

The Influence Of Principal Leadership And Instructional Supervision On Improving The Professional Competence Of Teachers During The Covid-19 Pandemic At State High School (SMAN) And The State Vocational High School (SMKN) In Malang City

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Abstract: This study aims to determine the influence of the principal's leadership on teacher professionalism, the influence between instructional supervision on teacher professionalism and the simultaneous influence of principal leadership and instructional supervision on teacher professionalism. This research was carried out at the State High School (SMAN) and the State Vocational High School (SMKN) in Malang City as a research population, as sampling was carried out through purposive random sampling. The research method uses a quantitative approach, namely to see the partial influence between existing variable variables. This study uses a regression analysis that aims to determine the influence between independent variables on dependent variables. The independent variables in this study are principal leadership (X_1) and principal supervision (X_2), while the dependent variables are teacher professional competence (Y). The result of this study is that there is a simultaneous relationship between the leadership of the principal and the supervision of learning to the professionalism of teachers at State High School and the State Vocational High School in Malang City. The degree of influence can be categorized at a strong level, this is known from the magnitude of the correlation coefficient value of 0.862 which means it has a strong category. Meanwhile, the variable influence of principal leadership and instructional supervision had an influence of 74.3% on teacher professionalism.

Keywords: School principal; instructional leadership; teacher professionalism

currently, learning has changed due to the COVID-19 pandemic. Learning has now changed with the existence of distance learning policies implemented. However, learning must still be implemented effectively and efficiently. With the distance learning policy, it affects various aspects of education, one of which is the quality of learning carried out by teachers. Teachers have an important role to play in creating a quality learning process. In the current era of online learning, teachers' challenges in creating quality learning often experience obstacles from both internal and external factors.

One of the successes of teachers in carrying out learning during the Covid-19 pandemic is influenced by the quality of teachers in carrying out the learning process appropriately in accordance with the characteristics of students and the selection of appropriate *online* learning media (Prestiadi et al., 2022). The ability of the teacher in this case is related to the competence of the teacher in carrying out his duties and functions as a teacher. The teacher's ability to explain the learning material and the teacher's understanding in mastering aspects of each material given is one of the factors for teacher success in the learning process (Nurulita et al., 2021), (Wardhani et al., 2021).

Teachers as humans in carrying out their duties and functions are certainly inseparable from various kinds of problems faced during online learning during the Covid-19 pandemic. One aspect that is often felt by teachers is about the level of teacher mastery of information and communication technology and the limitations of developing interesting learning media for students (Mustabsyiroh et al., 2021). To be able to create the quality of teacher learning, the role of the principal is needed to carry out arrangements and supervision processes in learning activities carried out online. Supervision in the educational process is defined as a form of planned coaching efforts in helping teachers to perform professional tasks effectively. Supervision and assistance activities to it can be carried out through supervision activities.

The role of the principal to improve the quality of teachers in carrying out learning during the Covid-19 pandemic can be done through the role of a leader and supervisor (Prestiadi et al., 2022). These two activities have an important role in the success of teachers in carrying out their duties which will ultimately have an impact on improving the quality of learning. The leadership of the principal is an important aspect of improving the quality of learning at this time. The results of research conducted by Prestiadi, et al (2019) concluded that the visionary leadership of school principals in the era of the industrial revolution 4.0 has an effect on improving the quality of learning (Prestiadi et al., 2020).

In addition to the leadership factor of the principal, another important aspect to implement is teaching supervision activities. The principal as a supervisor has an important role to assist teachers in solving various kinds of problems related to learning. Supervision is an inseparable activity in the learning process, according to Fritz Carrie & Greg Miller if there is no supervision in an activity will have an impact on the effect of achieving goals that are hampered (Amani et al., 2013). Supervision itself is professional assistance given to teachers to improve their abilities in learning that is carried out effectively and efficiently (John R. Cutcliffe, 2001). Supervision is carried out by Gurna to ensure quality learning where the success of the implementation of supervision is measured by the improvement of how students learn (Iriyani, 2008). Through this instructional supervision activity, it can help teachers to develop their abilities for the learning objectives themselves (Utami, 2017).

The challenge currently faced by principals as educational leaders and as supervisors is the existence of distance learning which is carried out *online*. The problem that often occurs is the weak supervision carried out by the principal in supervising and supervising learning activities during the Covid-19 pandemic. This weak aspect of supervision can certainly result in a decrease in the quality of teachers which will also directly affect the quality of learning carried out by teachers.

