

The Effect of Supervision of Madrasah Principals and Ability to Use Technology on the Performance of MAN Teachers in Malang City

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Abstract: *Academic supervision is one of the important activities for schools or madrasas in order to create quality learning continuity. So that the teacher's problems have been solved, one of which is enjoying teachers in the use of information technology to realize planned and organized supervision activities. The purpose of this study was to determine the effect of principal supervision on teacher performance, the effect of using technology on teacher performance and the effect of principal supervision and use of technology on teacher performance. This quantitative research was conducted in Madrasah Aliyah Negeri 1 and 2 Malang City. The population is 244 people and the sample is 150 people. The results of this study prove that there is a significant positive effect of madrasa supervision on teacher performance as evidenced by the percentage of 6.1%. On the other hand, there is a significant positive effect between the use of technology on teacher performance, as evidenced by the percentage of 10.3%. There is also the influence of principal supervision and the use of technology on teacher performance by 16.5%. Thus, good teacher performance can be used a little through the implementation of supervision by the principal and finding teachers in information technology as well as several other factors mentioned in this study.*

Keywords: *Supervision; Technology Capability; Teacher Performance*

INTRODUCTION

Madrasah principals are required to have managerial abilities or competencies so that they can carry out supervising activities very well for all elements who are directly involved with teaching and learning activities in madrasas in accordance with Permendiknas Number 20 of 2003. (Kebudayaan, 2003) The good supervision process contains 3 stages based on the quote from Permendiknas number 41 of 2007 regarding the standard process in chapter V regarding the supervision of the learning process including: 1) the implementation of supervision at least contains planning, implementation and assessment of learning outcomes, 2) as for discussions, consultations, giving examples and training are the implementation of learning supervision, 3) the implementation of the supervision is controlled by a madrasa head and also a supervisor in the education unit. (Kebudayaan, 2007b) Thus, it is clear that educational supervision is an important part that must be carried out at the level of any educational unit.

Looking at the current facts, most of the principals of madrasah are still having problems in carrying out their supervision, thereby lowering their managerial competency grade as the top leader in the institution. (Suraiya, 2016) Educational supervision is not only focused on the implementation aspect, but can be followed up until the results of the evaluation so that teacher or learning problems do not drag on and have implications for improving the performance of teachers and employees. (Salmia, Rosleny, & Idawati, 2019) Again, theory is the opposite of reality.

In the current era, teachers are required to fulfill the completeness of their teaching abilities in an innovative way through the use of information and communication technology. (Nurkholis & Badawi, 2019) However, the provisions contained in Permendiknas Number 16 of 2007 regarding skills in controlling teaching and learning activities cannot be implemented until now by most teachers who are still comfortable with classical teaching methods such as the use of the lecture method which relies on understanding content to complete a material. (Kebudayaan, 2007a)

State Madrasah Aliyah (MAN) in Malang City, exactly as in MAN 2 Malang City, has met the requirements to be a good pilot school in fulfilling learning facilities and infrastructure by utilizing information and communication technology. For example, the availability of LCD projectors, loudspeakers, adequate wifi so that it can make it easier for teachers to deliver learning materials in a fun way.

Based on a previous study stated that there are several factors causing the difficulty of using information technology in the realm of educational

institutions including: 1) the affordability of a stable internet network, meaning that adequate wifi will greatly assist the process of learning with the help of technology, 2) teachers are still fixated on the method. rigid and classical teaching (not creative and innovative), 3) lack of operational staff, 4) lack of insight and skills of teachers in the use of information and communication technology and 5) constraints in budget availability.(Rahayu, 2019) Therefore, education stakeholders must synergize in tackling such educational problems, so that education is created with the motto of independent learning that is very participatory in the use of information technology.

One element of the success of achieving the quality of education depends on the teacher. Because the success of a quality educational institution cannot be separated from the role of professional teachers who are able to improve the quality of teaching and learning.(Sulasmiati, 2020) Therefore, madrasas or schools really need to project the implementation of supervision in a mature and targeted manner so that the problem of teachers so far, namely the weakness of their conventional teaching methods, will be able to be overcome for the advancement of education in this beloved homeland.

