



New  
Educational  
Review

2017  
Vol. 47. No. 1

THE  
*Character Building*  
UNIVERSITY

wydawnictwo  
**adam marszałek**



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Toruń 2017

ISSN 1732-6729

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## The Effect of Incentive Reward, Teacher Psychological Competence, and School Principal Leadership on Teacher Work Motivation in Senior High Schools in Medan

DOI: 10.15804/tner.2017.47.1.15

### Abstract

The purpose of this research was to find out the effect of incentive reward motivation, teacher psychological competence and school principal leadership on work motivation. Data were collected from closed-ended questionnaires and analyzed by applying the SPSS and AMOS programs. Test results indicated a direct effect of incentive reward on teacher work motivation as much as 0.411. The direct effect of teacher psychological competence on work motivation was 0.169. The direct effect of school principal leadership on work motivation was 0.249.

**Keywords:** *incentive reward, teacher psychological competence, school principal leadership, teacher work motivation*

### 1. INTRODUCTION

The teacher is obliged to show a high work performance so that he can motivate students and facilitate the realization of the learners' best potential. The aim of education in Indonesia is to educate learners to become people who worship the Almighty God with faith and surrender showing noble characters, good health, knowledge, abilities, creativities, independence and democracy and the people who act as democratic and responsible citizens of the state (based on the Constitution of National Education System, no. 20/2003, Chapter II, Article 3). In terms

of accomplishing the educational aims, the teacher as an educator should perform the educational process essential to demonstrate good motivation in various activities starting from planning, determining the strategies, selecting materials and teaching methods and finally making a proper evaluation.

The teacher plays an important role in motivating his students to acquire knowledge, skills and socio-religious values. Therefore, he is a social agent who should be given supervision in his teaching process. An incentive reward is an effort by an organization to provide an extra income so that he will be working more seriously and enthusiastically. The correlation between an incentive reward and work motivation has been an interesting issue among the experts of organizational behavior. In research, it was found out that an incentive reward is a form of salary, secondary allowance and non-financial or fringe benefit to improve work motivation. Incentive reward has an effect on the improvement of teacher motivation, which leads to the improvement of productivity, however, it should be clear that not all teachers are motivated only by incentive reward. The formation of teacher work motivation is the result of a combination of many factors such as commitment, school environment, personal development, teacher motivation, etc. All the factors have a direct and indirect correlation with the actions taken by the school principal. On the other hand, Buhler (2004:191) states that motivation is basically a simulation process which determines how many efforts are made to do a job. Motivation to work well determines the accomplishment of a goal, and so every individual must be able to enhance his motivation. The term "motivation" is closely related to the emergence of a tendency to do something to reach a goal. According to Gagne (1999:45), work motivation will have a positive impact on performance, employees, attitude, creativity and responsibility to support the profession.

Based on the description of the above determining factors for an individual to conduct a learning activity, the researcher focuses on several variables that contribute to the improvement of teacher work motivation. Through the theories and viewpoints mentioned above, the researcher conducted research on the effect of incentive reward, teacher psychological competence, school principal leadership on teacher motivation in senior high schools (SHS) in Medan.



## **2. THEORITICAL DESCRIPTION**

### **2.1 Incentive Reward**

An incentive is an effort by an organization to provide an extra income to make its employees work better and more seriously for the improvement of their work motivation. A company in the operation of its business needs employees and so the factor of work force should be given undivided attention. Moorehead and Griffin (1992:98) define an incentive as a gift or appreciation presented by an organization to an individual or a group of workers who demonstrate good performance beyond the criteria of the general salary system.

