

Improving Professional Competence for Teachers

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Abstract—Professional competence includes four component of the teachers' professional competence in Indonesia. the professional competence is the ability of mastering the learning materials that can guide students to achieve the standard of competence, ruled by the National Education Standards of Indonesia. Therefore, professional competence plays an important role to achieve the learning goals. This study aimed at finding out a relationship of training, principal leadership, motivation, compensation, work ethic, utilization of information, communication & technology towards teacher professional competence. The research results showed that training, principal leadership, motivation, compensation, work ethic, and utilization of technology, information and communication had a positive relationship with the professional competence.

Keywords—professional competency, teachers

I. INTRODUCTION

The competence covers a combination of attitudes, skills, knowledge as well as values, which is possessed by a person. There are four component of teachers' professional competences in Indonesia. They are, firstly, the professional competence, i.e. the competence to master the material of science and technology. Secondly, pedagogic competence relates to effective learning management. Thirdly, social competence defines as the teachers ability to interact with students, colleague teachers and educational personnel [1]. Finally, the personality competence is associated with the teacher character as a mature person, respected, grown up, and role modelling. Accordingly, this article focusses the investigation on professional competence.

Professional competence is crucial components to become qualified teachers. The materials mastery and learning management capabilities have been the main point in achieving learning objectives. These competence also tested on Teacher Competency Test (UKG) in 2015. UKG is designed to measure the teachers' understanding on the materials and their competent in managing learning activities. The test is conducted through online written test periodically. It covers national level that make all teachers in Indonesia are obliged to join UKG.

In one of the districts, the score of UKG 2015 of high school teachers for economic is very high. The mean score of UKG in Pedagogical and Professional Competencies reaches 82.55 (2015, MGMP [Subject-matter Teacher Forum] of Economics in District level). It is above the mean target set by the Ministry of Education and Culture of Indonesia, i.e. 55. Even, there is a teacher who achieve a perfect score of 100 in the both competence test, pedagogic and professional aspects. However, the high score of UKG for economics teachers in one district is not in line with the students' learning outcomes, especially based on the result of National

Examination (UN) in 2016. In the year of 2015, the mean of UN score of high school students for social sciences department in one district is 58 but it decreases 1.93, in 2016, into 56.31 [2].

It seems that there is a missing link between the great achievement of the teacher with the high score of UKG and the declining score of senior high school-level UN of the social sciences students in 2016. It should be known that UKG of 2015 was done after UN implementation. The high score of UKG in one district of Yogyakarta should also contribute to student learning outcomes, particularly UN in 2016. It raises a question in case of the factors related to the teacher's professional competence.

The rest of this paper is organized as follow: Section II describes proposed research method of this work. Section III presents the obtained results and following by discussion in section IV. Finally, Section V concludes this work and highlight future research.

II. PROPOSED METHOD

This research can be categorized as population study by using Pearson correlation analysis technique to examining the relationship between two variables or more. The Pearson formulation is given as follow .

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{((N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2))}}$$

Where r_{xy} = correlation coefficient; N = population; X = independent variable; and Y = dependent variable.

In this study 30 high school economics teachers being involved as respondents. Data analysis technique was using Pearson correlation. There are two things that were interpreted when analysing with the Pearson Correlation technique. Firstly, the interpretation of the correlation coefficient. Secondly, interpretation of the direction of correlation. It can be seen from correlation coefficient number where the positive or direct correlation, i.e. if the change in one variable followed by changes in other variables with the same direction while the negative correlation was a change in one variable that followed by changes in another variable in opposite directions.

It was used to determine the relationship between independent variables of training (X_1), principal leadership (X_2), motivation (X_3), compensation (X_4), work ethic (X_5) and utilization of technology, information and communication done by the teacher (X_6) on the dependant variable of professional competence (Y_1).

III. RESULT

There was a positive relationship between training, principal leadership, motivation, compensation, work ethic and utilization of technology, information and communication towards teacher professional competence.

TABLE 1. CORRELATION ANALYSIS RESULTS OF X1 - X6 WITH Y1 PROFESSIONAL COMPETENCE

No.	Variable	Correlation Score	Interpretation of Correlation Score
1	X ₁ Training	0,406	moderate positive relationship
2	X ₂ Principle Leadership	0,438	moderate positive relationship
3	X ₃ Motivation	0,418	moderate positive relationship
4	X ₄ Compensation	0,483	moderate positive relationship
5	X ₅ Work Ethic	0,557	moderate positive relationship
6	X ₆ IT Utilization	0,693	strong positive relationship

From Table I, it is shown that all variables X1 - X6 had relationship with professional competence (Y1). The relationship was positive, it means the relationship was linear. Based on the results of Pearson correlation analysis, all variables of X1 – X6 had relationship with professional competence (Y1). The relationship was positive, the relationship was linear, i.e. the increase of training, principal leadership, motivation, compensation, work ethic and utilization of technology, information and communication done by the teacher, made the professional competence of high school economics teachers also getting higher.

IV. DISCUSSION

References to previous research: Gibbs and Coffey in their research found that training could improve teacher competence in teaching and students' skills in understanding learning materials [3]. The results of this study supported the theory of Gibbs and Coffey.

In case of leadership of the principal, Menon and Christou's suggested that teachers feel optimistic because the guidance, support and supervision from the principal can bring improvements to their professional competence [4]. If the principal often give advice and technical guidance to the teacher, it can improve the teachers' professional competence.

Then, based on Watt and Richardson's research, the teacher motivations was in the form of passion to teach and an opportunities for wider professional career [5]. Watt and Richardson's findings supported the results in this study, i.e. the increasing motivation of teachers influenced the professional competence of teachers.

Compensation, as stated by Praver and Baldwin, was one factor that affects the professional level of teachers in teaching [6]. This was in line with the results of this study that compensation is important in improving the professional competence of teachers, inadequate compensation for teachers could reduce the teachers professional competence.

The work ethic, Brien in Benade, revealed that it was important for teachers to have a professional ethical character that will motivate teachers to make people to act based on their belief of right or wrong and the ability to doing good things that can make them different from other people in general [7]. Similarly, the work ethic became the basis for a person in encouraging and controlling behaviour in terms of work, if the teacher's work ethic was good then the results would be also good, especially in the teaching ability related to the professional competence of teachers.

The use of information communication and technology, according to the results of Lancaster research in Ololube, claimed that teachers who qualified in terms of utilization of information, communication and technology will be more professional in terms of learning tools mastery, correspondence, presentations and others things that support learning activities [8]. This was in line with the results of this study that the qualified use of information technology by teachers could improve the professional competence of teachers.

V. CONCLUSION AND RECOMMENDATION

This study has presented the relationship of training, principal leadership, motivation, compensation, work ethic, utilization of information, communication & technology towards teacher professional competence. The results showed that training, principal leadership, motivation, compensation, work ethic, and utilization of technology, information and communication had a positive relationship with the professional competence.

This research is expected to be a recommendation guideline for the government in making decisions for the development of teacher competence, especially at the senior high school level. The future researchers can increase the number of respondents and expand the scope of the research area so that generalization does not apply in one district only.

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