During the Covid-19 pandemic, supervisors must be able to carry out instructional supervision activities in order to carry out supervisory activities and provide assistance to teachers in the implementation of learning activities carried out online. Research on instructional supervision activities conducted by Nupuspitasari et al (2019) concluded that there is a very significant positive relationship between principal supervision and learning effectiveness. This means that the implementation of principal supervision results in an increase in the effectiveness of learning. Therefore, to improve the effectiveness of learning, schools must optimize the supervision activities of the principal. Meanwhile, from the results of research conducted by Elfidawati (2020) explained that the principal has an important role in learning succession during the Covid-19 pandemic (Elfidawati, 2020). Supervision activities carried out by the principal during the COVID-19 pandemic which are specifically designed in accordance with the conditions of the COVID-19 pandemic (Berliani & , Rina Wahyuni, Rika Lenny, 2020).

Based on these problems, it can be concluded that the leadership and supervision carried out by the principal is one of the important aspects in improving the quality of teachers and the effectiveness of learning. Efforts to commit in-depth abominations need to be made to strengthen the measurement of the influence of leadership and teaching supervision on teacher competence, especially aspects of teacher professionalism. Through this research activity, it aims to determine the relationship between the leadership of the principal, supervision of teaching to the professionalism of teachers in State High Schools and State Vocational High Schools in Malang City during the Covid-19 pandemic.

METHOD

This research uses a type of quantitative research, namely to see the partial influence between existing variable variables. A quantitative approach is used to examine a specific population or sample, with a technique of random sampling with proportional numbers (Sugiyono, 2019). Data collection uses statistical data analysis instruments, to test predetermined hypotheses. This study uses multiple regression analysts that aim to determine the influence of two free variables on bound variables. The free variables in this study are principal leadership (X_1) and principal supervision (X_2), and varale bound is teacher professional competence (Y).

The study was conducted on a number of populations and research samples. Sugiyono (2019) population is a generalization area consisting of objects or subjects that have certain quantities and characteristics set by researchers to be studied and then drawn conclusions. This research was conducted at the State High School (SMA) and the State Vocational High School (SMK) in Malang City as a research population. Due to time and budget considerations, the location used as sampling is carried out through purposive random sampling.

RESULTS AND DISCUSSION

Result

Normality Test

One of the requirements for analyzing data is to conduct a distribution normality test. The distribution normality test was carried out to test whether the data on each of the distributed research variables was normal or not. The analysis technique used the *kolmogorov-smirnov test*. From the test results, the residual value of *asyp.sig* (2 tailed) of 0.22 is obtained, which means that the data is normally distributed. Normality test results can be seen in table 1 below:

Table 1 Results of *kolmogorov-smirnov test*

One-Sample Kolmogorov-Smirnov Test			
		Unstandardized Residual	
N		115	
Normal Parameters ^{a,b}	Mean	.0000000	
	Std. Deviation	1.75294344	
Most Differences	Extreme	Absolute	.090
		Positive	.090
		Negative	-.072
Test Statistic		.090	
Asymp. Sig. (2-tailed)		.022c	

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Linearity Test

The linearity test aims to find out whether the free variable (principal leadership and instructional supervision) and the bound variable (teacher professionalism) has a linear relationship or not. In this study, the data linearity test was analyzed using the help of the SPSS for Windows 25.0 program, so that the p value can be used in the Sig. column, if $p > 0.05$ then the data is declared linear and if $p < 0.05$ then the data is declared non-linear.

The results of the calculation of the linearity test of the principal's leadership variable (X_1) with teacher professionalism (Y) using the *SPSS for Windows 25.0* program in table 2 show that the p value

in the Sig. column is 0.57 ($p > 0.05$) and the F_{counts} value is 1.838 , because $0.57 > 0.05$, it can be concluded that the relationship between the principal's leadership and the professionalism of the teacher has a linear relationship, This means that if there is an increase in the principal's leadership variables, there will also be an increase in teacher professionalism.

