

STRENGTHENING PARTNERSHIPS WITH INDUSTRIES FOR VOCATIONAL EDUCATION EFFECTIVENESS AND EFFICIENCY

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ABSTRACT : The existence of vocational education in Indonesia had an impact on improving labor productivity. In the ASEAN Economic Community (AEC), the industry is looking for labor who has skill expertise. Vocational education challenges are how vocational education can produce skillful creative graduates who have social and adaptability to the working environment. Based on these conditions, the vocational education needs to strengthen cooperation with the industry to improve alignment between the competences of vocational education graduates with the competencies required by the industry. Thus, the educational process is organized in vocational education more effective and efficient. Effectiveness refers to how the vocational education had achieved its objectives, while efficiency refers to minimize the use of all the resources that exist in vocational education.

Keywords: partnership, vocational education, effectiveness and efficiency

I. INTRODUCTION

Education is a strategic way in improving human resource quality which is able to set a going of economy and improve human's living standard. Vocational education is a kind of education that is particularly aimed at preparing the graduates in the real occupation. Vocational education emphasizes on the mastery of knowledge, skill, and attitude needed in certain work field.

Related to improving vocational education quality, there are some efforts that have been done. It is aimed at making vocational education able to produce competent and competitive manpower. In addition, it is hoped that vocational education that has been held brings multiplier effect to the human quality and to the manpower condition in Indonesia. To improve the vocational education quality meant previously is started by investigating the problems occurred. Governing Board Members of TVET (2004) noted that there are some issues and trends of vocational education in South East including Indonesia as follows:

(1) Limited number of qualified personnel with high quality including commitment and result-focused, (2) Limited capacity in utilization of research and evaluation as tools for development, (3) Unsystematic or lack of staff development programs, (4) Negative image of VTE especially among community members, (5) Inadequate number of qualified teachers, (6) Lack of public-private sector partnership in training teachers and students, (7) Curriculum irrelevancy and the misfit of VTET graduates, (8) Coping with IT explosion and rapid expansion of ICT, (9) Lacking in the development of teaching and learning resources, and (10) Lack of facilities, especially lab and workshops.

Besides, Basuki Wibawa (2005) states that there are some problems occurred in the technology and vocational field including; (1) graduates' quality and competence; (2) graduates' waiting period; (3) relevance between the needs of community and the needs of industry; (4) compatibility between



skill program offered and industrial demand; (5) less care given by industry to technology and vocational education in Indonesia; (6) inadequate learning facilities; (7) accreditation; (8) qualification of teachers and educators; and (9) certification.

The investigation of those problems leads to the low quality of graduates produced vocational education. This condition requires serious attention coming from all sides. Nurhening Yuniarti (2010: 129) states that there is a situation occurred in vocational high school that is a gap between education and occupation. The first gap is that the graduates' skill is less appropriate with the qualification standard required in occupation. The second gap is that the numbers of graduates are not in line with the growing of occupation. Based on the condition, it is required to improve the quality and relevance of vocational education to produce the graduates who are ready to be productive in occupation. Ministry of Education (2010:8) states that the effort to improve quality and relevance of vocational education can be done through: (a) harmonization between vocational intermediate education, vocational education, and skill training in building a synergy to give response to the dynamic market need; (b) improving partnership between vocational intermediate education, vocational education, and skill training and industry to strengthen intermediation and to expand the opportunity of internship or apprenticeship and the compatibility between education/training and occupation.

Those two efforts can be applied if there is a strong relationship between vocational education and industrial world. The relationship is based on mutualism symbiosis which means that those two parts (vocational education and industry) obtain the same advantages. By strengthening the partnership of vocational education and industry, it then will contribute to the improvement of vocational education.

II. PARTNERSHIP BETWEEN VOCATIONAL EDUCATION AND INDUSTRY

A. Philosophy of Vocational Education

Charles Prosser (1925) suggests 16 theorems to be practiced to make vocational education more effective. From those 16 theorems, there are 3 principles related to the role of industry. Vocational education will be effective if (a) the training jobs are carried on in the same operations, tools, and machines as in the work in the occupation itself; (b) training an individual about the habits of thinking and manipulative as required in the work itself; and (c) the environment where the individual is trained is a replica of the environment in which he must subsequently work. Those three principles provides the description of how important the partnership between vocational education and industry to produce effectiveness of vocational education.

Related to the facilities (especially tools and machines), not all SMK are able to provide adequate facilities. The habits of thinking and manipulative skills can also be accustomed if the students are studying in industry. In addition, to create vocational education environment as the replica of industrial world, it becomes the hardest principle to be realized by vocational education. It can be solved if industrial world provides opportunity to vocational education to apply some practical works





in industry. Besides, the management of vocational education must also be based on the main purpose that is preparing the graduates to be ready in occupation and to work. The management of vocational education must be designed to reach education effectiveness and efficiency. The programs in vocational education must also be well designed, in which the curriculum must be designed based on demand driven, the improvement on learning process, the improvement on learning facilities and the reinforcement of networking with industrial world.

