).

Other relevant research supports the results of this study which suggests that the work environment has a positive effect on lecturer retention (Al Doghan, 2022). Furthermore, there is similar research which states that there is a positive and significant relationship between the external and internal environment and the productivity of students and employees at the University of Nigeria (Oluwafemi et al., 2019). Other findings reveal that the work environment (in the form of recognition of teamwork, salary policies, and work commitment to the institution)

influences academic job satisfaction (Tiwari & Tiwari, 2020). Other results show that there is a positive relationship between the work environment and employee job satisfaction (Raziq & Maulabakhsh, 2015). Therefore, this research concludes that the world of education needs to realize the importance of a healthy work environment to optimize the quality of educational institutions (considered from all points of view).

## CONCLUSION

Based on the research results, it is concluded that there is a positive and significant influence of the work environment on the quality of educational institutions at Vocational School Ma'arif 5 Gombong. School principals need to create a healthy work environment so that the quality of the educational institutions under their auspices continues to exist. The results of this research can benefit society by encouraging them to contribute more to their work and helping employees' personal development. An organization needs to motivate its employees to work hard to achieve organizational goals and objectives.

## REFERENCES

- Al Doghan, M. A. (2022). Faculty retention among higher educational institutions (HEI's) of Saudi Arabia: Role of work environment and human resource management practices. *Eurasian Journal of Educational Research*, 97(97), 202–215.  
<https://ejer.com.tr/manuscript/index.php/journal/article/view/610/77>
- Basalamah, M. S. A., & As'ad, A. (2021). The role of work motivation and work environment in improving job satisfaction. *Golden Ratio of Human Resource Management*, 1(2), 94–103. <https://doi.org/10.52970/grhrm.v1i2.54>
- Chandra, S., & Varghese, D. T. (2019). Work environment in educational institutions: Work stress leads to work-life imbalance to academicians. *Asian Journal of Management Sciences & Education*, 8(2), 64–73.  
[http://www.ajmse.leena-luna.co.jp/AJMSEPDFs/Vol.8\(2\)/AJMSE2019\(8.2-08\).pdf](http://www.ajmse.leena-luna.co.jp/AJMSEPDFs/Vol.8(2)/AJMSE2019(8.2-08).pdf)
- Ching, S. L., Kee, D. M. H., & Tan, C. L. (2016). The Impact of Ethical Work

- Climate on the Intention to Quit of Employees in Private Higher Educational Institutions ",. *Journal of Southeast Asian Research*, 283881, 1–11. <https://doi.org/10.5171/2016.283881>
- Creswell, J. W., & Creswell, J. D. (2022). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 5th Edition. *Journal of Electronic Resources in Medical Libraries*, 19(1–2), 54–55. <https://doi.org/https://doi.org/10.1080/15424065.2022.2046231>
- Erlangga, H. (2021). The effect of organizational commitment and work environment on job satisfaction and teachers performance. *Turkish Journal of Computer and Mathematics Education*, 12(7), 109–117.
- Ezeaku, F. N., Onu, E. A., Agu, P. U., Edikpa, E. C., Nwafor, B. N., Ozioko, A. N., & Ugwuanyi, C. S. (2021). Appraisal of quality assurance measures in the management of secondary schools and its implication on science, technology, engineering and mathematics education. *International Journal of Mechanical and Production Engineering Research and Development*, 10(1), 159–170.
- Jumriani, J., Subiyakto, B., Hadi, S., Mutiani, M., & Ilhami, M. R. (2022). Education of Social Regulation Through Social Institution Materials in Social Studies. *The Innovation of Social Studies Journal*, 3(2), 118–127. <https://doi.org/10.20527/iis.v3i2.4892>
- Laseinde, T., Oluwafemi, I., Pretorius, J., & Oluwafemi, J. (2020). The Impact of Work Environment in Concurrence to Productivity in Higher Institutions. *Advances in Social and Occupational Ergonomics: Proceedings of the AHFE 2019 International Conference on Social and Occupational Ergonomics*, 970, 309–320. [https://doi.org/10.1007/978-3-030-20145-6\\_31](https://doi.org/10.1007/978-3-030-20145-6_31)
- Nanjundeswaraswamy, T. S., & Swamy, D. R. (2013). Quality of worklife of employees in private technical institutions. *International Journal for Quality Research*, 7(3), 3–14. <http://www.ijqr.net/journal/v7-n3/12.pdf>
- Nguyen, P. T., Yandi, A., & Mahaputra, M. R. (2020). Factors that influence employee performance: motivation, leadership, environment, culture organization, work achievement, competence and compensation (A study of human resource management literature studies). *Dinasti International*

*Journal of Digital Business Management*, 1(4), 645–662.

