

## ESSENTIAL SKILLS FOR VOCATIONAL EDUCATION IN 21<sup>ST</sup> CENTURY

Nurhening Yuniarti  
Yogyakarta State University, Indonesia  
Email: [nurhening@uny.ac.id](mailto:nurhening@uny.ac.id)

### ABSTRACT

*The rapid technological developments we are witnessing in the early years of the twenty-first century, together with the forces of globalization, are likely to lead to radical changes in the world of work. It should be followed the improving the quality of human resource. The strategic efforts to improve the quality of human resources need to be conducted through education included vocational education are such a vital part, must keep in step with these societal changes. The mismatch has been evident in many countries between the skills imparted by the vocational education system and those demanded by the work- place. This condition also happened in Indonesia. This mismatch has been exacerbated in recent years with the integration of new technologies in almost every sphere of professional activity. Therefore, the gap between vocational education and the world of work should be narrowed.*

*This article discuss the efforts should be done to minimize the gap vocational education with the world of work is to equip learners with the 13 essential skills, namely: (1) collaboration and teamwork, (2) creativity and imagination, (3) critical thinking, (4) problem solving, (5) flexibility and adaptability, (6) global and cultural awareness, (7) information literacy, (8) leadership, (9) oral and written communication skills, (10) social responsibility and ethics, (11) technology literacy, and (12) initiative.*

**Keywords:** *vocational education, 21<sup>st</sup> century skill, essential skill.*

### INTRODUCTION

The rapid development of technology can be seen in the beginning of twenty first century, with the growing of globalization power, tends to go into the melting pot in the working world. This situation must be followed by the improvement of human resource quality. It is needed to do strategic way to improve human resource quality through education including vocational education as the important part which must be in line with the development of society. According to Thompson, J. F (1973: 111), vocational education is: "a program of education below college grade organized to prepare the learner for entrance into a particular chosen vocation or to upgrade employed worker". The most dominant problem faced in vocational education is the gap between knowledge and skill given in the education and needed in the workplace. This is getting worse in the recent years by the integration of new technology in each professional field.

At the beginning of 21<sup>st</sup> century, vocational education faces challenges which are exactly different from those in the previous time. Vocational education must have a good preparation to anticipate and to adapt the condition with all challenges and dynamics that are going on and will go on in this century. The biggest challenge for vocational education is how to prepare skilled labors able to join in the global economic area.

## ESSENTIAL SKILLS NEEDED IN WORKING WORLD IN 21<sup>ST</sup> CENTURY

To face the 21<sup>st</sup> century, vocational education must do reformation in some points. Several countries do vocational education reformation as updating teacher's qualification, updating educational program, modernizing, curricula, changing method of teaching etc. It is interesting to refer to what Peter Grootings (Gill I.S., et al., 2000: 92) states that: "changing curricula and methods of teaching to provide student with not only technical skill and knowledge, but also the social skills that will enable them to be active in the labor market, and to prepare them for continuous education and training during their working career. By the sufficient knowledge and social skill, the graduate of vocational school will get success in the global economy competition. It is in line with Power (1999:22) who states that "TVET is most directly concerned with the acquisition of the knowledge and skills required for the world of work, formal and informal, urban and rural." What are the skills needed in 21<sup>st</sup> century? Do we only talk about computer and technology skills? Of course not. There are many other skills needed to get well preparation to the graduate of vocational school. This article will discuss about some essential skills that must be mastered by the graduate of vocational education in the 21<sup>st</sup> century. By mastering those skills, it is hoped that it will narrow the gap between vocational education and world of work.

### 1. **Collaboration and teamwork**

Collaboration and team work are the skills owned by someone to have collaboration in finishing certain job. This skill is essential because in the working world, there are many jobs that must be finished in team. Therefore, it is needed a good team work. Without collaboration and team work skill, someone is not able to do the job well.

### 2. **Creativity and imagination**

Imagination is about seeing the impossible, or unreal. Creativity is using imagination to unleash the potential of existing ideas in order to create new and valuable ones. Innovation is taking existing, reliable systems and ideas and improving them.

Therefore, imagination and creativity are closely related. By having strong imagination and creativity, it will be much easier in finding problem solution in the working world.