### **2.2 Teacher Psychological Competence**

Johnson (as cited in: Anwar, 2004:63) states that the psychological competence of the teacher includes: (1) good and positive manners in dealing with everything as the duty of the teacher and towards educational situations and related elements, (2) understanding, internalization and application of the values which should have been adopted by the teacher, (3) personality, values, life outlook which indicate his efforts to become a significant figure and model for his students

### **2.3 School Principal Leadership**

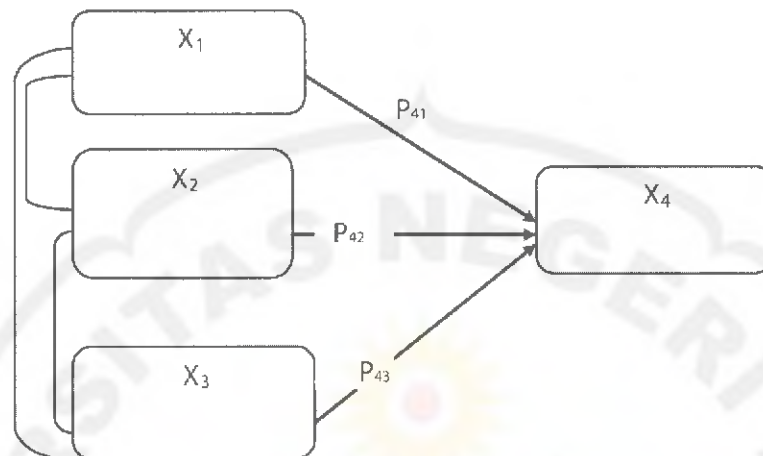
Hill and Carroll (1997: 65) define leadership as an ability to drive or motivate a group of people (two or more) to work together in carrying out their activities directed at the common goals. An organizational structure is a hierarchy of units or work force or functions which are described according to the duties or main activities of the organization to accomplish the goals. Daryatno (2005:80) defines a school principal as a person who is responsible for all the activities at school.

### **2.4 Work Motivation**

Motivation is connected with how a superior directs the potential of his subordinates to work productively so that they succeed in achieving and realizing the goals set before. Motivation is a driving force for someone to work together with others effectively and show integration with all his efforts to gain satisfaction. Robbins (2001:166), on the other hand, defines motivation as someone's readiness to make the most efforts to reach the goals of their organization, which has been conditioned by the ability to reach certain personal goals.

Based on the above theoretical description, a model of variables in the research can be designed as presented in Figure 1:

Figure 1. Reserach paradigm



Legend:

X1 : Incentive Reward

X2 : Teacher Psychological Competence

X3 : School Principal Leadership

X4 : Work Motivation.

### 3. RESEARCH METHOD

The method applied in this research is classified as an ex-post facto design with the consideration that this research is categorized as an non-experimental type. The research consisted of 4 variables with a path analysis. The population consisted of the teachers of Senior High School in Medan. Based on the existing data, there were 1446 teachers of the Senior High School working in Medan. The sample included 16.67% of the population, which is 240.50 that was rounded off as 241 people. The instrument was in the form of questionnaires whose validity and reliability had been tested. The instrument validity was computed using the Moment Product correlation formula while the reliability was tested using the Rater Reliability and Cronbach's Alpha.

The test for analysis feasibility was done to confirm the views of Elazar (1982:580): 1) inter-variable correlation in this model was linearity testing, 2) residual variables were not correlated with the tested variables and the residual inter-variables were not intercorrelated (autocorrelation testing), 3) the correlation of intervariables in this model was causal or recursive (multicollinearity testing), 4) variables must have the scale intervals and 5) the variables measured should not contain errors (measurable). Further, the causal model was tested using the path analysis with the means of AMOS 18.



## 4. RESEARCH FINDINGS AND DISCUSSION

### 4.1 Findings

The description of the four variables is presented in Table 1.

