

# IMPROVING THE QUALITY OF PRACTICE LEARNING THROUGH COMPETENCY-BASED LEARNING WITH COLLABORATIVE SKILL APPROACH ON VOCATIONAL EDUCATION

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## Abstract

Learning is the core of education. It means solving the problem on technology and vocational education cannot be separated from the demand of innovations that focus on the improvement of learning quality. Competency-based learning of practice with a collaborative approach is one of learning innovations which is relevant to be conducted in vocational education. It is in line with the main objective of vocational education i.e. to provide productive competence for the learners to become graduates who are ready to compete in the corporate world.

Principally, the implementation of competency-based learning of practice with a collaborative approach is by dividing the students into groups. Each member of the group has the task to work on one component, which is then combined into its group to be one unit.

The advantages of this learning model were: 1) the existence of positive interdependence among learners, 2) promoting intensive face-to-face interaction, 3) developing a sense of personal responsibility, and 4) stimulating students' collaborative skills.

Keywords: collaborative skills, learning practices.

## 1. Introduction

Vocational education as part of the national education system plays a strategic role for the realization of a highly skilled workforce. Based on this fact, it is the responsibility of vocational education to produce competent graduates. Therefore, the competencies will be developed through a process of learning should refer to the competencies required by the industry.

Based on the fact that there are in the manufacturing industry, that the process of making one unit of the product requires the collaboration of various skills (collaborative skills). Without the cooperation is good then the final result of the expected product can not be achieved. One attempt to instill attitudes and behaviors related to the competence of learners demanded by the industry is to develop a model of practice learning skills through collaborative approaches. As described above, that the competencies required by the industry is not only one competence alone, but combined (collaboration) of some ability to produce one unit of a particular product. This provides feedback that the model of learning and teaching materials are provided in the learning

process in vocational education must adapt to what is implemented in the industry.

In order for the learning process in vocational education in sync with what is happening in the industry, it is necessary to the selection of an appropriate learning model. One model of learning that is appropriate to what is done in industry is a competency based learning model with collaborative skills approach. Implementation of competency-based learning model with this skill collaborative approach is deemed feasible and important to do because it has advantages such as: 1) familiarize students with the climate system and work in the industry, 2) the expected competencies in the learning process can be mastered by learners to the maximum, 3) the delivery of competency in the learning process can be carried out effectively and efficiently in order to create graduates who are ready to use, 4) establish a culture of collaboration in the learning process so that the practice of increasing learners' learning motivation, 5) improve the learners' learning achievements.

Based on various studies and research result shows that the model of learning by doing with this skill collaborative approach can provide a positive contribution to improving the quality of teaching practice in vocational education. Therefore, the learning model must be diimplementasikan on vocational education in order to produce graduates that really fit with the demands of the job market.

## **2. Discussion**

### **2.1 . Vocational Education**

According to Calhoun and Finch (1976: 2), that the definition of vocational education developed the concept of translation vocational education and occupational education, which means an educational program that is directly linked to one's preparation to enter the workforce, or for additional preparation required in a career. Furthermore, according to Finch and Crunkilton (1979:2) vocational education is defined as education that provide supplies to students in order to work in order to sustain his life.

According Hoachlander and Kaufman (1992) education experts from NCEES (National Center for Education Statistics) USA: vocational education is intended to help prepare students for work, both inside and outside the home, many educators believe it has a broader mission: to provide a concrete, understandable context for learning and applying academic skills and concepts (<http://nces.ed.gov/pubs92/9269.pdf>.10–2012).

Based on these opinions means that the vocational education needed to prepare students to be ready to work both inside and outside environmental community, the primary mission of educators and policy makers are preparing a strong foundation in the learning process for the learners to mastery and application of academic skills and concepts needed to deal with the real world of work.

According Wardiman (1998) characteristics of vocational education is: 1) is directed to prepare the students enter the workforce; 2) based on the needs of the workforce; 3) emphasis on the mastery of the

knowledge, skills, attitudes and values needed by the workforce; 4) an assessment of the success of learners should be on "hands-on " or performance of the work; 5) a close relationship with the world of work is the key to successful vocational education; 6) are responsive and adaptable to the advancement of technology; 7) more emphasis on " learning by doing " and hands-on experience; 8) require sophisticated facilities for practice; and 9) require investment and operational costs outweigh public education.

Based on the various opinions on the above, it is clear that the emphasis of vocational education is to equip students with a set of skills and abilities (competencies) that can be used to work in a particular field or develop themselves according to their expertise. Thus, preparation of standard competencies appropriate to particular areas of expertise is needed as a reflection on the competence expected of all graduates of vocational education. So the future of vocational education contributed greatly to the progress and development in all areas of human resources puts us in a respectable position parallel to other nations.

### **2.2. Competence -Based Learning**

Competency-based learning is the learning undertaken by learners competency achievement orientation. So the end result of learning estuary is increasing competence of learners that can be measured in a pattern of attitudes, knowledge, and skills (Purnomo Sidik:<http://kidispur.blogspot.com/2009/01/pri nsip-pembelajaran-berbasis.html>). The concept of competency-based learning requires a clear formulation of competencies that should be possessed or displayed the students after participating in learning activities. With the achievement of competence benchmarks in learning activities learners will avoid unnecessary study material is material that does not support the achievement of mastery of the competency.

Achievement of each competency is closely linked to the learning system. Thus the minimal components of competency-based learning are:

- a. the selection and formulation of appropriate competencies.

- b. specification of indicators to determine the achievement of competence assessment.
- c. development of delivery systems that are functional and relevant to the competency and assessment system.

