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Yogyakarta State University

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ANALYSIS OF SOFT SKILLS ASPECT GAPS BETWEEN THE DEMANDS OF THE MANUFACTURING INDUSTRY THAT HAS BEEN DEVELOPED IN VOCATIONAL SCHOOLS OF MANUFACTURE SECTOR

W i d a r t o

widartomsaid@gmail.com

ABSTRACT

This study aims: (1) to identify the aspects of soft skills that employees in manufacturing industry, (2) to identify the aspects of the soft skills developed / habituated among the students of vocational schools for the manufacturing sector, (3) to find out the gaps in the aspects of the soft skills between the demands of manufacturing industries and those that have been developed in vocational schools for the manufacturing sector,and (4) to analyze the gaps in the aspects of the soft skills between the demands of the manufacturing industries that have been developed in vocational schools for the manufacturing sector.

The stages of the study include needs assessment in the manufacturing industries, see the existing learning in vocational schools in manufacturing sector, explain the gaps that find it, and analyze why gaps can occur.

The results of the study are as follows: (1) the important aspects of soft skills that possess by employees in a sequence of manufacture industries are responsibility, honesty, creativity/ initiative, discipline, work ethic, teamwork, confidence, tolerance, leadership, adaptability, independence, ethics, courtesy, and communication/ presentation, (2) the aspects of soft skills that developed/ habituated in vocational schools students in a sequence of manufacture are discipline, honesty, confidence, responsibility, adaptability, independence, courtesy, creativity/ initiative, ethics , tolerance, communication/ presentation, work ethic, teamwork, and leadership, (3) the gaps find in the aspects of creativity/initiative, work ethic, teamwork, tolerance, and leadership, (4) the gaps happen because in developed/habituated soft skills, vocational schools in manufacture sector do not update as the development of science and technology, so the aspects of soft skills that developed/ habituated is only based on experience.

Key words: soft skills, vocational education, manufacture

1. Introduction

Strategic plans of the Ministry of Education is directed in order to develop the Long Term National Education 2025 to became into an intelligent and competitive humanity. The meaning of Indonesian intelligent is a comprehensive intelligent human which includes spiritual intelligent, emotional intelligent, social intelligent, intellectual intelligent, and kinesthetic intelligent. Spiritual and emotional intelligences and social intelligence named a soft skills, whereas an emotional intelligent and a kinesthetic intelligent common called a hard skills. Implications of the Strategic plans requires the educational institutions to start from primary education to higher education to develop the vision and mission of educating children to be smart and competitive person. Based on this case, a higher education as the last formal institution that prepares a person's sector into the workplace, has challenge to produce graduates student who have good ability of science (hard skills) and adequate personality (soft skills).

However, the reality of higher education in Indonesia is still to provide a big learning portion on the hard skills or academic course. This reality is also happen in vocational education of manufacture sector are more focused on learning skills. As a result, many graduates of vocational education in manufacturing with high academic score but does not have the capability of good soft skills. Therefore, learning in vocational education in manufacturing needs to be reoriented with emphasis on soft skills training. The question are (1) what are the different aspects of soft skills required by employees of manufacturing industries related to the field in daily work, (2) what are the aspects of soft skills that have been developed / conditioned on vocational education students in manufacturing, (3) what the aspect gaps of soft skills between the demands of the manufacturing industry has been developed in vocational education in manufacturing, and (4) why gaps occur, and what is the reason if the industry concern with aspects of soft skills. To answer the above questions need to do research with sequential stages and clear.

The stages of the study include needs assessment in the manufacturing industries, see the existing learning in vocational schools in manufacturing sector, explain the gaps that find it, and analyze why gaps can occur.

2. Discussion

Vocational education students are prepared to face the real job in the industry. Meanwhile, the school environment is different from the industrial environment. To overcome the differences, the study needs to synchronize the culture studies in vocational education that is relevant to the work culture in the world of industry. In this study more focus on soft skills aspect that become issue at all levels of education in recent days. This study is very important to take up, consider the students will soon graduate and immediately enter the world of industry.