Beside Prosser, a philosopher of pragmatism/instrumentalism, John Dewey, states that experience is one of keyword in pragmatism/instrumentalism philosophy. The philosophy of Dewey is "about" and "for" daily experience. Experience is all process influencing (take and give) between living organism and social and physical environment. In his book of Democracy and Education (1916), Dewey offers certain educational concept which is adaptive and progressive to the future development. That concept states that education must be able to provide the learners all they need in their social environment. If the learners graduate, they then will be able to adapt with the society. To realize that concept, Dewey offers method and approach in learning that are problem solving method and learning by doing. In problem solving, the learners are faced to the challenging situation and problems, and they are free in solving the problems. Then, learning by doing concept is needed to facilitate the gap between educational world and society needs. Thus, to make them have existence in the society, they must be provided by practical skills as needed by the social society (Ali Maksum, p 2015:206).

Based on the explanation, it is clearly seen that strengthening partnership between vocational education and industries becomes important to do. Even in the development of education and vocational learning theory, industry can do the role as an effective place to learn. The following are two theories of learning at work place that are situated learning and work-based learning.

1. Situated Learning Concept

Situated Learning is the theory which learns acquisition of knowledge and skill used in the occupation. Situated learning emphasizes the idea that what is learned is specific to the situation (context) in which it is learned. Stein (1998:1) identifies four principles related to situated learning that are: (1) learning takes the root on daily activity (everyday cognition), (2) knowledge is obtained conditionally and its transfer only lasts for the similar situation (context), and learning is the result of social process including the way of thinking, reviewing something, solving problem, and interaction beside the declarative and procedural knowledge, and (4) learning cannot be separated from action but it is existed in the healthy and complex social environment to improve actor, action, and situation. Based on those principles, making industry as the learning place is one way to improve the graduates' quality of vocational education.

2. Work-Based Learning (WBL)

Work-Based Learning (WBL) is a contextual learning form in which the learning is centered to work place and it includes well planned program from formal training and mentoring, and to finding



out work experiences that will earn stipend. Raelin (2008:2) states that WBL merges expressively between theory and practice. WBL recognizes that work place offers a lot of opportunity to learn as in the classroom. Internship or apprenticeship system is included as WBL. Here, the students are learning with the expert or maestro through observation and attitude imitation and the working procedures intensively so that they are able to get specific experiences.

B. An Effective and Efficient Vocational Education

Effectiveness of vocational education refers to: (1) how far the results gained from vocational education programs' achievement with its purpose and results expected; and (2) work performance of vocational education which relates to how far vocational education is able to produce graduates who own the condition and status as expected. Vocational education is called effective if it has some characteristics including: (1) powerful leadership, (2) its learning environment supports to achieve the competence goal; (3) its determined policy is oriented to achievement, (4) strengthening learning process, (5) doing evaluation regularly, and (6) determining objectives clearly.

Efficiency of vocational education can be attained if the education process performed optimizes available resources to reach the goal of vocational education. Those available resources are including facilities (tools and equipment for practical work), education facilities, and human resources. It can be seen from how vocational education is able to use the education facilities as optimal as possible. Another indicator is about how to make human resources to perform their duties well which is aimed at improving the quality of vocational education.

C. Why Vocational Education Needs to Have Partnership with Industries?

The regulation of Minister of Education No. 0490/1992 about Partnership between SMK and Industries is aimed at improving compatibility of the SMK programs with occupation needs to carry on the equal benefits. It is clearly seen that partnership between school and industries is important to do to support the success of SMK programs. Corporation and Industries must be directly involved in the partnership with vocational school.

There are some points need to consider in building partnership such as: (1) there is equality between two parties; (2) there is openness and trust relationship; and (3) there are mutual interaction and interrelationship between two parties.

D. The Goal of Partnership between Vocational Education and Industries

Partnership between vocational education and industries is aimed at reducing gap of graduates ability with qualification required by occupation world so that it can improve vocational school's quality. The partnership can be used as the strategy to overcome restrictiveness of resources available in vocational education.