Table 1. Description of research data

| Analysis                  | Variables |        |        |        |
|---------------------------|-----------|--------|--------|--------|
|                           | X1        | X2     | X3     | X4     |
| Number of data (N)        | 241       | 241    | 241    | 241    |
| Minimum score             | 72        | 81     | 63     | 82     |
| Maximum score             | 168       | 180    | 173    | 170    |
| Range                     | 96        | 99     | 110    | 88     |
| Number of class intervals | 9         | 9      | 9      | 9      |
| Intervals                 | 12        | 13     | 14     | 11     |
| Mean                      | 124.15    | 141.78 | 128.56 | 133.46 |
| Standard deviation        | 18.84     | 22.41  | 24.98  | 19.72  |
| Median                    | 122.59    | 145.02 | 132.09 | 135.73 |
| Mode                      | 112.72    | 151.55 | 131.46 | 138.52 |
| Ideal minimum score       | 34        | 37     | 35     | 34     |
| Ideal maximum score       | 170       | 185    | 175    | 170    |
| Ideal mean                | 102       | 111    | 105    | 102    |
| Ideal standard deviation  | 22.67     | 24.67  | 23.33  | 22.67  |

#### 4.1.1 Testing of Research Data Quality

Testing of data quality was done with the use of the tests of normality, linearity, autocorrelation, and multicollinearity with the results that all the variables met the conditions of analysis.

##### A. Testing of Normality

Testing of data normality was conducted to show that the sample was taken from the sample with a normal distribution. The technique used to test normality was Liliefors' formula.

The hypotheses proposed in the normality test were:

$H_0$  : Data are from the population without a normal distribution.

$H_1$ : Data are from the population with a normal distribution.

The testing criteria are, if the  $L$  observed  $>L$  table at the significance level of 95%, then  $H_0$  is rejected or by comparing the value of  $L_{count}$  derived at the significance level  $\alpha$  5% (0.05). If the value of  $L_o > 0.05$ , then the sample was from the population with a normal distribution. The testing of normality was conducted using the SPSS program. The description of the tested data is presented in Table 2:

**Table 2.** Description of data normality testing

| Variable                              | Liliefors |        |                       | Normality |
|---------------------------------------|-----------|--------|-----------------------|-----------|
|                                       | N         | Lo     | L ( $\alpha = 0.05$ ) |           |
| Incentive reward (X1)                 | 241       | 0.0100 | 0.0571                | Normal    |
| Teacher psychological Competence (X2) | 241       | 0.0405 | 0.0571                | Normal    |
| School principal leadership (X3)      | 241       | 0.0376 | 0.0571                | Normal    |
| Work motivation (X4)                  | 241       | 0.0319 | 0.0571                | Normal    |

Liliefors Significance Correction

\*This is a lower bound of the true significance

Table 2 shows that the calculation indicated that the sample of all the variables of the population had a normal distribution. Therefore, the first assumption in the path analysis was confirmed.

### B. Linearity Testing

Linearity testing was conducted using the Tuna Cocok formula with the equation of linear regression. The hypotheses proposed in the linearity testing were:

$H_0$  Linear regression.

$H_1$  Non-linear regression.

The criteria for rejecting the hypothesis in the linear regression model are that if  $F_{count} \geq F(1 - \alpha)(k-2, n-k)$  at the significance level of 95% or by comparing the FTC value with  $F_{table}$  at the significance level of ( $\alpha$ ) .05, if the FTC value is  $\leq F_{table}$  in the linear regression whereas if  $FTC \geq F_{table}$  then the regression model is not linear.

The data linearity testing was conducted by using the SPSS program. The description of the test results is presented in Table 3:

**Table 3.** Description of the data linearity testing

| No | Correlation | N   | (dk-2) | JK Mean (JKM) |           | FTC<br>(Fcount) | Ftable | Notation |
|----|-------------|-----|--------|---------------|-----------|-----------------|--------|----------|
|    |             |     |        | TC            | Deviation |                 |        |          |
| 1  | X1→X4       | 241 | 68     | 239.40        | 197.24    | 1.21            | 1.37   | Linear   |
| 2  | X2→X4       | 241 | 61     | 224.10        | 175.61    | 1.28            | 1.42   | Linear   |
| 3  | X3→X4       | 241 | 79     | 189.74        | 182.15    | 1.04            | 1.37   | Linear   |

Table 3 shows that the regression model for all the variables in the research was linear and therefore the second assumption in the path analysis was verified.

