

Development of Teachers' Teaching Quality through Pre-service and In-Service Training: A Thinking Contribution to Improve Teachers' Teaching Quality in Vocational High School

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Abstract—Educational quality in vocational high school was affected by many determinant factors. One of the factors is teaching quality conducted by teachers. Teaching quality were not only measured by student's competence test score, but also it was detected by teaching-learning process in the class. It means that the quality of teachers' teaching has to be viewed by output and process side. Problems of teachers' teaching quality has been discussed by many persons since a longtime ago, because the quality was assumed as a determinant of educational quality. Proposed thinkings in the teachers' teaching quality improvement are conducted by pre-service and in-service training. The first training will be implemented for teacher candidates in the teachers educational institute, and the second can be conducted for teachers in the school. In the pre-service training, teacher candidate students will be trained with teaching theories and practices in campus, and with teaching experience practice in school for some months. In-service training is used to improve teaching quality for some experienced teachers in the school with industrial attachment, with in-house training in teaching method and media, with teaching skill contest, and with teaching supervision, monitoring and evaluation.

Keywords: *Educational Quality, Teachers' Training Quality, Pre-Service Training, In-Service Training.*

I. INTRODUCTION

The teachers' role in vocational education is very important. Teacher is one of several determinants of the quality of vocational education. In many studies, determinants the quality of vocational education are the characteristics of students, curriculum, qualifications and competence of teachers, teaching facilities, the learning process, fundings, and the other.

The quality of vocational education is not only determined by student achievement, but also be seen from the learning process. Good learning process is highly dependent of qualifications and competence of teachers. Qualifications of teachers is the highest education level in the field of vocational education, especially in the field of teacher training, while competence of teacher is the ability to master the teaching materials and how to teach those materials in the class. It is stated that teacher's teaching

quality can be evaluated by quality of student achievement and by quality of learning process. In other words, the quality of teaching can be viewed by output and process side.

The teachers' qualification and competence are two important factors in teachers' teaching quality. Teachers' qualification in teaching process is a formal requirement in a school institution. The qualification is minimal graduate certificate from educational institute or university. The teacher have finished as undergraduate or master degree from university. Teachers usually have certified training experiences. Teachers' competencies in the teaching are ability in conducting teaching process. There are four competencies that has to be possessed by a teacher. Those competencies are: (1) personality competence, (2) pedagogy competence, (3) professional competence, and (4) social competence.

There are some problems in teacher competence in Indonesia. Based on data from Ministry of Education and Culture of Indonesia showed that there are many teachers in 337 district/city who do not pass the Initial Competency Test (UKA) [1]. The average score of test in the counties/city is only 42,25. It mean that the score is below of the national average score. Initial competence scores that are above the national average in 197 counties/city. The highest test score is 97 and the lowest is 10. This facts indicated that many teachers still have low competence. The result of competency test on the teacher indicated that the teachers still have not mastered the learning material well. To master the material taught is the main requirement in addition to mastering how to teach the material. In teaching activity, teachers prepare Lesson Implementation Plan (RPP) or Lesson Plan and then implement the learning. In teaching, the teacher should make students able to study well. Quality of teaching can be viewed from teacher ability in learning process and in students achievement. When students learn best in learning and getting good grades scores, it can be said that the teaching quality of teacher is also best. Thus the teaching quality of teacher can be seen from the quality of learning process and students achievement.

Based on the results of the initial competency test above, it can be said that the teachers' competence in teaching should be improved. Improvement of teacher

competence in teaching will also improve the quality of teaching from the teacher. How to improve the quality of teachers' teaching? Is the teachers' teaching quality improvement can be carried out before serving? Is the teachers' teaching quality improvement can only be done at the time served as a teacher? How is the way to improve the quality of teachers' teaching before a teacher candidate in educational institution begin to work as a teacher? How is the way to improve the teachers' teaching quality to experienced teacher in the school?