E. Advantages of Partnership between Vocational Education and Industries

There are some advantages of partnership between vocational education and industries. Here are the advantages of partnership:





1. For vocational education: (a) to know the information about competence needed in the occupation; (b) as a tool for distributing man power; (c) as the source of information for school development; (d) to improve the quality of educators (internship, training, etc.); (e) to improve trustworthiness for stakeholder; (f) as the place in students' practice; (g) as the place of students for internship or apprenticeship; and (h) to improve the graduates' quality.
2. For the students: (a) to provide real life skills; (b) to provide real work experience; (c) to train themselves to fulfill the soft skill requirements in the occupation; and (d) to know the development of occupation world.
3. For Industries: (a) as promotion of a company; (b) as community service/dedication; (c) to know the quality of vocational education graduates; (d) to get assistance in human resource/manpower assistance; and (e) to know the potential students to be recruited.

F. Pattern of Partnership between Vocational Education and Industries

1. Pattern of Partnership in Apprenticeship Program

Partnership in apprenticeship is done to develop learners' skills in the real industrial work. It is expected to provide benefits for industries to assume the learners as assistance of manpower in the operational level. On the other hand, industries can use this partnership as pre recruitment program of the learners with good job preferment. Technically, vocational education must seize initiative to provide information to industries so that, both vocational education and industries cooperatively make commitment under MoU. The pattern of this partnership will be completed by the more details Operational Procedure Standard as the guidance.

2. Pattern of Partnership in Training Program

Partnership in training program emphasizes to make optimal of available resources in vocational education so that they are ready to perform in the training process for industrial manpower. It can also be used as a tool to make the partnership with industries continually long lasted. The pattern of partnership in training program is expected to make the relationship between vocational education and industries keep intense since it is created mutual and beneficial cooperation.

This type of partnership must be done by doing initial initiative coming from the school, for example, visiting to the industries to find out the competence needs supporting industrial development. To build industries' trust, this pattern can be performed in the more details Guide Line Training and will be protected by a clear MoU.

3. Pattern of Partnership in Production Program (Teaching Factory)

This pattern of partnership in production aspect is a kind of curriculum implementation with Production Base Education (PBE) method. It is expected to improve more competence of learners. It can be performed if: (a) the competence owned by teachers is at least equal with that owned by industrial supervisor, both in hard skill and in soft skill, (b) tools set-up, facility of laboratory and workshop are all sufficient to perform production activity. This type of partnership can be done if the





school convince the industries to become both as partner in production activity and as vendor of the industries in surroundings.

4. Pattern of Partnership in Graduates Distribution Program

The pattern of partnership in graduates' distribution program is the upper ends of all the available programs since it is used as parameter of succeed in the final learning process in which all output are expected to be outcome. It can be done by partnership with industries in the recruitment process of the graduates. Vocational education is able to provide data of all graduates and ensures that the graduates distributed are having sufficient competence which based on industrial requirements standard (knowledge, skills, and attitude).

IV. CONCLUSION AND SUGGESTION

Considering the advantages obtained from the partnership between vocational education and industries, this partnership must be continually performed and strengthened. Through the partnership, vocational education is able to develop education concept that are adaptable and progressive to the development of occupation world in the future. To strengthen the partnership, it can be done by pattern of apprenticeship program, training, production, and graduates distribution. Those patterns of partnership can be beneficial for both parties since the partnership is based on mutualism symbiosis, equality, and trust. For vocational education, the effects of strengthening this partnership are: (a) the graduates produced by vocational education are more qualified; and (b) it reduces operational cost in the learning process. Therefore, vocational can be more effective and efficient.

REFERENCES

- Governing Board Members of TVET. (Mei 2004). Issues and trends for VTET in South East Asia. Diambil pada tanggal 29 Mei 2016 dari <https://mail.voctech.org.bn:987/onlinereg/PaperPresenters/01Management/04Saiful.pdf>
- Nurhening Yuniarti. (2010). Pembudayaan K3 melalui penerapan *SR* pada sekolah menengah kejuruan. Prosiding Seminar Nasional: Penyiapan Tenaga Kerja Industri yang Berkarakter Melalui Pembudayaan Kesehatan dan Keselamatan Kerja. ISSN 2086-8987. Volume 1
- Pavlova, M. (2009). Technical and vocational education for sustainable development. Queensland: Springer
- Raelin, J. A. 2008. Work-Based Learning: Bridging knowledge and action in the workplace. San Francisco: Jossey-Bass
- Stein, D. 1998. Situated Learning and Adult Education. ERIC Digest No. 195. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, the Ohio State University. ERIC No. EJ. 461 126).
- Tim Penyelarasan Pendidikan dengan Dunia Kerja. (2010). Kerangka kerja penyelarasan pendidikan dengan dunia kerja. Jakarta: kementerian Pendidikan Nasional. Direktorat Jenderal pendidikan Nonformal dan Informal.
- Wardiman Djojonegoro. 1998. Pengembangan Sumber Daya Manusia: Melalui Sekolah Menengah Kejuruan (SMK). Jakarta: PT. Jayakarta Agung.