Associated with the learning aspect, Ministry of Education (2002) states that the competence-based learning has the following five characteristics: (1) Emphasis on achievement of the competence of learners, both individually and classical, (2) results-oriented learning and diversity, (3) Submission in learning approaches and methods that vary, (4) sources of learning not only professors but also other learning resources that meet the educational elements, (5) emphasizes the process and learning outcomes in an effort to control or achievement of competence.

Characteristics of competency-based learning demands educators to constantly innovate and improvise in determining methods and learning strategies appropriate constantly innovate and improvise in determining methods and learning strategies are appropriate. In the learning process experienced many obstacles, professors are required to seek and find new approaches are effective and efficient. But at this point the teacher / lecturer is still considered to have the stock of knowledge is less didactic, methodical , and creativity in the learning material (Dedi Supriyadi, 2001). In such conditions, the selection of the learning model must be adapted to the ability of professors, lecturers work and not burdensome. Furthermore, according to the National Professional Certification (BNSP), there are four (4) dimensions of competence that must be considered, namely: (1) Task Skill is the ability to perform key functions of a job, (2 ) Task Management is the ability to manage different types of tasks to support the work, (3) Contingency Management Skill : the ability to respond to and manage irregular events or problems from a job, and (4) Job/Roll environment Management Skill is the ability to adapt to environmental responsibility work.

### **2.3. Competency Based Learning Model with Collaborative Skills Approach**

According to Ted Panitz (1996 ), that collaborative learning is a philosophy of learning that allows learners to cooperate,

nurture each other, learn and change together, and move forward together anyway . This is the philosophy that it takes a global world today. This means that collaborative learning easier for students to learn and work together, each contributing ideas and responsible for the achievement of learning outcomes as a group or individually. In contrast to conventional learning, collaborative learning is a major pressure " learn together " .

Structure-based collaborative learning goals are characterized by a number so large that interdependence among students in the group . In collaborative learning , students said "we as well as you ", and they will reach the goal only if the other students in the same group can achieve their common goal (Arends, 1998; Heinich et al., 2002; Slavin, 1995; Qin & Johnson, 1995). Collaborative learning can provide opportunities to get to the success of learning practices. As for learning technology (technology for instruction), collaborative learning involves the active participation of learners and minimize the differences between individuals. Collaborative learning has added momentum formal and informal education of the two forces met, namely: (1) practical realization, that life outside the classroom requires collaborative activities in life in the real world; (2) raise awareness of social interaction in efforts to achieve meaningful learning.

According to the Johnsons (1974), there are at least five basic elements that occur in a collaborative learning groups, namely:

- a. Positive interdependence. In this lesson each student should feel that it depends positively and tied with among fellow members of the group with responsibility: 1) control of learning materials; and (2) ensuring that all members of his group was mastered. They feel will be successful when other students are also not successful.
- b. Direct interaction between learners. Learn the best results can be obtained by verbal communication among participants learners are supported by positive interdependence. Learners should face each other and help each other in achieving the learning objectives.
- c. Individual accountability. To be in a group of learners can contribute, support and help each other, each student is required to master the material which is used as the

subject. Thus each member of the group responsible for studying the subject and is also responsible to the group learning outcomes.

- d. Collaboration skills. Social skills of students is very important in learning. Learners are required to have the skills to collaborate, so the group created a dynamic interaction to learn from each other as part of a collaborative learning process.
- e. The effectiveness of the group. Learners effectiveness of group learning process by explaining the actions which can contribute to learning and which are not, and make decisions or actions that can resume needs to be changed.

Thus collaborative skills can be defined as a blend or combination of various abilities or skills. It can be explained that the skills of collaborative product is a product produced from several types of jobs with different skills. Implications in practice learning is embodied in the learning material or the material he taught. In machining practice learning, learners are given job-sheet to work on a work-piece with machine tools. To implement practice-based collaborative learning this skill, the learning material in the form of job-sheet must be developed in order to meet the criteria of collaborative skills. This means that the job will be given to students is a job that is composed of many components. This means that in practice the learning process, the students were divided into groups, where each member has the task of working on one component can then be paired in the group into a single unit of work piece. Thus students will be more motivated to implement the learning and actually leverage in trying to master the competencies, because the group's success is the success of each individual so that they feel will be successful when other students are also not successful.

The importance of competency-based learning with a collaborative approach to learning skills to be implemented in practice are based on a variety of related research, which was carried out by: 1) Paryanto and Edy Purnomo (2007) prove that the industrial climate in the process of integrating learning activities and practices can improve learning achievement learners; 2) Mauliy Halwat and Qanitah Masykuroh (2006) prove that the implementation of collaborative learning

method can improve the independence and ability of learners in essay writing; 3) Wagiran and Nurhadiyanto (2003) found that the application of problem - based learning model Learning proven to improve learning achievement of learners and able to reduce the occurrence of misconceptions; 4) Sahat Saragih (2002 ) reported that the application of cooperative learning in the learning method able to increase the motivation of learners, interest in learning, self-confidence, and understanding of the material; and 5) Dwi Rahdiyanta, et al. (2012), found that the practice learning model with CBT approach (Competence Based Training) is able to improve the performance and motivation of learners. From various studies and theoretical studies mentioned above, the implementation of competency-based learning with collaborative skills approach can provide a positive contribution to outputs and outcomes to improve quality of practice learning to produce graduates that really fit with the demands of the job market.

### Closing

The rapid development of science and technology as well as the challenges of the global era demands of vocational education institutions should really be able to produce graduates who are able to compete, adaptive and anticipatory of a range of changes and new situations. To produce quality manpower can not be discharged from the learning system used. So the process of learning in vocational education in sync with what's happening in the world of industry, then do the selection of appropriate learning model.

Implementation of competency-based learning model with collaborative skill approach can provide solutions in an effort to improve the quality of vocational education in order to produce graduates that really fit with the demands of the workplace.

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