LITERATURE REVIEW

Supervision

Transformational leadership is an assumption of a leader figure who views a subordinate's achievement in terms of the results of his efforts, puts the interests of the group above personal interests and is able to prioritize an interest according to its level. This leadership pattern focuses more on how to create a sense of belonging commitment so that they are able to be serious in achieving organizational goals and are able to place high trust in organizational members in achieving these goals. Transformational leadership is also flexible in adapting appropriate management strategies from the culture and organizational structure.

A leader also needs to pay attention to how to plan and realize supervision properly. Supervision is taken from two words, namely super and vision which means to review and see from above or pay attention from above how the pattern and treatment of leaders to subordinates on the activities, creativity and performance of subordinates.(Mulyasa, 2013) Supervision is a breakthrough made by the leadership to help and improve the teaching experienced by teachers both individually and in the community.(Piet A. Sahertian, 2008) One of the functions of the implementation of supervision is to help realize the goals of every educational institution to create competitive outputs both in quality and quantity, and to facilitate teachers to become

professional educators according to the map of the local community. (Prajoso & Budiono, 2011)

Head Master

The head of the madrasa or school is an additional task of a teacher in leading educational institutions from the lowest level, namely kindergarten/raudhotul athfal (TK/RA) to the upper secondary level based on the Regulation of the Minister of National Education No. 28 of 2010 regarding the assignment of teachers as principals of madrasas/schools. (Kebudayaan, 2010)

Madrasah principal leadership is an effort or way of leadership in encouraging, directing, influencing, mobilizing and guiding the entire academic community such as staff, teachers, parents and students to work together in achieving organizational goals. (Deddy Mulyadi, 2018) The competencies for madrasas that must be met in carrying out supervision include: 1) being able to make a good supervision plan in order to improve teacher professionalism, 2) using methods and approaches to supervision that are right on target for teachers in the implementation of academic supervision, 3) always following up on the results of the implementation. supervision carried out for teachers so that the professionalism of educators is maintained. (Mulyasa, 2008)

The use of technology in education

Information Technology is a technique in preparing, collecting, processing, storing, announcing, analyzing and disseminating information based on the ITE Law Number 19 Article 1 paragraph 3 of 2016

Teacher Performance

There are four competencies that must be possessed by professional teachers including: pedagogic, personality, social and professional competencies according to Permendiknas number 16 of 2007. (Kebudayaan, 2007a) These four teacher competencies show a performance made by the teacher. The barometer of teacher performance can be obtained through how teachers prepare planning, implementation and assessment in teaching. For example, teachers always prepare lesson plans, syllabus, semester programs, annual program activities at the beginning of each school year when they want to start teaching and learning activities.

Performance in English means performance which means action, work, appointment and appearance. In other terms, it is stated that performance is closely related to work implementation, performance, work performance or work achievement. (Fitriadi, Marsidin, & Sabandi, 2020)

Performance appraisal is an assessment of the main task of the teacher carried out on each item of activity that aims to develop careers, ranks and positions. Its functions are contained in the regulation of the state minister for the utilization of state apparatus and bureaucratic reform number 16 of 2009(RB, 2009) as follows:

- a. Practice all competencies that are manifested in carrying out their duties, namely the learning process, guidance or implementation of additional tasks in accordance with the function of the school or madrasa. Therefore, the teacher's performance profile which contains the strengths and weaknesses of the teacher can be known by looking at the results of the performance appraisal.
- b. Counting the number of credits obtained by the teacher for learning performance, mentoring, or the implementation of additional tasks relevant to the function of the school/madrasah in the year the teacher performance assessment is carried out. Performance appraisal activities are carried out annually as part of the process of career development and promotion of teachers for promotion and functional positions.

