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SOFT SKILLS EDUCATION FOR PREPARING VOCATIONAL SECONDARY HIGH SCHOOL IN PRODUCING SKILLED GRADUATES

[1)] Widarto, [2)] Bernardus Sentot Wijanarka
Department of Machine engineering Education
Faculty of Engineering
Yogyakarta State University
Email :[1)] wied_mesin@yahoo.com
[2)] bsentot@gmail.com

Abstract

In this global era, the state requires a competitive workforce, adaptive and anticipatory, open to changes, capable of learning, skilled, easily retrained, as well as having broad and strong basic skills and be able to develop themselves. This paper discusses how to prepare graduates of Vocational Secondary School, which can be characterized as above through the effective and efficient education. Based on this research, a good workforce must have the soft skills (leadership, personality, and motivation). Models need to incorporate education in vocational hard skills and soft skills through three alternative options, namely: (1) Educational aspects of soft skills, basic vocational, and entrepreneurship conducted in schools, while the educational aspects of hard skills in the industry, (2) Educational aspects soft skills are implemented in schools, educational aspects of hard skills implemented when an apprentice in the industry, or (3) Education for all aspects of soft skills in schools, educational aspects of hard skills, basic vocational, and entrepreneurship teaching conducted at the factory. To accommodate these conditions, the vocational curriculum structure is made simple, with subjects: mandatory based on the National Curriculum, The Basics of Communication, Applied Mathematics, Computers, Scientific Method, Indonesian language, English, Project Work and entrepreneurship, and Vocational Training. Learning strategy in school uses Contextual Teaching Learning with active learning, if the place of education in industry or teaching factory using learning by doing, followed by a performance evaluation test.

Keywords: soft skills education, vocational

A. Introduction

New world order, including Indonesia's economic structure is changing in the direction of free trade and global era characterized by more cooperation opportunities between countries. But on the other hand, these changes lead to tighter competition in terms of goods, services, capital and labor / human resources. To be able to act in that era required the Human Resources (HR), which has openly competitiveness with other countries, adaptive and adaptable to a variety of changes and new conditions, open to

changes, capable of learning how to learn, have various skills, easily retrained, as well as having extensive basic capabilities, powerful, and essential for growth in the future.

To be able to follow the new world order, Tony Wagner (2008), in the book The Global Achievement Gap in order to write the Seven Skills Ability to Survive in the New World Order, namely: (1) Critical Thinking and Problem Solving, (2) Collaboration Across Networks and Leading by Influence, (3) Agility and Adaptability, (4) Initiative and Entrepreneurialism, (5) Effective Oral and Written Communication, (6) Accessing and Analyzing Information, and (7) Curiosity and Imagination.

Thus the quality of human resources is one of the most important factor in achieving successful development program. Qualified human resources will be able to manage natural resources properly and efficiently. HR problems can not be separated from labor problems. The quality of labor depends on the quality of human resources. Therefore, the quality of human resources should be given priority access to improved and developed in order to obtain good quality workforce. Qualified workforce and a high work ethic will strengthen the industry position that will eventually support country's economy.

Increased capacity and skills for the youth worker candidates is the responsibility of education, both formal and non formal education. Education is an integral part that can not be separated from the process of preparation of qualified human resources, strong and skilled. In other words, through education would be obtained by prospective workers a quality so that more productive and capable of competing with their counterparts from other countries.

Agreed with the above opinion of Tony Wagner, from the literature mentioned that in this 21st century, as a product education students are required to have competency: (1) Communication Skills, (2) Critical and Creative Thinking, (3) Information / Digital Literacy, (4) Inquiry / Reasoning Skills, (5) Interpersonal Skills, (6) Multicultural / Multilingual Literacy, (7) Problem Solving, (8) Technological Skills. When examined from the Eight Graduates Competency, competencies 1 through 7 is a soft skills, while eight are hard skills competency. Labor quality actually can be seen from their performance at work both to work independently (entrepreneurship) or working in the company. Performance measure that is easily seen is the quality of the product. Many aspects also determine the quality of employee work product.

