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Enhancing Employee Performance Through Training and Human Resource Development in Higher Education Institutions

Irmawati[1*], Saepudin[2], Hadi Ahmad Sukardi[3], Audita Setiawan[4]
Sangga Buana YPKP University
Corresponding Author: Irmawati ; irmaw005@gmail.com

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A B S T R A C T
Human resource management (HRM) is a strategic element that determines organizational success, including in educational institutions, by ensuring that employees possess the competencies required to face evolving challenges. This study aims to analyze the effect of training and development on employee performance using a quantitative approach. The research sample consisted of 92 employees selected through propability sampling. Data were collected using a Likert-scale questionnaire and analyzed with multiple linear regression. The results show that training and development, both partially and simultaneously, have a positive and significant effect on employee performance. These findings indicate that management needs to optimize training designs tailored to organizational needs and implement continuous development programs to enhance overall performance. In addition, this study provides benefits for the researcher in terms of strengthening theoretical and practical understanding of the relationship between training, development, and employee performance, while also serving as a means to refine skills in managing quantitative research, from instrument design to data analysis.

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INTRODUCTION

Higher education institutions depend not only on academic quality but also on the reliability of their administrative and professional workforce. Human resource bureaus occupy a central position in this system because they coordinate staffing, competence development, career administration, performance support, and organizational services. When the people working in these units are able to learn, adapt, and collaborate, the institution is better positioned to respond to technological change, policy reform, and the growing expectations of internal stakeholders. The accelerated digitalization of work has made employee competence more visible as a strategic concern. Administrative employees are increasingly required to use integrated information systems, manage data accurately, communicate across units, and complete tasks within short service deadlines. In universities, these demands are particularly significant because administrative errors can affect teaching, research, student services, and institutional accountability. Training and employee development therefore cannot be treated as occasional personnel activities; they need to be understood as continuing organizational investments.

Training is generally directed toward current job requirements. It helps employees acquire the knowledge, skills, and work attitudes needed to perform immediate responsibilities more effectively. Mangkunegara (2020) describes training as a systematic short-term educational process through which employees learn technical knowledge and skills for specific purposes. Well-designed training can reduce mistakes, improve work methods, increase confidence, and help employees translate organizational standards into daily practice. Employee development has a broader and more future-oriented emphasis. Hasibuan (2020) explains development as a process of preparing employees to assume greater responsibilities. Development may involve formal education, courses, seminars, job rotation, feedback, competency mapping, and career planning. Its value lies not only in present productivity but also in readiness for future roles, leadership responsibilities, and organizational change.

The distinction between training and development is analytically useful, but both processes are closely connected. Training strengthens immediate competence, while development builds longer-term capacity. A university that provides technical courses without career pathways may improve short-term task completion but fail to retain and motivate capable employees. Conversely, development programs that are not supported by relevant training may remain too general to improve daily performance.

The preliminary survey reported in the thesis revealed several practical concerns at Universitas Pendidikan Indonesia. Among 30 preliminary respondents, only 26.67% stated that they were able to produce work outputs in accordance with established targets, while 43.33% reported being able to work effectively in teams. These findings suggest that cooperation was relatively stronger than quantitative productivity. The gap between teamwork and output achievement indicates that employees may require more targeted support in work planning, time management, technical competence, and performance monitoring. The preliminary training survey also showed uneven

implementation. Half of the respondents considered the training method appropriate to the type of training and participant characteristics, but only 30% believed that training outcomes were comprehensively evaluated. This is an important weakness because training effectiveness cannot be understood solely from attendance or participant satisfaction. Evaluation should also consider learning, behavioral change, application in the workplace, and measurable performance outcomes.

