



## The Effect of Incentive, Principal Leadership, and Motivation toward Teacher Professionalism in Conducting Learning Activity at Vocational High Schools

Sri Lestari<sup>1</sup>✉, Totok Sumaryanto Florentinus<sup>2</sup>, I Made Sudana<sup>2</sup>

<sup>1</sup> SD N 2 Karang Patihan. Kec.Pulung Ponorogo. Indonesia

<sup>2</sup> Universitas Negeri Semarang. Indonesia

### Info Artikel

History Articles:  
 Recived 15<sup>th</sup>December  
 2018  
 Accepted  
 21<sup>st</sup>February 2019  
 Published 15<sup>th</sup>June  
 2019

Keywords:  
 Incentive, Principal  
 Leadership,  
 Motivation, Teacher  
 Professionalism

### Abstract

The aims of this study are to describe and analyze the influence of partial and simultaneous incentives, principal leadership, and motivation toward teacher professionalism in conducting learning activity. This study also examined the effect of incentives, principal leadership through motivation towards teacher professionalism in conducting learning activity. This study belongs to population research by using quantitative method and survey approach. Data collection used in this research was questionnaires which were distributed to 66 teachers. Data analysis that used in this research is multiple linear regression analysis and path analysis. The results showed that the effect of incentive on teacher motivation is 27.04%. Principal leadership affects teacher motivation as much as 17.89%. The effect of incentive and principal leadership on teacher motivation is 52.7%. Meanwhile, incentive does not have a significant effect on teacher professionalism because they only have an effect as much as 1.35%. The effect of principal leadership on teacher professionalism is 62.25%. Motivation does not have a significant effect on teacher professionalism, which is only 2.34%. There is a direct effect of incentive, principal leadership and motivation towards teacher professionalism which is equal to 54.7%. There is no effect of incentive on teacher professionalism through motivation because indirect effect is smaller than the value of direct effect, and also there is no indirect influence of leadership through motivation towards teacher professionalism in conducting learning activity.

© 2019 Universitas Negeri Semarang

✉ Alamat korespondensi:  
 Selodono, Karangpatihan, Pulung, Kabupaten Ponorogo, Jawa  
 Timur 63481, Indonesia.  
 E-mail: lsri23273@gmail.com

p-ISSN 2252-7001  
 e-ISSN 2502-454X

## INTRODUCTION

Productivity, effectiveness and efficiency are the main things which are expected and demonstrated by qualified and professional Human Resources (HR) of education. The professionalism of human resources of education is that educator and education staff who are able to carry out what has been planned in order to achieve stated educational goals.

Teacher professionalism in conducting learning activity is considered to be not maximal. Seeing the results of Teacher Competency Test 2015 which showed average value as much as 4.7 with a minimum standard was 5.5 from 1.6 million teachers. In this case the teacher's pedagogical competence got the lowest score, that was an average of 48.94 while the professional competence was on average 54.77 (sergur.kemdiknas.co.id). According to data from "Badan Pusat Statistik" (Central Bureau of Statistics) explains that 32.84% of teachers who were not worth teaching in Vocational High School amounted to 6.04% in the academic year 2016-2017, while the Open Unemployment Rate in Indonesia on February 2017 from the level of Vocational High Schools was on the top of the list that was 9.27%. (<https://www.bps.go.id>).

Teacher professionalism in conducting learning activity in Vocational High School is influenced by several external factors (*external*) and internal factors (*internal*). The external factors are incentive and principal leadership while the internal factor is teacher's own motivation. Incentive is driving factor for employees to work better so that employee performance can improve (Fauziah, 2012).

The distribution of incentive is expected to be able to improve teacher performance because the incentive given to teachers is as an appreciation of excess performance of teachers which is in accordance with applicable regulations (Setyono & Sudjadi, 2011: 91). However, there are obstacles in the distribution of teacher incentive, namely delay and uncontrolled data collection system or not in

line with the actual data of teachers in the school so that many teachers have not received incentive.

