

## The effect of training and education and teacher certification allowances on teachers

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### Abstract

Effectiveness training can encourage teacher performance and knowledge management, and soft-skill competence to strengthen the relationship—this study conducted with a quantitative approach. The analysis tool uses SEM-Amos version 23. The population in this study were 18240 teachers in South Sulawesi Province. The sample was determined by accidental technique, with a sampling target of at least 100 people who filled in early. Only 236 teachers filled out the questionnaire until the specified time limit, and it was declared complete. Effectiveness training proved to encourage teacher performance improvements during the COVID-19 pandemic. This empirical evidence answers the researcher's assumptions and, at the same time, adds to the limited reference to the relationship of the conceptual framework built in this study. This study shows that practical training can encourage internal organizational development, especially in improving employees' ability to share and problem-solve to enhance teachers' skills.

**Keywords:** Raining effectiveness, knowledge management, soft-skill competence, teacher, performance, Indonesia

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## 1. The Introduction

The Covid-19 pandemic that has hit the whole world is a heavy blow to the world of education today. Education personnel are at the forefront of educating the nation during this pandemic so that their abilities are an indicator of the success of handling instruction in the Covid-19 pandemic era. Various studies explain the factors that can improve teacher performance, especially during this Covid-19 period. Experts agree that training is the most important thing to deal with difficult conditions at work. Training can improve performance (Ibrahim et al., 2017; Nzeru et al., 2015; Rahman et al., 2013; Rajeswari & Palanichamy, 2014; Simonton, 2008) and enhance the quality of service (Nurung et al., 2019, 2020).

Interestingly, not all training can enhance performance in absolute terms (Häfner & Stock, 2010). It found that the performance did not change significantly after attending training. Based on this view, it developed this study by building on the assumption that only practical training can improve performance.

One method that it can use to see the development of an educational organization is to look at the performance of its educators. Teacher performance correlated with professional educators, organizational leaders, and overall management of educational organizations. Organizations will benefit from individuals who contribute to developing knowledge and can encourage improvements in employee competencies to improve teacher performance. In addition, performance appraisal is also an excellent mechanism to control teachers. As explained earlier, training can promote performance improvement (Azas et al., 2019; Nasri et al., 2018; Salama et al., 2017; Tamsah, Ansar, et al., 2020). Practical training can contribute significant. This study attempts to bridge the gap in empirical evidence that shows these differences in results by building a new research framework model.

Other studies show the contribution of soft-skill competence to employee performance (Tamsah, Ansar, et al., 2020; Umar et al., 2020). On the other hand, they believed that organizations could develop knowledge management to improve the competence of their employees, which in turn can improve their performance. The soft-skill competence of teachers needs optimizing from the results of their work, mastery of science and technology in implementing and providing educational services. In addition, teachers must use the knowledge and experience gained while working in academic institutions to carry out daily work, especially during the Covid-19 pandemic.

This study builds a conceptual framework with the assumption that training effectiveness can improve teacher performance, and it can optimize that contribution by improving knowledge management and soft-skill competence. Because the empirical evidence that supports this study is still limited, the researchers tried to build a conceptual framework using human capital theory. The human capital theory is used to connect concepts about the core of this theory, namely the existence of intangible assets in everyone (Bontis et al., 2007; Bontis & Fitz-enz, 2002; Sević et al., 2013) teachers who can be optimal to improve their performance. In this study, the intangible assets are knowledge management and soft-skill competence, which are believed to contribute to increasing the effect of training effectiveness on teacher performance.

## 2. Literature Review

### 2.1 Theoretical background and hypothesis development

Training effectiveness is essential in developing human resources because if the training is not effective, it will not be helpful. Training is effective it can enjoy the results for the trainees and the organization (Tamsah, Ansar, et al., 2020; Umar et al., 2020). In organizations that provide services at the forefront, educational organizations such as universities, schools, and others must use personnel who can meet specific standards. Various studies show that training is the best way to get the skills needed by employees (Khan et al., 2016; Rahman et al., 2013;

Salah, 2016; Sitzmann & Weinhardt, 2018; Truitt, 2011), including teachers.

Practical training can improve the organization's ability to manage employee knowledge (Rahman et al., 2013). Organizations that can handle the knowledge of their employees can minimize the occurrence of discontinuation of capabilities in service users. Knowledge management is vital to improve organizational efficiency and ensure that it can develop the knowledge contained within the organization (Al Ahmar et al., 2014; Hovland, 2020). Organizations that can confirm this are believed to create and develop the environment in which the organization is located. As currently, the Covid-19 pandemic has forced all organizations, both private and public sectors, to adapt to these conditions so that the knowledge of all members of the organization is required to understand the situation to strengthen organizational capabilities (Groves, 2011; Hohenthal et al., 2014; Pinazo-Dallenbach et al., 2016; Rajeswari & Palanichamy, 2014). Good knowledge management can encourage everyone's ability in the organization so that their skills will increase (Al Ahmar et al., 2014; Bordeianu, 2015; Hovland, 2020; Koenig, 2011). Managing the knowledge possessed by the organization can ensure that all employees have skills, especially soft-skill competence.

Training generates benefits for employees' knowledge, skills, abilities, competencies, and behaviour (Khan et al., 2016; Latif, 2012; Rahman et al., 2013; Sitzmann & Weinhardt, 2018). Training changes employee behaviour to achieve organizational goals and helps align discrepancies between what should happen and what happens to increase productivity (C. Anderson, 2013; Asfaw et al., 2015b; Ibrahim et al., 2017; Khan et al., 2016; Thevanes & Dirojan, 2018; Truitt, 2011; Yadav, 2016) further improve performance (Azas et al., 2019; Nasri et al., 2018; Salama et al., 2017; Tamsah, Bata, et al., 2020), both individuals and organizations including educational organizations. Teacher performance is the work carried out by employees in the organization following their authorities and responsibilities to realize the vision, mission, and goals of the organization according to the rules, without violating the law, morals, and ethics (Kenneth Leonard, 2016; Lutwama et al., 2012). Based on these relationships, it can build the following hypotheses:

H1: Training effectiveness has a significant positive effect on knowledge management.

H2: Training effectiveness has a significant positive effect on soft skill competence.

H3: Training effectiveness has a significant positive effect on health workforce performance.

Knowledge management is a set of tools, strategies, and methods to maintain, analyse, organize, share, and improve the information contained in organizations to encourage better performance (Beijerse, 2000; Darroch, 2005; Desouza & Awazu, 2006; Girard & Girard, 2015; Lettieri et al., 2004). By using knowledge management, the decision-making process carried out by company management will be easier and more effective (Holsapple, 1995; Knorr-Siedow & Tosics, 2005; Nicolas, 2004). Knowledge management will help organizations absorb different opinions and experiences, thereby improving quality in the decision-making process. Knowledge management will make it easier to find information and find people who have the information needed by the organization (Darroch, 2005; Knorr-Siedow & Tosics, 2005; Mendis, M.D.V.S. and Weerakkody, 2014; Musa & Usman, 2012).

