Building Cooperation Between Vocational High School and Industry for Suitability of Graduates Competence

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Abstract

The increased employment of vocational high school graduates depends on competency that industry requiring. In improving the competencies (skills) of vocational high school graduates, it required industry cooperation. Cooperation can be done through: (1) cooperation in curriculum development, (2) cooperation in human resources development, (3) co-operation in infrastructure development, and (4) the implementation of developing cooperation through a dual system of education. In recruitment, industry prioritizes affective sphere (main), psychomotor sphere (skills), and the cognitive sphere.

Keywords: Graduates employment, Cooperation, Vocational High School.

I. INTRODUCTION

The purposes of vocational education is to equip students to be competent in certain vocational areas that makes them able to work for the sake of their future and their country (Schippers, 1998). In vocational education, students are equipped with the theoretical knowledge and practical skill as well as patterns and social behavior and insight nationality.

Education policies in vocational education include: (1) economic policy, (2) employment policy, and (3) cultural policy (Schippers, 1998). In terms of economic policy, vocational education gives a huge contribute in order to improve the quality and productivity of the business and national economic system, both quantitatively and qualitatively. Economic growth can’t be achieved without the availability of well managed and qualified human resources.

Employment policies implemented by equipping students with science, technology, and art, as well as specific competencies in order to develop themselves. The policies emphasizes on the ability of graduates to become independent so they can create employment opportunities for themselves or others, as well as filling the employment needs of business/industry which will ultimately reduce the number of unemployed. In culture policies, vocational education should constitute as one of the elements of national culture and its existence must be decently accepted by society (Schippers, 1998). Vocational policy is an integral part of the formal education system with transparent curriculum. With vocational education, an opportunity in achieving higher secondary education is opened.

Vocational School (SMK) as a part of vocational education has some purposes as: (1) preparing students to become productive human beings, able to work independently, filling vacancies in the business world and other section as middle class worker in accordance with their competence in their chosen program, (2) preparing the students to have an ability to choose employment and tenacious persistence competency, able to adapt in the workplace, and developing professional expertise in their chosen career, (3) provide students with the knowledge of science, technology, and art in order to develop themselves in the future either independently or through higher secondary education, and (4) complementing students with appropriate competencies in their selected expertise.

The present problem is the development of human resources has not led to the expected conditions, it is characterized by: (1) the structure of Indonesian workers is still dominated by uneducated workers that makes no effect on economic growth, (2) the preparation of middle class labor is only charged on high school vocational school (SMK), SMK has not done much when working with industry.

This paper will discuss: (1) cooperation in curriculum development, (2) cooperation in human resources development, (3) co-operation in infrastructure development, and (4) the implementation of developing cooperation through a dual system of education.

A. Cooperation in Curriculum Development

Curriculum is a set of plans and arrangements regarding the objectives, contents, learning materials and methods used to guide the implementation of learning activities to achieve specific educational goals. The specific objectives include national education goals as well as compliance with the characteristics, condition and potential of the region, education unit and students. Therefore, education unit prepared curriculum by allowing adjustment of educational programs to the needs and potential in the area.

Curriculum development in the world of education can’t be separated anymore, because every education institutions wants their organization have a rapid development to attract educators. A growing number of enthusiasts can also rapidly increase inputs generated by institutes. The rapid increasing number of educators on educational institutions can be
measured by the competency of principals and teachers in managing the school. One of the most important things that must be managed effectively and efficiently is a matter of the curriculum. There are several reasons why the curriculum needs to be developed as best as possible, including:

1. Conservative Curriculum
   Curriculum, that does not comply with the society demand, no longer in line with the development of science and technology, and not suitable to the working world, is a curriculum that will have problems, which will take place on graduate unemployment. By looking at the data the curriculum needs to be changed, developed and replaces. Education curriculum must be dynamic, constantly adjusting to changing in science and technology.
   Broadly speaking, curriculum changes motivated by several things: (1) the development and changes in the nation, (2) the development of industrial technology and production, (3) new ideas about teaching and learning process, and (4) a change in society.

2. Centralized and Decentralized Curriculum
   Centralized curriculum is the most main problem in implementing curriculum, which led to the development of curriculum in regional autonomy level. Unless there is a national curriculum, it is important to consider local (regional) curriculum, because each region has different potential in natural resources and human resources, it is expected that each region can develop and manage themselves according to their potential. These potentials can be integrated in the local curriculum.

3. Maturity Level of Students
   Maturity level of students is also one of the reasons in curriculum development, because every student has a different level of education. If the curriculum is not adjusted to the level of the students, the learning objectives will be difficult to achieve. The education development experts make a consideration so students can learn, acquire knowledge, change attitudes, and gain experience by developing a curriculum based on the principles of students psychology.

