Analysis of the Effect of Supervision, Self-Efficacy, and Work Commitments on Teacher’s Professionality  
(Case Study: Junior High School in East Jakarta-Indonesia)  
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Abstract—The purpose of this research is to analyze the effect of supervision, self-efficacy, and work commitment on teacher’s professionalism. Study of cases in this study were analyzed by path analysis after all variables were included in the correlation matrix. In this study, the principal was chosen as the unit of analysis and 82 samples were randomly selected. The results of the analysis of this study found that teacher professionalism was directly influenced by supervision, self-efficacy, and work commitment. It was also found that a teacher’s professionalism was influenced indirectly by supervision and self-efficacy, through work commitment. This paper is a part of the dissertation.

Keywords: professionality of teacher, self-efficacy, supervision, work commitment.

I. INTRODUCTION

Teachers are human resources that have a very strategic role and determine the success of education programs. The teacher as human factors are important elements that are necessary to the influence on students in the implementation of daily education and interaction in school.

In the process of improving the quality of education, one of them depends on the professionalism of the teacher, because the position and role of the teacher as an actor in education (teaching and learning process) has a strong influence on a student success. It can be said that improving the quality of education cannot be separated from improving the quality of the teacher himself.

Tilaar [5] stated that the condition of how important teachers are in education, according to the fact in the field shows that teachers as the spearhead of education still experience many problems:

“……Today's national education is faced with four main crises, relating to the quantity of external relevance or efficiency, elitism, and management. Furthermore, it was stated from the above that there were at least six main problems of the National Education system: (1) decreasing the students' morals and morals, (2) equitable learning opportunities, (3) still low internal efficiency of the education system, (4) institutional status, (5) national education management, (6) resources that are not professional….”

Based on point 6, Unifah Rosyidi, Head of the Center for Educator Professional Development, Education and Culture Resources Development Agency, and Ministry of Education and Culture Education Quality Assurance in [1], said that the result of average teacher competency test in 2012 ranged from 18 to 23. For kindergarten class teachers, the average of percentage of national competency was 58.87, elementary school teachers was 36.86, junior high school teachers was 46.15, high school teachers was 51.35, SMK teachers was 50.02, and school supervisors was 32.58.

Specifically in DKI Jakarta, Acting Governor of DKI Jakarta Basuki Tjahya Purnama in [2], stated that the quality of teaching staff or teachers from the elementary school (SD), junior high school (SMP), and senior high school (SMA) are poor. This is indicated by the results of the competency tests that the DKI Provincial Government has conducted on teachers in Jakarta in 2013, the result is that two-thirds of the teachers in DKI got scores below 50.

One of a teacher’s low professionalism factors is caused by the poor ability to improve their abilities through various formal and non-formal educational activities, education or other scientific activities both locally and nationally.

The one of a teacher’s low professionalism of in carrying out their main tasks of learning causes students has lack of curiosuirty. The limitations of the knowledge that teachers have is one of causes that will lead to fatal consequences for the development of the students’ creativity and curiosity. Junior high school education is a level of formal education that must be passed by students in education. At this age students have the optimal ability to receive all knowledges from their school and their environment. The knowledge gained in basic education will be stored easily in the memory of children and then it will be able to build the character and behavior of children to adulthood. With regard to the formulation of this journal, this study is expected to solve the following question: is there any influence of the principal's supervision, self-efficacy, and work commitment on a teacher’s professionalism?
II. RESEARCH OBJECTIVES

Practically, the objectives of this research are:
1. To analyze the effect of the principal’s supervision on the teacher’s professionalism.
2. To analyze the effect of the principal’s supervision on the teacher’s work commitment.
3. To analyze the effect of self-efficacy on the teacher’s professionalism.
4. To analyze the effect of self-efficacy on the teacher’s work commitment.
5. To find out the effect of work commitment on the teacher’s professionalism.

III. RESEARCH HYPOTHESES

The research hypotheses formulations (Figure 1) are as follow [6]:
1. There is a direct influence of the principal’s supervision on the professionalism of the teacher.
2. There is a direct influence of the principal’s supervision on the teacher’s work commitment.
3. There is a direct influence of self-efficacy on teacher professionalism.
4. There is a direct effect of self-efficacy on the teacher’s work commitment.
5. There is a direct influence of work commitment on teacher professionalism.

