

The Effect Intellectual Ability and Work Experience has on Vocational High School Teachers' Performance

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A teacher is a proactive individual who works as a driving force as well as a model of modernisation in the schools. In educational circumstances, a teacher is an asset that needs to be trained and developed so that the representative performance can produce quality students. This study is researching the affect intellectual ability and work experience, has on teachers' performance. This study used literature and field research designs. The research sample of 30 teachers was taken from the total number of the teacher population at SMK TPI AL-HASANAH Pematang Bandar. The location of research was conducted at SMK TPI AL-HASANAH Pematang Bandar, Simalungun, and North Sumatera. The period of the study was carried out from January to August 2019. The data analysis used the classical assumption test, qualitative descriptive analysis, and quantitative analysis. The descriptive research results explained the results of respondents' opinions for intellectual ability which had an average value of 3.60 with a good category. Then, the work experience variable obtained s value of 3.68 in a satisfied category. Moreover, for the teachers' performance, it obtained an average value of 3.59 with the satisfied category. The results showed a strong relationship between intellectual ability, work experience, and teachers' performance. Furthermore, there was a positive and significant effect of intellectual ability and work experience on teachers' performance.

Key words: *Work experience, teacher, performance.*

Introduction

Educational institutions that have an important role in improving the quality of education are schools. A school is a place where learning activities are carried out, both in the classroom and outside the classroom, so there is a possibility that a good characteristic, learning system is

needed. (Andri, 2018). The embodiment of good characteristics is reflected in the implementation of good teaching, consistency in teaching, and good relations with students (Triwahyudianto, 2017).

In supporting the learning process, it requires professionalism in teaching, responsibility, and formative feedback (Taut et al., 2016). For this reason, educational staff are needed, especially teachers, who are competent in talent and character at supervising as well as carrying out the learning process in the classroom. The teachers' role and responsibilities play an important part because they are the main human resource in the school (Wahyuddin, 2016). Efforts in terms of relocation of human resources with a ranking assessment model certainly encourage a teacher to teach well (Pope, 2019).

The manifestation of teaching is well embodied from the intellectual ability and work experience possessed by a teacher that is used in the learning process. The obstacle to intangible intellectual ability is finding strong indicators or tools to measure them (Yaseen, Dajani, & Hasan, 2016). Ideally, teachers are expected to carry out their functions and roles professionally, reflected in the intellectual ability they possess. The higher the level of intelligence, the more effective teachers to think rationally, act in an orderly manner, and deal with the environment (Damanik, 2018).

According to Sutrisno (2011), intellectual ability is the capability of a person that is used and needed to perform mental activities. Furthermore, intellectual ability is the intelligence possessed by a person to receive and convert information obtained into facts by using a comparison of analysis, logic, and ratio (Widodo, 2012). Measurement of ability can be done in several ways to find out to what extent a person is able or not to carry out their work. According to Robbins and Timothy (2008), there are some indicators of intellectual ability that a person must possess, including numerical intelligence, verbal comprehension, speed of perception, inductive reasoning, deductive reasoning, spatial visualisation, and memory.

Today, work experience is considered as an important component in the educational circumstances (Rowe, 2017). A person who has more work experience will certainly understand more what to do when facing a problem that arises. Besides, a teacher with work experience will be faster in working and does not need a long time to adapt to the work to be done in accordance with the curriculum and goals set (Amirul & Misti, 2016). The longer a work period teachers have, the more work experience they have, so the more knowledge they have (Daniel, Indra, & Chamariyah, 2018).

Work experience is knowledge, skill, and ability possessed by someone to assume the responsibilities of a previous job (Marwansyah, 2014). Moreover, based on the opinion of Sastrohadiwiryo (2005), work experience is the main capital that must be owned by an



employee to engage in a particular field. Work experience is the level of understanding of someone in doing the tasks given to them. To recognise the importance of work experience to improve performance, it is necessary to consider factors that influence a person's work experience which includes the length of time, level of knowledge, as well as ability and mastery of work and equipment (Foster, 2001).

Discussions on teachers' performance in general are widely discussed because indicators of successful management of learning in schools rely on the teachers' representative performance (Nadhar & Abdul, 2019). The form of success certainly depends on what strategy the teachers use in carrying out their tasks (Ratnasih, 2019). The consistency of teachers' performance will be tested when the teachers are aware of their weaknesses and try to correct these errors with an intention to improve work performance towards a better level (Mawardi, Fauzi, & Safrida, 2018).

According to Pabundu (2006), performance is the goal to be achieved and expected to be oriented to the work done by someone. The implementation of tasks in accordance with the responsibilities set by the organisation to produce a work result or work productivity that is good in quality and quantity is a form of performance (Mangkunegara, 2005). Based on the Regulation of Minister of National Education Number 16 of 2007 concerning Academic Qualification Standards and Teachers' Competence, there are 14 indicators of teachers' performance measurement which include: mastering students' characteristics; mastering learning theories and learning principles of educational learning; curriculum development; educational learning activities; potential development of students; communication with students; assessment and evaluation; acting in accordance with national religious, legal, social and cultural norms; showing a mature and exemplary personality; work ethic; high responsibility; pride in being a teacher; communication with fellow teachers, educational staff, parents, students, and the community; mastery of material, structure, concepts and scientific mindset and develop professionalism through reflective action.