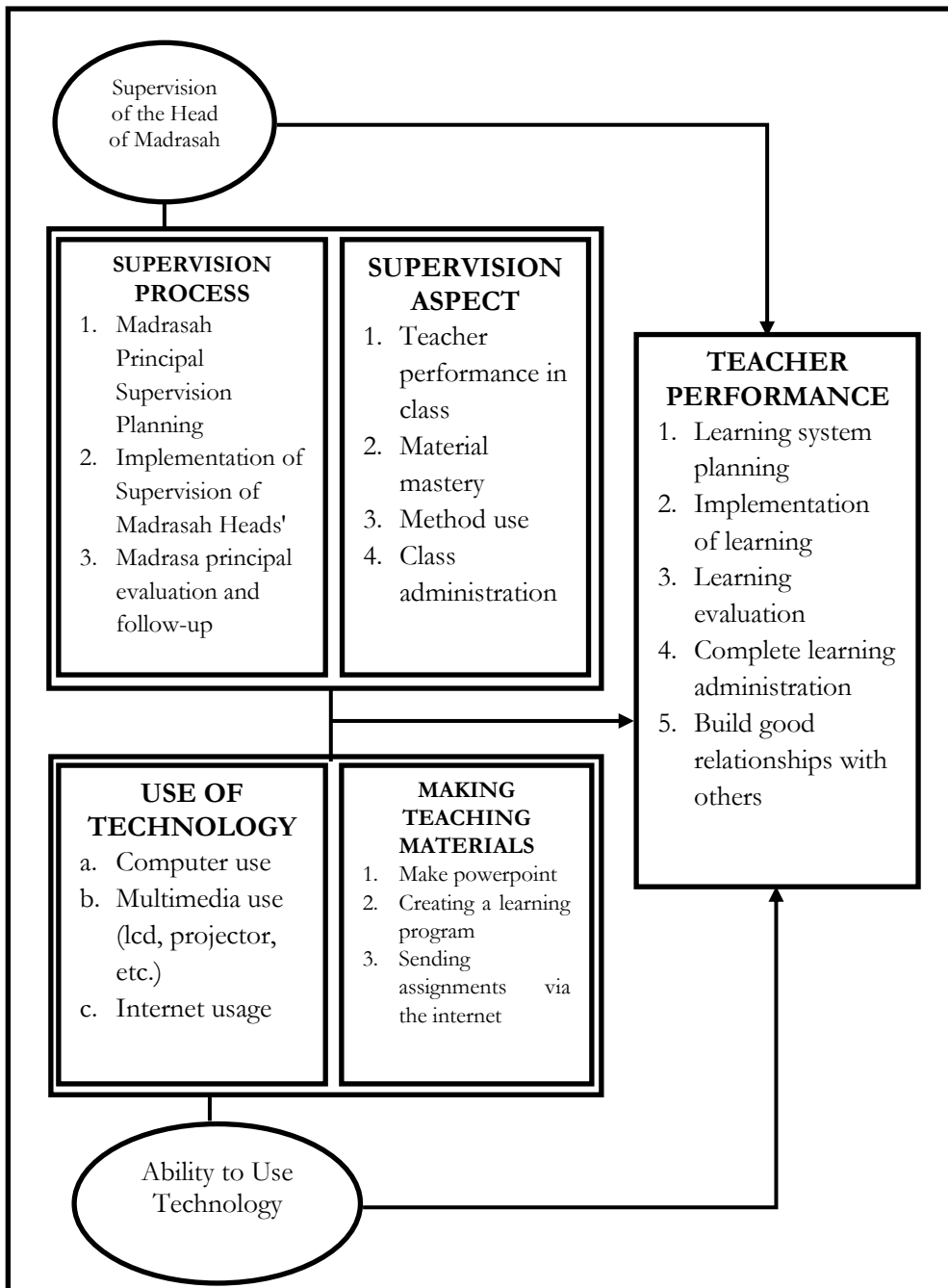


Figure 1. Conceptual Model

RESEARCH METHOD

This research was conducted at MAN I Malang and MAN 2 Malang. The method used in this research is quantitative research methods. Quantitative research is research that emphasizes statistical data. The population of this study were all active teachers in MAN 1 Malang and MAN 2 Malang, amounting to 244 people. The research sample was the head of the madrasa as supervisor and teachers who were active in the madrasa, amounting to 150 people and were determined using the Slovin method..(Arikunto, 2009)

The technique of collecting data in this study was using t-questionnaires using a Likert scale with intervals of 1-5 and a grid of research instruments. The instrument test is carried out in two stages, the first stage is carried out by testing the validity and reliability and the second stage is by conducting a research test on the instrument. Data Analysis Testing must meet the classical assumption test first. The classical assumption test used is: normality test, multicollinearity test and heteroscedasticity test.