In this study, the description that will be sought is the influence between independent variables on dependent variables through an attitude statement described by the data in the form of scores that state the influence at a certain level through a test of significance with statistics.

Following the method used in the research, the path analysis used is to calculate the results of the respondents’ answers to the research instruments in accordance with the paradigm used, named the dual paradigm consisting of the dependent variables, they are the teacher’s professionalism and three independent variables (supervision of the principal, self-efficacy, and work commitment).

In an attempt to answer the the question for this research, this research is based on the opinion of Agus Sukoco, an expert in science education and as chairman of the APSI (Association of all Indonesian Supervisory) who said that the work commitment of a teacher is very dominant in making himself be a professional teacher. In addition, he said that self-efficacy is the basis of the profession of a teacher. In his experience as a professional, teachers desperately need the role of the principal as a supervisor.

Population and Sample

The population in this study were all the Natural Science teachers of the Junior High School in East Jakarta, totaling 464 teachers from 95 schools. It means, a number of these teachers constitute a generalization area of results in the research that based on the specified sample.

While the sample is a portion of the population that has the same characteristics so that it truly represents the population. The technique of determining the number of samples is found in many techniques and methods, as stated by S. Arikunto [3] that if the subject of the population is large then it should enough as an ancercer sample taken between 10 to 25 percent.

Based on the calculation of the Slovin formula, obtained a sample of 82.269 natural science teachers, but in order to facilitate the distribution of samples, the authors took as many as 82 science teachers with a simple random sampling technique.

Types and Sources of Data

Viewed from the source, the data in the study are in the form of primary data and secondary data. The primary data was taken from the respondents through questionnaires, while the secondary data was obtained through interviews and document studies. The technique of collecting data was done through conducting questionnaires to respondents which includes all research variables that have been tested for validity and reliability so that it is feasible to be disseminated.

Questionnaires are made based on the number of research variables, namely the professional ability of the teacher, supervision of the principal, self-efficacy, and work commitment. All questionnaires in each study variable used a Likert scale with options until scale five.

IV. RESEARCH METHOD

Research Design

This study uses a quantitative approach with survey method aimed to get an overview of the existing phenomena through collecting data from samples for research because it is likely in less possible to reach a large enough population of the research. Determination of research methods with this survey is based on the opinion of Mc Millan and Schumaker [7] that survey research is used to describe the object under study in the form of attitudes, beliefs, values, behaviors, opinion opinions, ideas, events, frequencies and distributions of circumstances and linkages between variables.
Data Analysis Method

The analysis of data are grouped in two forms namely descriptive and inferential. The inferential analysis used the Linear Structural Relations (LISREL) [6] to estimate structural coefficients and parameters that were not needed, and the accuracy of the models with empirical data and models used if needed. This study used a standard score that is data that have been standardized in the results table regression estimation.

V. RESULTS

To test the research hypotheses there are several steps carried out; determining the magnitude of the direct effect of exogenous variables on endogenous variables, determining the amount of correlation between variables, making path equations, testing the significance of path coefficients, and determining the total effect of exogenous variables on endogenous variables. The statistical test required for this purpose is path analysis.

Table 1. Results of Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>16.576</td>
<td>13.255</td>
<td>1.251</td>
<td>0.215</td>
</tr>
<tr>
<td>Y = X1</td>
<td>0.497</td>
<td>0.086</td>
<td>0.287</td>
<td>2.582</td>
</tr>
<tr>
<td>Y = X2</td>
<td>0.469</td>
<td>0.134</td>
<td>0.316</td>
<td>3.500</td>
</tr>
<tr>
<td>Y = X3</td>
<td>0.276</td>
<td>0.110</td>
<td>0.224</td>
<td>2.510</td>
</tr>
</tbody>
</table>

Table 2, it can be explained that the path coefficient between the principal supervising variable with teacher professionalism is 0.237, the path coefficient score between the principal supervising variable and work commitment is 0.351, the path coefficient of the self efficacy variable with work commitment is 0.241, and the path coefficient of work commitment variable with the teacher’s professionalism variable is 0.254.