Knowledge management will make it easier and faster to access new information throughout the organization, thus enabling every employee to work faster. It must provide data to all parts of the organization to innovate and change more quickly (Karadsheh et al., 2009; Musa & Usman, 2012; Pee & Kankanhalli, 2016; Wang & Wang, 2012). The speed of information dissemination will positively impact organizational development and help them keep up with changes in the corporate environment. If every employee and everyone in the organization can quickly obtain and provide information, the organization will also improve.

Knowledge management is used in organizational knowledge to create skills (Huang &

Culture, 2012; Pee & Kankanhalli, 2016; Shih et al., 2018; Sumi. J, 2011; Yusof et al., 2012) to generate competitive advantage or high performance very good (Cimatti, 2016; Dean, 2017; Ibrahim et al., 2017; Union, 2015; Wilks & Hemsworth, 2011). The combination of human knowledge in an organization will produce different organizational learning (Koenig, 2011). However, an organization with a large amount of quality knowledge may not deliver goods or services of the same quality. Therefore, organizations need knowledge management to get maximum benefits from ability, such as capacity building as their soft skills increase (Al Ahmar et al., 2014; Kalling, 2003; Koenig, 2011).

Competence is one of the determinants of efforts to improve company performance and provide a workforce that offers a more specific view of their work (Cimatti, 2016; Dean, 2017; Ibrahim et al., 2017; Umar et al., 2020; Wilks & Hemsworth, 2011). ). The application of competencies can be carried out for various work activities within the organization, such as setting performance targets, determining job requirements, and job qualifications, which must be more transparent and detailed in terms of tasks and capabilities. Competence itself can be understood as a combination of skills, personal attributes, and knowledge that is seen through performance behaviours that can be observed, measured, and evaluated (Chou et al., 2010; Dwi Riyanti et al., 2016; Salina Daud et al., 2012; Spencer & Spencer, 1993; Umar et al., 2020). Soft-skill competence is not directly related to intellectual ability but is more related to behaviour; workers may have sufficient skills and knowledge to do a job (Dwi Riyanti et al., 2016; Umar et al., 2020), which in the end, their performance will be better. Based on these relationships, it can build the following hypotheses:

- H4: Knowledge management has a significant positive effect on soft skill competence.
- H5: Soft-skill competence has a significant positive effect on health workforce performance.
- H6: Training effectiveness has a significant positive effect on soft-skill competence through knowledge management.
- H7: Training effectiveness has a significant positive effect on health workforce performance through soft skill competence.

## 2.2 Conceptual Framework

The relationship between variables can be illustrated in the conceptual framework in Figure 1 as the hypothesis built for the literature review. Measurement of variables and indicators can be seen in Figure 1:

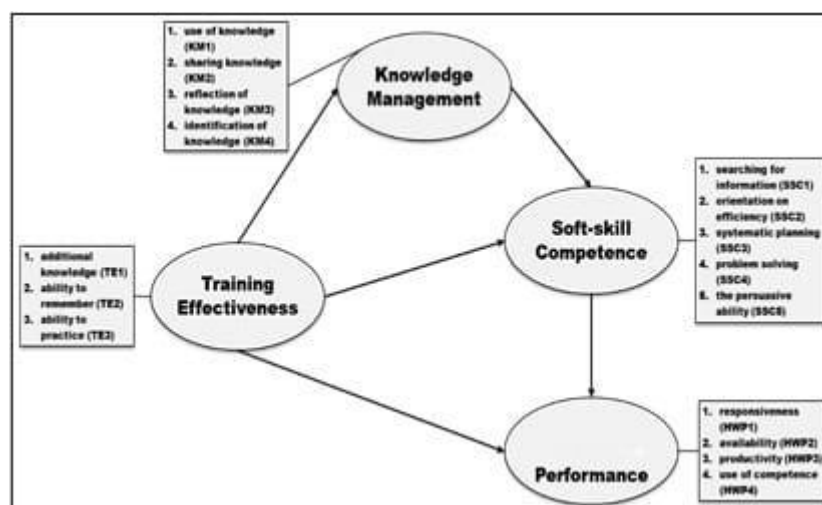


Figure 1: Conceptual Framework

### 3. Research Methodology

#### 3.1 Conceptual Framework

The sample in this study is 236 people who are teachers in South Sulawesi. Respondents with echelon 2 positions were 7 people (2.97%), echelon 3 were 27 people (11.44%), echelon 4 were 39 people (16.52%), and non-echelon employees were 163 people (69.07%). Respondents' education level Diploma 1 to 3 as many 90 people (38.14%), Bachelor of Strata 1 as many as 107 people (45.34%), and master's as many 39 people (16.52%). Respondents were male as many as 107 people (45.34%) and female as many as 129 people (54.66%). Furthermore, the age of respondents in the range of 20 to 30 years was 37 people (15.68%), ranged from 31 to 40 years was 79 people (33.47%), ranging from 41 to 50 years was 93 people (39.41%) and ranged from 51 to 60 years as many as 27 people (11.44%).

#### 3.2 Measurement

It used a quantitative method in this study. SEM-Amos (Ferdinand, 2014; Ghazali, 2017; Hair et al., 2014) version 23 was utilized to answer the study goals. This research included 18240 education professionals from South Sulawesi. The sample is selected using the incidental sampling method (Sugiyono, 2018), which entails anybody wanting to fill out an online questionnaire with a sampling goal of at least 100 individuals who complete it early. Because the quantitative method using SEM-Amos will be more accurate if there are 100-200 responders (Ferdinand, 2006; Ghazali, 2017; Sugiyono, 2018) if all of the questionnaire's statements are completed, each incoming questionnaire is assigned a responder number. Only surveys that have been completed will be included in the data analysis. Only 236 instructors completed the questionnaire before the deadline, and it was considered complete.

Training efficacy is evaluated by markers of increased knowledge, recall, and practice (Perdue et al., 2002; Wilson et al., 2002) and then examined in public organizations (Tamsah, Ansar, et al., 2020; Umar et al., 2020; Umar et al. al., 2020). Knowledge management variables are assessed by indicators of knowledge usage, knowledge sharing, expertise reflection, and knowledge identification (Davidson & Voss, 2003). The soft-skill competency variable is then assessed using indicators such as information seeking, efficiency-oriented, methodical planning, problem-solving, and persuasive ability (Chou et al., 2010; Dwi Riyanti et al., 2016; Salina Daud et al., 2012; Spencer & Spencer, 1993; Umar et al., 2020). Meanwhile, measures of responsiveness, availability, productivity, and utilization of expertise are used to assess health staff performance (Kimutai et al., 2013; Lutwama et al., 2012).