A similar pattern appeared in employee development. Fifty percent of preliminary respondents perceived that development effectiveness was measured systematically, yet only 33.33% believed that development needs had been identified through job analysis. Without a careful needs assessment, development programs can become disconnected from actual competence gaps. Employees may participate in courses or seminars, but the organization may not obtain a meaningful return if the program does not address the knowledge, skills, or career requirements of the participants. Earlier studies have generally reported positive relationships between training, development, and employee performance. Rahmawati and Swasti (2023) found that training relevance and design improved employee performance in the education sector. Upadhyay (2023) emphasized the role of training methods and design in determining effectiveness. Tanjung et al. (2024) and Siswanda et al. (2024) also found significant effects of training and career development on employee performance in public institutions. International evidence from higher education similarly indicates that integrated human resource development can strengthen individual and organizational performance (Alharbi et al., 2022; Lu et al., 2022; Silva & Costa, 2024).

However, positive outcomes should not be assumed automatically. Flegl et al. (2022) warned that excessive or poorly aligned training may reduce productivity. Jatmika and Andarwati (2017) found that development may influence performance indirectly through job satisfaction rather than through a simple direct path. These findings indicate that the effectiveness of human resource programs depends on relevance, duration, managerial support, evaluation, and the organizational context in which learning is applied. This study addresses the need for context-specific evidence from a human resource bureau in an Indonesian public university. Although higher education relies heavily on administrative competence, empirical studies often focus on private firms or government agencies outside the university setting. The present research therefore examines whether training and employee development explain the performance of employees who support institutional human resource services. Employee performance is understood as the results achieved in carrying out assigned duties during a specific period (Kasmir, 2020). The study measures performance through work quality, work quantity, punctuality, attendance, and cooperation. Training is represented by training objectives, materials, methods, instructors, and evaluation. Employee development includes development planning, implementation, evaluation, and career and potential enhancement. These dimensions allow the study to connect program design with observable work outcomes.

The study proposes three hypotheses. First, training has a positive and significant effect on employee performance. Second, employee development has a positive and significant effect on employee performance. Third, training and employee development simultaneously have a positive and significant effect on employee performance. The hypotheses reflect the expectation that better learning opportunities improve both immediate job capability and longer-term readiness.

The contribution of the study is both empirical and managerial. Empirically, it distinguishes the relative contribution of training and development within the same regression model. Managerially, it identifies program elements requiring improvement, including instructor facilitation, training follow-up, development methods, competency-based planning, and performance support. By focusing on how employees experience these processes, the study offers a practical basis for improving human resource policies in higher education institutions. The remainder of the paper explains the research method, presents the original SPSS results without altering the values or layout, discusses the findings in relation to previous studies, and concludes with implications, limitations, and recommendations for future research.

LITERATURE REVIEW

This literature review elaborates on the theoretical foundations underlying the relationships between training, employee development, and employee performance. Various human resource management literatures emphasize that enhancing individual capabilities directly impacts organizational effectiveness.

The Concept of Training

Training is a systematic process designed to enhance current job-related knowledge, skills, and work attitudes. Mangkunegara (2020) defines training as a short-term educational process utilizing systematic and organized procedures whereby employees learn technical knowledge and skills for specific purposes. Effective training helps employees reduce errors, improve work methods, and align organizational standards with daily practices.

Dimensions and Indicators of Training

The success of a training program heavily relies on the quality of its design and implementation. Upadhyay (2023) emphasizes that training effectiveness is largely determined by the alignment of training objectives, the relevance of materials, the selection of interactive instructional methods, instructor competence, and comprehensive post-training evaluation. When these elements are well-designed, knowledge transfer to the actual work environment becomes more optimal.

The Concept of Employee Development

Unlike training, which focuses on immediate job requirements, development has a broader and more long-term orientation. Hasibuan (2020) explains development as a formal and informal educational process that prepares

employees to assume greater responsibilities in the future, encompassing career planning, job rotation, and potential enhancement. Development aims to build the adaptive capacity of employees in facing dynamic organizational changes.

The Linkage Between Training, Development, and Employee Performance

The integration of short-term training and long-term development forms a solid foundation for institutional productivity. Rahmawati and Swasti (2023) found that the relevance of training design and career development empirically improves operational performance, particularly in the higher education sector, which demands administrative accountability and quality services. Similarly, Silva and Costa (2024) state that continuous investment in human resource capacity building simultaneously strengthens core competencies and teamwork.