Method

This study used literature and field research designs with qualitative and quantitative approach models. The location of the study was conducted at SMK TPI AL-HASANAHI Pematang Bandar. The period of the study was conducted for 8 months, starting from January to August 2019. The data collection was carried out using an interview process and a questionnaire instrument that was distributed to respondents. Indicator questions contained in the questionnaire consisted of several question items based on research variables, including intellectual ability, work experience, and teachers' performance.

The load measurement for each item of variable questions used Likert scale, which is 1= Very Poor/Very Dissatisfied, 2= Not Good/Not Satisfied, 3= Poor/Moderate, 4= Good/Satisfied, 5= Very Good/Very Satisfied. The sampling technique used a non-probability sampling method with a saturated sample model so that the population was sampled as a whole with a total of 30 teachers of SMK TPI AL-HASANAH Pematang Bandar. Data analysis used classical assumption test, qualitative descriptive analysis, and quantitative analysis.

Results

Classic Assumption Test

This study used the stages of testing the validity and reliability before conducting a construct test with structural models. Furthermore, according to Sugiyono (2016: 173), if the correlation of each factor is positive and the value is above 0.3, then the factor is a strong construct. Based on the analysis of these factors, it can be concluded that the instrument had a validity of the construction or the validity of good question indicators. In addition, in this study, the researcher used the reliability test by comparing the results of processing with Cronbach's alpha. According to Nunnally in Ghozali (2016: 48), a construct or variable is categorised as reliable if it gives a Cronbach's alpha value > 0.70 .

Based on the results of data processing in this study, the validity test for the intellectual ability variable had an average of 0.509, for the work experience variable had an average of 0.494, for the teachers' performance variable had an average of 0.502, then it could be concluded that the whole question item value was above 0.3 so that it could be stated that all question items were valid. Then, in the reliability test for all item questions, each variable obtained an average value of Cronbach's alpha of 0.956, so it could be concluded that all questions had met the minimum requirement of 0.7. Furthermore, based on the normality test results of the One-Sample Kolmogorov Test above, it can be seen Asymp. Sig (2-tailed) at a total of X1 (Intellectual Capability) of 0.862, work experience of 0.888, and teachers' performance of 0.580, and a total of 0.348 having a value of Asymp. Sig (2-tailed) $>$ from α 0.05. Thus, it can be stated that each variable data is normally distributed.

Qualitative Descriptive Analysis

For the qualitative descriptive results of overall intellectual ability, the results of the intellectual intelligence questionnaire obtained an average value of 3.60 with good answer criteria. The highest average value was 3.97 with good answer criteria for the spatial visualization dimension on the indicator of the ability to do the task with the room or object being changed. While the lowest average value was 3.03 with quite good answer criteria for the inductive reasoning dimension on the indicator of the ability to identify problems.

Next, for overall work experience, the results of the work experience questionnaire obtained an average value of 3.68 with good answer criteria. The highest average value was 4.17 with good answer criteria for the level of knowledge and ability dimension on the indicator of understanding of work procedures. While the lowest average value was 3.23 with quite good answer criteria for the level of knowledge and ability dimension on the indicator of ability possessed in work.

On the overall teachers' performance, it obtained an average value of 3.59 with good answer criteria. The highest average value was in the work ethic, high responsibility, pride in being a teacher dimension on the indicator of timeliness in carrying out the learning process, which obtained an average value of 3.97 with good answer criteria. The lowest average value was in the students' potential development dimension on the indicator of identifying the potential of students, which obtained an average value of 3.03 with quite good answer criteria.

Quantitative Descriptive Analysis

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine the effect of independent variables (X) and dependent variables (Y), where X was intellectual ability and work experience, while Y was teachers' performance. By using SPSS version 21, the results of multiple linear regression were as follows:

Table 1: Multiple Linear Regression Analysis

Model	Unstandardised Coefficients		Standardised Coefficients
	B	Std. Error	Beta
1 (Constant)	41.303	17.716	
Intellectual Capacity	.728	.290	.427
Work Experience	1.642	.684	.408

a. Dependent Variable: Teachers' performance

Source: Data processing results (2019)

Based on the results of data processing in the table above, the equation model $\hat{Y} = 41.303 + 0.728X_1 + 1.642X_2$ was obtained, meaning that there was a positive influence of intellectual ability and work experience on the Vocational High School teachers' performance at SMK TPI AL-HASANA Pematang Bandar.