Table 1. Measurement of variable

Variable	Indicator	Item
<b>Training Effectiveness (TE)</b>	▪ additional knowledge (TE1)	▪ I always have additional knowledge after every training.
	▪ ability to remember (TE2)	▪ I always have additional work skills after every training ▪ I can remember the activities carried out during the training.
	▪ ability to practice (TE3)	▪ I can understand the activities carried out during the training ▪ I can apply the training results in my current job. ▪ I can put into practice the experience gained from training in my current job
<b>Knowledge Management (KNM)</b>	▪ use of knowledge (KM1)	▪ I can manage and use knowledge in finding new/innovative ways of working
	▪ knowledge sharing (KM2)	▪ I can create, disseminate, and use knowledge more effectively to disseminate useful information
	▪ reflection of knowledge (KM3)	▪ I can find new ways to channel raw data into useful forms of information as a reflection of my knowledge
	▪ identification of knowledge (KM4)	▪ I can find new things that can be used as the forerunner of new knowledge to develop organizational knowledge
<b>Soft-skill</b>	▪ searching for	▪ I can find the latest information to add skills

<b>Competence (SSC)</b>	information (SSC1)	
	▪ orientation on efficiency (SSC2)	▪ I have simple work skills and always prioritize efficiency at work
	▪ systematic planning (SSC3)	▪ I can make systematic plans and steps in my work
	▪ problem solving (SSC4)	▪ I am responsive and alert to problems and able to always find a solution faced by the work team
	▪ the persuasive ability (SSC5)	▪ I can communicate ideas and convince others to follow what I want
<b>Education Personnel (EP)</b>	▪ responsiveness (EP1)	▪ I have high responsiveness, especially in relation to work to improve performance even during this pandemic
	▪ availability (EP2)	▪ I always maintain attendance, availability of time for work even during this pandemic
	▪ productivity (EP3)	▪ I always maintain and prioritize work productivity to improve performance even during this pandemic
	▪ use of competence (EP4)	▪ I always try to improve my competence to improve my performance even during this pandemic

#### 4. Results

Table 2 shows the overall statistical test results; the p-value of the variables and items is significantly less than 0.01. The average critical ratio value of items is above 2.89. Some standard estimates for item variables are generally above 0.70, which explains that the intervention items in the normalized projections are in an extensive and eligible range. There are items in this test that are omitted because the validity values and standard estimates are not met, namely the Knowledge Management (KNM) variable with the identification of knowledge (KM4) indicator and the Education Personal (EP) variable with the responsiveness indicator (EP1).

The dominant component of the items that make up the training effectiveness variable (TE) is the ability to practice (TE3) item. In the Knowledge Management (KNM) variable, the dominant position is knowledge sharing (KM2). In the Soft-skill Competence (SSC) variable, the dominant function is problem-solving (SSC4), and in the case of Personal Education (EP), the dominant position is productivity (EP3).

Table 2. Statistical Result

Variables	Items	Standardized Estimate	Estimate	Standard Error	Critical Ratio	P-Value	Reliability	
							Construct Reliability	Variance Extracted
Training Effectiveness	TE1	0,819	0,941	0,062	15,251	***	0,879	0,708
	TE2	0,836	0,967	0,062	15,631	***		
	TE3	0,870	1,000	-	-	***		
Knowledge Management	KM1	0,846	1,000	-	-	***	0,890	0,733
	KM2	0,891	1,120	0,064	17,468	***		
	KM3	0,831	1,063	0,068	15,611	***		
	KM4	deleted item						
Soft-skill Competence	SSC1	0,732	0,912	0,084	10,874	***	0,842	0,572
	SSC2	0,745	0,845	0,077	10,998	***		
	SSC3	deleted item						
	SSC4	0,830	0,975	0,079	12,399	***		
	SSC5	0,715	1,000	-	-	***		
Education Personal	EP1	deleted item					0,857	0,668
	EP2	0,753	0,988	0,078	12,591	***		
	EP3	0,874	1,088	0,072	15,191	***		
	EP4	0,822	1,000	-	-	***		



Model Fit Testing	Cut of Value	Result	Remark
Normality Test (Kolmogorov-Smirnov Test)	> 0.05	0,13	Normal
Chi-Square	df = 60, $\chi^2 = 106,899$	79,082	Fit
Significance	$\geq 0,05$	0,000	Marginal
CMIN/DF	$\leq 2$	1,782	Fit
GFI	$\geq 0,90$	0,937	Fit
AGFI	$\geq 0,90$	0,905	Fit
TLI	$\geq 0,90$	0,972	Fit
CFI	$\geq 0,90$	0,979	Fit
RMSEA	0,03 - 0,08	0,058	Fit

Note: \*\*\* (Significant at Level  $p < 0.01$ )

This study's data processing utilized two phases of testing, as shown in Table 2. It first included the extraction of the questionnaire distribution in a Likert scale in the SPSS program. It then evaluated the data for normalcy using the Kolmogorov-Smirnov residual technique with the criterion (Asymp. Sig > 0.05). The normality results in the first step test in SPSS is 0.13 > 0.05, indicating that the normality test is usually distributed. Second, use the AMOS program to analyze data using Structural Equation Modeling (SEM); the analysis is done in two phases. The first test was carried out using Confirmatory Factor Analysis (CFA), the most rigorous method for evaluating the structural equation model framework (Byrne, 2001). The goal of CFA is to see whether any indicator can measure its hidden variables (Ferdinand, 2014; Ghozali, 2017). The second test is model fit testing, which determines if the predicted model is compatible with the observed data (J. C. Anderson & Gerbing, 1988).

The results of the CFA test show that the loading factor (A) of each item is 0.5; C.R 2; and p-value 0.05, which means that the things are validly able to measure each latent variable in this study (Ferdinand, 2014; Hair et al., 2014). The loading factor value of each item that measures knowledge management is in the value of 0.831 – 0.891, while for training effectiveness, the value of each item is 0.819 – 0.87. Likewise, the endogenous variables in this study are soft-skill competence, with each item having a loading factor of 0.732 – 0.83 and a health workforce performance with a loading factor of items at 0.753 – 0.874.

The value of construct reliability is also indicated by the value of Construct Reliability (CR) 0.7 and Variance extracted (VE) 0.5, which means that the data used has the reliability to measure the relationship between the conceptualized variables. The discriminant validity value is shown by comparing the VAVE value with the correlation between constructs (Ghozali, 2017). The VAVE value is expected to be higher than the correlation value between constructs. As shown in Table 3, a higher VAVE value indicates that the construct has a unique value and can capture the phenomenon measured in this study (Ferdinand, 2014; Hair et al., 2017).