The analytical test used is multiple regression, partial test (t-test) and simultaneous test (F-test). Regression Test to test whether there is a relationship between the independent variable and the dependent variable. Simultaneous test (F test) to find out how much influence all independent variables (X1 and X2) together on the dependent variable (Y). And the partial test (r-test) to find out how much influence each independent variable individually (X1, X2) has on the dependent variable (Y).

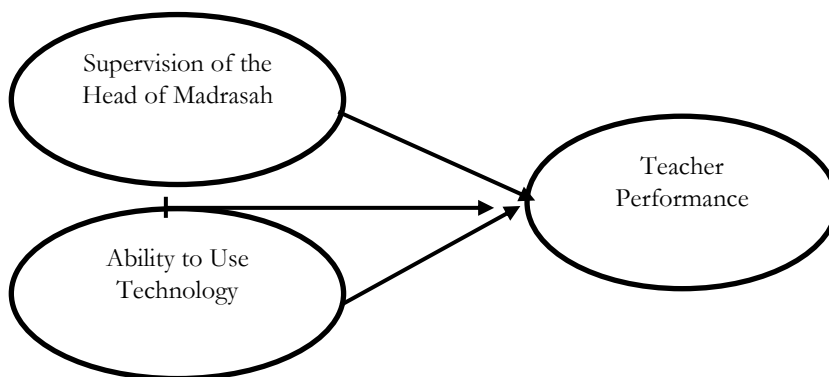


Figure 2. Research design

RESULTS AND DISCUSSION

To test the feasibility of the regression model used, we must first test the classical assumptions. The classical assumption test used in this study is the normality test, multicollinearity test and heteroscedasticity test.

The sex of the respondents was dominated by men, namely 64.1% (41 respondents), and the rest were women by 35.9% (23 respondents). Length of work between 1-5 years as many as 13 respondents (20.3%), between 6-10 years as many as 17 respondents (26.6%), between 11-15 years as many as 9 respondents (14.1%), between 16- 20 years as many as 13 respondents (20.3%), and more than 21 years as many as 12 respondents (18.7%).

Normality Test Results

Tabel 1. Kolmogorov-Smirnov Test Results

	Kolomogorov-Smirnov ^a			Shapiro-Wilk		
	statistic	df	Sig.	statistic	df	Sig.
Supervisi	,052	150	,200	,986	150	,126
Teknologi	,067	150	,095	,989	150	,289
Kinerja	,058	150	,200	,985	150	,091

From the data above it can be seen that:

- The Madrasah Principal Supervision Variable (X1) is 0.200 which means $0.200 > 0.05$, then the data is normally distributed.
- The Variable Ability to Use Technology (X2) is 0.095 which means $0.095 > 0.05$, so the data is normally distributed.
- Performance variable (Y) is 0.200 which means $0.200 > 0.05$, then the data is normally distributed.

Multicollinearity Test

Tabel 2. Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
Constant		
Supervisi	1,000	1,000
Teknologi	1,000	1,000

- a. Dependent Variable : Kinerja

From the table above, it can be seen that: the Supervision variable's Tolerance value is 1,000 and the VIF value is 1,000. This shows that there is no

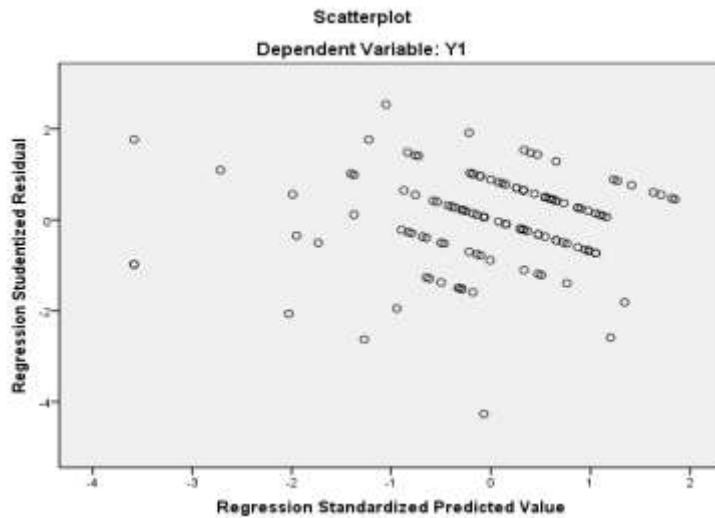
multicollinearity in the regression model. the variable of ability to use technology, the Tolerance value is 1,000 and the VIF value is 1,000. This shows that there is no multicollinearity in the regression model.