II. LITERATURE REVIEW

A. *Teachers' Teaching Quality In Vocational High School*

Leighbody and Kidd said that teaching is simply helping other persons to learn [2]. The teacher plans the students's experiences so that they will lead as quickly and directly as possible to mastery of desired skill and knowledge. Braskamp stated that teaching is related to student learning and deals with establishing conditions for facilitating learning [3]. Gage claimed that teaching is any activity on the part of one person intended to facilitate learning on the part of another [4]. Bloom taxonomy states that human ability consist of three domains, namely cognitive domains, affective domains, and psychomotoric domain. In the curriculum of vocational high school, the ability is called normative competence, adaptive competence, and productive competence. Teaching the students in vocational high school is to teach the three competence. Teaching in vocational high school means to do learning process in the classroom and in the school laboratorium or in the school workshop. The students of vocational high school has to do industrial internship (Prakerin) in the world of work or in the world of industry. The teacher' role in the industrial internship is a counselor of the school, while most of the coaching was conducted by officer from the industry.

Teaching in vocational high school is conducted by a variety of methods. There are some methods of teaching, namely methods of teaching new skills, methods of teaching information, and methods of teaching knowledge [2]. New perspective towards skill assumed that skill definition is not only related with psychomotoric domain, but also it is related with cognitive and affective school. Trilling and Fadel stated that there are two kinds of skill, namely basic skills and applied skills [5]. These skills are: (a) Oral and written communication, (b) Critical thinking and problem solving, (c) Professionalism and work ethic, (d) Teamwork and collaboration, (e) Working in diverse teams, (f) Applying technology, and (g) Leadership and project management.

Teaching of vocational theories and practices in vocational high school, a teacher has to possess competence in theories and in practices. In the teaching-learning process, teachers has to master teaching materials and has to be able to teach with some variety teaching methods. There are some teaching methods in the vocational high school. These methods are discussion, giving assignment, group work, demonstrations, experiments, problem solving, and shop-talk. With varied teaching methods will make students more actively in the

learning process so that eventually students will acquire a high learning achievement.

Teaching is to make a lesson plan (RPP) and then implement the plan in the learning process. In the lesson plan is declared the basic competencies to be achieved. The basic competencies to be achieved through the learning objectives, namely the behavior that must be possessed by students after attending lessons. To achieve this learning objectives, teaching material and strategies for delivery of these material must be prepared. The quality of teachers' teaching can be measured from the effectiveness of learning objectives achieved in learning process. Effectiveness in management (learning process) relating to getting the right things done [6].

The quality of teachers' teaching can also be seen from the student satisfaction in following the learning process. The response of students towards learning proses by teachers include several things, namely: the delivery of basic competencies and learning objectives, delivery of teaching materials, aplication of teaching material in the daily life, variation in learning, student engagement in learning, respect for student' opinion, and so forth. The level of students satisfaction towards the learning process can be used to see how far the succes of teachers in achieving the learning obyectives. To ensure objectivity, the response sheet of the students were not given the identity of the student's name. Although students have not been able to assess teaching quality, the satisfaction respons can help to determine teachers' teaching quality.

Teaching quality of the teachers can be also judged from the results of monitoring, evaluation, and supervision carried out by the School Supervisors and Principal. Teachers' teaching is periodically supervised by both Supervisor and Principal. After Supervisor and Principal implement monitoring and evaluating the teacher in teaching, then they do the supervision and coaching of the teacher. Result of the supervision is used to determined the teachers' teaching quality.

Productive competencies taught in vocational high school is more than adaptive or normative competencies. Thus the quality of teaching in vocational high school can be measured from the effectiveness of achievement of productive competence. If all the productive competence can be achieved in the learning process, it means that the effectiveness of achieving of learning objectives is high. It can be said that the teaching quality of teachers is also high. High teaching quality of teachers is supported by the high competence of the teacher as well. The low initial competence test result on the teachers showed that the teachers' teaching quality should be improved.