### C. Autocorrelation Testing

Autocorrelation testing was conducted by applying the formula of Dubin-Watson (DW) as follows:

$$d = \frac{\sum_{t=2}^T (e_t - e_{t-1})^2}{\sum_{t=1}^T e_t^2}$$

The testing criteria were: There is no autocorrelation if the DW value is between 1 and 3 or, in other words, if the Durbi Watson value is smaller than 1 or greater than 3, then there is autocorrelation. Based on the above calculation of the measurement of the data, it was found out that the DW value for dependent X 4 was 1.842, which means that the results of measuring the variables indicated that there was no effect of autocorrelation.

### D. Multicollinearity Testing

Multicollinearity testing was conducted to find out if the intervariable correlation was causal or not. The multicollinearity was tested by applying the formula of Factor Inflation Variance (FIV) as follows:

$$VIF_m = \frac{1}{1 - R_m^2}$$

Where:

FIV<sub>m</sub> = factor inflation variance

m = number of variable predictors

R<sub>m</sub><sup>2</sup> = multiple correlation of variable predictors (m)

Based on the calculation by using the SPSS series 18, the value of FIV for the dependent variable X4 was obtained in the X4 equation as follows:  $X4 = 7.825 + 0.411 X1 + 0.169X2 + 0.249 X3$ . The calculation is presented in Table 4:

**Table 4.** Calculation of multicollinearity testing

| Variable | Beta  | FIV   | Significance level<br>( $\alpha = 0.05$ ) | Notation       |
|----------|-------|-------|---|----------------|
| X1       | 0.411 | 1.301 | $p < 0.05$                                | $1 < FIV < 10$ |
| X2       | 0.169 | 1.281 | $p < 0.05$                                | $1 < FIV < 10$ |
| X3       | 0.249 | 1.296 | $p < 0.05$                                | $1 < FIV < 10$ |

The results indicated that there was no multicollinearity among the predictor variables or exogenous variables in this model.

#### 4.1.2 Hypothesis Testing

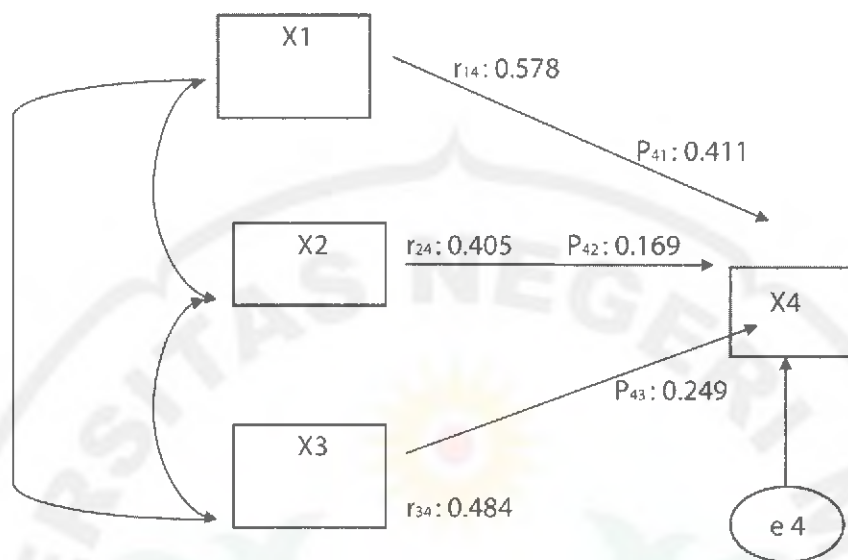
The calculation using the AMOS 18 program indicated the path coefficient of each exogenous variable on the endogenous variable as displayed in Table 5:

**Table 5.** Description of the calculation of path coefficients

| Variable | Correlation | Effect on Variable X4 |                 |       | Unidentified Effect |
|----------|-------------|-----------------------|-----------------|-------|---------------------|
|          |             | Direct Effect         | Indirect Effect | Total |                     |
| X1       | 0.578       | 0.411                 | 0               | 0.411 | 0.167               |
| X2       | 0.405       | 0.169                 | 0               | 0.169 | 0.236               |
| X3       | 0.484       | 0.249                 | 0               | 0.249 | 0.235               |