From this multicollinearity test, it can be seen that there is a correlation between the independent variables (free) and there is no multicollinearity problem

Heteroscedasticity Test

As for the way to detect the presence or absence of heteroscedasticity, among others, by looking at the Scatterplot graph and using the Glejser Test.

Table 3. Scatterplot Test Results



Based on the output of the Scatterplot Graph above. it can be seen that the dots are spread out and do not form a certain clear pattern. So it can be concluded that there is no symptom of heteroscedasticity.

Table 4. Glejser Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	8,93	7,820		1,142	,255
Supervisi	,015	,033	-,037	-,443	,658
Teknologi	,021	,058	,030	,361	,719

a. Dependent variable : Abs_RES

From the above table it can be seen that: a. The significance value (Sig.) of the Supervision variable X1 is 0.658, which means $0.658 > 0.05$, so there is no symptom of heteroscedasticity. b. The significance value (Sig.) of the X2 Technology Ability variable is 0.719, which means $0.719 > 0.05$, so there is no heteroscedasticity symptom.

It can be concluded that the overall results of the prerequisite test are feasible for hypothesis testing using other tests in order to answer the existing hypothesis.

Discussion

To show how far the influence of one independent variable (Work Environment, Work Discipline and Motivation) individually in explaining the dependent variable (teacher performance). The basis for making decisions on the t-test can be seen from the significance column of the SPSS output results. If the value of sig. $< \alpha$ (0.05), then H_0 is rejected and H_a is accepted, so that the independent variable has a significant effect on the dependent variable. Meanwhile, if the value of sig. $> \alpha$ (0.05) then H_0 is accepted and H_a is rejected, so that the independent variable has no significant effect on the dependent variable.

First Hypothesis

There is a positive and significant influence of Madrasah Principal Supervision on teacher performance. Results of linear regression analysis:

Table 5. Linear Regression Analysis Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	59,579	13,735		4,338	,000
Supervisi	,195	,059	,250	3,318	,001

a. Dependent variable : kinerja

Based on the table, the regression equation between the variables of Madrasah Principal Supervision (X1) and Teacher Performance (Y) is $Y = 59.579 + 0.195X_1$. The regression equation provides information that each change in the value of the Madrasah Principal Supervision by one unit, it will affect the teacher's performance by 0.195. The correlation coefficient is positive, meaning that there is a positive relationship between the Supervision of the Madrasah Principal (X1) and Teacher Performance (Y).

Model	R	R Square	Adjusted R Square	Srd. Error of the estimate
1	,247 ^a	,061	,054	12,204

a. Predictors: (constant), supervisi

Based on the table, the magnitude of the influence of the supervision of the madrasah principal on the teacher's performance is 6.10%.

Second Hypothesis

The second hypothesis states that there is a positive and significant effect on the ability to use technology on teacher performance. Results of linear regression analysis:

Table 6. Linear Regression Analysis Results

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	59,579	13,735		4,338	,000
Teknologi	,440	,103	,323	4,286	,000

a. Dependent variable : kinerja

Based on the table, the regression equation between the variables of Ability to Use Technology (X2) on Teacher Performance (Y) is $Y = 59.579 + 0.440 X_2$. The regression equation provides information that every change in the value of the ability to use technology is one measure, it will affect teacher performance by 0.440. The correlation coefficient is positive, meaning that there is a positive relationship between the ability to use technology (X2) and teacher performance (Y).

