

# Principal's Leadership in Developing Critical Thinking Ability to Improve Work Productivity

I Made Sudana<sup>1</sup>, Delta Apriyani<sup>2</sup>

Electrical Engineering Department, Engineering Faculty<sup>1</sup>

Family Welfare Vocational Education Department, Engineering Faculty<sup>2</sup>

Universitas Negeri Semarang

Semarang, Indonesia

deltaapriyani@yahoo.com

**Abstract**— School is a place used to gain knowledge. A good school will also be able to produce good graduates. To make it real, the school must have staffs that are professional in their respective fields such as principal, teachers as well as employees to create such school. Principal is the leader key who will be the director in developing a good school so that it can produce graduates who are ready to work in the community, particularly in the Business World and Industrial World (BWIW)/Dunia Usaha dan Dunia Industri (DUDI). The role of principal in school development is very important, both in controlling and guiding teachers to become professionals in their field and also all employees who help in developing the school so as to provide good services for learners. Particularly, vocational school teacher is an educator who has a great responsibility not only to transfer theoretical knowledge but also to develop the skills of learners' psychomotoric aspect. Based on the things above, the control and the role of principal are necessary to help develop teacher's way of thinking, to improve teachers' productivity and to improve their skills that will be transferred to the students. Many things a principal can do to develop ways of thinking of the educators in order to develop work productivity, such as providing training that helps teachers develop ways of thinking and expertise in psychomotoric competence to improve the learning process in the classroom. This study aims to determine how the role of principals in the empowerment of teachers' post-skill training in developing critical thinking skill to improve work productivity.

**Keywords**— leadership, critical thinking, work productivity

## I. INTRODUCTION

Leaders are important figures that greatly affect the success of an organization. A responsible and professional leader will produce a good organization. In this case, the leader of a school organization is the principal who controls how the school will be and what types of graduates to produce [1]. The principal must be able to direct subordinates like teachers, who play an important role when producing graduates. A teacher must have professional skills so as to provide learning to learners in a professional manner. Particularly in vocational school teachers, they should have good expertise in psychomotoric aspects since vocational students are expected to master the psychomotoric aspects according to their respective fields.

In this case, the role of principal is to provide opportunities for teachers to conduct competence trainings

particularly to improve psychomotoric competence, in the hope of developing students' skills to be more qualified. Teachers have an important responsibility to produce qualified graduates who are ready for work and to develop knowledge based on current and future development of knowledge and technology [2,4].

One of the factors affecting the competence is principal's leadership, since principal is the driving force to develop the school including producing graduates who have good competence [5,7]. Leadership of the principal will affect the work process of an organization, which is the school, in terms of human resources based on their capabilities, to be better (Teachers, Administration and Employees) [8].

There are still grievances gained from the community, especially BWIW, who talked about the quality of vocational school students which is still not in accordance with the competencies expected by BWIW although many teachers have been given the opportunity to attend training outside the schools. Experienced teachers are supposed to be able to significantly contribute to the learning of learners. Many factors are suspected to influence, especially in the criticality of teachers thinking, innovation and creativity, especially in their empowerment after competence training that impact on productivity in vocational schools. The role of principal leadership, the suitability of training materials to the needs of teachers, support facilities, school academic atmosphere, allegedly affect the critical thinking of teachers so that it relates to the productivity of vocational schools, and there are also inhibiting factors that must be fixed, either from the time and quality of teachers, and facilities and infrastructure owned as well as the existing structural issues [9,10].

In this case, a teacher is required to improve their work productivity or good competence to be the main view of important components through critical thinking and skill they owned based on the existing situation and condition in order to create high quality graduates based on the company's needs [11,15].

Vocational education is based on a "demand-driven" workforce need who are emphasized to master the hard skill competencies and soft skills required by BWIW and its environmental community [16,17] Vocational education will work if they are able to practice and maintain the principles of pragmatism where educators and learners are together in

doing the learning process, emphasizing the real-world situation, being contextual, and making experience as an important part, having progressive educators and rich ideas [18]. Therefore, teachers play a key role in providing skills to learners that leads to the quality of graduates.

Productivity is defined as a measure of the quantity and quality of the conducted work, by taking into account the cost of the resources used to do the work. It is also useful to see productivity as the ratio between output and output [19]. Associated with individual productivity (teacher), this will depend on three factors: the ability to do the job, the level of effort, and the support given to the person. To improve educational productivity where if education is seen as a system of teaching, teaching tasks can be divided more rationally, to be more effective at lower overall cost [20].

The concept of critical thinking according to Paul, Elder and Bartell is etymologically derived from two Greek roots which are "kritikos" meaning discerning judgment and "kriterion" (meaning standards) [21]. Fisher & Scriven defines critical thinking as "skilled, active, interpreting and evaluating observations, communications, information, and arguments" [22].