Table 3. Discriminant Validity

	TE	KM	SSC	EP
TE	<b><u>0,842</u></b>			
KM	0,753	<b><u>0,856</u></b>		
SSC	0,296	0,742	<b><u>0,756</u></b>	
EP	0,258	0,799	0,628	<b><u>0,817</u></b>

Note: the number on the diagonal (bolted and underlined) is the square root value of the variance extracted

As for the fit testing model, which is indicated by the goodness of fit value, the data used is appropriate to describe the conceptualized model. This can be seen from the value of CMIN/DF = 1.782; GFI=0.937; AGFI=0.905; TLI=0.972; CFI=0.979; and RMSEA=0,058. Although the probability value has not shown a fit value, structurally, the data analyzed is appropriate in describing the

conceptualized model (Ferdinand, 2014; Ghozali, 2017). The Structural Model is described as shown in Figure 2 below:

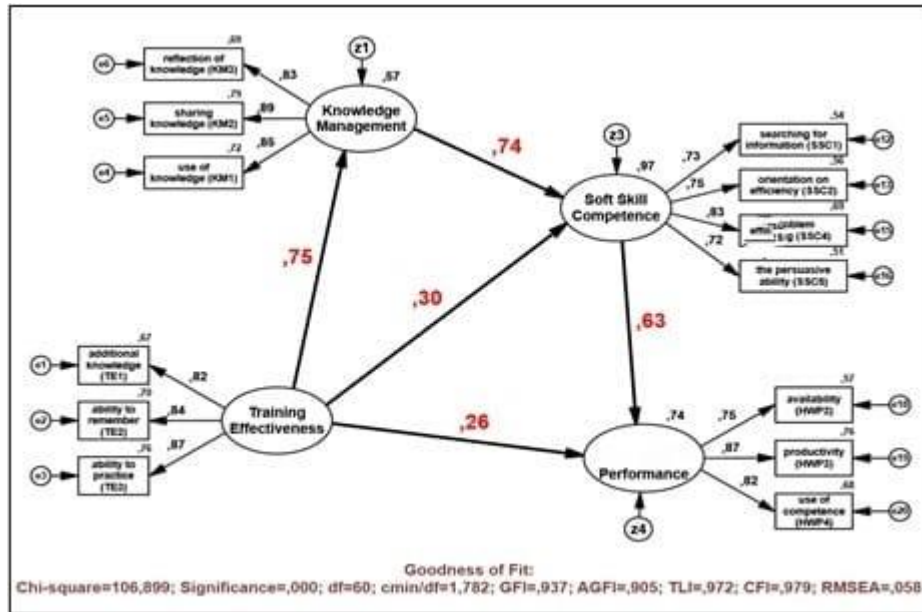


Figure 2. Structural Equation Model

After completing the first and second phases of the testing procedure, the last stage involves evaluating the hypothesis through an influence test using a structural equation model by comparing the t-statistical value to the p-value with a significance coefficient of 0.05. The hypothesis testing presented in Table 4 reveals that there is an explanatory connection between the variables Training Effectiveness (TE) on Knowledge Management (KNM), Training Effectiveness (TE) on Soft-skill Competence, and Training Effectiveness (TE) on Soft-skill Competence (SSC). Except for Hypothesis 3, Training Effectiveness (TE) on Health Workforce Performance (HWP), Knowledge Management (KNM) on Soft-Skill Competence (SSC), and Soft-Skill Competence (SSC) on Education Personnel (EP) has a positive and significant impact with a significance value of 0.01. (H3).

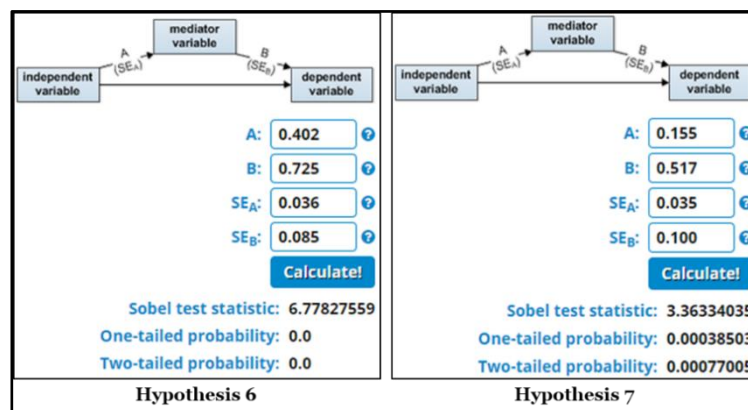


Figure 3. Online Sobel Test

While the indirect effect (H6 - H7) also has a significant positive impact, thus H1-H7 is accepted. More details can be seen in Table 4 below:

Table 4. Hypothesis Testing



Hypothesis	Standardized estimate	Estimate	Standard Error	Critical Ratio	P-Value	Result
H1: Training Effectiveness → Knowledge Management	0,753	0,402	0,036	11,288	***	Accepted
H2: Training Effectiveness → Soft-skill Competence	0,296	0,155	0,035	4,376	***	Accepted
H3: Training Effectiveness → Health Workforce Performance	0,258	0,111	0,048	2,3	0,021	Accepted
H4: Knowledge Management → Soft-skill Competence	0,742	0,725	0,085	8,527	***	Accepted
H5: Soft-skill Competence → Health Workforce Performance	0,628	0,517	0,1	5,149	***	Accepted
H6: Training Effectiveness → Knowledge Management → Soft-skill Competence	0,558	Sobel Statistic: 6,778			***	Accepted
H7: Training Effectiveness → Soft-skill Competence → Health Workforce Performance	0,536	Sobel Statistic: 3,363			***	Accepted

Note: \*\*\* (Significant at Level  $p < 0.01$ )

## 5. Results

### 5.1 Training Effectiveness – Knowledge Management – Soft-skill Competence

The results of the AMOS measurement show that training effectiveness has a positive and significant effect on knowledge management ( $\gamma = 0.753$ ;  $p$ -value 0.000). These results indicate that any increase in the value of training effectiveness in this study measured by additional knowledge ( $\lambda = 0.81$ ), ability to remember ( $\lambda = 0.836$ ), and ability to practice ( $\lambda = 0.870$ ), will be able to improve the knowledge management measured. By use of knowledge ( $\lambda = 0.846$ ), knowledge sharing ( $\lambda = 0.891$ ) and reflection of knowledge ( $\lambda = 0.831$ ) thus, these results indicate that Hypothesis 1 (H1) is accepted.