Table 2 Linearity test results X_1 and Y

			ANOVA Table				
			Sum of Squares	df	Mean Square	F	Sig.
Professionalisme Guru * Principal leadership	Between Groups	(Combined)	850.402	12	70.867	14.111	.000
		Linearity	748.877	1	748.877	149.120	.000
		Deviation from Linearity	101.525	11	9.230	1.838	.057
Within Groups			512.242	102	5.022		
Total			1362.643	114			

Meanwhile, the results of the linearity test between the instructional supervision variable (X_2) and teacher professionalism (Y) as shown in table 3 show the p value in the Sig. column of 0.387 ($p > 0.05$) and the F_{counts} value of 4.023, because $0.387 > 0.05$, it can be concluded that the relationship between instructional supervision and teacher professionalism has a linear relationship, This means that if there is an increase in the principal's leadership variables, there will also be an increase in teacher professionalism.

Table 3 Linearity test results X_2 and Y

			ANOVA Table				
			Sum of Squares	df	Mean Square	F	Sig.
Professionalisme Guru * Instructional supervision	Between Groups	(Combined)	992.684	16	62.043	16.435	.000
		Linearity	764.890	1	764.890	202.614	.000
		Deviation from Linearity	227.794	15	15.186	4.023	.387
Within Groups			369.960	98	3.775		
Total			1362.643	114			

Hypothesis Test and Discussion

The Influence of Principal Leadership on Teacher Professionalism Competence

The first research hypothesis proposed (H_a) is that the leadership of the principal has a significant effect on the professionalism of SMAN / SMKN teachers in Malang City. Furthermore, to carry out statistical hypothesis testing, the null hypothesis (H_0) which reads the leadership of the principal does not have a significant effect on the professionalism of teachers. H_0 is rejected if $F_{\text{counts}} > F_{\text{table}}$ or if the sig value > 0.05 means that there is no significant relationship, conversely if the sig value < 0.05 then there is a significant relationship between the two variables. The results of the calculation of the correlation analysis through the SPSS 25.0 program on the variables of principal leadership (X_1) and Teacher Professionalism (Y) obtained data as in table 4 below.

Based on the table above, the sig value on the principal's leadership variable is 0.000, which means $0.000 < 0.05$, so it can be interpreted if there is a significant relationship between the principal's leadership and the professionalism of the teacher. Furthermore, the value of the correlation coefficient (R) obtained data of 0.741, which means that between the principal's leadership and the professionalism of teachers there is a fairly strong relationship. The positive number on the coefficient of correlation between the principal's leadership variable and the professionalism of the teacher has a positive and unidirectional

correlation. Thus, the higher the level of leadership of the principal, the higher the professionalism of the teacher.

Meanwhile, the results of calculating the relationship of variables through the t test which is used to measure the influence between the independent variable (X_1) on the dependent variable (Y) obtained data as in table 5 below:

Table 4 Results of X and Y corelation analysis

		Correlations		
		Teacher Professionalism	Principal Leadership	Instructional supervision
Pearson Correlation	Teacher Professionalism	1.000	.741	.749
	Principal Leadership	.741	1.000	.495
	Instructional supervision	.749	.495	1.000
Sig. (1-tailed)	Teacher Professionalism	.	.000	.000
	Principal Leadership	.000	.	.000
	Instructional supervision	.000	.000	.
N	Teacher Professionalism	115	115	115
	Principal Leadership	115	115	115
	Instructional supervision	115	115	115

Table 5 t Test Results

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	12.159	3.947		3.081	.003
	Principal leadership	.203	.023	.491	8.895	.000
	Instructional supervision	.459	.050	.506	9.178	.000

a. Dependent Variable: Teacher Professionalism

Based on the data in table 5 above, it can be known if the t_{counts} value in the principal leadership variable is 8.895 which means that the t_{counts} value is greater than the t_{table} ($8.895 > 0.1832$) this indicates if there is a relationship between the principal's independent variable (leadership) and the dependent variable (teacher professionalism).

Rivai (2013:85) reveals that leadership is the process of influencing others in relationships between leaders and subordinates or with followers. Leadership is a form of relationship between individuals to influence, move and direct a person or group of people by using authority and ability so that organizational goals can be achieved.

In addition to the principal, the teacher also has a central role as a determinant of the success of the learning process in the classroom. The importance of the role of teachers in successful learning requires teachers to have competencies in accordance with the standards set by the government through the Ministry of Education and Culture with the existence of teacher competency standards in accordance with the Minister of National Education Number 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies. The four teacher competencies include pedagogic competence, professional competence, personality competence and social competence. Of the four competencies, in particular, professional competence is a mastery of learning materials broadly and deeply, which includes mastery of subject curriculum materials in schools and the scientific substance that overshadows the material, as well as mastery of scientific structure and methodology (Mulyasa, 2007).