The results of testing all research hypotheses submitted as stated above, can be summarized in the Table 2 as follows:

Table 2. Calculation results and Path Coefficient Test

<table>
<thead>
<tr>
<th>Lane</th>
<th>Coefficient Line</th>
<th>Determination %</th>
<th>t-value</th>
<th>% sig</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>X0X1</td>
<td>0.237</td>
<td>18.17%</td>
<td>2.392</td>
<td>1.671</td>
<td>Significant</td>
</tr>
<tr>
<td>X0X2</td>
<td>0.351</td>
<td>27.77%</td>
<td>3.380</td>
<td>1.671</td>
<td>Significant</td>
</tr>
<tr>
<td>X0X3</td>
<td>0.356</td>
<td>37.78%</td>
<td>3.500</td>
<td>1.671</td>
<td>Significant</td>
</tr>
<tr>
<td>X1X2</td>
<td>0.241</td>
<td>30.00%</td>
<td>2.331</td>
<td>1.671</td>
<td>Significant</td>
</tr>
<tr>
<td>X1X3</td>
<td>0.254</td>
<td>35.65%</td>
<td>2.518</td>
<td>1.671</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Based on the results of testing the hypothesis above, it can be stated as follows:

1. Variable of principal supervision have a positive direct effect on teacher professionalism variables.
2. Variable of principal supervision have a direct positive effect on work commitment variables.
3. Variable self-efficacy has a positive direct effect on teacher professionalism variables.
4. Variable self-efficacy has a positive direct effect on the variable work commitment of the teacher.
5. Variable work commitment has a positive direct effect on teacher professionalism variables.

Information;
X1 = Supervision of the principal
X2 = Self-Efficacy
X3 = Work commitment
Y = Teacher’s professionalism

Figure 2. The Coefficient of Inter-variable Path

VI. DISCUSSION

Teacher professionalism is an endogenous variable that is influenced by 3 (three) exogenous variables, they are supervision of the principal, self efficacy and work commitment. Through multiple regression calculations, the positive effects of these three variables which were significant both at the alpha level of 0.05 and 0.01 was found. The findings of this study indicate that variations in changes in teacher professionalism are highly dependent on variations in changes in school principal supervision, self- efficacy and work commitment.

A.1. Supervision of the Principal and Teacher’s Professionalism

The professionalism of a teacher in carrying out his duties cannot be separated from two sides, internal and external. The side of internal is the desire and willingness to develop and to achieve the realization of self-professionalism to work in accordance with the demands required. Professionalism is someone's expertise that is obtained consciously and directed in mastering various types of knowledge and skills that are obtained from generation to generation or by other ways [8].

Professional development of teachers through supervision by the school principals greatly influences the educational activities both directly and indirectly. The role of the teacher in learning activities is very dominant. The role of the teacher is not only administrative and organizational, but also methodological and psychological. In the learning process at school, the role of the teacher is more specific, especially in the relationship of the teaching and learning process. Here the teacher is required to be able to organize the learning environment and as a learning facilitator.

From the theoretical and empirical studies above, it is clear that supervision by the principals has a positive influence in increasing teacher’s professionalism.

A.2. Supervision of Principals and Teacher’s Work Commitments

Commitment is an individual strength for an organization that is characterized by three characteristics, they are the
strength of belief and acceptance of the values and goals of the organization, the existence of willingness and effort to remain within the organization, and the necessary efforts and care for welfare in the organization. Supervision of principals is the first exogenous variable in this study which has a contribution or influence on changes in a teacher’s work commitment, meaning that one of the variations in changes in a teacher’s work commitment depends on variations in changes in the school principal’s supervision [9].

Based on the description above, it is proven that theoretical and empirical supervision of the principal is positive and significant towards the teacher's work commitment. Thus, if it is necessary to increase a teacher’s commitment, it is necessary to increase the supervision of the principal.

A.3. Self Efficacy and Teacher’s Professionalism
Self-efficacy of teachers build a professional attitude in the work that is based on the ownership of adequate competence and skills to produce quality in an educational process resulting an adequate output.

Self efficacy is the second exogenous variable and has a positive contribution to the variation in a teacher’s professionalism, meaning that one of the changes in a teacher’s professionalism is influenced by the condition of self-efficacy, the stronger the self-efficacy, the better the professionalism of the teacher [10], [11].