These results support a study that states that effective and sustainable training can increase knowledge and skills (Pee & Kankanhalli, 2016; Rahman et al., 2013), mainly if the training carried out is relevant to the skills and knowledge needed to improve organizational performance (Jennex & Olfman, 2001). The measurement results of the model also show that ability to practice has a remarkable ability to measure the training effectiveness of teachers. This is important because training can be said to be effective if the teachers can apply the training results followed in the practice of the services provided (Khan et al., 2016; Patri & Suresh, 2018; Ramadevi et al., 2016). In the end, it reinforces the findings of Salah (2016), Wang-Cowham (2011), and Whelan et al. (2010); the results of this study also show that practical training can encourage teachers to share knowledge with others to improve knowledge management.

AMOS output also shows a positive and significant effect of training effectiveness on soft-skill competence ( $\gamma = 0.296$ ;  $p$ -value 0.000). From this value, it can interpret that the more effective a training is, the more soft-skill competence will be, which in this study is shown searching for information ( $\lambda = 0.732$ ); orientation of efficiency ( $\lambda = 0.745$ ); problem-solving ( $\lambda = 0.83$ ); and the persuasive ability ( $\lambda = 0.715$ ). Thus, Hypothesis 2 (H2) is also accepted. From these results, although it has a significant effect, the role of training effectiveness in improving the soft-skill competence of teachers is still relatively small when compared to the product given to knowledge management. The most significant influence that it can provide is encouraging the teacher's ability to overcome the problems that occur. Consistent with Jennex & Olfman (2001) statement, through this study, we also emphasize that organizations must be able to ensure that any training organized and attended by teachers must always be relevant to the abilities they want to develop. This is to ensure that the training carried out can encourage the soft skills of each teacher.

The measurement results for the influence of knowledge management on soft-skill competence also show positive and significant results ( $\beta = 0.742$ ; p-value 0.000). With this result, it can also interpret that any increase in knowledge management will significantly encourage growth in the soft-skill competence of teachers. Knowledge sharing provides the most crucial measurement of knowledge management to promote problem-solving abilities, indicators of teachers' soft-skill competence. These results support a study that states that an organization's ability to manage knowledge from its human resources as an essential asset will determine the level of competence possessed by human resources, including soft skills (Cimatti, 2016; Gibb, 2014). This study proves that increasing knowledge management will have a significant influence in increasing soft-skill competence. Thus, Hypothesis 4 (H4) is also accepted.

For the indirect effect of training effectiveness on soft-skill competence through knowledge management, the output of Amos shows the standardized indirect effect value of 0.558 and the p-value of the Sobel test = 0.000. These results indicate that, indirectly, training effectiveness also has a positive and significant effect on soft-skill competence. With this result, Hypothesis 6 (H6) is also accepted. Sobel statistic value of 6.678 indicates that knowledge management can mediate the effect of training effectiveness on soft-skill competence as an intervening variable. With a more significant influence compared to direct relationships, through this study, we state that encouraging the improvement of soft skills must first promote the advancement of knowledge management.

## 5.2 Training Effectiveness –Soft-skill Competence – Health Workforce Performance

TAMOS output shows that training effectiveness positively affects health workforce performance ( $\gamma = 0.258$ ; p-value = 0.021). This result also means that an increase in training effectiveness will significantly encourage a growth in personnel education which in this study is measured by availability (= 0.753), productivity ( $\gamma = 0.874$ ), and use of competence ( $\gamma = 0.822$ ). From these results, Hypothesis 3 (H3) is also accepted.

Of all the correlations between latent constructs in this study, the direct effect of these two variables shows the smallest effect value, although it is still significant. Following the statement in previous studies, training can significantly contribute to improving performance if participants can apply the results of the training appropriately (Asfaw et al., 2015a; Mohanty et al., 2019; Rahman et al., 2013; Sisyuk, 2018). More clearly, the model shows that ability to practice as an indicator can provide the most crucial measurement of training effectiveness, which will encourage increased productivity, which is the primary indicator of health workforce performance. It can be concluded that the better the participants' ability to practice the results of their training, the higher their productivity at work.

For the effect of soft-skill competence on personnel education, the measurement results also show a positive and significant value ( $\beta = 0.628$ ; p-value 0.000). Thus, Hypothesis 5 (H5) is accepted. Every increase in soft-skill competence will encourage growth in health workforce performance. From the results of this measurement, it is also seen that the increase in the ability of teachers to solve problems is the primary indicator of soft-skill competence, which can then increase the productivity of teacher officers.

However, agreeing with the statement of Ibrahim et al. (2017), a good organization is an organization that can identify the capabilities, including soft skills, possessed by human resources to get the best performance. So, to create good soft skills, it is essential to conduct training pieces relevant to the skills you want to acquire. This study confirms that training effectiveness can encourage an increase in personnel education if, first, it can improve soft-skill competence. The indirect effect shown by the standardized indirect effect value is 0.536, which is greater than the direct effect of training effectiveness on personnel education. Sobel statistic score 3,363; p-value = 0.000, indicating that soft-skill competence can mediate training effectiveness on personnel education. Thus, Hypothesis 7 (H7) is also accepted.

## 6. Conclusion and Implication

Effectiveness training is proven to be able to encourage the improvement of teacher performance during this Covid-19 pandemic. However, the gain is still smaller than the improvement caused by the improvement of soft-skill competence first due to optimal training effectiveness. The most substantial reason for improved soft-skill competence is the improvement in knowledge management first due to the optimal contribution of training effectiveness. This empirical evidence answers the researcher's assumptions and, at the same time, adds to the limited reference to the relationship of the conceptual framework built in this study. This study contributes to developing human capital theory, especially in training that can improve knowledge management and soft-skill competence in encouraging individual performance improvements. This study also shows that practical training can encourage internal organizational development, especially in improving employee skills in knowledge sharing and problem-solving to enhance teachers' abilities.

Overall, the critical finding in this study is that training effectiveness has a minor direct effect on soft-skill competence and personnel education compared to the indirect impact through intervening variables. Thus, we can state that the organization cannot expect training to improve employee competence and performance if it cannot ensure that the training carried out can provide an increase in knowledge and soft-skill competence. Selection of the correct training method, relevant materials and quality trainers are essential things to consider producing practical training. Only effective training can improve knowledge and soft-skill competencies, which can further encourage personnel education, especially during the current Covid-19 pandemic.