Principal leadership is an external factor that can influence teacher professionalism in conducting learning activity. A successful school principal in increasing school capacity through redesigning school structures especially those that facilitate teacher performance improvement (Eyal & Roth, 2011).

The principal is a driving force whose duty is to encourage and support teachers and education staff in the renewal of innovations to improve the development and progress of education (Ekosiswoyo, 2007).

Principal leadership can be defined as a leader who is able to influence his member to do entrusted tasks that have been in carrying out the roles and functions of leadership and able to communicate well in the work team and maintain social relations or maintain togetherness and mutual understanding in realizing effective and efficient school goals.

According to Mulyasa (2013) the main function of principal is known as EMASLIM as an educator, manager, administrator, supervisor, leader, innovator and motivator. In its function as a driver of all activities, the principal must be able to move the teacher and all components so that the performance is increased (Sukarjo, 2013). The results of the study showed that principal leadership influenced teacher professionalism (Sholeh, Wahyudin & Martono, 2016; Hardono, Haryono & Yusuf, 2017; Anggraini, 2014; Tetuko, 2012; David et al., 2015).

Internal factor that affects teacher professionalism in conducting learning activity is motivation. Self-motivation which needs to be improved according to Blaire Palmer (2005), namely: a) Opportunities for career advancement and professional growth, b) Recognition and reward, c) Greater responsibility, d) Facing and overcoming all challenges and e) satisfaction with an achievement. Hasibuan (2007) explains motivation is an effort to give a driving force that is able to create work passion to work

together effectively and integrated with all the efforts to achieve satisfaction.

The aims of this study are to find out and analyze partially and simultaneously the effect: (1) incentive. principal leadership on motivation and (2) incentive. principal leadership. and motivation on teacher professionalism in conducting learning activity at vocational high schools in Genuk sub-district. Semarang city.

This research is expected to be a solution and as a consideration for the principal in making policy which is related to incentive. leadership and effort in motivating teacher to improve his professionalism in conducting learning activity.

## METHOD

This study used quantitative method with survey approach. This study belongs to population study which is 66 vocational high school teachers in Genuk sub-district. Semarang City. Data collection technique used in this research was questionnaire. The questionnaire was prepared based on theoretical review and the results of previous relevant research and consulted first with the supervisor to get suggestions and criticisms of improvement. After getting approval from the supervisor. the instrument was tested on 30 different respondents and the determination of answers to the questionnaire using Likert scale.

There are some stages in data analysis. they are: (1) validity using correlation formula. namely Pearson Product Moment formula. Validity criteria are determined if the r-count is expressed in the corrected item-total correlation value greater than r-table. The amount of r-table with a sample size 30 and significance level 5% is 0.361 (2) reliability using Alpha Cronbach formula. if the value of Cronbach Alpha > 0.60 is reliable. (3) descriptive statistics (4) classical assumption (5) regression analysis and path analysis that are processed with the help of IBM SPSS Statistics 21.

## RESULTS AND DISCUSSION

### The Effect of Incentive on Motivation ( $X_1 \rightarrow X_3$ )

The results of regression analysis with motivation variable as endogenous variable are as follows:

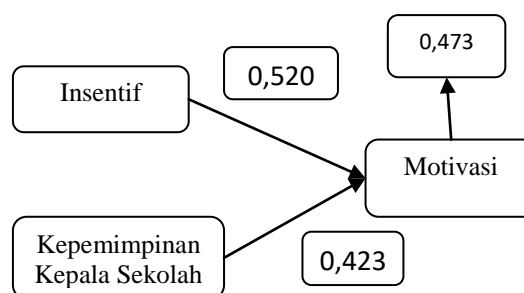


Figure 1. Regression Test Substructure I

The equation for the substructure regression model I is  $X_3 = 0.520 X_1 + 0.423 X_2 + 0.473$ . Based on the results of the analysis showed that regression coefficient is positive at 0.520. The value of t test (5.903) is greater than the value of t table 2 and the significance level (0.000 < 0.05). The value of standardized coefficient is 0.520 with the calculation  $(0.520)^2 = 0.270$ . This means there is a direct effect of incentive on teacher work motivation that is 27%.