The Concept of Employee Performance

Employee performance refers to the quality and quantity of work achieved by an individual in carrying out assigned duties in accordance with given responsibilities. Kasmir (2020) states that performance is influenced by ability, motivation, and work opportunities. In the context of higher education institutions, employee performance measurement encompasses work quality, punctuality, attendance, and cross-unit cooperation.

RESEARCH METHOD

The research used a quantitative approach with descriptive and verificative analysis. The descriptive component summarized employee perceptions of training, development, and performance, while the verificative component tested the proposed relationships statistically. The research setting was the Human Resources Bureau of Universitas Pendidikan Indonesia, a unit responsible for supporting human resource administration and development within the university.

The population consisted of 1,170 employees. The sample size was calculated using the Slovin formula with a 10% error tolerance, resulting in 92 respondents. Probability sampling was applied through simple random sampling, giving members of the population an equal opportunity to be selected. All 92 returned questionnaires were complete and included in the analysis. Training (X1) was measured using ten items representing training objectives, training materials, training methods, instructor competence, and training evaluation. Employee development (X2) was measured using nine items covering needs identification and planning, implementation methods, systematic evaluation, feedback, career pathways, and identification of employee potential. Employee performance (Y) was measured with fifteen items representing work quality, work quantity, punctuality, attendance, and cooperation. Responses were recorded using a five-point Likert scale.

Table 1. Operationalization of Variables

Variable	Dimensions	Number of items
Training (X1)	Objectives; materials; methods; instructors; evaluation	10
Employee development (X2)	Planning; implementation; evaluation; career and potential	9
Employee performance (Y)	Quality; quantity; punctuality; attendance; cooperation	15

The questionnaire items were tested for validity through item-total correlations and for reliability using Cronbach's alpha. Because the responses were initially ordinal, the Method of Successive Interval was used to transform the data before inferential analysis.

Data processing was performed with SPSS 27. The analysis proceeded in several stages. First, respondent characteristics and variable scores were described. Second, validity and reliability tests assessed the quality of the instrument. Third, classical assumption tests examined normality, multicollinearity, and heteroskedasticity. Fourth, Pearson correlation and multiple linear regression were used to estimate the direction and strength of the relationships. Finally, the coefficient of determination, F test, and t tests were used to evaluate explanatory power and hypothesis significance. The regression model was specified as Y = alpha + beta1X1 + beta2X2 + error, where Y denotes employee performance, X1 denotes training, and X2 denotes employee development. The significance threshold was 0.05. The hypotheses were accepted when the calculated significance probability was below 0.05 and the corresponding test statistic exceeded the critical value.

Participation was based on employees' willingness to complete the questionnaire, and the analysis was presented in aggregate form. No individual respondent was identified in the reporting. To preserve the integrity of the statistical evidence, the SPSS tables in the Results and Discussion section are reproduced directly as image excerpts from the thesis. Their values, labels, decimal notation, and visual arrangement have not been reformatted or recalculated.

Tabel 2. Respondent profile

Characteristic	Category	Frequency	Percentage
Gender	Male	53	57.61%
Gender	Female	39	42.39%
Age	< 20 years	5	5.43%
Age	20-39 years	52	56.52%
Age	> 40 years	35	38.04%
Education	Diploma	18	19.57%
Education	Bachelor	72	78.26%
Education	Other	2	2.17%
Tenure	< 2 years	17	18.48%
Tenure	3-5 years	34	36.96%

Tenure	6-8 years	41	44.57%

The sample was dominated by employees aged 20-39 years, bachelor-degree holders, and employees with six to eight years of service. This composition suggests that most respondents combined relatively strong formal education with meaningful organizational experience.

RESULTS AND DISCUSSION

All questionnaire items exceeded the reported correlation threshold and were declared valid. Reliability was also high: Cronbach's alpha was 0.959 for training, 0.957 for employee development, and 0.959 for employee performance. The original reliability output is reproduced below without alteration.