## References

- Al Ahmar, G. O., Rofiq, A., & Zain Hadiwodjojo, D. (2014). The Impact of Knowledge Management, Learning Organization, and Educations Organization on Organization Performance: A Case in Brawijaya University. *Asia Pacific Management and Business Application*, 3(1), 28–47. <https://doi.org/10.21776/ub.apmba.2014.003.01.3>
- Anderson, C. (2013). Impact of Training on Project Success. 2(January 2009), 1–9.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Asfaw, A. M., Argaw, M. D., & Bayissa, L. (2015a). The Impact of Training and Development on Employee Performance: A Case Study of Escon Consulting. *Journal of Human Resource and Sustainability Studies*, 3(3), 188–202. <https://doi.org/10.12816/0010945>
- Asfaw, A. M., Argaw, M. D., & Bayissa, L. (2015b). The Impact of Training and Development on Employee Performance and Effectiveness: A Case Study of District Five Administration Office, Bole Sub-City, Addis Ababa, Ethiopia. *Journal of Human Resource and Sustainability Studies*, 3(3), 188–202. <https://doi.org/http://dx.doi.org/10.4236/jhrss.2015.34025>
- Azas, A. I., Romadhoni, B., & Tamsah, H. (2019). Pengaruh Motivasi Kerja, Kompensasi dan Pelatihan terhadap Kinerja Pegawai pada Rektorat UIN Alauddin Makassar. *YUME: Journal of Management*, 2(1).
- Beijerse, R. P. U. (2000). Knowledge management in small and medium-sized companies: Knowledge management for entrepreneurs. *Journal of Knowledge Management*, 4(2), 162–179. <https://doi.org/10.1108/13673270010372297>
- Bontis, N., & Fitz-enz, J. (2002). Intellectual capital ROI: A causal map of human capital antecedents and consequents. *Journal of Intellectual Capital*, 3(3), 223–247. <https://doi.org/10.1108/14691930210435589>

- Bontis, N., Seleim, A., & Ashour, A. (2007). Human capital and organizational performance: A study of Egyptian software companies. *Management Decision*, 45(4), 789–801. <https://doi.org/10.1108/00251740710746033>
- Bordeianu, O. (2015). the Role of Knowledge Management and Knowledge Management Strategies Within Learning Organizations. *Ecoforum*, 4(1), 21.
- Byrne, B. M. (2001). Structural Equation Modeling With AMOS, EQS, and LISREL: Comparative Approaches to Testing for the Factorial Validity of a Measuring Instrument. *International Journal of Testing*, 1(1), 55–86. [https://doi.org/10.1207/s15327574ijt0101\\_4](https://doi.org/10.1207/s15327574ijt0101_4)
- Chou, C. M., Shen, C. H., Hsiao, H. C., & Chen, S. C. (2010). A study on constructing entrepreneurial competence indicators for business department students of vocational and technical colleges in Taiwan. *World Transactions on Engineering and Technology Education*, 8(3), 316–320.
- Cimatti, B. (2016). Definition, development, assessment of soft skills and their role for the quality of organizations and enterprises. *International Journal for Quality Research*, 10(1), 97–130. <https://doi.org/10.18421/IJQR10.01-05>
- Darroch, J. (2005). Knowledge management, innovation, and firm performance. *Journal of Knowledge Management*, 9(3), 101–115. <https://doi.org/10.1108/13673270510602809>
- Davidson, C., & Voss, P. (2003). *Knowledge Management: An Introduction to Creating Competitive Advantage from Intellectual Capital*. Vision Book. New Delhi.
- Dean, S. (2017). Soft Skills Needed for the 21st-Century Workforce. *International Journal of Applied Management and Technology*, 18(1), 5.
- Desouza, K. C., & Awazu, Y. (2006). Knowledge management at SMEs: Five peculiarities. *Journal of Knowledge Management*, 10(1), 32–43. <https://doi.org/10.1108/13673270610650085>
- Dwi Riyanti, B. P., Sandroto, C. W., & Warmiyati D.W, M. T. (2016). Soft Skill Competencies, Hard Skill Competencies, and Intention to Become Entrepreneur of Vocational Graduates. *International Research Journal of Business Studies*, 9(2), 119–132. <https://doi.org/10.21632/irjbs.9.2.119-132>
- Ferdinand, A. (2006). Metode Penelitian Manajemen Pedoman Penelitian untuk Penulisan Skripsi Tesis dan disertai Ilmu Manajemen. In Semarang: Universitas Diponegoro.
- Ferdinand, A. (2014). *Structural Equation Modelling: dalam Penelitian Manajemen, Aplikasi Model-Model Rumit dalam Penelitian untuk Skripsi, Tesis, dan Disertasi Doktor (5th ed.)*. BP Undip - Undip Press.
- Ghozali, I. (2017). *Model Persamaan Struktural Konsep dan Aplikasi Dengan Program AMOS 24 Update Bayesian SEM (7th ed.)*. Badan Penerbit Universitas Diponegoro.
- Gibb, S. (2014). Soft skills assessment: theory development and the research agenda. *International Journal of Lifelong Education*, 33(4), 455–471. <https://doi.org/10.1080/02601370.2013.867546>
- Girard, J., & Girard, J. (2015). Defining knowledge management: Toward an applied compendium. *Online Journal of Applied Knowledge Management*, 3(1), 1–20.
- Groves, K. S. (2011). Talent management best practices: How exemplary health care organizations create value in a down economy. *Health Care Management Review*, 36(3), 227–240. <https://doi.org/10.1097/HMR.0b013e3182100ca8>
- Häfner, A., & Stock, A. (2010). Time management training and perceived control of time at work. *Journal of Psychology: Interdisciplinary and Applied*, 144(5), 429–447. <https://doi.org/10.1080/00223980.2010.496647>
- Hair, J. F., Babin, B. J., & Krey, N. (2017). Covariance-Based Structural Equation Modeling in the Journal of Advertising: Review and Recommendations. *Journal of Advertising*, 46(1), 163–177. <https://doi.org/10.1080/00913367.2017.1281777>
- Hair, J. F., Patel, M. L., & K., D. S. G. V. (2014). Amos Covariance-Based Structural Equation Modeling (CB-SEM): Guidelines On Its Application as a Marketing Research Tool. *Brazilian Journal of Marketing -BJM Revista Brasileira de Marketing – ReMark Edição Especial*. <https://doi.org/10.5585/remark.v13i2.2718>