The results of a survey conducted by Widarto (2011) has aswered the questions on number one and two. Aspects of soft skills that employees need by the manufacturing industry in order to their interests are the responsibility, honesty, creativity, discipline, work ethic, teamwork, confidence, tolerance, leadership, adaptability, independence, ethics, courtesy, and communication/presentation. In spite of aspects of soft skills that have been accustomed to the current vocational education students in a sequence based on their intensity are discipline, honesty, confidence, responsibility, adaptability, independence, courtesy, creativity, ethics, tolerance, communication/presentation, work ethic, teamwork, and leadership.

The detail is we find some gaps in aspects of soft skills required by the manufacturing industry that what has been accustomed to vocational education in manufacturing. The gap is visible in the aspects of creativity, work ethic, teamwork, tolerance, and leadership. According to the industrial world, in terms of importance, these aspects are ranked above, but by vocational education institutions have not developed intensively. This is the answer to question number three.

Gaps ceratinty be a serious problems to find a solution. To manage this, we need to overcome an intelligent and highly committed for the lecturer in vocational education. Some of the things that presume contributed to the cause are: (1) lack of vocational education institutions facility for the major of students in training to do something to hone potential of soft skills students, (2) the development of soft skills in the environmental aspects of the campus has not been going well, (3) the learning process is still handcuff students and lecturer, and (4) the responsibility of the curriculum is almost entirely oriented towards the cognitive and psychomotor development. Meanwhile, the world want to require manpower

industry must have values attitudes and behaviors that works well in a comprehensive manner.

To discuss it, we can starting with the convening of vocational education purposes. Vocational education according to Evans in Basuki Wibowo (2005) aims to: (1) fulfill the needs manpower of the community, (2) increase the education for each individual, and (3) grwos motivation for lifelong learning. Herminarto Sofyan (2008) called up that the technology and vocational education is a specific education, democracy, education can serve the diverse needs of individuals, thus talents, interests and abilities can be channeled through vocational education. Therefore, the prominent characteristics of vocational education are: (1) directed to prepare the students enter the job; (2) based on a demand-driven; (3) focused on the acquisition of knowledge, skills and attitudes that is needed in the workplace; and (4) an assessment of the success of students through hands-on or performance. Related to the fourth questions that asks in the future, we need to see from the point of the industrial world. So that, let us examine one by one soft skills aspects, why is important in the industry.

a. Creativity

Essence of creativity is a person's ability to make something new, either in the form of ideas and the real work. Its products can take form of the new works as well as modification of something already existing, by emphasizing the effectiveness and efficiency in solving problems. Creative person is one who has the copyright or has the ability to create. Therefore, the real creativity is a mental process involving the appearance of new ideas or concepts. Creativity is also an ability to reflect the smoothness, suppleness (flexibility), and originality in thinking, as well as the ability to elaborate (develop, enrich, refine an idea). Creativity is one aspect of important vocational education students soft skills, because this aspect is closely related to the ability to produce a new product or a combination of things that already exist to make it more efficient.

Someone said if he has a creative: (1) want to know about something, (2) always ask questions, (3) gives many ideas or suggestions to a problem, (4) has a strong imagination that reveale ideas, essays, and solving the problem using the original methods.

There are examples of application of creative behavior in vocational education students in manufacturing: (1) designing, creating, modifying the equipment that are useful and have a high selling power, and (2) designing an apparatus to modify the existing economic

considerations, the form of display and easy to use. On vocational education of manufacturing, creative behavior more matured over the final product or result of practices that have a selling point.

On the other hand, manpower is the creative industry constitute the spirit world. Without the support of the creative workforce, world industry will die slowly. Industry is not able to create new products which slow creativity but surely be replaced by other industries. Therefore, if you want to survive and thrive in the global era, the industry must always be creating new products over the development period. Industry will be able to produce new products are superior if they are supported by a creative manpower.

b. Work ethic

Work ethic is the morale and confidence characterizes a person or a community group. Work ethic can also be interpreted as a character or character of an individual or a group of people who will or will be accompanied by a high spirit or the desire to make something of the ideals. Ethos can be reflected from the behavior demonstrated serious efforts to overcome barriers to work and complete tasks as well as possible. Someone said to have a good work ethic when it reached the level of: (1) assume the work is a blessing, (2) considers the work is mandate, (3) considers the work is a call, (4) considers the work is self-actualization, and (5) considers the work is worship.