Based on the description of the calculation of the path coefficient presented in Table 5, it was concluded that the incentive reward (X1) had a direct effect on teacher work motivation (X4) with the value of 0.411 and correlation coefficient of 0.578, which means that there was a medium or adequate correlation. The direct effect of teacher psychological competence (X2) on work motivation (X4) was 0.169 with the correlation coefficient of 0.405, which means that there was a medium or adequate correlation. The direct effect of school principal leadership (X3) on teacher work motivation (X4) was 0.249 with the correlation coefficient of 0.484, which means that there was a medium or adequate correlation. Based on the calculation of the path coefficient, the path equation was  $X4 = 0.411X1 + 0.169 X2 + 0.249 X3$  and so the path diagram can be drawn as follows:





The results of making a calculation using the formula and entering the values of correlation coefficients can be seen in Table 6:

**Table 6.** Description of correlation coefficients, path coefficients and significance

| Correlation Coefficient | Path Coefficient | tcount   | ttable          |                 | Notation              |
|-------------------------|------------------|----------|-----------------|-----------------|-----------------------|
|                         |                  |          | $\alpha = 0.05$ | $\alpha = 0.01$ |                       |
| $r_{14} = 0.578$        | $P_{41} = 0.411$ | 11.024** | 1.97            | 2.33            | Very significant path |
| $r_{24} = 0.405$        | $P_{42} = 0.169$ | 6.875**  | 1.97            | 2.33            | Very significant path |
| $r_{34} = 0.484$        | $P_{43} = 0.249$ | 9.761**  | 1.97            | 2.33            | Very significant path |

\*\* very significant

Based on the description of the calculation in Table 6, it was found that the value of tcount of three path coefficients was greater than the ttable value at  $\alpha = 0.05$  and so it can be concluded that the three path coefficients were very significant.

## 4.2 Discussion

### 1. Analysis of the Effect of Incentive Reward on Teacher Work Motivation

Incentive reward is an effort or approach by an organization to provide a fringe benefit to motivate its employees to work more seriously and enthusi-



astically. The correlation between incentive reward and work motivation has been an interesting issue among experts on organizational behavior. In research, it has been shown that the incentive reward in the form of salary, secondary allowance, and fringe benefit is intended to motivate employees to work better or improve their performance. A performance-based incentive has an effect on the improvement of teacher motivation to have more productivity, however, not all teachers can be motivated only by financial benefit. This is in line with the views of Odden (2000:361), which imply that a teacher who is not motivated by a financial reward can be empowered by being given a non-financial reward. Khan, Farooq and Ullah (2010:49) conducted research on several aspects related to motivating employees to perform better. Their findings confirmed the results of research done by experts, which suggested that the variable of incentive reward statistically had a direct effect on teacher work motivation with the value of 0.411 or 41%. The change in the variable of work motivation of senior high school teachers was due to the variable of incentive reward, whereas the remaining 59% was determined by other factors beyond the model. The direct contribution of incentive reward to improved teacher work motivation was great and significant. As a result, incentive reward for teachers was a good predictor of work motivation improvement.

## ***2. Analysis of the Effect of Teacher Psychological Competence on Work Motivation***

Besides the variable of incentive reward, another variable was assumed to have a direct effect such as teacher psychological competence. The psychological competence that the teacher demonstrates can influence his success in conducting the learning process, which in turn affects his students. If the teacher has a stable and good personality, he will become a model figure for his students and he will be the person whose attitude and behavior should be imitated. Psychological competence is closely related the manners of the teacher as an individual who is expected to possess discipline, a good appearance, responsibility, commitment and enthusiasm and so he will be regarded as a model figure. Depdiknas (2004:4) talked about psychological competence as a personal competence which is the individual ability of the teacher as a requirement to be a good teacher.