- Hohenthal, J., Johanson, J., & Johanson, M. (2014). Network knowledge and business-relationship value in the foreign market. *International Business Review*, 23(1), 4–19. <https://doi.org/10.1016/j.ibusrev.2013.08.002>
- Holsapple, C. W. (1995). Knowledge management in decision making and decision support. *Knowledge and Policy*, 8(1), 5–22. <https://doi.org/10.1007/BF02698553>
- Hovland, I. (2020). Knowledge Management and Organizational Learning: An International Development Perspective. *NGO Management*, August, 353–368. <https://doi.org/10.4324/9781849775427-37>
- Huang, Y., & Culture, O. (2012). Overview of Knowledge Management in Organizations Introduction to Knowledge Management Knowledge Management and Organizational Culture. *Knowledge Creation Diffusion Utilization*, 1–5.
- Ibrahim, R., Boerhannoeddin, A., & Bakare, K. K. (2017). The effect of soft skills and training methodology on employee performance. *European Journal of Training and Development*, 41(4), 388–406. <https://doi.org/10.1108/EJTD-08-2016-0066>
- Jennex, M. E., & Olfman, L. (2001). Development Recommendations for Knowledge Management Organizational Memory Systems. In: Sein M.K. et al. (eds) *Contemporary Trends in Systems Development*. Springer, Boston, MA. [https://doi.org/https://doi.org/10.1007/978-1-4615-1341-4\\_18](https://doi.org/https://doi.org/10.1007/978-1-4615-1341-4_18)
- Kalling, T. (2003). Knowledge management and the occasional links with performance. *Journal of Knowledge Management*, 7(3), 67–81. <https://doi.org/10.1108/13673270310485631>
- Karadsheh, L., Mansour, E., Alhawari, S., Azar, G., & El-Bathy, N. (2009). A theoretical framework for knowledge management process: Towards improving knowledge performance. *Innovation and Knowledge Management in Twin Track Economies Challenges and Solutions - Proceedings of the 11th International Business Information Management Association Conference, IBIMA 2009*, 1–3, 133–144.
- Kenneth Leonard, O. M. (2016). Measuring the Performance of Health Workers. *World Bank*. [https://doi.org/https://doi.org/10.1596/978-1-4648-0931-6\\_ch7](https://doi.org/https://doi.org/10.1596/978-1-4648-0931-6_ch7)
- Khan, A. A., Abbasi, S. O. B. H., Waseem, R. M., Ayaz, M., & Ijaz, M. (2016). Impact of Training and Development of Employees on Employee Performance through Job Satisfaction: A Study of Telecom Sector of Pakistan. *Business Management and Strategy*, 7(1), 29. <https://doi.org/10.5296/bms.v7i1.9024>
- Kimutai, G., Gachunga, H., Wanjau, K., & Gichuhi, A. W. (2013). Influence of employee capacity on health workforce performance in Kenya’s Public Health Sector: A tale of ISO 9001:2008 certified hospitals. *European Journal of Business and Social Sciences*, 2(9), 134–152.
- Knorr-Siedow, T., & Tosics, I. (2005). Knowledge management and enhanced policy application. *Restructuring Large Housing Estates in Europe: Restructuring and Resistance Inside the Welfare Industry*, November, 321–340. <https://doi.org/10.2307/j.ctt9qgmvx.21>
- Koenig, M. E. . (2011). *Knowledge Management in Theory and Practice* (2nd ed.). In *Journal of the American Society for Information Science and Technology* (Vol. 62, Issue 10). <https://doi.org/10.1002/asi.21613>
- Latif, K. F. (2012). An integrated model of training effectiveness and satisfaction with employee development interventions. *Industrial and Commercial Training*, 44(4), 211–222. <https://doi.org/10.1108/00197851211231487>
- Lettieri, E., Borga, F., & Savoldelli, A. (2004). Knowledge management in non-profit organizations. *Journal of Knowledge Management*, 8(6), 16–30. <https://doi.org/10.1108/13673270410567602>
- Lutwama, G. W., Roos, J. H., & Dolamo, B. L. (2012). A descriptive study on health workforce performance after decentralisation of health services in Uganda. *Human Resources for Health*, 10(1), 1. <https://doi.org/10.1186/1478-4491-10-41>
- Mendis, M.D.V.S. and Weerakkody, W. A. S. (2014). The Relationship between Work Life Balance and Employee Performance: With Reference to Telecommunication Industry of Sri Lanka. *Kelaniya Journal of Human Resource Management, Department of Human Resource Management, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka*. 09(1&2): 95-117.



- Mohanty, P. C., Dash, M., Dash, M., & Das, S. (2019). A study on factors influencing training effectiveness. *Espacios*, 40(2).
- Musa, U., & Usman, Z. (2012). Knowledge Management in Success of ERP Systems. *International Journal of Advances in Engineering & Technology*, 3(1), 21–28.
- Nasri, H., Tamsah, H., & Firman, A. (2018). Pengaruh Kompetensi, Gaya Kepemimpinan, dan Pelatihan, terhadap Kinerja Aparatur Sipil Negara Sekecamatan Binamu Kabupaten Jeneponto. *Jurnal Mirai Management*, 3(2), 78–91.
- Nicolas, R. (2004). Knowledge management impacts on decision making process. *Journal of Knowledge Management*, 8(1), 20–31. <https://doi.org/10.1108/13673270410523880>
- Nurung, J., Rakhmat, Asang, S., & Hamsinah. (2019). Public service motivation and job satisfaction as driving the quality of public services in disaster emergency. *IOP Conference Series: Earth and Environmental Science*, 235(1). <https://doi.org/10.1088/1755-1315/235/1/012060>
- Nurung, J., Rakhmat, Tamsah, H., Burhanuddin, & Azis, M. (2020). The effect of leadership on public service quality. *IOP Conference Series: Earth and Environmental Science*, 473, 012070. <https://doi.org/10.1088/1755-1315/473/1/012070>
- Nzeru, W., Nzimakwe, I., Mutambara, E., & Munapo, E. (2015). Impact of Training and Development on Employees' Performance. *The Indian Economic Journal*, 63(3), 448–472. <https://doi.org/10.1177/0019466220150308>
- Patri, R., & Suresh, M. (2018). Factors influencing lean implementation in healthcare organizations: An ISM approach. *International Journal of Healthcare Management*, 11(1), 25–37. <https://doi.org/10.1080/20479700.2017.1300380>
- Pee, L. G., & Kankanhalli, A. (2016). Interactions among factors influencing knowledge management in public-sector organizations: A resource-based view. *Government Information Quarterly*, 33(1), 188–199. <https://doi.org/10.1016/j.giq.2015.06.002>
- Perdue, J., Ninemeier, J. D., & Woods, R. H. (2002). Training methods for specific objectives: Preferences of managers in private clubs. *International Journal of Contemporary Hospitality Management*, 14(3), 114–119. <https://doi.org/10.1108/09596110210424402>
- Pinazo-Dallenbach, P., Mas-Tur, A., & Lloria, B. (2016). Using high-potential firms as the key to achieve territorial development. *Journal of Business Research*, 69(4), 1412–1417. <https://doi.org/10.1016/j.jbusres.2015.10.117>
- Rahman, A. A., Ng, S. I., Sambasivan, M., & Wong, F. (2013). Training and organizational effectiveness: Moderating role of knowledge management process. *European Journal of Training and Development*, 37(5), 472–488. <https://doi.org/10.1108/03090591311327295>
- Rajeswari, T., & Palanichamy, P. (2014). An Empirical Analysis of the Relationship between Training and Development and Employee Performance. *Training & Development Journal*, 5(2), 82. <https://doi.org/10.5958/2231-069x.2014.00783.5>
- Ramadevi, D., Gunasekaran, A., Roy, M., Rai, B. K., & Senthilkumar, S. A. (2016). Human resource management in a healthcare environment: framework and case study. *Industrial and Commercial Training*, 48(8), 387–393. <https://doi.org/10.1108/ICT-03-2016-0014>
- Salah, M. R. A. (2016). The Impact of Training and Development on Employees Performance and Productivity. *International Journal of Management Sciences and Business Research* ISSN, 5(7), 2226–8235.
- Salama, Tamsah, H., & Natsir, M. (2017). Pengaruh Pelatihan, Motivasi Kerja, dan Pengembangan Karir terhadap Prestasi Kerja Pegawai pada Satuan Polisi Pamong Praja Kabupaten Soppeng. In *Jurnal Mirai Management* (Vol. 2, Issue 1).
- Salina Daud, Abidin, N., Sapuan, N. M., & Rajadurai, J. (2012). Efficient human resource deployment technique in higher education: A standpoint from Malaysia. *African Journal of Business Management*, 6(25), 7533–7547. <https://doi.org/10.5897/ajbm11.558>