III. DISCUSSION

A. *Improving Teachers' Teaching Quality*

Teaching is simply helping other persons to learn. Teaching is conducted by teachers, while the person who learning is students. Qualifications of teachers are graduates of higher education or university in the field of teacher training. As a candidate of vocational high school teachers, students from universities in the field of vocational education will be trained to teach in vocational high school. Thus the training of teacher candidates are

taught to do when he was a student at the university. Training to teach while at the university are expected to make graduates better prepared to teach as a teacher.

After graduating from teacher education institutions in the field of vocational education, graduates are working as teachers who are ready to carry out their duties in vocational high school. Since served as a teacher at the

vocational high school, the teacher began to teach and have experience teaching.

Based on system approach, teachers' teaching quality can be improve when candidate teachers study in university (preservice training) and when the teacher had served on the school (in-service training) (See Figure 1).

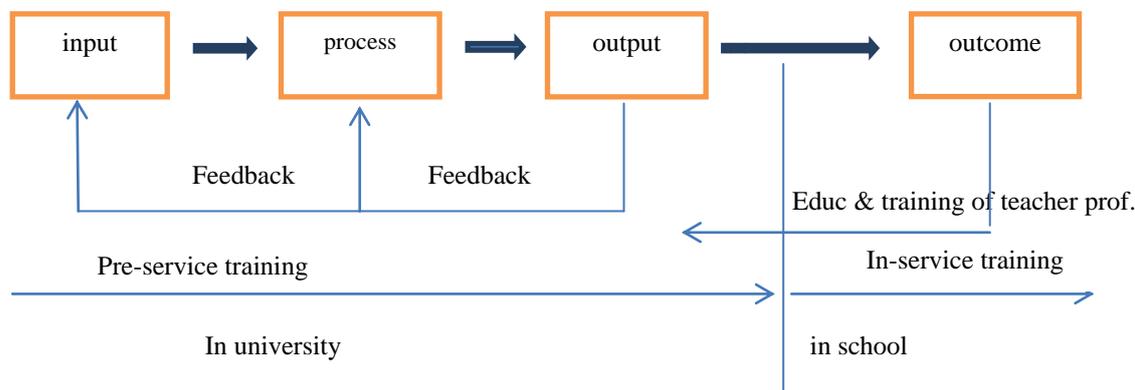


Figure 1. System Approach in Teachers's Teaching

1) Pre-service training improvement

Pre-service training is an instruction which takes place before a person begins a job or task [7]. In the system approach, pre-service training improvement is done before teacher candidate entering the work of work as a teacher. Preparing teacher candidates through pre-service training in order to have a good teaching quality can be done by some ways, namely: (1) talent scouting towards the best graduates from high school possessed talent and interest in becoming a teacher, (2) conducting lectures in the classroom theory and practice in the laboratory/workshop in the field of vocational and in the field of education or learning, (3) giving a teaching experience practice (PPL) in some vocational high schools for some months, (4) implementing practice of industrial experience in the industries related to his or her vocational field for several months, (5) ensure the student of teacher candidate is to accepted as teacher in designed school, (6) providing scholarship to teacher candidate during their education, (7) providing dormitory facilities to stay to the candidate teachers.

Ways done above is expected to establish the quality of teaching when the teacher candidate are assigned a teacher. With the talent scouting will be obtained students of teacher candidate who are talented and interested in becoming a teacher, so expected to have a good quality of teaching practices. Course of theory and practice in the field of vocational and education are expected to make the students master the learning material and also how to teach it, which is expected to make the quality of teacher candidates to teach better. Practice of teaching in some vocational high schools for a few months is expected to increase the experience for students in dealing various problems in teaching. Thus the teacher candidates are expected to have a good quality of teaching. Practice of industrial experience in the industries is expected to make the students of teacher candidate to master productive competence which supporting the teaching quality. Providing dormitory facilities and scholarship, and

ensuring to accept to work as a teacher are also way to form teaching quality of teacher candidate. Students as raw input with curriculum and learning facilities as instrumental input will interact in learning process. Expected effect of this learning process are good teaching quality of the teacher candidate.

