
Enhancing Employee Work Engagement in Health Service through Education and Training

Saferius Ndruru¹, Eliyunus Waruwu², Maria Magdalena Bate'e³,
Forman Halawa⁴

Abstract:

Education and training of human resources are crucial in creating individuals whose potential and skills are in line with the demands of technological developments and are of maximum benefit to the company. This research intends to investigate the influence of education and training simultaneously and partially on work engagement at the Gunungsitoli Health Service. There were 64 employees at the Gunungsitoli Health Service used for the population and sample. A quantitative research method was applied in examining how education and training influence the variables of work engagement. The analysis technique used multiple linear regression. Based on the results, education has, partially, a significant effect on employee work engagement at the Gunungsitoli Health Service. Moreover, education and training simultaneously provide a significant effect on employee work engagement at the Gunungsitoli Health Service. In order to be engaged with their work, the employees require a strong commitment from the Gunungsitoli Health Service to develop their employees through education and training, to strengthen their attachment to their work, and improve overall organizational performance. If education and training are carried out in a programmed manner by the Gunungsitoli Health Service, employee work engagement can be realized. In the initial data collection process, respondents were not honest in providing information, opinions, or answers in the questionnaires distributed. For this reason, it is recommended future researchers should be meticulous when collecting data and information.

Keywords: Education, Training, Work Engagement

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1. Introduction

Human resources (HR) are critical to an organization, serving as the driving force behind planning and implementing strategies to achieve organizational goals. Employees, as part of HR, are expected to master their field of work and adapt to changes in the global environment. According to Albrecht (2012), human resources comprise the collective efforts, skills, and abilities of individuals working for an organization, making employees not just assets but valuable capital that can be developed and multiplied. The significance of HR has given rise to the concept of human capital, emphasizing the strategic importance of managing and developing this

¹ Universitas Nias, Indonesia. saferiusndruru@yahoo.co.id

² Universitas Nias, Indonesia, eliyunuswaruwu@unias.ac.id

³ Universitas Nias, Indonesia, maria.batee82@gmail.com

⁴ Universitas Nias, Indonesia, halawaforman07@gmail.com

resource to maintain organizational competitiveness (Bakker & Demerouti, 2008; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

In the digital era and the context of globalization, the ability to adapt to change is crucial for every employee. Organizations must initiate the adjustment of employees' capabilities to stay competitive and keep pace with technological advancements (Macey & Schneider, 2008). Low-quality human resources struggle to compete in the global arena, underscoring the importance of investment in education, training, and development to ensure sustainable competitiveness (Saks, 2006). Development through education and training is a strategic approach for organizations to enhance employee knowledge, skills, and attitudes, thus enabling them to face current and future challenges effectively (Taris & Schaufeli, 2016).

Human resource development (HRD) involves planned activities initiated by organizations to help employees broaden and deepen their knowledge and competencies. It is an essential policy for dynamic, growth-oriented organizations, as the skills and abilities of employees directly influence the achievement of organizational goals (Bakker & Demerouti, 2008). HRD typically includes educational programs, training, career development initiatives, and management training aimed at enhancing employee performance (Rich, Lepine, & Crawford, 2010). Training, in particular, is a critical component, focusing on the practical application of skills and knowledge necessary for employees to perform their duties effectively (Schaufeli, Salanova, González-Romá, & Bakker, 2002).

The urgency of this study arises from the observed gaps in the current literature and the practical need for organizations, especially in the health service sector, to invest in education and training to enhance employee work engagement. Although previous studies have explored the impact of HR practices on work engagement, there is a research gap regarding the specific influence of education and training in the context of health services, particularly within civil service institutions (Van Wingerden, Derks, & Bakker, 2017). This study seeks to fill this gap by examining the relationship between education and training and work engagement among employees at the Gunungsitoli Health Service.

The novelty of this research lies in its focus on a specific demographic—civil servants in the health sector—and the role of education and training in enhancing their work engagement. By analyzing the educational background and participation in training programs of employees at the Gunungsitoli Health Service, this study aims to provide insights into how these factors influence their work engagement and overall performance. The results will contribute to the broader understanding of HR practices in the public health sector and offer practical recommendations for improving employee engagement through targeted education and training initiatives (Christian, Garza, & Slaughter, 2011; Coetzee & De Villiers, 2010).