On vocational education, student work ethic can be established through simulation work in the industry so that students acquire a variety of work experience. The goal is to build a work ethic that show by the indicator works sincere, total, spirit, serious, optimistic, and superior. To build the student ethos can be used as a working system "kaizen" (quick, clean, care, neat, and industrious). Kaizen is a culture of how one treats properly the workplace. If the workplace neat, clean, and orderly, the individual works can be created, and thus the four main target areas, namely industrial efficiency, productivity, quality, and safety can be achieved more easily.

Examples of application of kaizen in the work ethic attitude vocational students can be described as follows:

1) The principle is to separate the everything that is needed and get rid of unnecessary work. The goal is to find out which objects are not used, which will be stored, and how to save in order to be easily accessible. Practice the brief principles, for example, a student (a)

inspect the equipment ussed to practice and (b) return the equipment is not use to the equipment storage area.

2) The principle is to clean the place / environment, machinery / equipment and materials so that there is no dust and dirt. Hygiene should be accustomed to by everyone, both students and lecturers/instructors. Step to the principle, the student (a) maintains the cleanliness of the surgery before and after practice, and (b) disposes of waste in place.
3) The principle is to keep things tidy in accordance with the place. Measuring rod of neat is how easily we put the stuff and get it back when needed. Step to a neat principles, such a student (a) placing the necessary goods to the right place that has been designed and supplied, and (b) placing separately between precision measuring instruments by means of the common tools. (For example at the bench working practices, the placement of precision measuring tools are on the left vise, while the other instrument on the right vise).
4) The principle of care is to maintain the results achieved in the previous kaizen with a standardized (standardization). Step to the principle of care such as students (a) clean equipment after use practices, and (b) put a measuring instrument and the instrument separated.
5) The principle is the creation of personal habits industrious student to keep and improve what has been achieved. Diligent at work developing the positive habits in the workplace. What is good must always be in top shape at all times. Diligent principle at work is "Do what to do and do not do what don'ts". Step to the principles of diligence, for example, a student (a) always keep the rules that apply in private practice, and (2) work in accordance with the SOP (Standard Operational Procedure).

The spirit in both is an industry employees who have a superior work ethic. Industry will flourish if its employees have a level of work ethic as described before. Therefore, by the support of employees who have a work ethic, industry will not be easily defeated by business rivalry.

c. Cooperation

Cooperation is a behavior based on efforts to make himself able to establish relationships with others in carrying out the action and work. Cooperation is intended as a joint effort between individuals or between groups of human to achieve common goals. Cooperation will happen when people realizes that has the same interests. To meet these

interests would be easier if through cooperation.

Cooperation is one of the important aspects of soft skills possessed by each vocational education student. Later, cooperative attitude is closely related to other aspects of the working world. Students can develop social interaction in relation to work properly through cooperation, right, and can create a conducive working climate to push until get achievement. The main indicator of cooperation are (1) the existence of at least two people / parties to the agreement, (2) activity, shows that such cooperation is due to the desired activity together, as a means to an end and this requires a strategy, and (3) objective/target, is an aspect that becomes the target of business cooperation, usually are the perceived benefits or accepted by both parties.

Examples of application of the attitude of cooperation in vocational education students follows:

1) At work Benches practice.

   Attitude of cooperation is required at the work Bench practices which at the time of maintaining cleanliness, comfort of the practice both before and after practice takes place. The atmosphere where the practice are clean and comfortable, may not be achieved without the cooperation.

2) At the time of Machining practices.

   At the time of Machining practices are still often found a machine used for one group of students. In this course, the attitude of cooperation is required at the time of the learning process. Completion of the job that must be given appropriate for the cooperation of both groups. In this process, there are a division of tasks, where each task is given a task that has been agreed within a group. In collaboration process that also requires tolerance and good leadership.