Preparation of teacher candidate in Indonesia remains a big problem, because there are two things to the contrary. On the one hand, the existence of enormous interest to the field of education, whereas in others there will be restriction on acceptance of the students of teacher candidate. Based on government data that the Nasional Selection for the State University showed that more than half the selection of participants chose the Faculty of Teacher Training and the most preferred [8]. Instead, the government is restricting new admission in the field of teacher training students by reasons just to replace the teachers who will retire.

2) In-service training improvement

In-service training is education for employees to help them develop their skills in a discipline or occupation. In-service training take places after an individual begins work responsibilities [9]. Most typically, in-service training is conducted during a break in individual's work schedule. In the system approach of teachers' teaching, in-service training improvement is conducted since a teacher start teaching in a school.

In-service training improvement of teachers' teaching quality is conducted towards experienced teachers. There are many ways to improve teaching quality for the teachers, but some of them is populer be done. These ways are: (1) by industrial attachment, (2) by in-house training in learning methods and media, (3) by teaching skill contest, and (4) by monitoring, evaluation, and supervision.

Industrial attachment is a practice of industrial experience conducted by teachers in the world of industry.

Purpose of this practice is to achieve relevance of taught competence with technology development. It is expected that quality of teaching will be maintained. In-house training is a training conducted in work place or in the school. As a trainer is trained teacher before. In-house training is assumed more efficient and more effective to increase the quality of teachers' teaching. Teaching skill contest is less popular to do but it is better to try. By the contest in teaching skill, the teacher is expected to analyze the weakness in his teaching, thus the teacher can improve the quality of his teaching. Monitoring, evaluation and supervision are carried out by School Supervisor and Principal. The aims of activity is to analyze teacher' teaching activity and to discuss it with the teacher, and finally the teacher is be able to improve his teaching quality.

Initial-competence test (UKA) conducted by Ministry of Education and Culture is a requirement for attending program of teacher certification by Teacher Education and Professional Training (PLPG). In addition government also organized a Teacher Competency Test (UKG) to be followed by teachers who already have professional certificate and acquire Professional Education Allowance (TPP). Purpose of the Teacher Competence Test is to maintain the quality of the teaching profession, which means also in the quality of teaching.

IV. CONCLUSION

There are many determinants of educational quality, and one of them is teaching quality conducted by teachers. Teaching quality is effectiveness in achieving of learning objectives carried out by teachers. It also means that the teaching quality is effectiveness in achieving planned competence. There are three competencies in vocational high school, namely normative, adaptive and productive competence, but the productive competency is majority.

Ideally, teachers in vocational high school also possessed four competencies, namely: personal competence, pedagogy competence, professional competence, and social competence. By these teacher competencies in teaching, it is expected that learning objectives or planned students competencies in vocational high school can be achieved effectively. It means that teachers' teaching quality can be achieved.

Factually, based on result of Initial Competence Test towards a number of teachers in 337 counties/cities showed that competency of the teachers is relatively low. This teacher competencies will affected teacher competency in teaching activity, and is probably suspected to affect quality in teaching. Low quality of teachers' teaching will affect the educational quality, so the teachers' teaching quality has to be improved.

Teachers' teaching quality improvement is proposed by pre-service training and by in-service training. Teaching quality improvement through pre-service training is to prepare students of teacher candidates to follow educational program in Teacher Training Institutions/University. The improvement is implemented by ways: (1) talent scouting towards the best graduates from some high schools, (2) conducting lectures in the classroom theory and practice, (3) giving a teaching

experience practice, (4) implementing practice of industrial experience in the industries, (5) ensure the student of teacher candidate is to accepted as teacher in designed school, (6) providing scholarship to teacher candidate, and (7) providing dormitory facilities to stay to the candidate teachers.

Improvement towards teachers' teaching quality through in-service training is to maintain and to increase teacher competency in teaching. The improvement is conducted by ways: (1) by industrial attachment, (2) by in-house training in learning methods and media, (3) by teaching skill contest, and (4) by monitoring, evaluation, and supervision.

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