The influence of the principal's leadership on teacher performance in terms of professional improvement is also strengthened from the results of research conducted by Saddi et al (2021) which concluded that there is a positive and significant influence of the principal's leadership on teacher performance (Saddi et al., 2021). This is certainly in line with research findings that show a positive influence between the principal's leadership on teacher professionalism.

The Influence of Instructional Supervision on Teacher Professionalism Competence

The next research hypothesis proposed is (Ha) is that instructional supervision has a significant effect on the professionalism of SMAN / SMKN teachers in Malang City. To carry out statistical hypothesis testing, the null hypothesis (Ho) which reads instructional supervision does not have a significant effect on teacher professionalism. Just like the previous test where Ho was rejected if $F_{\text{counts}} > F_{\text{of the table}}$ or if the sig value > 0.05 which means that there is no significant relationship, conversely if the sig value < 0.05 then there is a significant relationship between the two variables. The results of calculating the correlation analysis through the SPSS 25.0 program on the variables instructional supervision (X_2) and Teacher Professionalism (Y) were obtained data as in table 4.4 above.

Based on table 4 above, the sig value on the instructional supervision variable is 0.000 which means $0.000 < 0.05$, so it can be interpreted if there is a significant relationship between the school's instructional supervision variable and the teacher's professionalism. Furthermore, the value of the correlation coefficient (R) obtained data of 0.749, which means that between instructional supervision and teacher professionalism, there is a fairly strong relationship. The positive number on the coefficient correlation between the school's instructional supervision variable and the teacher's professionalism has a positive and unidirectional correlation. Thus, the higher the level of instructional supervision, the higher the professionalism of the teacher.

Meanwhile, the results of calculating the relationship of variables through the t test on the instructional supervision variable to determine the influence between the independent variable (X_2) on the dependent variable (Y) obtained data as in table 5. Based on these data, it can be known if the t_{counts} value in the principal leadership variable is 9.178 which means that the t_{counts} value is greater than the t_{table} ($9.178 > 0.1832$) this indicates if there is a relationship between the principal's independent variable (instructional supervision) and the dependent variable (teacher professionalism).

One of the main duties of a principal is supervision. Willes (1987) in Asfi and Mustofa (2013: 26), states that "*Supervision is assistance in the development of better teaching learning situation*". "Supervision is an aid in the development of a better learning situation. The learning situation in question is a learning situation that pays attention to objectives, teaching materials, learning techniques, learning methods, teachers, students and the learning environment. Things that are included in the learning situation that must get the attention of a supervisor to be able to assist teachers in improving and improving quality as a professional teacher, in order to create effective and efficient learning activities.

Based on research conducted by Hapizoh et al (2020) and Saddi et al (2021) concluded that there was a positive and significant influence of principal supervision on teacher performance (Hapizoh et al., 2020), (Saddi et al., 2021). Thus, from the results of the study, it can be concluded that instructional supervision is one of the important aspects that can affect the professionalism of teachers.

The Influence of Principal Leadership and Instructional Supervision on Teacher Professionalism Competence

Testing the third hypothesis, namely (Ha) is the leadership of the principal and instructional supervision simultaneously has a significant effect on the professionalism of teachers of SMAN / SMKN Malang City. To carry out statistical hypothesis testing, the null hypothesis (Ho) which reads simultaneous principal leadership and instructional supervision does not have a significant effect on teacher professionalism To find out how much the contribution of free variables to bound variables or the effective contribution of principal leadership and Instructional supervision to teacher professionalism can be seen from R_{Square} (R^2) or the coefficient of determination seen in *the following Model Summary* table 6:

Table 6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.862 ^a	.743	.738	1.769	.743	161.836	2	112	.000

a. Predictors: (Constant), Instructional supervision, Principal leadership

From the data above, it is known that the coefficient of determination or R_{Square} (R^2) obtained data of 0.743 or 74.3% so that it can be concluded that the magnitude of the influence of the principal leadership variable, instructional supervision has an influence of 74.3% on teacher professionalism, while the rest is the *error* value (e') as a residual variable derived from outside the variable studied which can be calculated with $e = 1 - R_{\text{Square}} = 1 - 0.743 = 0.257$ or can be interpreted as the magnitude of the residual value equal to 25.7%.