**Table 1.** Regression Analysis I

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	(Constant)	15.578	4.925			
1	Insentif	.592	.100	.520	5.903	.000
	Kepemimpinan	.257	.054	.423	4.803	.000

a. Dependent Variable: Motivasi

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	1277.101	2	638.551	35.061	.000 <sup>b</sup>
1	Residual	1147.384	63	18.212		
	Total	2424.485	65			

a. Dependent Variable: Motivation

b. Predictors: (Constant). Leadership. Incentive

Model Summary				
Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.726 <sup>a</sup>	.527	.512	4.268

a. Predictors: (Constant). Leadership. Incentive

The results of the analysis can also be interpreted that the higher the distribution of incentives will increase teacher motivation and vice versa the lower the distribution of incentives. the teacher motivation will also be low. The results of this study are in line with the results of studies conducted by Sumbangsih and Nelisa (2013.180) explained that the enough incentive distribution can motivate someone to work better so that the goals can be achieved.

### The Effect of Principal Leadership on Teacher Motivation ( $X_2 \rightarrow X_3$ )

Based on the results of the analysis show that regression coefficient is positive at 0.423. The value of t test (4.803) is greater than t table for alpha 0.05 ( $dk = n - 2 = 64$ ) as big as 2 and the significance level ( $0.000 < 0.05$ ). The value of standardized coefficient is 0.423 with the calculation  $(0.423)^2 = 0.179$ . This means that

there is a direct effect of leadership on teacher work motivation that is 17.9%.

The results of the analysis can also be interpreted that principal leadership who supports. it will increase teacher motivation and vice versa the lower the principal leadership. the lower the teacher motivation. In line with the research conducted by Ekosiswoyo (2007.76) which explained that principal is the driving force in charge of encouraging and supporting teachers and staff in renewing innovations to improve education development. In line with the opinion of Suprihatiningrum (2016) pointed out that leadership is a pattern of relationship between individuals who use authority and their influence on groups of people to work together to achieve the desired goal.

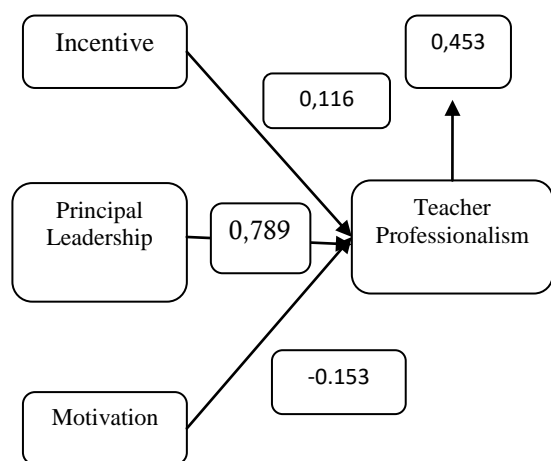
### The Effect of Incentive and Principal Leadership on Motivation ( $X_1, X_2 \rightarrow X_3$ )

Based on the results of the analysis showed that the effect of incentive and principal leadership on motivation by looking at the

results of  $F_{count} > F_{table}$ . The value of  $F_{count}$  is  $35.061 > F_{table} 3.15$  means that there is a positive and significant effect on incentive and principal leadership towards motivation. Supportive incentives and leadership will increase motivation. The value of  $R^2$  is  $0.527$  means that coefficient determination is  $52.7\%$ . This shows that variations in motivation changes are affected by incentive and principal leadership is equal to  $52.7\%$  while  $47.3\%$  is affected by variations in other unexamined variables.