Table 3. Respondents by Gender

Gender	Frequency	Percentage
Laki-laki	53	57,61%
Perempuan	39	42,39%
Total	**92**	**100**%

Source: SPSS reliability table

The alpha coefficients are substantially above the 0.70 criterion, indicating strong internal consistency. This result supports the use of the three composite variables in subsequent regression analysis. The high values also suggest that respondents interpreted the items within each construct in a coherent manner.

Training obtained an overall mean of 2.60 and was categorized as "Cukup Baik" in the original scoring system. The highest item mean concerned instructor competence and experience (2.76), whereas lower scores were recorded for interactive class management and follow-up after evaluation. Employee development also obtained a mean of 2.60. Its strongest item was the availability of feedback from participants and supervisors (2.79), while the effectiveness of development methods received the lowest mean (2.48). Employee performance had a higher overall mean of 3.37, with strengths in time discipline and attendance but weaker evaluations for achieving output targets and tolerance of differing opinions.

The descriptive pattern is meaningful because it shows that respondents did not reject training or development, yet they did not perceive these programs as fully effective. Competent instructors were recognized, but the learning process still needed stronger facilitation, interaction, and post-training follow-up. In development programs, feedback mechanisms were relatively visible, while the mix of on-the-job learning, seminars, courses, and rotation had not yet been experienced as optimally effective.

Table 4. Average Result

Construct	Overall mean	Highest item	Lowest item
Training	2.60	Instructor competence and experience (2.76)	Training objective alignment (2.47)
Employee development	2.60	Feedback mechanism (2.79)	Effectiveness of development methods (2.48)
Employee performance	3.37	Time management/discipline (4.11)	Output target and tolerance (3.12)

Employee performance was evaluated more positively than the two human resource practices. The strongest scores concerned disciplined use of time, while output achievement and tolerance in teamwork remained at the lower end of the "Cukup Baik" category. This suggests that employees generally comply with schedules and attendance expectations, but productivity and collaborative quality still leave room for improvement. The descriptive pattern also shows that the organization already has a foundation for learning, yet needs to improve program alignment, interactive delivery, method selection, and follow-up.

The original SPSS normality and multicollinearity outputs are presented below. The reported normality significance was 0.912, above 0.05. The tolerance value for both predictors was 0.191 and the VIF value was 5.233. Under the criteria used in the thesis, the model met the normality assumption and did not indicate problematic multicollinearity.

Tabel 5. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Predicted Value
N		92
Normal Parameters[a,b]	Mean	35.3633250
	Std. Deviation	2.06699174
Most Extreme Differences	Absolute	.190
	Positive	.180
	Negative	-.190
Test Statistic		.190
Asymp. Sig. (2-tailed)		.912[c]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: SPSS Normality Test Results

Table 6. Multicollinearity Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	5.056	2.652			
	VAR_X1	.707	.168	.569	.191	5.233
	VAR_X2	.383	.184	.280	.191	5.233

Source: SPSS

The scatterplot used for the heteroskedasticity assessment showed points dispersed without a clear sequential pattern. The thesis therefore concluded that the residual variance did not present a heteroskedasticity problem.

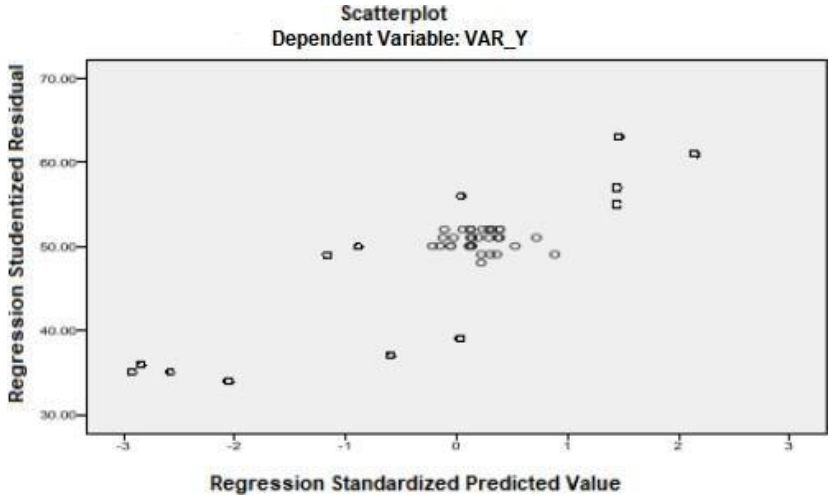


Figure 1. SPSS Scatterplot

Source: Original SPSS scatterplot for the heteroskedasticity assessment.