## II. METHOD

The objects of research were all state vocational education school in Semarang city on number 12 unit, while its subjects were principle and productive teachers who have attended the training. The sample was the purposive sampling, and the sample were 87 teachers and 12 principle. The data retrieval used was the validation of closed questionnaire. Tested with expert judgment technic, documentation and interview. There are five free variables in this research they are (1) Principles, (2) facility, (3) Training, (4) Critical Thinking and (5) atmosphere of academic and reviewed the impact in teacher productivity.

Percentaged descriptive analysis is used to analyze data and information. The technique used to analyze this descriptive data is case study approach. Robert K. Yin [23] stated that case description is an analytical technique that seeks to develop a descriptive framework for organizing the collected information and data. Regression analysis is used to find out the level of the contribution of each variable.

## III. RESULT AND DISCUSSION

Data is obtained through questionnaire distributed to 60 samples from 7 Public Vocational Schools of technology group in Semarang city which is analyzed by using descriptive technique and path analysis technique. The result of the analysis shows that in general the principal has empowered the teachers well, and the teachers get support both in the form of policy and facility to innovate and to be creative with the training results, and it is also able to grow teachers' critical thinking. Facility support has been considered well, and most respondents stated that the academic atmosphere was well established, and almost all respondents stated that the training materials were suitable for the needs. Most respondents have been able to develop critical thinking, in the form of developing innovations, creations and opinions to leaders particularly related to the development of facilities. However, there are things that need to be considered by the principal, especially with regard to facilities and infrastructure, teacher performance

measurement criteria, and in the assignment of teachers to attend training.

Framework of relationship between Principal's Leadership and Teacher's Productivity:

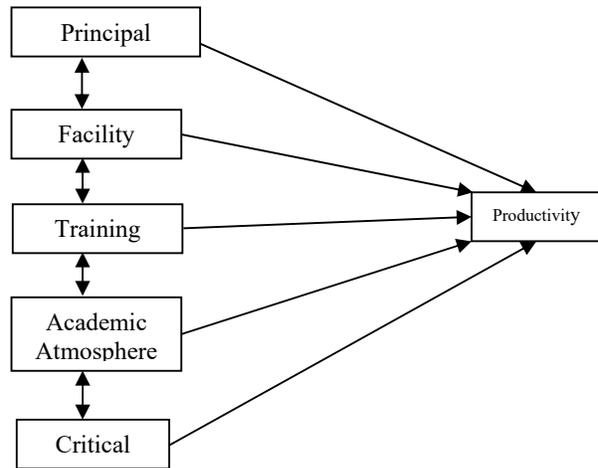


Fig. 1. Relationship of Principal with Teacher's Productivity

There is a relationship between Principal's Leadership (X1) and Support of Available Facility (X2)  $r_{12} = 0.09$ , correlation between Principal's Leadership (X1) and Conformity of Training Material (X3)  $r_{13} = 0.01$ , Principal's Leadership (X1) with Academic Atmosphere (X4)  $r_{14} = 0.738$ , correlation between Principal's Leadership (X1) and Critical Thinking (X5)  $r_{15} = -0.113$ , correlation between Principal's Leadership (X1) and Productivity (X6)  $r_{16} = 0.092$ . There is a correlation between Support of Available Facility (X2) with Conformity of Training Material (X3)  $r_{23} = 0.685$ , correlation between Support of Available Facility (X2) with Academic Atmosphere (X4)  $r_{24} = 0.237$ , correlation between Support of Available Facility (X2) with Thinking Critical (X5)  $r_{25} = 0.430$ , and the correlation between Support of Available Facility (X2) with Productivity (X6)  $r_{26} = 0.599$ . There is a relation between Conformity of Training Material (X3) with Academic Atmosphere (X4)  $r_{34} = 0.140$ , relation between Conformity of Training Material (X3) with Critical Thinking (X5)  $r_{35} = 0.368$ , and a relationship between Conformity of Training Material (X3) with Productivity (X6)  $r_{36} = 0.374$ . There is a relationship between Academic Atmosphere (X4) with Critical Thinking (X5)  $r_{45} = 0.162$  and a relationship between Academic Atmosphere (X4) and Productivity (X6)  $r_{46} = 0.276$ , as well as a relationship between Critical Thinking (X5) and Productivity (X6)  $r_{56} = 0.276$ .

It is recommended to include teachers for training, to pay attention to the needs and willingness of teachers, particularly with regard to funding. There is a need for a post training teacher management, and the clear evaluation tool for assessing teacher's performance and clearer strategies to improve teaching and learning process quality.

#### IV. CONCLUSION

Principal has a very important role in the development of critical thinking for employee members, especially for teachers. All this time, the principal's role has been going well. It is proven by the provision of training opportunities for teachers that are useful to develop their skills as an asset when they provide suitable learning for the development of knowledge and technology in the business world and industry world, as a learning that will be given to learners in accordance with their expertise. In terms of facilities and infrastructure, they have complied with the needs of the learning process so that they help to establish and assist in developing work productivity through the development of critical thinking of a teacher.

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