The research findings show that the teacher psychological competence had a positive, direct effect on work motivation, with the path coefficient of 0.169. The analyzed data indicated that 17% of the work motivation variable could be influenced by the variable of teacher psychological competence. The remaining 83% of the effect was determined by other factors beyond this model.

### ***3. Analysis of the Effect of School Principal Leadership on Work Motivation***

The formation of teacher work motivation is a combination of many factors such as commitment, school environment, personality development, teacher motivation, etc. All the factors have a direct and indirect effect on actions that will be taken by a school principal. Obi (2002:20) stated that to become a successful leader, a school principal should pay full attention to programs of staff employment through techniques and procedures that are designed to make the teacher work motivation better. Based on the findings, there was a positive, direct effect of school principal leadership on teacher work motivation at the value of 0.249 or 25%. This means that 25% of teacher work motivation was influenced by the variable of school principal leadership while the other 75% was affected by other variables beyond this model.

## **5. Conclusions and Suggestions**

### **5.1 Conclusions**

Based on the previous description and the findings in the analysis as well as the discussion presented, the conclusions of the research are as follows:

1. Incentive reward has a positive, direct and significant effect on the work motivation of Senior High School teachers in Medan at the value of 0.411 for the path coefficient. This implies that to improve the work motivation of the Senior High School teachers in Medan, adequate incentive reward should be provided. The value of the direct contribution of incentive reward to teacher work motivation is 0.411 or 41%. The remaining 59% is influenced by other factors beyond the model.
2. The effect of teacher psychological competence on the work motivation of the Senior High School teachers in Medan, based on the research findings, can be concluded as that the teacher psychological competence is considered adequate. This indicates that the teachers of SHS basically have met one of the criteria required by the Laws No.14 Article 10, 2005, concerning teachers and lecturers in which teachers should possess good psychological competence. Teacher psychological competence has a positive, direct and significant effect on the work motivation of the SHS teachers in Medan at the value of 0.169 for the path coefficient. The value of the direct contribution of teacher psychological competence to the work motivation of the SHS teachers in Medan is 0.169 or 17%. The remaining 83% is influenced by other factors beyond the model.



3. The effect of school principal leadership on the work motivation of the SHS teachers in Medan based on the research findings can be concluded that the school principal leadership was considered adequate. This means that in general the school principal leadership among the SHS teachers in Medan was good enough. The school principal leadership is one of the indicators that is very influential in the efforts to enhance teacher work motivation to accomplish school goals. The findings showed that school principal leadership has a positive, direct and significant effect on the work motivation of the SHS teachers in Medan at the value of 0.249 for the path coefficient. The value of the direct contribution of the school principal leadership to the work motivation of the SHS teachers in Medan is 0.249 or 25%. The remaining 75% is influenced by other factors beyond the model.

## 5.2 Suggestions

Based on the conclusions, the following suggestions are made to realize the improvement of the work motivation of the teachers that it is necessary to design a policy and training programs for teachers and principals for their maximization and conditioning of school principal leadership, improvement of teacher psychological competence and work motivation through workshop and training activities as well as seminars for all principals and teachers. It is necessary to design a policy about a system of incentive reward and appreciation for teachers, especially those who have achieved much and perform well for the purpose of performance-based career development and job promotion. Meanwhile, there are also some suggestion for principals and teachers.

1. For School Principals of SHS
  - a. To develop transformation, the strategy applied is by selecting and employing qualified staff who are free from nepotism, building solidarity and collegial leadership through efforts to promote human resources development, transparency, social welfare of teachers and the optimal engagement of all the resources available.
2. For Senior High Schools (SHS) teachers
  - a. To improve and implement teacher psychological competence by setting good examples to students, showing great responsibility in doing their jobs, communicating politely, acting according to the existing norms, having discipline at work, demonstrating patience and respecting the code of ethics in professional conduct.

- b. To work harder based on the job descriptions established and build a collaboration with school principals and teachers for the purpose of broadening their horizons in doing their jobs as expected.

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