The purpose of this research is to investigate the extent to which education and training influence employee work engagement in the Gunungsitoli Health Service. By identifying the correlation between these variables, the study aims to provide evidence-based recommendations for HR policies that enhance employee engagement, thereby improving organizational effectiveness and service delivery in the health sector (Karatepe & Karadas, 2015; Poon, 2013).

2. Theoretical Background

Education

Education is aimed at understanding theories and enhancing problem-solving skills to achieve organizational goals. This is essential for employees to continue contributing effectively to the organization despite challenges posed by environmental changes. Such goals can be realized through training, career development, management, and performance improvement initiatives for employees. Development is defined as an effort conducted through education and training to enhance employees' knowledge of theories, concepts, technical skills, ethics, and practices based on job requirements. Development through training is designed to address the practical challenges of contemporary work. Training involves a series of learning processes to acquire and improve skills that prioritize practical application over theoretical understanding.

Training

Training helps employees understand practical knowledge and its application, which is essential for improving their skills and attitudes in achieving the organization's goals. Training provides employees with technical knowledge and skills related to specific jobs, emphasizing the enhancement of individual capabilities. Education includes training as a process of learning outside the formal education system, aimed at acquiring and improving skills, usually in a shorter timeframe. Training encompasses various activities intended to refine a person's expertise, knowledge, and experience, and even alter their attitudes. Training programs are designed to teach participants how to perform specific tasks or jobs effectively.

Work Engagement

Work engagement represents an individual's connection to their job, characterized by high enthusiasm for carrying out tasks, emotional involvement in the work, and enjoyment in completing each task. Employees who exhibit these attitudes tend to put in more effort than expected. Work engagement is demonstrated when employees possess a strong spirit, generate the best ideas, and have a sincere commitment to success. Engaged employees are mindful during work, take pride in their contributions to the company, and strive to achieve the organization's vision and mission.

Hypotheses

Based on the literature review, the following hypotheses are proposed:

H1: Education has a positive and significant effect on employee work engagement.

H2: Training has a positive and significant effect on employee work engagement.

3. Methodology

This associative research aims to examine the relationship between two independent variables, Education and Job Training, and the dependent variable, Work Engagement among Gunungsitoli Health Service employees. The study was conducted at the Gunungsitoli Health Service from January 20 to March 20, 2024, targeting 64 Civil Servants.

The research utilized a quantitative approach to ensure validity, following these steps: problem identification, preliminary research, hypothesis formulation, variable and method determination, data collection, and analysis. The research instrument was a Likert scale questionnaire (1 = Strongly Disagree, 5 = Strongly Agree) used to measure attitudes and perceptions related to the study variables. Validity and reliability tests were conducted to ensure accuracy.

Data were analyzed using multiple regression to assess the impact of education and training on work engagement, with the formula $Y = a + b_1X_1 + b_2X_2$, where Y represents Work Engagement, X1 is Education, and X2 is Training. Pearson correlation was used to examine the influence of each independent variable on the dependent variable.

The population consisted of 64 Civil Servants at the Gunungsitoli Health Service, and the entire population was used as the sample due to its manageable size.

4. Empirical Findings/Result

Validity Test

The preliminary step taken was ensuring the data validity. Validity was committed for checking whether the instrument prepared as the material for the questionnaire which would be delivered to respondents was able to measure the concept according to the general criteria that apply. Research validity, as (Purba, Yoel et al., 2021) put it, is the degree of truth of the conclusions drawn from a series of research which has been conducted and influenced and will be assessed according to the research methods used.

Table 1. Validity Test Results for X1 (Education)

		Correlations					Total X2
		X1 1	X1 2	X1 3	X1 4	X1 5	
X1_1	Pearson Correlation	1	.933**	.700**	.284*	.322*	.700**
	Sig. (2-tailed)		.000	.000	.028	.012	.000
	N	60	60	60	60	60	60
X1_2	Pearson Correlation	.933**	1	.700**	.334**	.213	.682**
	Sig. (2-tailed)	.000		.000	.009	.102	.000
	N	60	60	60	60	60	60
X1_3	Pearson Correlation	.700**	.700**	1	.328*	.299*	.619**
	Sig. (2-tailed)	.000	.000		.011	.020	.000
	N	60	60	60	60	60	60
X1_4	Pearson Correlation	.284*	.334**	.328*	1	.538**	.348**
	Sig. (2-tailed)	.028	.009	.011		.000	.006