Here are presented the results of a survey into the manufacturing industry in order to know whether the aspects that influence in producing a quality product. Corporate leaders give opinions that the contribution of knowledge is 23%, skills is 22.33%, attitude / character is 28.33% and physical condition is 26.33% . Matching employees give opinions that contribution of knowledge is 23 %, skills is 20 %, attitude / character is 30 % and physical condition is 27 %.

From the two results above it appears that aspects of the attitude / character is the aspect that has the largest contribution to producing a quality product followed by a physical condition, knowledge and skills. This becomes interesting, considering that at this time vocational school in educating their students more emphasis to the aspects of skills and knowledge. Is this fact that constitutes a gap between education and industry. Therefore, to overcome the existing gap, the company made the following strategies: (1) In choosing a new employee more emphasis on the attitude, (2) Basic skills are an advantage for new employees in manufacturing industry includes two things, namely to read technical drawings (blue print) and use measuring devices, (3) New hires need special training, (4) Training held in the company, and (5) Training materials: Company Regulation, safety, motivation, knowledge of ISO 9000.

Based on the above matters, which became our big job is how to prepare the human resources that have openly competitiveness with other countries, adaptive and adaptable to a variety of changes and new conditions, open to changes, capable of learning how to learn, has a range of skills, easily retrained, as well as having extensive basic capabilities, powerful, and fundamental to flourish in the years to come. This paper wants to discuss how planning in vocational education to prepare the workforce needs that have characteristics as mentioned above, which can be produced through education in schools with effective and efficient manner.

B. Profile of workers needed by the world of work

Need assessment study in the manufacturing industry in the Yogyakarta region obtained results as shown in Figure 1. Needs assessment study in the automotive industry in the Yogyakarta region obtained results as shown in Figure 1.

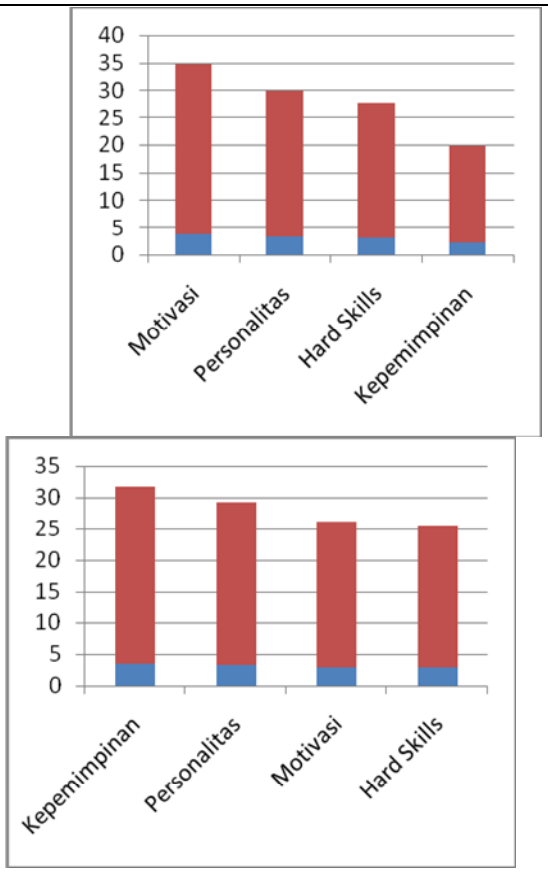

Figure 1. Need assessment Results in the machining industry (left) and the automotive industry

From the needs assessment results above it appears that aspects of soft skills (leadership, personality, and motivation) is the dominant labor required as a condition of employment. Therefore, to complement the results of the needs assessment also conducted a Focused Group Discussion (FGD) with stakeholders namely, representatives of vocational secondary school, industry , Department of Education, and Vocational Education Expert specifically discuss how important aspects of soft skills required in jobs for workers. From the FGD result that soft skill aspects important in order is: discipline, honesty, commitment, responsibility, confidence, ethics, manners, and cooperation.

C. Alternative Model in Vocational Education

Education in schools can not be separated from the instructional strategy so that educational goals can be achieved optimally, for the school to apply various learning models in accordance with the course and characteristics of learners. The word

model can be interpreted as patterns or forms. Relation to vocational education model here the word as it implies a form or pattern of vocational education. The emergence of various models of vocational education, can not be released to the community and their needs.