According to Rice et al., 2009, in Liang & Akiba (2015: 704) the aim of incentive is to enable teachers to improve their knowledge and skills, teachers are also willing to accept additional tasks and be able to become excellent teachers based on teacher evaluation. Educational institutions tend to use incentive program to recruit and retain teachers and also to promote the distribution of teacher work evenly (Liang and Akiba, 2015: 703).

**The Effect of Incentive on Teacher Professionalism in Conducting Learning Activity ( $X_1 \rightarrow Y$ )**



**Figure 2.** Regression Test Substructure II

The equation of regression model substructure I is  $Y = 0.116X_1 + 0.789X_2 + (-0.153)X_3 + 0.453$ . Based on the analysis results of the incentive regression coefficient is positive at  $0.116$  and the value of  $t$  test ( $1.073$ ) is smaller

than the  $t$  table with  $\alpha 0.05$  as big as  $2$  and the significance level ( $0.000 < 0.05$ ). Calculation of direct effect of incentive on teacher professionalism in conducting learning activity can be seen from standardized coefficient with the calculation  $(0.116)^2 = 0.0135$ . This means that the direct effect of incentive on teacher professionalism in conducting learning activity is only  $1.35\%$ .

From the results of this study it can be concluded that incentive has little effect on teacher professionalism in conducting learning activity because the overall research subjects are the vocational high school teachers in Genuk sub-district, Semarang City, all of them are private. Teacher data in 'dapodikdasmen' (an application to capture primary data of education in Indonesia) with teacher data in school is not the same so that the distribution of incentives is not fulfilled, besides the nominal of incentives for private schools are not in line with the performance of teacher in that school. Without sufficient and adequate incentives, of course the teacher cannot be expected to have job satisfaction in educational institutions, the teacher will do stretching to work such as not involving himself in work, not enthusiastic in teaching, often rejecting policies and values that have been set (Djamroni, 2016). Handoko in Evi (2009) explains that the aim of incentive distribution is increasing employee motivation in an effort to achieve organizational goals by offering financial incentive that exceed wages and salaries.

**Table 2.** Regression Analysis II

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients		
(Constant)	41.749	8.172		5.109	.000
1 Incentive	.207	.193	.116	1.073	.287
Leadership	.750	.096	.789	7.776	.000
Motivation	-.239	.194	-.153	-1.232	.223

a. Dependent Variable: Professionalism

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3238.239	3	1079.413	24.946	.000 <sup>b</sup>
	Residual	2682.791	62	43.271		
	Total	5921.030	65			

a. Dependent Variable: Professionalism

b. Predictors: (Constant). Motivation. Leadership. Incentive

Model Summary				
Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.740 <sup>a</sup>	.547	.525	6.578

a. Predictors: (Constant). Motivation. Leadership. Incentive

### The Effect of Principal Leadership on Teacher Professionalism ( $X_2 \rightarrow Y$ )

Based on the results of the analysis the value of regression coefficient of the principal leadership is positive at 0.789. The value of t test (7.776) is greater than the t table with alpha 0.05 ( $dk = n - 2 = 64$ ) as big as 2 and the significance level ( $0.000 < 0.05$ ). The calculation of direct effect of principal leadership towards teacher professionalism can be seen from the standardized coefficient at 0.789 with the calculation  $(0.789)^2 = 0.6225$ . It means that the direct effect of principal leadership towards teacher professionalism in conducting learning activity at vocational high school in Genuk sub-district of Semarang City is 62.25%.

Supportive and good principal leadership will increase teacher professionalism in conducting learning activity and bad principal

leadership will reduce teacher professionalism in conducting learning activity.

The results of this study are in accordance with the results of research conducted by Wagiran. Soenarto and Soedarsono (2013) which showed that the direct effect of principal leadership on teacher performance productivity is significant. Principal leadership both transformational and transactional play role in stimulating members to play a role in realizing school ideals.