Based on the description above, it is proven theoretically and empirically that self efficacy has a positive and significant effect on a teacher’s professionalism. Thus, if you want to improve the professionalism of the teacher, then the self-efficacy condition is first improved.

A.4. Self Efficacy and Teacher’s Work Commitment
Self-efficacy of a person can influence the stages by stages of his development whether it is related to healthy living habits, related to the motivation and strength of the self needed to achieve success in doing something and related to the ability to maintain that change to success. Self efficacy is the second exogenous variable and has a positive contribution to the variation in a teacher’s work commitment, meaning that one of the variations in changes in teacher work commitment is influenced by its self efficacy condition, the stronger its commitment, the stronger is his/her commitment [10] - [12].

Based on the description above, it is proven theoretically and empirically that self-effectiveness has a positive and significant effect on a teacher’s work commitment. Thus, if you want to increase the work commitment of the teacher, then the effectiveness of himself will be improved first.

A.5. Work Commitment and Teacher’s Professionalism
The teacher's commitment to the institution appears in the form of trust in the values of the organization, involvement in trying to do his best for the sake of the school and loyalty to become a member of the organization concerned. Commitment to the organization is more than a formal membership, because it includes the attitude of liking the organization and the willingness to seek a high level of effort for the benefits of the organization for the attainment of the goal. It means as referred to someone who is committed if it involves a sense of responsibility and loyalty then it means for the betterment of the organization.

Work commitment is the third exogenous variable and has the lowest contribution compared to the other two exogenous variables which is equal to 5.66% towards variations in a teacher’s professionalism, meaning that variations in teacher professionalism depend also on variations in changes in work commitment, the more the effective communication within the organization the commitment will be higher [13].

Based on the description above, it is proven theoretically and empirically about commitment to a positive and significant work towards a teacher’s professionalism. Thus, if it is necessary to improve the professionalism of the teacher, then an increased commitment is needed.

VII. LIMITATION OF RESEARCH
After discussing the results of the study, researchers found various limitations, including the following:

1. There are respondents who answer the questionnaire for a long period of time and some do only in a very short time so there is a tendency that they are less focused in answering the questions
2. Their responses are quantified only from one source, namely questionnaires. The researchers did not triangulate the data through interviews or observations according to the type and characteristics of the quantitative research so the data obtained was only in the form of the respondent’s responses in the form of a scale in questions based on the lattice of each research variable.
3. The breadth of concepts and studies are related to the research variables that focused on the research so that they allow concepts and theories that have not been studied by researchers to the applied by other researchers.

VIII. CONCLUSION
Based on the research result and discussion, it can be conclude of this research as follow:

1. Supervision of the principal is positive direct effect to the teacher’s professionalism and shows significance. That is, the increasing of the supervision of the principal reveals the increasing of the professionalism of the teacher.
2. Supervision of the principal is positive direct effect to the teacher’s work commitment and shows significance. That is, the increasing of the supervision of the principal reveals the increasing of the teacher’s work commitment.
3. Self efficacy of the teacher is positive direct effect to the teacher’s professionalism and shows significance. That is, the increasing of the Self efficacy of the teacher reveals the increasing of the teacher’s professionalism.
4. Self efficacy of the teacher is positive direct effect to the teacher’s work commitment and shows significance. That is, the increasing of the Self efficacy of the teacher reveals the increasing of the teacher’s work commitment.

5. Teacher’s work commitment is positive direct effect to the teacher’s professionalism and shows significance. That is, the increasing of the Teacher’s work commitment reveals the increasing of the teacher’s professionalism.

IX. SUGGESTION

At the end of this section, the author describes some suggestions, namely as follows:
1. Need continuous breakthroughs and policies related to a teacher’s professional development programs involving other schools such as in the form of Teachers’ Society so optimal professional communication is formed.

2. It is necessary to supervise each teacher, especially in guarding activities after the teacher certification program training or other scientific activities.

3. It needs to increase the awareness of teachers to be able to carry out their duties as educators in a professional, disciplined, and qualified manner so that they can guarantee the learning process to succeed optimally.

4. The need for effective collaboration between teachers in dealing with students who have different traits, interests, talents, abilities, and characteristics.

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