	N	60	60	60	60	60	60
X1_5	Pearson Correlation	.322*	.213	.299*	.538**	1	.481**
	Sig. (2-tailed)	.012	.102	.020	.000		.000
	N	60	60	60	60	60	60
Total_X2	Pearson Correlation	.700**	.682**	.619**	.348**	.481**	1
	Sig. (2-tailed)	.000	.000	.000	.006	.000	
	N	64	64	64	64	64	64

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

A questionnaire is regarded as valid if $r \text{ count} > r \text{ table}$. The questionnaire table, provided to the 64 respondents, reveals that $r \text{ count} (X1_1)$ is $0.7 > 0.2542$ ($r \text{ table}$), $r \text{ count} (X1_2) > 0.682$ ($r \text{ table}$), $r \text{ count} (X1_3) 0.619 > (0.2542) r \text{ table}$, $r \text{ count} (X1_4) 0.348 > 0.2542$ ($r \text{ table}$), and $r \text{ count} (X1_5) 0.481 > 0.2542$ ($r \text{ table}$). In conclusion, the variable questionnaire above is valid.

Table 2. Validity Test Results for X2 (Training)

		Correlations					
		X2_1	X2_2	X2_3	X2_4	X2_5	Total_X2
X2_1	Pearson Correlation	1	.663**	.150	.478**	.221	.721**
	Sig. (2-tailed)		.000	.251	.000	.089	.000
	N	60	60	60	60	60	60
X2_2	Pearson Correlation	.663**	1	.053	.356**	.170	.630**
	Sig. (2-tailed)	.000		.685	.005	.194	.000
	N	60	60	60	60	60	60
X2_3	Pearson Correlation	.150	.053	1	.267*	.104	.542**
	Sig. (2-tailed)	.251	.685		.039	.430	.000
	N	60	60	60	60	60	60
X2_4	Pearson Correlation	.478**	.356**	.267*	1	.386**	.754**
	Sig. (2-tailed)	.000	.005	.039		.002	.000
	N	60	60	60	60	60	60
X2_5	Pearson Correlation	.221	.170	.104	.386**	1	.608**
	Sig. (2-tailed)	.089	.194	.430	.002		.000
	N	60	60	60	60	60	60
Total_X2	Pearson Correlation	.721**	.630**	.542**	.754**	.608**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	64	64	64	64	64	64

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Meanwhile, this table reveals that from the questionnaire results, $r \text{ count} (X2_1)$ is $0.721 > 0.2542$ ($r \text{ table}$), $r \text{ count} (X2_2) > 0.630$ ($r \text{ table}$), $r \text{ count} (X2_3) 0.542 > (0.2542) r \text{ table}$, $r \text{ count} (X2_4) 0.754 > 0.2542$ ($r \text{ table}$), and $r \text{ count} (X2_5) 0.608 > 0.2542$ ($r \text{ table}$). Thus, since $r \text{ count} > r \text{ table}$, this variable questionnaire is valid.

Reliability Test

Reliable refers to the consistency of instrument data which produces similar results whenever a researcher carries out a measurement. The reliability test is an analysis technique using Cronbach's alpha (α) to show reliability, internal consistency and homogeneity between items in the variables. Reliability is a crucial aspect of measurement, as it gauges the extent to which an instrument consistently yields accurate results. In order to validate the trustworthiness of a measuring instrument, reliability testing is conducted to assess its consistency in producing consistent outputs. A measuring instrument is considered reliable if it produces similar data results despite repeated measurements. (Rofiqoh & Zulhawati, 2020) mention that a particular approach, that is, a questionnaire, is provided with consistent answers among several researchers who have various research projects.

Table 3. Reliability Test Results of Education Variable (X1)

Reliability Statistics	
Cronbach's	
Alpha	N of Items
.791	6

This table demonstrates that the Cronbach's alpha of all variables is > 0.7 , that is, 0.791. A construct is regarded as having high reliability if the composite reliability value is > 0.70 . Thus, it can be concluded that all education variables (X1) are reliable. In other words, all instruments from the questionnaire have similar results even at different times and can be used in this examination.

Table 4. Reliability Test Results of Training Variable (X2)

Reliability Statistics	
Cronbach's	
Alpha	N of Items
.752	6

Table 6 shows that the score of Cronbach's alpha is > 0.7 , that is, 0.752. Therefore, this questionnaire is considered reliable.