### The Effect of Motivation on Teacher Professionalism in Conducting Learning Activity ( $X_3 \rightarrow Y$ )

Based on the results of the analysis, the value of regression coefficient of motivation variable is (-0.153). The value of t test (-1.232) is smaller when it is compared to t table with alpha 0.05 ( $dk = n - 2 = 64$ ) as big as 2 and the significance level ( $0.000 < 0.05$ ). The calculation

of the direct effect of motivational leadership on teacher professionalism in conducting learning activity can be seen from the standardized coefficient (-0.153) with the calculation  $(-0.153)^2 = 0.0234$ . This means that the direct effect of motivation on teacher professionalism in conducting learning is only 2.34%.

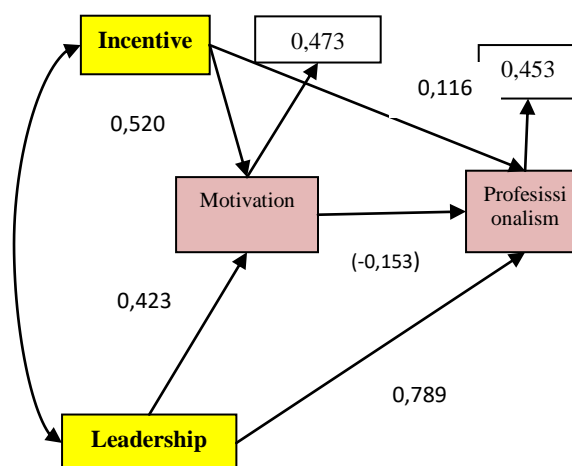
The results of this study indicate that motivation does not have a significant effect on teacher professionalism in conducting learning activity. The results of this study are in line with the findings of survey results of Republic of 'Persatuan Guru Republik Indonesia (PGRI) (Indonesia Teachers Association) in (Wagiran. Soenarto and Soedarsono 2013) explained that the increase of teacher motivation in joining certification not merely to know or increase his competency but rather prominent motivation is financial motivation namely in the form of professional allowances and teacher performance is still not satisfactory.

**The Effect of Incentive. Principal Leadership and Motivation on Teacher Professionalism ((X<sub>1</sub>.X<sub>2</sub>.X<sub>3</sub> → Y)**

According to the results of analysis. incentive. principal leadership and motivation have a significant effect on teacher professionalism in conducting learning activity. that is the value of  $F_{count} > F_{table}$ . with  $\alpha = 0.05$  the value of  $F_{count}$  is  $24.946 > F_{table}$  2.76. The value of  $R^2$  square is equal to 0.547. which means that the value of coefficient determination is 54.7%. It means that the variations in teacher professionalism in conducting learning activity are affected by incentive. principal leadership and motivation as much as 54.7% while 45.3% is affected by variations in other unexamined variables.

The results of this study are in line with Wagiran's research. Soenarto and Soedarsono (2013) explaining that based on hypothesis testing teacher performance improvement is predominantly influenced by situational factors such as principals' rewards and leadership while psychological factors that play the most are teacher's ability and teacher's motivation.

**The Effect of Incentives on Teacher Professionalism in Organizing Learning with Mediation Motivation Variables**



**Figure 3.** Path Analysis

Based on the results of analysis indicates that incentive does not have direct or indirect significant effect on teacher professionalism in conducting learning activity at vocational high school in Genuk sub-district. Semarang City. The path relation of incentive and motivation is  $(0.520)^2 = 0.2704$  or 27.04%. The next path is the relationship of incentive and teacher professionalism in conducting learning activity which is  $(0.116)^2 = 0.0135$  or 1.35%. The indirect effect of incentive on teacher professionalism in conducting learning activity through motivation is (-0.0796) the total effect is 0.0931 or 9.31%.

The results of path analysis show that the direct effect of incentive on teacher professionalism in conducting learning activity is not significant. which is only 1.35%. besides the indirect effect through motivational mediation is not greater than direct effect.

According to Wagiran. Soenarto and Soedarsono (2013) this can be observed from variety of possibilities such as the existence of relatively high correlation between independent variables even though they are still under the

boundary of multicollinearity. another possibility is suppressed variable which causes high correlation between independent and dependent variable. but after being included in the regression equation there is no significant effect. In addition, the quality of instrument, the sharpness and carefulness of the instinct of the researcher are also aspects which need to be considered.