Multiple linear regression produced the equation Y = 5.056 + 0.707X1 + 0.383X2 + e. Both coefficients were positive. Holding employee development constant, a one-unit increase in training was associated with a 0.707-unit increase in employee performance. Holding training constant, a one-unit increase in employee development was associated with a 0.383-unit increase in performance.

Table 7. Multiple Linear Regression Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.056	2.652		1.906	.060
	VAR_X1	.707	.168	.569	4.217	.000
	VAR_X2	.383	.184	.280	2.075	.041

Source: SPSS multiple regression output; SPSS 27, 2025

The standardized coefficient for training (beta = 0.569) was larger than the standardized coefficient for development (beta = 0.280). This indicates that training had the stronger unique association with performance in the model. The correlation analysis also showed strong relationships. Training correlated with performance at 0.822, while development correlated with performance at 0.792. Training and development were themselves highly correlated at 0.899.

Tabel 8. Correlation Analysis Results

Correlations				
		VAR_Y	VAR_X1	VAR_X2
Pearson Correlation	VAR_Y	1.000	.822	.792
	VAR_X1	.822	1.000	.899
	VAR_X2	.792	.899	1.000
Sig. (1-tailed)	VAR_Y	.	.000	.000
	VAR_X1	.000	.	.000
	VAR_X2	.000	.000	.
N	VAR_Y	92	92	92
	VAR_X1	92	92	92
	VAR_X2	92	92	92

Source : SPSS 27, 2025

The model summary reported R = 0.831 and R-squared = 0.690, with an adjusted R-squared of 0.683. Thus, training and employee development jointly explained 69.0% of the observed variation in employee performance. The remaining 31.0% was attributed in the thesis to factors outside the model, such as organizational culture, motivation, work environment, and compensation.

Table 9. Model Summary[b]

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.831[a]	.690	.683	3.800

Source: SPSS model summary.

The effective-contribution calculation combined standardized beta coefficients with zero-order correlations. Training contributed 46.8% and employee development contributed 22.2%, which together correspond to the model's 69.0% explained variance. These results reinforce the stronger statistical role of training while confirming that development remains a meaningful component of employee performance.

Table 10. Coefficient of Determination Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	5.056	2.652		1.906	.060			
	VAR_X1	.707	.168	.569	4.217	.000	.822	.408	.249
	VAR_X2	.383	.184	.280	2.075	.041	.792	.215	.123

Source: SPSS coefficients used in the effective-contribution calculation.

The simultaneous test produced F = 99.003 with p < 0.001. The null hypothesis of no joint effect was therefore rejected. Training and employee development, considered together, significantly predicted employee performance.

Tabel 11. Coefficient of Determination Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2858.685	2	1429.342	99.003	.000[b]
	Residual	1284.924	89	14.437		
	Total	4143.609	91			

a. Dependent Variable: VAR_Y

b. Predictors: (Constant), VAR_X2, VAR_X1

Source: SPSS ANOVA table for the simultaneous F test.

The partial tests also supported both hypotheses. Training produced t = 4.217 with p < 0.001, while employee development produced t = 2.075 with p = 0.041. Each predictor therefore had a statistically significant positive effect at the 5% level. The original t-test output is shown below exactly as it appeared in the source document.

Table 12. used for the partial t tests.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.056	2.652		1.906	.060
	VAR_X1	.707	.168	.569	4.217	.000
	VAR_X2	.383	.184	.280	2.075	.041

a.Dependent Variable: VAR_X1

Source: SPSS coefficients table used for the partial t tests.