Furthermore, the value of F_{change} can be interpreted as the result of a correlation test between a free variable and a bound variable. To be able to interpret, the basis for making decisions is that if the value of $\text{Sig.}F_{\text{change}} < 0.05$ then it can be concluded that the independent variable simultaneously has a correlation, on the other hand, if $\text{Sig.}F_{\text{change}} > 0.05$, it can be concluded that the independent variable simultaneously has no correlation. Based on table 6, it is known that the value of $\text{Sig.}F_{\text{change}}$ is 0.000 < 0.05 which means that the independent principal variable, the instructional supervision variable has a correlation to teacher professionalism. Meanwhile, the value of the correlation coefficient is 0.862, which means it has a strong category.

To determine the simultaneous influence between two independent variables on bound variables, Test F is carried out. In the Anova table is the result of Test F which provides information on the simultaneous influence of the principal's leadership variables and teaching supervision on the variables of teacher professionalism. Where if the value of $\text{Sig.} < 0.05$ then the independent variable simultaneously affects the dependent variable or if the $F_{\text{counts}} > F_{\text{table}}$ then the hypothesis is accepted meaning that the independent variable simultaneously affects the independent variable. Furthermore, to be able to calculate F_{table} , the formula degree of freedom (df) 1: *degree of freedom* (df) 2 or can use the formula $(k-1:n-k)$ k is the number of variables and n is the number of samples then $(3-1:115-2) = 2:113$. Based on the data in $F_{\text{the table}}$ obtained 3.08. Meanwhile, the results of Test F obtained data on the value of $\text{Sig.} 0.000 < 0.05$, and the calculated F value of 161.836 as shown in table 7. Based on these data, it can be interpreted that simultaneously the independent variables of principal leadership (X_1) and instructional supervision (X_2) affect the dependent variable, namely teacher professionalism (Y).

Table 7 F Test Results

Model		Sum of Squares	Mean Square	F	Sig.
1	Regression	1012.343	506.172	161.836	.000 ^b
	Residual	350.300	3.128		
	Total	1362.643			

a. Dependent Variable: Teacher Professionalism

b. Predictors: (Constant), Instructional supervision, Principal leadership

The principal's leadership is essentially a principal who understands and masters effective managerial and leadership abilities. The leader is the one who does the right things, and the manager is the one who does the things right. The leader is concerned with the reaction, insight, goals, objectives, intentions, intentions and effectiveness of the right things. Managers are concerned with efficiency, how to do, daily affairs a short walk to do things right.

The leadership of the Principal will be accepted by the teachers if the leadership applied is very suitable and liked by the teachers. So that if this is the case, teachers will have a tendency to improve their performance. The leadership of the principal who can utilize resources and especially human resources, namely teachers, will in turn improve teacher performance and the overall result is the quality of education. Professional teachers are related to and attached to their professional duties that will affect the teacher's performance, while the profile of the professional teacher still exists in his duties.

The principal as the highest leader in the school is considered successful if he can improve teacher performance through various forms of coaching activities on the ability of teachers to carry out learning in schools. One of the efforts that can be made by the principal in order to improve the ability of teachers is through instructional supervision. The implementation of supervision which is the supervisor's effort in helping teachers develop their ability to manage the learning process to achieve learning objectives is called academic supervision.

Academic supervision by the principal is an effort to provide guidance in many aspects, such as guiding teachers in compiling learning tools properly, guiding teachers in managing learning media, guiding teachers in choosing the right learning strategies or methods or techniques to develop student potential, and motivating teachers to take advantage of information technology which is currently growing.

The results of a study conducted by Saddi et al (2021) found the contribution of leadership and supervision of the principal to teacher performance by 62.5%. This is certainly in accordance with the findings of this study, namely the influence of the principal leadership variables and instructional supervision has an influence of 74.3% on teacher professionalism.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the test results through multiple regression analysis through the SPSS program, data on the calculation results were obtained through the t test and F test, where the test results showed positive values. This means that the research hypothesis that has been proposed is acceptable, namely; The first hypothesis is accepted, which means that there is a significant relationship between the principal's leadership and the professionalism of teachers at SMAN / SMKN Malang City, then the second hypothesis is that there is a significant relationship between instructional supervision of teacher professionalism at SMAN / SMKN Malang City and finally there is a simultaneous relationship between the principal's leadership and instructional supervision of teacher professionalism at SMAN / SMKN Malang City. The degree of influence can be categorized at a strong level, this is known from the magnitude of the correlation coefficient value of 0.862 which means it has a strong category. Meanwhile, the amount of influence of the principal's leadership variables and instructional supervision had an influence of 74.3% on teacher professionalism.