#### **The Effect of Principal Leadership on Teacher Professionalism with Mediation form Motivation Variable.**

Based on the results of the analysis indicate that the principal leadership directly affects teacher professionalism in conducting learning activity, while the indirect effect through motivation is not significant. The path relationship between the principal leadership and motivation is  $0.4232 = 0.1789$  or 17.89%. The next path is the relationship of principal leadership and teacher professionalism in conducting learning activity is  $0.7892 = 0.6225$  or 62.25%. The indirect effect of principal leadership on teacher professionalism in conducting learning activity through motivation is  $(-0.065)$ . The total effect is the amount of direct effect and the indirect effect is  $0.5575$  or 55.75%.

Based on that calculation the direct effect is greater than the indirect effect, so that there is no significant effect of principal leadership through motivation on teacher professionalism in conducting learning activity at Vocational High School in Genuk sub-district of Semarang City. The direct effect of principal leadership on teacher professionalism significantly indicates that principal leadership is able to explain its effect on teacher professionalism in conducting learning activity at Vocational High School in Genuk sub-district of Semarang City is 62.25%, while the indirect effect of principal leadership on teacher professionalism in conducting learning activity does not significantly indicate that teacher motivation is less significant in explaining the effect of principal leadership on teacher professionalism.

The results of this research are in line with the research conducted by Wagiran, Soenarto and Soedarsono (2013, 162) regarding the Determinant of Vocational High School Teacher Performance in Mechanical Engineering Expertise, explaining that the results of path analysis show that the direct effect of leadership on teacher performance is significant, while the indirect effect through commitment and teacher work motivation is not significant. It means that high principal leadership is not always followed by high commitment and teacher work motivation in determining performance.

#### **CONCLUSION**

The conclusion of this study is there is an effect of incentive on teacher motivation as much as 27.04%. Principal leadership affects teacher motivation as big as 17.89%. The effect of incentive and principal leadership on teacher motivation is 52.7%. While incentive does not have a significant effect on teacher professionalism because it only has an effect as much as 1.35%. The effect of principal leadership on teacher professionalism is 62.25%. Motivation does not have a significant effect on teacher professionalism, which is only 2.34%. There is a direct effect of incentive, principal leadership and motivation towards teacher professionalism which is equal to 54.7%. There is no effect of incentive on teacher professionalism through motivation because the indirect effect is smaller than the value of direct effect, besides there is no indirect effect of leadership through motivation towards teacher professionalism in conducting learning activity.

#### **ACKNOWLEDGEMENTS**

The researcher realized that during the process of preparing this study there were quite a lot of challenges and obstacles faced. But all of challenges and obstacles can be overcome by the researcher because of the motivation, guidance and assistance from various parties. For this



reason. the researcher expressed her gratitude and high appreciation to the principals and teachers at the Vocational High School in Genuk sub-district. Semarang City which has provided support and participation in collecting data of this research.