Simanjuntak in Heru Subroto (2004) suggested three models of vocational education in the sense of a skilled workforce that is (1) Vocational school, (2) a system of cooperation and (3) a combination of education and training. The model is a vocational school in the sense that conduct in formal education. This model is widely adopted in many countries, in Indonesia in the form of Vocational Secondary School (SMK). Operation at a vocational school in the school with the material is divided into two parts, the theory is given in the classroom and practice conducted in the laboratory / workshop. The whole theory and practice of educational activities conducted in schools with programs focusing on other forms of basic skills.

Production school model is a further development of vocational schools. Grenert and Weimann in Heru Subroto (2004) distinguish between production schools in three basic models are: (1) School of simple production, (2) School of developing production, and (3) School of developing production in the factory as a place of learning.

The first model is simple in its execution of production schools have simple forms that have a fundamental nature. Characteristic of this model refers to the characteristics of the organization at a school. Between production schools and educational activities covered by the institutions and forms of organization of schooling is determined by the bureaucratic rules. Such schools are equipped with a workshop or a building for its activities. Viewed from the simulated reality of the company, commensurate with a firm hand job. Motion carried out which schools are limited. The structure of the personnel structure of the achievements and generally subject to the norms of school organization.

The second model, namely training and production, its activity is combining educational activities and production. This form of organization characterized by a combination of the production department of education. Such schools are equipped workshops for education and workshops for production. Simulation level on par with manufacturing companies. This school is not bound by the administration rules , and thus more likely to be free.

The third model, namely the production school in Production Training Corporation. This model is also called the Teaching Factory. This model is fully integrated between studying and working in the field of basic or core skills. Corporate form of organization, while its production processes with the manufacture of finished goods in modern industry. The teachers come from experts who have trained and equipped science education. This school was established within the framework of large-scale development strategy which has the function of observing the problem of education as continuing education, provide information, consultation and educational development. Teaching Factory is one of innovation in an effort to better-quality vocational empowerment. This principle aims to position as a producer of vocational school graduates who are good and competent, and serves also as a producer of products and services that can be sold. With this principle can develop vocational business unit producing better products and services that best meet the needs of the community.

One model run by SMK Michael Surakarta and SMK PIKA Semarang, a combination of production activities with the activities of school practices. In the practice of learning to use a pattern of systematic exercise, increased to a pattern combination of exercises with full production. Practice activities of school students in workshops is not only a basic training course, but also did production work is delegated from the workshop exercises (Raharjo,1995). Furthermore, in applications in an integrated learning students learn at the same time played a role in producing the goods be sold as a teaching factory product. Economically, the teaching factory will be able to support the financing of education in vocational education so that the process can be more qualified. Production units is the embryonic development of teaching strategies for the factory. With growing production units are expected to teaching factory will be more easily formed.

The main objective is to build a vocational education graduates have eight competencies, namely: (1) Communication Skills, (2) Critical and Creative Thinking, (3) Information / Digital Literacy, (4) Inquiry / Reasoning Skills, (5) Interpersonal Skills, (6) Multicultural / Multilingual Literacy, (7) Problem Solving, and (8) Technological Skills. To generate prospective workers from the Eight Competencies as defined above, the model of vocational education in an effective and efficient as in Figure 2.