### 3. **Critical thinking**

Runco (2004) defines critical thinking as the process used to create new ideas or new concepts. Furthermore, Dettmer (2006) states that critical thinking is placed in the top of cognitive dimension which means creating new thing different from what have been existed (Dettmer, 2006:72-74). The skill in creating new thing is extremely needed in the working world. It is then becoming a reason why critical thinking is important in vocational education.

### 4. **Problem solving**

Problem solving is the process of finding solutions to difficult or complex issues. The skill in solving problem is a significant skill to give in vocational education. Through problem solving, vocational education can teach the students to accustom with all problems faced in the world of work.

**5. Flexibility and adaptability**

Flexibility is about an employee and an employer making changes to when, where and how a person will work to better meet individual and business needs. Flexibility enables both individual and business needs to be met through making changes to the time (when), location (where) and manner (how) in which an employee works. Flexibility should be mutually beneficial to both the employer and employee and result in superior outcomes.

Adaptability is a sought-after job skills as employers increasingly rely on flexible job descriptions and rotate employees into different roles. Your ability to adapt to changing situations and expectations makes you more valuable to a current or prospective employer. It also makes you more equipped for a variety of career opportunities.

Flexibility and adaptability are essential skills that must be given in vocational education. By having those skills, the graduate of vocational education will be easier in adaptation with the working environment.

**6. Global and cultural awareness**

Cultural awareness is the basic of communication and involves ability and awareness owned by someone toward culture, belief, and perception. Cultural awareness will be the center when we have interaction with people from different culture. People will see, interpret, and evaluate all the things in different way. What assumed as a good manner in one culture can be assumed as something imprudence in the other culture. With global and cultural awareness, the graduate of vocational education will put the right value in performing the job.

**7. Information literacy**

The definition of information literacy which is frequently quoted is the definition according to American Library Association (ALA): "*information literacy is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effective needed information"*".

There are some advantages obtained by having sufficient information literacy as including: (a) helping in making right decision, (b) making a human as a learner, and (c) creating new knowledge.

**8. Leadership**

Leadership is the process in influencing activities in a group which is organized to reach the goals (Rauch & Behling, 1984). Then, Robbin., S. P. (2005) defines leadership as the ability to influence certain group to reach the goals.

Based on the definitions mentioned above, it can be concluded that leadership is an ability to influence other people, subordinate or group, ability to direct subordinate or group behaviors, and having specific ability or skill in the field demanded by the group, to reach the organization goals.

**9. Communication skills**

Communication is technically defined as the process in which information is enclosed in a package and imparted from the sender to the receiver through a medium. Oral communication is the ability to explain and present your ideas in clear English, to diverse audiences. This includes the ability to tailor your delivery to a given audience, using appropriate styles and approaches, and an

understanding of the importance of non-verbal cues in oral communication. Written communication is the ability to write effectively in a range of contexts and for a variety of different audiences and purposes, with a command of the English language. This includes the ability to tailor your writing to a given audience, using appropriate styles and approaches.

Vocational education as the production center of ready for working labors must teach the learners with communication skill both oral and written.

#### **10. Social responsibility and ethics**

Social responsibility is an ethic framework showing that an entity of organization or individual has an obligation to do action useful for the society. Social responsibility is a part of individual obligation to keep the balance between economy and ecosystem.

An ethical responsibility is an obligation to follow the right way morally. In the social life, this ethical responsibility can lead many people to do the right thing based on the moral responsibility.

#### **11. Technology literacy**

Technology literacy is the individual skill in working independently and in team, to be responsible in using technology devices correctly and effectively to access, organize, integrate, evaluate, create, and convey the information.

By having technology literacy, someone will be able in applying the technology and improving effectiveness and efficiency in performing certain job.

#### **12. Initiative**

Initiative is the ability in deciding or performing something without getting order/command, in finding what should be done with all the things appeared, and in trying to perform something while it is difficult to do.

### **CONCLUSION**

Based on the explanation above, it is clearly seen that the skills must be taught in vocational education not only focus on computer and technology but also focus more in other points. The essential skills that must be taught related to soft skill need to get more attention. The essential skills meant are: collaboration and teamwork, creativity and imagination, critical thinking, problem solving, flexibility and adaptability, global and cultural awareness, information literacy, leadership, oral and written communication skills, social responsibility and ethic, technology literacy, and initiative. Without teaching those skills, vocational education will not be able to produce labors ready to compete in the global world in the 21<sup>st</sup> century.

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