## REFERENCES

- Angraini. D. N. 2014. Kontribusi Kepemimpinan kepala Sekolah. Budaya Organisasi dan Implementasi Manajemen Berbasis Sekolah Terhadap Mutu SMP Negeri di Kabupaten Pemalang. *Jurnal Education Management*. Vol. 3. (1).
- David Ng. Nguyen. D. T.. Wong. B. K. S.. & Choy.W. K. W. 2015. A review of Singapore principals' leadership qualities. styles. and roles. *Journal of Educational Administration*. Vol. 53. (4). pp.512-533.
- Djamroni. 2016. Pengaruh Pemberian Insentif dan Profesionalisme Guru terhadap Kepuasan Kerja Guru SMP Swasta di Kota Tangerang. *Jurnal Penelitian Manajemen Pendidikan*. Vol. 1. (2).
- Ekosiswoyo. R. 2007. Kepemimpinan Kepala Sekolah yang Efektif Kunci Pencapaian Kualitas Pendidikan. *Jurnal Ilmu Pendidikan*. Jilid 14. (2). pp. 76-82.
- Eyal. O. & Roth. G. 2011. Principals Leadership and Teachers motivation: Self-Determination: Theory Analysis. *Journal of Educational Administration*. Vol. 49. (3). pp.256-275.
- Evi. T. 2009. Kajian teoritis analisa Hubungan Pemberian Insentif Dengan Semangat Kerja Karyawan. *Seminar Nasional Informatika*. Upn "Veteran" Yogyakarta. 23 Mei 2009.
- Fauziah. H. 2012. Pengaruh Insentif dan Motivasi Kerja terhadap Kinerja Pegawai pada Kantor Dinas Bina Marga Balai Besar Pelaksanaan Jalan Nasional III Satker Pelaksanaan Jalan Nasional Wilayah I Bandar Lampung. *Jurnal Organisasi dan Manajemen*. Vol.2.(1). pp. 54-66.
- Hardono. Haryono & Yusuf. A. 2017. Kepemimpinan Kepala Sekolah. Supervisi Akademik dan Motivasi Kerja dalam Meningkatkan Kinerja Guru. *Jurnal Education Management*. Vol 6.(1). pp. 26-33.
- Hasibuan. M. S.P. 2007. *Organisasi dan Motivasi Dasar Peningkatan Produktivitas*. Jakarta: Bumi Aksara.
- Liang. G. & Akiba. M. 2015. Characteristics of Teacher Incentive Pay Programs: a Statewide District Survey. *Journal of Educational Administration*. Vol. 53. (6). pp.702-77.
- Mulyasa. E. 2013. *Standar Kompetensi dan Sertifikasi Guru*. Bandung: Remaja Rosdakarya
- Palmer. B. 2005. Create Individualized Motivation Strategies. *Strategic HR Review*. Vol. 4 (3). pp.5-5.
- Setyono. H. & Sudjadi. A. 2011. Pengaruh Kompetensi Guru. Insentif. dan Lingkungan Kerja Fisik Terhadap Kinerja Guru SMA Negeri 1 Patimuan kabupaten Cilacap. *Jurnal SAINTEK Universitas Muhammadiyah Purwokerto*. Pp. 90-101
- Sholeh. K. Martono. S. & Wahyudin. A. 2016. Kompetensi Guru Dalam Memediasi Pengaruh Kepemimpinan Kepala Sekolah Terhadap Hasil Belajar Siswa Pada Sekolah Lanjutan Pertama Di Kec. Bonang Kab. Demak. *Jurnal Education Management* Vol. 5. (1).
- Sukarjo. 2013. Kepemimpinan Kepala Sekolah di SD Negeri 1 Langenharjo Kota Kendal. *Jurnal Education Management*. Vol. 2 (1).
- Sumbangsih. N. & Nelisa. M. 2013. Pengaruh Pemberian Insentif terhadap Motivasi Kerja Pustakawan di Perpustakaan Universitas Bung Hatta Padang. *Jurnal Ilmu Informasi Perpustakaan dan Kearsipan* Vol. 2. (1). Seri C.
- Suprihatiningrum. J. 2016. *Guru Profesional. Pedoman Kerja. Kualifikasi & Kompetensi Guru*. Jogyakarta: Ar- Ruzz Media.
- Tetuko. B. 2012. Pengaruh Motivasi Kerja. Budaya Organisasi. Kepemimpinan

Kepala Sekolah terhadap Kepuasan Kerja dan Kinerja Guru SMA Swasta di Kabupaten Grobogan. *Jurnal Education Management*. Vol.1. (2).

Wagiran. Soenarto & Soedarsono. FX. 2013. Determinan Kinerja Guru Bidang Keahlian Teknik Mesin. *Jurnal Penelitian dan Evaluasi Pendidikan*. Vol. 17. (1).pp. 148-171