Suggestion

To improve the quality of research results, research can be developed not only to measure the influence between variables but developments that can make a real contribution to educational institutions to realize quality education.

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REFERENCES

- Amani, L., Dantes, N., & Lasmawan, W. (2013). Implementasi Supervisi Klinis dalam Rangka Meningkatkan Kemampuan Guru Mengelola Proses Pembelajaran pada Guru SD Se-Gugus VII Kecamatan Sawan. *E-Journal Program Pascasarjana Universitas Pendidikan Ganesha*, 3, 1–11.
- Berliani, T., & , Rina Wahyuni, Rika Lenny, S. (2020). *Supervisi akademik masa pandemi*. 2008, 62–67.
- Elfidawati, E. (2020). Peningkatan Kedisiplinan Dan Kualitas Pembelajaran Guru Pada Masa Pandemi Covid-19 Melalui Supervisi Akademik Di Sd 009 Kuala Terusan Pangkalan Kerinci. *Jurnal Kepemimpinan Dan Pengurusan Sekolah*, 5(2), 171–179. <https://doi.org/10.34125/kp.v5i2.564>
- Hapizoh, H., Harapan, E., & Destiniar, D. (2020). Pengaruh Profesionalisme Guru Dan Supervisi Kepala Sekolah Terhadap Kinerja Guru. *JMKSP (Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan)*, 5(2), 168. <https://doi.org/10.31851/jmksp.v5i2.3764>
- Iriyani, D. (2008). Pengembangan Supervisi Klinis Untuk Meningkatkan Keterampilan Dasar Mengajar Guru. *Jurnal Didaktika*, 02(02), 285–285.
- John R. Cutcliffe. (2001). *Fundamental Themes in Clinical Supervision*. Routledge.
- Mulyasa, E. (2007). *Standar Kompetensi dan Sertifikasi Guru*. PT Remaja Rosda Karya Offset.
- Mustabsyiroh, N., Prestiadi, D., & Imron, A. (2021). Implementation of Virtual Academic Supervision as an Effort to Increase Teacher Competence in The Covid-19 Pandemic. *Advances in Social Science, Education and Humanities Research*, 589(Iccoet), 112–115.
- Nurulita, N. D., Prestiadi, D., & Imron, A. (2021). Education Supervision as A Teacher Professionalism Improvement. *In 1st International Conference on Continuing Education and Technology (ICCOET 2021, 589(Iccoet)*, 129–131. <https://doi.org/10.2991/assehr.k.211101.025>
- Prestiadi, D., Nurabadi, A., & Ubaidillah, E. (2022). Effectiveness of Implementation of Instructional Supervision during the COVID-19 Pandemic through Utilization of Information and Communication Technology. *Proceedings - 2022 2nd International Conference on Information Technology and Education, ICITE and E 2022*, 391–397. <https://doi.org/10.1109/ICITE54466.2022.9759862>
- Prestiadi, D., Zulkarnain, W., & Bambang Sumarsono, R. (2020). *Visionary Leadership in Total Quality Management: Efforts to Improve the Quality of Education in the Industrial Revolution 4.0*. 381(CoEMA), 202–206. <https://doi.org/10.2991/coema-19.2019.40>
- Saddi, E., Simbolon, B., & Kailola, L. G. (2021). Pengaruh Kepemimpinan Kepala Sekolah Dan Supervisi Terhadap Kinerja Guru Pada Sma Kristen Barana' (Studi Kasus Di SMA Kristen Barana Kabupaten Toraja Utara). *Jurnal Pendidikan Tambusai*, 5, 493–500.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R& D* (Sutopo (ed.)). Alfabeta.
- Utami, S. (2017). Penerapan Supervisi Klinis untuk Meningkatkan Kinerja Guru dalam Proses Belajar Mengajar Gugus IV Sanankulon. *Briliant: Jurnal Riset Dan Konseptual*, 2(3), 272. <https://doi.org/10.28926/briliant.v2i3.70>
- Wardhani, N. I., Prestiadi, D., & Imron, A. (2021). *Implementation of Clinical Supervision to Improve Teacher Professionalism in Learning*. 589(Iccoet), 17–20.