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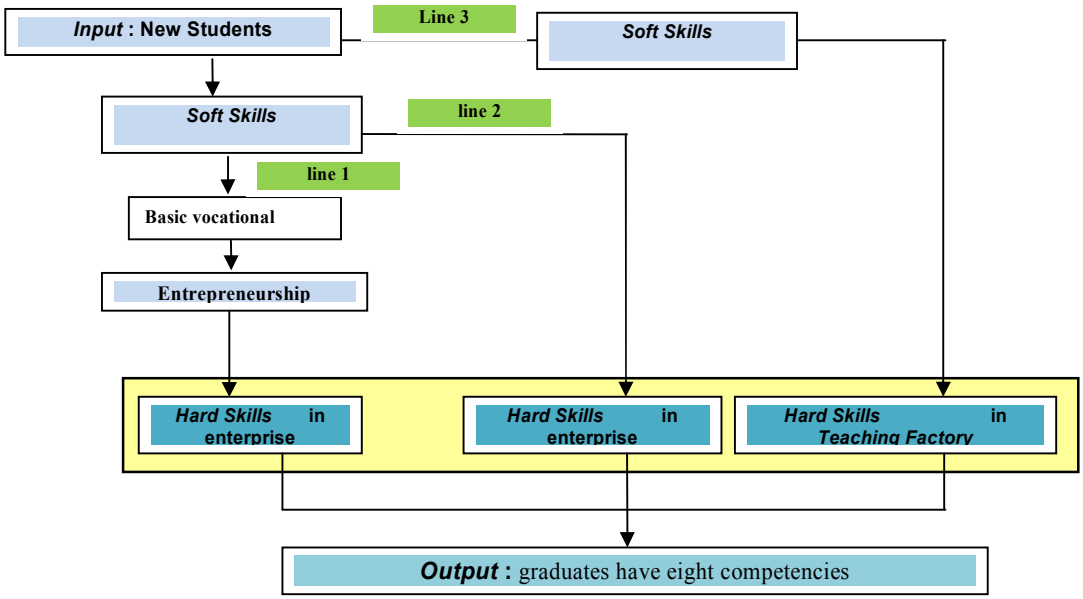

Figure 2. Three Line Alternative Models in Vocational Education

D. Model of Soft Skills Education in Vocational Secondary School

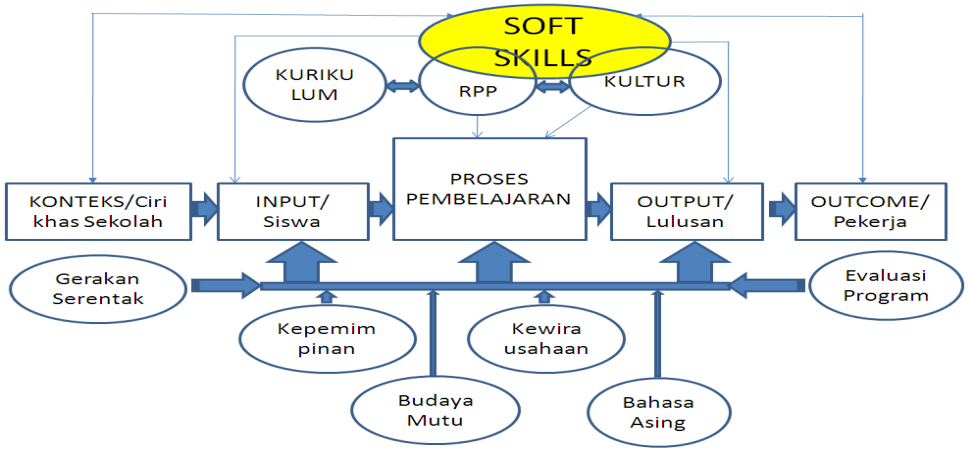

Figure 3. Model of Soft Skills Education in Vocational Secondary School

Model of soft skills education in vocational secondary school can be depicted as in Figure 3. Soft skills education is a curricular activities that are part of the curriculum at vocational schools as outlined either explicitly or implicitly in the Implementation Plan for Learning activity. Education also conducted soft skills through hidden curriculum, namely in the form of rules how to interact between principals, teachers, employees, and his disciples in the context of investment values, the system of regulations, and climate of the school and classroom life.

Aspects of soft skills developed at a vocational school characterized based on the needs of local communities and enterprise who became a partner school. Soft skills education starting from new students entered vocational school, during the learning process, until the students graduate vocational school. Thus, it can be described that began at the school gate entrance to back out the school gate always get an soft skills education. Such education will become a habit, and if these habits are internalized within all students, it has become a movement or school culture.

To evaluate the level of effectiveness, the school should always have communication with its graduates who have worked on enterprises, in order to dig up information on aspects of soft skills important whatever one's own workers. Evaluation results are utilized for updating the activities at school.

Soft skills education should be championed by a strong principal leadership. Without this, soft skills education in schools will not be effective. Education also needs to be sustained soft skills and cultural insights into the personal element of the quality of all schools, i.e. the Principal, Teachers, Employees, Students, Government and Society. Soft skills education should also include entrepreneurship education materials and foreign language. Two of these students believed to be able to equip themselves for life and become the key to their success.