Correlation Coefficient and Determination Coefficient

Correlation calculation is in the form of degrees or depths of functional relationships that explain the relationship between changes, expressed by what is called the correlation coefficient which is often symbolised by r .

Table 2: Correlation Coefficient and Determination Coefficient

Model	R	R	Adjusted	Std. Error of the Estimate
		Square	R Square	
1	.768	.589	.559	10.948

a. Predictors: (Constant), Intellectual ability, Work experience

b. Dependent Variable: Teachers' performance

Source: Data processing results (2019)

Based on the results of the correlation, it was obtained r value of 0.768, meaning that there was a strong and positive relationship of intellectual ability and work experience on teachers' performance. Then, the determination coefficient of 0.589 was obtained, meaning that the quality of teachers performance (whether good or not) was explained by 58.9% of intellectual ability and work experience and the rest 41.1% was explained by other factors such as communication, work environment, teachers' professionalism, compensation and other variables that were not discussed in this study.

Hypothesis Test

Simultaneous Test (F Test)

This test was carried out simultaneously in order to determine whether the hypothesis was accepted or rejected. Hypothesis test was carried out to determine whether the variable of intellectual ability and work experience being tested had an effect on teachers' performance. If the significance level is below 0.05, then H_0 is rejected and H_a is accepted. Then, a hypothesis test was carried out using the application program of SPSS Version 21.

Table 3: Results of F Test

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4645.366	2	2322.683	19.380	.000 ^a
1 Residual	3236.001	27	119.852		
Total	7881.367	29			

a. Predictors: (Constant), Intellectual ability, Work experience

b. Dependent Variable: Teachers' performance

Source: Data processing results (2019)

Based on the table above, it was obtained F count value of 19.380 > F table at the 0.05 level (0.05; 2 vs 27) of 3.35. Because F count > F table or significance level 0.000 < of alpha 0.05, H₀ was rejected, meaning that intellectual ability and work experience had a significant effect on Vocational High School teachers' performance at SMK TPI AL-HASANAH Pematang Bandar simultaneously.

Partial Test (t Test)

This test was carried out partially to determine whether the hypothesis was accepted or rejected, hypothesis test was carried out to determine whether the variable of intellectual ability and work experience being tested had an effect on teachers' performance. H₀ is rejected and H_a is accepted if the level of significance is below 0.05. Then, hypothesis test was carried out using the application program of SPSS Version 21.

Table 4: Results of t Test

Model	t	Sig.
(Constant) 1 Intellectual Capacity	2.331	.027
Work Experience	2.513	.018
	2.399	.024

a. Dependent Variable: Teachers' performance

Source: Data processing results (2019)

Based on table 4 above, the variable intellectual capacity obtained t count of 2.513 > t table with the provisions of n-k-1 at the error level of 5% or 0.05 (30- 2-1 = 27) of 2.051 or a significant level of 0.018 < of alpha 0.05 then H₀ was rejected, meaning that intellectual ability had a significant effect on teachers' performance at SMK TPI AL-HASANAH Pematang Bandar.

Furthermore, work experience obtained t count of 2.399 > t table with the provisions of n-k-1 at the error level of 5% or 0.05 (30-2-1 = 27) of 2.051 or a significant level 0.024 < of alpha 0.05 then H₀ was rejected, meaning that work experience had a significant effect on teachers' performance at SMK TPI AL-HASANAHA Pematang Bandar.

Discussion

Based on the results of the study, it can be seen that intellectual ability had a significant influence on teachers' performance. These results were consistent with the results of studies conducted by (Damanik, 2018), (Susi & Raden, 2013), (I Gusti & Agus, 2017), which stated that intellectual ability had a significant influence on performance. The better the intellectual ability of teachers, the better the teachers' performance is reflected in the management and improvement of students' academic achievement.

Next, the results of studies by (Nadhar & Abdul, 2019), (Pamungkas, Hamid, & Prasetya, 2017), (Wahyu, Chamariyah, & Subijanto, 2018), and (Ratnasih, 2019), stated that work experience had a significant effect on performance so that it was in line with the results of this study. A good representative of work experience will illustrate the extent to which a teacher understands the vision and mission that the school will achieve. Work experience also has a strong relationship with the achievement of a teacher in advancing and improving the learning process in the classroom, which will certainly have an impact on the students' academic achievement.

Research Limitations

This study had several limitations, including a limited number of research samples, this study was only focused on one school, lack of respondents' understanding of the questions in the questionnaire so that it was vulnerable to subjectivity.

Conclusion

The acceleration of intellectual ability and implementation of work experience at SMK TPI AL-HASANAHA Pematang Bandar is good, supported by the good teachers' performance at SMK TPI AL-HASANAHA Pematang Bandar in the learning process in the classroom and consistency in the implementation of tasks and responsibilities in school. Moreover, it can be seen that there is a positive and significant effect of intellectual ability and work experience on teachers' performance at SMK TPI AL-HASANAHA Pematang Bandar.



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