DISCUSSION

The significant effect of training confirms that immediate, job-related learning is a major driver of employee performance in the Human Resources Bureau. The relatively large coefficient for training indicates that employees benefit when training objectives are clear, materials are relevant, delivery methods are appropriate, instructors are competent, and evaluation is followed by practical improvement. This interpretation is consistent with Rahmawati and Swasti (2023), who emphasized the relevance of training design, and with Upadhyay (2023), who highlighted the importance of suitable methods. The findings also support the evidence reported by Tanjung et al. (2024) and Siswanda et al. (2024) in public-sector organizations. Training can improve technical accuracy, work speed, confidence, and the ability to use organizational systems. In the university context, these benefits are particularly important because human resource services involve detailed data, policy interpretation, employee communication, and deadlines that affect multiple institutional units.

Employee development also had a significant positive effect, although its coefficient was smaller. Development activities may influence performance through broader mechanisms: career clarity, professional confidence, adaptability, leadership readiness, and a stronger sense of organizational support. The positive finding is consistent with Olaosebikan (2020), Lu et al. (2022), and Silva and Costa (2024), who found that professional and strategic human resource development contributes to performance in educational institutions. The smaller effect of development should not be interpreted as evidence that it is unimportant. Development often produces benefits over a longer time horizon than training. Some respondents may not immediately connect career planning, rotation, or competency pathways with current performance. In addition, the descriptive results showed that development methods were not yet viewed as fully effective. This may have limited the observed contribution of development in the cross-sectional model.

The combined R-squared of 0.690 demonstrates that the two practices explain a substantial share of employee performance. At the same time, the unexplained 31% reminds managers that performance is multidimensional. Motivation, leadership, organizational culture, workload, technology, compensation, and the work environment may strengthen or weaken the benefits of training and development. An integrated policy is therefore preferable to isolated programs. A practical implication is that training and development should be connected through a continuous cycle: job and competency analysis, program design, implementation, workplace application, feedback, performance evaluation, and career follow-up. The weakest descriptive indicators point directly to areas for improvement. Instructors need support in interactive facilitation; training evaluation should be linked to behavioral and performance outcomes; development methods should be diversified; and career pathways should be communicated clearly.

CONCLUSION

This study concludes that training and employee development are significant determinants of employee performance in the Human Resources Bureau of Universitas Pendidikan Indonesia. Training had the stronger partial effect, with a coefficient of 0.707, while employee development had a positive coefficient of 0.383. The simultaneous model was highly significant and explained 69.0% of employee performance variation. These results indicate that human resource programs are not merely supporting activities; they are central mechanisms through which a university strengthens the quality, timeliness, productivity, attendance, and cooperation of its employees. First, training should be designed from documented job and competency needs. Program objectives, materials, methods, and expected workplace outcomes should be aligned before implementation. Second, instructors should receive support in interactive facilitation, digital learning media, simulations, and participant engagement. Third, evaluation should move beyond attendance and satisfaction by examining learning, behavioral application, and changes in work results. Fourth, development programs should combine on-the-job learning, formal courses, seminars, mentoring, job rotation, feedback, and competency-based career planning. Fifth, managers should establish measurable performance targets and provide coaching in time management, communication, and teamwork. The study was cross-sectional and focused on one institutional unit, so causal interpretation and generalization should be made cautiously. The data were based on employee perceptions, which may be influenced by response tendencies. Future research could use longitudinal designs, objective performance indicators, and samples from several universities. Additional variables such as leadership, organizational support, motivation, digital competence, job satisfaction, workload, and organizational culture may also help explain the remaining variance in performance.

The central message is straightforward: employees perform better when learning opportunities are relevant to their work and when the organization provides a visible pathway for continued growth. Training addresses what employees need to do well today; development prepares them to contribute more effectively tomorrow. Universities that manage both processes consistently are better equipped to build professional, adaptive, and service-oriented human resource functions.

REFERENCES

Alharbi, F., Khan, M. I., & Alharthi, A. (2022). Human resource development and organizational performance: Evidence from the higher education sector. Journal of Human Resource and Sustainability Studies, 10(1), 34-46.

Akbar, M. R. (2022). Manajemen SDM dalam era digital: Strategi adaptasi di lingkungan pendidikan. Deepublish.