Soft skills education must be a simultaneous movement in one school, the school does all the personal element, namely the Principal, Teachers, Employees, Students, Government and community must be unanimous, one word consistent run. Without the simultaneous movement in schools, soft skills education will not be run effectively and efficiently. And as an activity that should not be forgotten, that the soft skills education programs must be constantly evaluated.

E. Curriculum Structure

Based on competency requirements as written above, then prepared a curriculum to achieve it as simple as possible. Curriculum structure that is suggested as a table below.

No.	Course	Proportion	Education Place		
			Line 1	Line 2	Line 3
1	National Curriculum	10%	School / vocational education	School / vocational education	School / vocational education
2	Communication Basics	5%			
3	Applied Mathematics	5%			
4	Computer	5%			

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5	Scientific Method	5%	institutions	institutions	institutions
6	Indonesian Language	5%			
7	English	5%			
8	*Project Work and Entrepreneurship*	10%		Industry	*Teaching Factory*

Name of subjects in the curricula structure in the nature does not bind. The important content of the syllabus subjects are reflected from its name. Basically the name above subjects required for the learning process at school. If the learning process in industry or teaching factory, then the subject name does not appear because of the learning fused with everyday activities in the industry.

F. Learning Strategies

Learning strategy adopted depends on where education took place. If the place of education in the school / college vocational education, the strategies below relevant to wear. However, if the place of education in industry and in teaching factory, then the most appropriate strategy is learning by doing, followed by the method of performance evaluation test. To give you a learning strategy which will be selected at the school, below are presented examples of learning strategies that can be used.

1) Theory and practice of communication (presentation and discussion)
2) Application of mathematical theory in everyday life
3) Theory and computer applications for various purposes
4) Conducting research laboratory / field
5) Making scientific work in the Indonesian language
6) Theory and practice of English language (reading, listening, conversation)
7) Project work and practice of entrepreneurship
8) Vocational practice in a workshop / laboratory / field.

G. Characteristics of Teachers and instructors needed

To achieve competency as written down in the previous section, the characteristics of teachers / trainers / instructors needed are:

1) The adapter

✓ Teacher / trainer / instructor must be able to adapt curriculum and teaching models that are relevant.

✓ The teacher / instructor can adapt the software and hardware.

- ✓ The teacher / instructor can adapt the technology.
- ✓ The teacher / instructor capable of imagining.

2) The Visionary

- ✓ The teacher / instructor must have the vision and insightful.
- ✓ Ability to view different kinds of learning models outside the field of fosterage.
- ✓ Always improving and strengthening the courses.

3) The Collaborator

- ✓ The teacher / instructor needs to collaborate with fellow teachers / instructors, principals, students, parents, library staff, and other educational staff.
- ✓ Collaborate to create an active learning process, creative, effective, meaningful, and fun.
- ✓ The role of the teacher / instructor as mediator, facilitator.

4) The Risk Taker

- ✓ Courage to take decisions that best suit their duties in carrying out the task of learning in school.

5) The leaner

- ✓ Teachers / instructors create not only knowledge, but also to adapt, extend, and deepen knowledge.

6) The Communicator

- ✓ Teachers / instructors must have ability to communicate clearly in order to convey the substance of which will be provided to students.

7) The Model

- ✓ Teachers / instructors exemplary values and those values must be internalized in real life either by teachers / instructors and their students.

8) The Leader

- ✓ Teacher / instructor as a leader should lead, encourage, and mobilize students to learn well and understand the learning materials delivered.

a. Conclusion

Based on the article above, it is known that the potential labor market graduates of vocational education is still very wide. Competencies required in broad outline includes soft skills and hard skills that are formulated into the Eight Competency Graduates. To produce a workforce having these competencies can be achieved through

three Alternative Path. The third line is if executed with a simple structure and curriculum of productive learning strategies, and supported by teachers / instructors who are creative are believed to effectively and efficiently when compared to the current system is running. Effectiveness is in the simplicity that characterized the system that are offered to the point. Efficiency can be achieved by optimizing the cooperation with industry and learning by doing in the teaching factory.

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