Table 5. Reliability Test Results of Education Variable (Y1)

Reliability Statistics	
Cronbach's	
Alpha	N of Items
.721	6

In Table 7, the score of Cronbach's alpha is > 0.7 , that is, 0.721. As the score is greater than the minimum, this questionnaire is reliable.

Normality Test

The Normality Test is a test which aims to assess the distribution of data on a variable, whether it is normally distributed or not. In other words, this is related to testing the normality of data distribution. Data with a normal distribution is required for parametric tests, whereas data which do not have a normal distribution are not valid for the test (Rofiqoh & Zulhawati, 2020).

Table 6. Normality Test of the Education, Training, and Job Engagement Variables

One-Sample Kolmogorov-Smirnov Test			
		Unstandardized Residual	
N		64	
Normal Parameters ^{a,b}	Mean	.0000000	
	Std. Deviation	1.05849854	
Most Extreme Differences	Absolute	.084	
	Positive	.074	
	Negative	-.084	
Test Statistic		.084	
Asymp. Sig. (2-tailed) ^c		.200 ^d	
Monte Carlo Sig. (2-tailed) ^c	Sig.	.351	
	99% Confidence Interval	Lower Bound	.338
		Upper Bound	.363

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 1502173562.

The provisions for the normality test stipulate that if the significance value is > 0.05 then the research data are normally distributed, whereas if the significance value is < 0.05 then the research data are not normally distributed. According to Table 8, the significance value is $0.200 > 0.05$, leading to the conclusion that the research data is normally distributed.

Linear Regression Analysis

The t-test, also known as the partial test, is used to examine how each independent variable affects the dependent variable. This test is performed by comparing the calculated t-value with the t-table, or by examining the significance column for each calculated t-value. If the significance value (sig) < 0.05 , or the calculated value $< t$ -table, there is an effect of variable X on Y. Conversely, if the sig value > 0.05 , or the calculated value $> t$ -table, there is no effect of variable X on Y.

Table 7. Results of Linear Regression Analysis (Education)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.806	2.152		.839	.404
	Pendidikan	.890	.111	.714	8.021	.000

a. Dependent Variable: Keterikatan Kerja

In the t-test, if the significance value is < 0.05 or the calculated t-value $< t$ -table, there is an effect of variable X on Y, and vice versa. Based on the table, the significance value for Education (X1) is $0.00 < 0.05$, and the calculated t-value is $8.021 > 1.99897$ t-table. Thus, it can be concluded that X1 has a partial effect on Y, leading to the rejection of H_0 and the acceptance of H_a .

Table 8. Results of Linear Regression Analysis (Training)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.831	2.119		1.336	.186
	Pelatihan	.846	.110	.697	7.663	.000

a. Dependent Variable: Keterikatan Kerja

If the significance value is < 0.05 or the calculated t-value $> t$ -table, here is an effect of variable X on Y, and vice versa. Based on the table, the significance value of Education (X2) is $0.00 < 0.05$ and the calculated t-value is $7.663 > 1.99897$ t-table. Thus, it can be concluded that X2 has a partial effect on Y, leading to the rejection of H_0 and the acceptance of H_a .

Hypotheses Test

Table 9. T-Test

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.830	2.148		.386	.701
	Pendidikan	.542	.200	.434	2.712	.009
	Pelatihan	.404	.194	.333	2.077	.042

a. Dependent Variable: Keterikatan Kerja

Based on Table 11, it is known that the constant $a = 0.830$, $b_1 = 0.542$, and $b_2 = 0.404$. Thus, the multiple linear regression equation is $Y = a + b_1X_1 + b_2X_2$. Based on these data, it can be described as $Y = 0.830 + 0.542X_1 + 0.404X_2$. The positive constant value indicates a positive effect between the two independent variables (X_1 and X_2). The constant value of variable X_1 , which is 0.542, represents the regression coefficient of variable X_1 on Y , meaning that if variable X_1 increases, Y will increase by 0.542 or 54.2%. The constant value of variable X_2 , which is 0.404, represents the regression coefficient of variable X_2 on Y , meaning that if variable X_2 increases, Y will increase by 0.404 or 40.4%. Therefore, the hypothesis is formulated as follows:

- The t-value for Education is 3.626 with a significance level of 0.001. The t-table can be obtained using the formula $df = n-2-1 = 64-2-1 = 61$ with $\alpha = 0.05 : 2 = 0.025$, resulting in a 1.99962 t-table. For the Education variable, the calculated t-value $>$ t-table ($2.712 > 1.99962$), and the significance level for Education is $0.009 < 0.05$. Therefore, H_a is accepted, and H_o is rejected, indicating that Education significantly influences Work Engagement. Thus, the hypothesis stating the influence of Education on Work Engagement at the Health Department of Gunungsitoli is proven.
- The t-value for Training is 2.077 with a significance level of 0.042. Using the same formula, which is $df = n-2-1 = 64-2-1 = 61$ with $\alpha = 0.05 : 2 = 0.025$, the t-table is 1.99962. For the Training variable, the calculated t-value $>$ t-table ($2.077 > 1.99962$), and the significance level for Training is $0.042 < 0.05$. Therefore, H_a is accepted, and H_o is rejected. This indicates that Training significantly influences Work Engagement. Thus, the second hypothesis stating the influence of Training on Work Engagement at the Health Department of Gunungsitoli is also proven.

Table 10. J F-Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.963	2	38.982	36.042	.000 ^b
	Residual	65.974	61	1.082		
	Total	143.938	63			

a. Dependent Variable: Total Y

b. Predictors: (Constant), Pelatihan, Pendidikan

From the calculation, the computed value of the F-test is 36.042 with a significance level of $f = 0.000$. The f-value table can be obtained using the formula, where $df_1 = (\text{number of variables} - 1) = 3-1 = 2$ and $df_2 = (n-k-1) = 64-2-1 = 61$, with $\alpha = 0.05$ is 3.15. The computed f-value $>$ f-table ($36.042 > 3.15$), and the significance level is $0.000 < 0.05$. Therefore, H_o is rejected, and H_a is accepted, indicating that there is an effect between the Education and Training variables on Work Engagement. Thus, the

third hypothesis, regarding the effect of Education and Training on Work Engagement at the Health Department of Gunungsitoli, is proven.

5. Discussion

The results of this study reveal that both Education and Training have a significant impact on Work Engagement among employees at the Gunungsitoli Health Service. These findings are consistent with established theories and prior research, which emphasize the importance of these variables in enhancing employee engagement.

Education's Impact on Work Engagement

The positive influence of education on work engagement supports the theory that higher education levels contribute to improved job performance and commitment. Previous research by Bakker et al. (2014) demonstrates that education enhances employees' cognitive resources, which are crucial for effective job performance and engagement. Similarly, Tims et al. (2011) found that educational attainment helps employees better manage job demands and fosters a greater connection to their work. The findings align with the study by Liu et al. (2015), which highlights that education provides employees with the theoretical knowledge necessary to adapt to workplace changes and challenges. This theoretical grounding supports employees' ability to remain engaged in their roles, even as job demands evolve. Additionally, the research by Schaufeli and Bakker (2004) underscores the role of education in increasing employees' intrinsic motivation and work engagement.

Training's Impact on Work Engagement

The significant effect of training on work engagement confirms existing theories that practical training enhances employees' skills and job satisfaction. Training programs are designed to improve employees' competencies, which in turn increases their engagement and commitment to their roles. This is supported by research by Karatepe and Tekinkus (2006), which found that training positively impacts employees' job satisfaction and engagement by improving their ability to perform their tasks effectively. Moreover, the results are consistent with the study by Salanova et al. (2011), which shows that training enhances employees' skills and boosts their work engagement by providing them with the tools needed to meet job demands. Training also addresses specific job-related challenges, thereby increasing employees' motivation and engagement, as highlighted by De Lange et al. (2008).

6. Conclusions

This study highlights the significant roles of Education and Training in enhancing Work Engagement among employees at the Health Department of Gunungsitoli. Education positively influences work engagement by improving employees' theoretical understanding and problem-solving skills, aligning with existing literature that emphasizes the value of education in fostering employee commitment and performance. Training, on the other hand, has an even more pronounced effect, directly impacting employees' job-specific skills and motivation. This supports

research findings that effective training programs are crucial for boosting work engagement and ensuring employees' practical readiness.

Future research should focus on longitudinal studies to assess the long-term effects of Education and Training on work engagement. Comparative analyses across different sectors could provide insights into industry-specific trends, while exploring employees' perceptions of education and training quality can offer deeper understanding of their impact. Additionally, investigating other influencing factors like organizational culture and leadership, along with qualitative approaches to gather detailed employee feedback, could enhance strategies for improving work engagement.

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