Flegl, M., Wagner, J., & Koutsky, J. (2022). When training backfires: Overtraining and its negative impacts on employee productivity. Journal of Human Resources Management and Development, 39(3), 211-225.

Ghozali, I. (2021). Aplikasi analisis multivariate dengan program IBM SPSS 25. Badan Penerbit Universitas Diponegoro.

Hair, J. F., et al. (2021). Multivariate data analysis (8th ed.). Pearson Education.

Hasibuan, M. S. P. (2020). Manajemen sumber daya manusia (Edisi revisi). Bumi Aksara.

Kasmir. (2020). Analisis laporan keuangan (Revised ed.). Rajawali Pers.

Mangkunegara, A. P. (2020). Manajemen sumber daya manusia perusahaan (14th ed.). Remaja Rosdakarya.

Rahmawati, D., & Swasti, I.K. (2023). Training relevance and curriculum design in improving educational staff performance. Journal of Higher Education Human Resources, 15(2), 112–128.

Silva, M., & Costa, R. (2024). Strategic human resource development in higher education: Building institutional resilience. International Journal of Educational Management, 38(4), 545–560.

Upadhyay, A. (2023). Evaluating training methods and instructional design effectiveness in public institutions. Public Personnel Management, 52(1), 78–95.

Jatmika, D., & Andarwati, M. (2017). Pengaruh pengembangan SDM terhadap kinerja pegawai dengan kepuasan kerja sebagai variabel mediasi di Kementerian Agama Kabupaten Jombang. Jurnal Manajemen dan Organisasi, 8(2), 45-54.

Kamble, S. V., & Karigueleshwar, M. (2023). Integrated human resource management in higher education: Enhancing staff satisfaction and institutional performance. Asian Journal of Management Research, 14(2), 101-115.

Kasmir. (2020). Manajemen sumber daya manusia: Teori dan praktik. RajaGrafindo Persada.

Lu, X., Wang, H., & Zhang, Y. (2022). Employee training and development: Analyzing its impact on organizational performance in Chinese universities. Asian Journal of Human Resources, 10(2), 122-134.

Mangkunegara, A. A. A. P. (2020). Manajemen sumber daya manusia perusahaan. PT Remaja Rosdakarya.

Olaosebikan, O. (2020). The effectiveness of professional development programs on staff performance in educational institutions. Journal of Human Resources Development, 25(1), 14-25.

Rahmawati, A., & Swasti, T. (2023). Relevansi desain pelatihan terhadap peningkatan kinerja karyawan: Studi empiris di sektor pendidikan. Jurnal Pengembangan Sumber Daya Manusia, 9(1), 25-34.

Robbins, S. P., & Judge, T. A. (2020). Organizational behavior (18th ed.). Pearson Education.

Rukmini, D., & Ardiana, A. (2020). Adaptasi tenaga kependidikan terhadap sistem kerja jarak jauh di masa pandemi. Jurnal Administrasi Pendidikan, 27(2), 105-114.

Sekaran, U., & Bougie, R. (2021). Research methods for business: A skill-building approach (8th ed.). Wiley.

Silva, M. A., & Costa, J. D. (2024). Strategic human resource development in public universities: A performance perspective. International Journal of Educational Management, 38(1), 1-15.

Siswanda, A., Avianti, W., & Ridwan, S. (2024). Pengaruh pelatihan dan pengembangan karir terhadap kinerja pegawai: Studi pada BKPSDM Kota Sabang. Jurnal Greenation Ilmu Akuntansi, 2(4), 40-55.

Sugiyono. (2021). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.

Sugiyono. (2022). Metode penelitian kuantitatif, kualitatif, dan R&D (3rd ed.). Alfabeta.

Tanjung, A. N., Waruwu, E., Waruwu, S., Zega, Y., & Halawa, F. (2024). Pengaruh pelatihan dan pengembangan SDM terhadap kinerja pegawai LPP RRI Gunungsitoli. EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi, 3(5), 88-97.

Upadhyay, N. (2023). Training effectiveness: Role of training design and methods in improving performance. Journal of Organizational Studies, 14(2), 112-129.