- Sević, S. J., Zenopoljac, V. D., & Bontis, N. (2013). Intellectual Capital and Financial Performance in Serbia. *Knowledge and Process Management*, 20(1), 1–11. <https://doi.org/10.1002/kpm>
- Shih, D. H., Lu, C. M., Lee, C. H., Parng, Y. J. M., Wu, K. J., & Tseng, M. L. (2018). A strategic knowledge management approach to circular agribusiness. *Sustainability (Switzerland)*, 10(7), 1–20. <https://doi.org/10.3390/su10072389>
- Simonton, D. K. (2008). Scientific Talent, Training, and Performance: Intellect, Personality, and Genetic Endowment. *Review of General Psychology*, 12(1), 28–46. <https://doi.org/10.1037/1089-2680.12.1.28>
- Sisyuk, K. (2018). Training, knowledge, competence, performance: what is the relationship? *Journal of Administrative and Business Studies*, 4(6), 297–312. <https://doi.org/10.20474/jabs-4.6.4>
- Sitzmann, T., & Weinhardt, J. M. (2018). Training Engagement Theory: A Multilevel Perspective on the Effectiveness of Work-Related Training. *Journal of Management*, 44(2), 732–756. <https://doi.org/10.1177/0149206315574596>
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at work*. Canada: John Wiley & Sons, Inc.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. In ke-26.
- Sumi. J. (2011). *Human Resource Management and Knowledge Management: Revising Challenges of Integration*. 9, 56–60.
- Tamsah, H., Ansar, Ilyas, G. B., & Yusriadi, Y. (2020). Training, Knowledge Sharing, and Quality of Work-Life on Civil Servants Performance in Indonesia. *Journal of Ethnic and Cultural Studies*, 7(3), 163–176. <https://doi.org/http://dx.doi.org/10.29333/ejecs/514>
- Tamsah, H., Bata, G., Sirajuddin, & Nur, Y. (2020). Capacity Building Model of Social Assistance in Improving the Productive Economy of the Poor. *International Journal of Innovation, Creativity and Change*, 14(1), 1109–1118.
- Thevanes, N., & Dirojan, T. (2018). Impact of Training and Job Involvement on Job Performance. *International Journal of Scientific and Management Research*, 1(1), 1–10.
- Truitt, D. L. (2011). Effect of training and development on employee attitude as it relates to training and work proficiency. *SAGE Open*, 1(3), 1–13. <https://doi.org/10.1177/2158244011433338>
- Umar, A., Tamsah, H., Mattalatta, M., Baharuddin, B., & R, A. L. (2020). Training-Effectiveness and Team-Performance in Public Organization. *The Journal of Asian Finance, Economics and Business*, 7(11), 1021–1031. <https://doi.org/10.13106/jafeb.2020.vol7.no11.1021>
- Union, T. E. (2015). " Soft Skills " and their role in employability (International Workshop University Residential Center Bertinoro (FC), Italy Wednesday 18 -?- Thursday 19 November 2015).
- Wang-Cowham, C. (2011). Developing talent with an integrated knowledge-sharing mechanism: An exploratory investigation from the chinese human resource managers' perspective. *Human Resource Development International*, 14(4), 391–407. <https://doi.org/10.1080/13678868.2011.601573>
- Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications*, 39(10), 8899–8908. <https://doi.org/10.1016/j.eswa.2012.02.017>
- Whelan, E., Collings, D. G., & Donnellan, B. (2010). Managing talent in knowledge-intensive settings. *Journal of Knowledge Management*, 14(3), 486–504. <https://doi.org/10.1108/13673271011050175>
- Wilks, D., & Hemsworth, K. (2011). Soft skills as key competencies in hospitality higher education: Matching demand and supply. *Tourism & Management Studies*, 7, 131–139. [http://www.scielo.mec.pt/scielo.php?script=sci\\_arttext&pid=S2182-84582011000100013&lng=pt&nrm=iso&tlng=en](http://www.scielo.mec.pt/scielo.php?script=sci_arttext&pid=S2182-84582011000100013&lng=pt&nrm=iso&tlng=en)
- Wilson, P. H., Strutton, D., & Farris, M. T. (2002). Investigating the perceptual aspect of sales training. *Journal of Personal Selling and Sales Management*, 22(2), 77–86. <https://doi.org/10.1080/08853134.2002.10754296>
- Yadav, A. (2016). Linking Potential Training Outcomes to Employee Creativity in Retailing: A Systems View. *Amity Journal of Training and Development*, 1(1), 32–45.

Misliā, M., Alim, A., Usuf, E., Tamsah, H. & Yusriadi, Y. (2021). The effect of training and education and teacher certification allowances on teachers. *Cypriot Journal of Educational Science*. 16(4), 1368-1383 <https://doi.org/10.18844/cjes.v16i4.5986>

Yusof, A. N. M., Ahmad, N., Nirmala, & Lishudzaimah. (2012). Quality and effectiveness of knowledge management transfer using of mentor-mentee program and on job training in workplace. ICIMTR 2012 - 2012 International Conference on Innovation, Management and Technology Research, 50–55. <https://doi.org/10.1109/ICIMTR.2012.6236359>