Model Summary^b

Model	R	R Square	Adjusted R Square	Srd. Error of the estimate
	,390 ^a	,103	,141	11,618

a. Predictors: (constant), teknologi, supervisi

b. Dependent variable: kinerja

Table 7. Test Results of F

ANOVA^a

Model	Sum of square	Df	Mean square	F	Sig.
Regression	3875,719	2	1937,859	14,538	,000 ^b
1 Residual	19594,655	147	133,297		
Total	23470,373	149			

a. Dependent variable: kinerja

b. Predictors : (constant), teknologi, supervisi

Based on the table above, it is known that the significance value in the F test is $0.000 < \text{probability } 0.05$. It can be concluded that the Madrasah Principal Supervision variable and the Ability to Use Technology variable simultaneously (together) have an effect on the Performance variable.

Based on the table above, it is known that the significance value in the F test is $0.000 < \text{probability } 0.05$. It can be concluded that the Madrasah Principal Supervision variable and the Ability to Use Technology variable simultaneously (together) have an effect on the Performance variable.

Paying attention to the results of multiple regression analysis, shows the regression equation (unstandardized coefficients B) $t = 59.579 + 0.195X_1 + 0.440X_2$. which means that each increase in one unit of the principal's supervision score and the ability to use teacher technology together will affect the increase in teacher performance scores of 0.635. Thus, from the two variables above, it turns out that the biggest influence on teacher performance is the variable ability to use technology by teachers.

Table 8. Determinant Coefficient Results

Model Summary

Model	R	R Square	Adjusted R Square	Srd. Error of the estimate
1	,406 ^a	,165	,154	11,545

a. Predictors: (constant), Teknologi, Supervisi

From the table, it can be seen that the coefficient of detennination (contribution) of the influence of the Supervision variable and the Ability to Use Technology variable simultaneously (together) on the performance variable (R square) is 0.165. This means that the supervision variable and the Technology Use Ability variable together have an influence on the Performance variable by 16.5% and 83.5% is influenced by other factors.

CONCLUSION

First, there is a positive and significant influence between the supervision of the madrasah principal on teacher performance. The magnitude of the effect is indicated by the coefficient of determination R^2 (R square) = 0.061, which means that the supervision of the head of the madrasa has an effect on teacher performance of 6.1% and the remaining 93.9% is determined by other factors. The results of simple regression analysis shows the regression equation $Y = 59,579 + 0.195X_1$, which means that every increase in the value of the supervision of the principal of the madrasah will be followed by an increase in the value of teacher performance by 0.195.

Second, there is a positive and significant influence between the ability to use technology on teacher performance. The magnitude of the effect is indicated by the coefficient of determination R^2 (R square) = 0,103, which means that the ability to use technology has an effect on teacher performance of 10.3% and the remaining 89.7% is determined by other factors. The results of simple regression analysis show the regression equation $Y = 59.579 + 0.440X_2$, which means that every increase in the value of one teacher's ability to use technology will be followed by an increase in the teacher's performance score of 0.440.

Third, there is a positive and significant effect between the supervision of the madrasah principal and the ability to use technology together on teacher performance. The magnitude of the effect is indicated by the coefficient of determination R^2 (R square) = 0,165. which means that the supervision of the madrasah principal and the ability to use technology together has an effect on teacher performance of 16.5% and the remaining 83.5% is determined by other factors. The results of simple regression analysis show the equation $Y = 59.579 + 0.195X_1 + 0.440X_2$.

Suggestion

With the large influence of the ability to use technology on teacher performance, it is recommended for teachers to always improve and improve the ability to use technology as a reference and basis that must be owned by a teacher. in an effort to achieve good learning objectives and of course in an effort to improve teacher performance.

The head of the madrasa as a leader in the madrasa in order to continue to improve the supervision of the head of the madrasa, through the supervision carried out by the head of the madrasa, the teacher will always receive good guidance, attention and supervision from the head of the madrasa, through planning the supervision of the head of the madrasa, the implementation of the supervision of the head of the madrasa and follow-up actions carried out by the

head of the madrasa, so it is hoped that the teacher will be able to improve his performance and further in an effort to achieve the expected learning objectives.

Teachers as parties who play an important role in the success of learning in order to continue to improve the ability to use technology following the times and the renewal of the learning process as an implication of teacher professionalism, research in the field of education, especially in the realm of supervision of madrasah principals and the ability to use teacher technology and teacher performance so that it can be sharpened and supported by various parties and sources so that the research results will provide a good reference in order to improve the quality of education, especially in the city of Malang and generally in Indonesia. ■

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