- Oluwafemi, I., Oluwafemi, J., Laseinde, T. O., Awoyemi, B. O., & Babatunde, A. (2019). Datasheet showing the impact of work environment on productivity in higher education institutions. *Data in Brief*, 25(104090), 1–10. <https://doi.org/10.1016/j.dib.2019.104090>
- Onyema, E. M., Eucheria, N. C., Obafemi, F. A., Sen, S., Atonye, F. G., Sharma, A., & Alsayed, A. O. (2020). Impact of Coronavirus pandemic on education. *Journal of Education and Practice*, 11(13), 108–121. <https://pdfs.semanticscholar.org/25a7/a1a86bc84a0cae928b005dee64f3c8c8aeb3.pdf>
- Rasool, S. F., Wang, M., Tang, M., Saeed, A., & Iqbal, J. (2021). How toxic workplace environment effects the employee engagement: The mediating role of organizational support and employee wellbeing. *International Journal of Environmental Research and Public Health*, 18(5), 2294. <https://doi.org/10.3390/ijerph18052294>
- Raziq, A., & Maulabakhsh, R. (2015). Impact of working environment on job satisfaction. *Procedia Economics and Finance*, 23, 717–725. [https://doi.org/10.1016/S2212-5671\(15\)00524-9](https://doi.org/10.1016/S2212-5671(15)00524-9)
- Simanjuntak, M. B., Suseno, M., Setiadi, S., Lustyantie, N., & Barus, I. R. G. R. G. (2022). Integration of curricula (curriculum 2013 and cambridge curriculum for junior high school level in three subjects) in pandemic situation. *Ideas: Jurnal Pendidikan, Sosial, Dan Budaya*, 8(1), 77–86. <https://jurnal.ideaspublishing.co.id/index.php/ideas/article/view/615>
- Tampi, P. P., Nabella, S. D., & Sari, D. P. (2022). The Influence of Information Technology Users, Employee Empowerment, and Work Culture on Employee Performance at the Ministry of Law and Human Rights Regional Office of Riau Islands. *Enrichment: Journal of Management*, 12(3), 1620–1628. <https://doi.org/10.35335/enrichment.v12i3.628>
- Teo, S. T., Bentley, T., & Nguyen, D. (2020). Psychosocial work environment, work engagement, and employee commitment: A moderated, mediation model. *International Journal of Hospitality Management*, 88, 102415. <https://doi.org/10.1016/j.ijhm.2019.102415>

- Tiwari, S. K., & Tiwari, P. (2020). Determinants of job satisfaction affected by work environment: An academician perspective from non-public institutions. *International Journal on Emerging Technologies*, 11(2), 461–467. [https://www.researchgate.net/profile/Prashant-Tiwari-16/publication/342078285\\_Determinants\\_of\\_Job\\_Satisfaction\\_Affected\\_by\\_Work\\_Environment\\_An\\_Academician\\_Perspective\\_from\\_Non-Public\\_Institutions/links/5f09753e45851550509c7bfe/Determinants-of-Job-Satisfaction-Affected-by-Work-Environment-An-Academician-Perspective-from-Non-Public-Institutions.pdf](https://www.researchgate.net/profile/Prashant-Tiwari-16/publication/342078285_Determinants_of_Job_Satisfaction_Affected_by_Work_Environment_An_Academician_Perspective_from_Non-Public_Institutions/links/5f09753e45851550509c7bfe/Determinants-of-Job-Satisfaction-Affected-by-Work-Environment-An-Academician-Perspective-from-Non-Public-Institutions.pdf)
- Vikulova, L., Khoutyz, I., Makarova, I., Gerasimova, S., & Borbotko, L. (2020). Information Resources for Foreign Language Teachers' Self-development: Overview. *Proceedings of the Conference "Integrating Engineering Education and Humanities for Global Intercultural Perspectives,"* 119–127. [https://link.springer.com/chapter/10.1007/978-3-030-47415-7\\_13](https://link.springer.com/chapter/10.1007/978-3-030-47415-7_13)
- Vinichenko, M. V, Kirillov, A. V, Maloletko, A. N., Frolova, E. V, & Vinogradova, M. V. (2018). Motivation of university authorities aimed at creating favorable learning environment in the course of restructuring higher education institutions. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(5), 1899–1910. <https://www.ejmste.com/download/motivation-of-university-authorities-aimed-at-creating-favorable-learning-environment-in-the-course-5396.pdf>
- Yangambi, M. (2023). Impact of school infrastructures on students learning and performance: case of three public schools in a developing country. *Creative Education*, 14(4), 788–809. <https://doi.org/10.4236/ce.2023.144052>
- Žalėnienė, I., & Pereira, P. (2021). Higher education for sustainability: A global perspective. *Geography and Sustainability*, 2(2), 99–106. <https://doi.org/10.1016/j.geosus.2021.05.001>