The world of work today is more appreciative way of working together rather than working on their own way. Almost all of the products produced by an industry is the result of cooperation another industry, turf, and among employees. In other words, it is difficult for industry to create something without involves elements of cooperation. Cooperation can be external (another industry), but can also turf, and even among employees themselves.

d. Tolerance

Tolerance is the attitude and actions that respect for others different from themselves. This tolerance is closely related to mutual appreciate and respect for others. At first tolerance is more frequently used in the context of social, cultural, and religious. Tolerance means the

attitudes and practices which prohibit discrimination against different groups or can not be accepted by the majority in a society. In the example is religious tolerance, in which adherents of the majority in a society permit the existence of other religions. Broader explanation of tolerance is an attitude or behavior of humans who do not deviate from the rule, in which a person appreciate or respect for any act committed by others. The level of tolerance implementatif reflected the attitudes and actions that respect the differences of religion, race, ethnicity, opinions, attitudes, and actions of others who differ from him.

Tolerance is one aspect which is considered essential soft skills possessed by each vocational education students. Examples of behavioral tolerance in vocational education classes is that if an activity requires the practice of group discussions, it is necessary to appreciate and accept others' opinions. This is important because through habituation to appreciate and respect differences of opinion that the attitude of tolerance students will be formed gradually.

Industry in the community both small and large scale, must be a bunch of people who come from diverse backgrounds. They could have comes from religion, race, ethnicity, and different educational levels. Heterogeneity is bound by a common interest, that is work. They will be able to work comfortably if they have an attitude of mutual tolerance among employees. Without a tolerant attitude will only make things becoming counter-productive.

e. Leadership

Attitude characteristic of leadership is someone who is always open to suggestions and criticism, it is easy to gets along, cooperate, and directing others. Leadership can be defined as the process of directing and influencing the activities of the task of the people in the group. Characteristics of leadership are: (1) surplus of vision, (2) empowers all members, and (3) make decisions together.

Leadership is one of the aspects of soft skills that needs by vocational education students. This attitude is closely related to the ability to manage others to achieve the desired goal. The capabilities need to be accustomed to managing vocational education students, for example: (1) lead the group discussion in a neutral and accept criticism and suggestions from each group member, (2) divide the task group to complete the job in accordance with the specified time, (3) provide direction and motivate group members to complete the job in accordance with working drawings and estimates the time specified, (4) motivate members to

work effectively and efficiently in accordance with the tasks that have been granted, and (5) create a climate of good practice and harmonious.

One aspect that stands out in soft skills in the industry community is leadership. Without the strong leadership, industry will brittle to changing times. The characteristics became a backbone of leadership progress or not in an industry. Industries that have a strong leader, be able to develop properly. In contrast, in the absence of leaders who have strong industry leadership will be easily swayed. Like a ship at sea, if leads by an experienced captain, has strong leadership, the ship will be able to overcome.

3. Conclusion

The results of the study are follows: (1) the important aspects of soft skills that possess by employees in a sequence of manufacture industries are responsibility, honesty, creativity/ initiative, discipline, work ethic, teamwork, confidence, tolerance, leadership, adaptability, independence, ethics, courtesy, and communication/ presentation, (2) the aspects of soft skills that developed/ habituated in vocational schools students in a sequence of manufacture are discipline, honesty, confidence, responsibility, adaptability, independence, courtesy, creativity/ initiative, ethics , tolerance, communication/ presentation, work ethic, teamwork, and leadership, (3) the gaps find in the aspects of creativity/initiative, work ethic, teamwork, tolerance, and leadership, (4) the gaps happen because in developed/habituated soft skills, vocational schools in manufacture sector do not update as the development of science and technology, so the aspects of soft skills that developed/ habituated is only based on experience.

Vocational education students can be categorized as an educated adult. Therefore, from some of the discussion above, students needs to have strong soft skills aspects for underlying all these attitudes and behaviors. Aspects of a strong soft skills should remain supported by strong academic skills as well. Academic skills or intellectual competence is the ability to think scientifically, which is basically a development of thought in general, but leads to activities that are scientific. This competence is reflected in the ability to identify problems, clarifying the relationship of a particular phenomenon, formulating hypotheses, designing and carrying out studies/research/observation, and others. To establish the necessary skills of scientific attitudes, critical, objective, and open mind.

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