B. Cooperation in Human Resource Development
   Development of human resources in both vocational teachers and students through collaboration with industry plays an important role in improving the quality of education especially practical skills.
   In improving the quality and competitiveness of SMK, human resources are need to be addressed. It can be done by building basic mentality. Basic mentality is a mental attitude that underlies the way of thinking, behaving and acting in carrying out day-to-day work in harmony with the existing values (Budi Santosa, 2004). Development of basic mentality can be done through training programs and teacher development program. As expressed by Pheter Sheal (2003 : 29) that there are 4 main reasons why staff training and development programs are become increasingly important : (1) rapid changes in technology as well as the tasks carried out by the people, (2) lack of direct skills and long-term skills, (3) changes in expectations and the composition of the labor force, and (4) there were competency and market pressures for increasing products quality and services.
   Several approaches training and human resource development is done in industry, among others: (1) job training in workplace (on the job training), (2) training outside the workplace (off -the-job training ), (3) further studies, and (4) socialization.
   The cooperation implementation, particularly in the enhancement of human resources through training ( teacher or student), aims to enable the link and match between SMK with industry. In hope that vocational graduates can be accepted in the industry. The research team from Lembaga Pengabdian Masyarakat (Institute of Community Service), State University of Malang (UM) who was sponsored by Direktorat Jenderal Pendidikan Nonformal dan Informal Kemdiknas (Directorate General of Non-Formal and Informal, Indonesia National Education Ministry), finds the availability of supply prepared by vocational institutes, training centers, and institutions have not been fully able to produce labors as needed by business and industry world. The unavailability of a clear picture of the resulting supply side, except the employment demand itself, is a major cause of no synchronization between supply aspect and industry need (http://www.penyelarasan.kemdiknas.go.id).
   Development of education programs and human resource training needs to be done through analysis of education and training needs for employees. Popu (2002) said that without a proper analysis, it can be ascertained that the training program is designed to only success in the classroom or training places alone. It means that training may run very well, but by the time participants (trainees) back into the workplace, they can’t apply what they have learned from the training. Analysis of needed training has several objectives, which are: (1) ensure that the training is indeed one of the solutions to fix or improve employee performance and productivity of the company, (2) ensure that the trainees are really the right people, (3) ensure that the knowledge and skills taught during training actually correspond to elements of work required in a particular position, (4) identifies that the type of training and methods are chosen according to the theme or training materials, and (5) ensure that the decreased performance / lack of competence or any problems are caused by lack of knowledge, skills and attitudes of work, and not caused by other reasons which can’t be resolved.
through training, it need to be accounted the profit and loss in conducting training given that it needs funds.

It can’t be denied the compensation and career patterns in a corporation is the main reason for someone to stay in the company. Career path and compensation system as part of an effort to motivate employees should be able to be effectively managed by human resources. According to Maslow (1987), work motivation would increase if it fulfilled by basic physiological needs, safety, love and be loved, cherished and self-actualization needs to be considered in developing, improving and maintaining the employees. Striking a balance between the needs and expectations of the school with the needs and expectations of teachers/employees according to their school contribution is not an easy job up. The policy holders are required to more proactive in creating a conducive working environment, to appreciate the creativity of teachers, to hear teachers aspirations and to make development and motivation enhancement programs for teachers from time to time through human resource management.

C. Cooperation in Infrastructure Development

Infrastructure is important in education. Education infrastructure is used to support the implementation of the learning process. Infrastructure and education is one of the resources that becomes a measure of the quality of schools and needs to continually improve along with the development of science and advanced technology. Infrastructure management is needed to support the educational goals as well as national development. For teachers, an understanding of infrastructure management will help broaden their horizon about how they can contribute in planning, using, and evaluating the existing infrastructure and facilities so that the infrastructure can be used optimally to achieve educational goals.

Warren (2004) says that some of the problems that often come to the surface, among others, limited infrastructure and facilities of vocational education that still far behind the industrial conditions.

Cooperation between SMK and the industry in terms of adequate infrastructure, in fact is the continuation of cooperation in curriculum development. Curriculum development, which covers the development of content and material curriculum, requires implementation of adequate infrastructure in order to achieve curriculum objectives.

The role of industry in cooperation with the school is helping the availability of equipment and materials for practical/laboratory learning. Schools have significance in improving the needed skills for industry, but sometimes schools have not adequate facilities to improve these skills. In the other hand, industry also requires skilled personnel to specific areas in order to increase productivity. Therefore, an agreement of cooperation between schools and industry in terms of facilities (infrastructure) fulfillment is really necessary.

D. The Implementation of Developing Cooperation through a Dual System of Education

Dual System of Education (PSG) is a form of education professional expertise, which combines systematic and synchronized between educational programs in schools (SMK) through direct work activities in the workplace to achieve a level of professional expertise. Where such professional expertise can only be established through three main elements of science, engineering and tips. With the Dual System of Education is expected to create professional workforce.

Implementation of the Dual System of Education would be one form of secondary vocational education in accordance with the provisions of Law No. 2/1989 (on National Education System), and Government Regulation No. 29 of 1990 (about Secondary Education), and Government Regulation No. 39 of 1992 (on the role of communities in the National Education), and Kepmendikbud No. 080/U/1993 (about Curriculum SMK), as follows: (1) vocational high school can work with the business community and philanthropists to obtain quality resources in order to improve implementation and development education (PP 29, Chapter XI, article 29, paragraph 1), (2) the public as government partners the broadest opportunity to participate in the implementation of national education (UUSPN, Chapter XIII, article 47, paragraph 1); and (3) public participation can take the form providing opportunities for internships and employment or training (PP 39, Chapter III, article 4, item 8).

Implementation of a dual system of education in Indonesia, has been running long enough. But in practice there are still many problems to be solved, such as: (1) there are many vocational schools that do not have the co-operation with industry, (2) the time that is not the same organization, (3) a long time practice of different industries, (4) still many students who do not earn a place in accordance with industry practice expertise, and (5) lack of monitoring of school counselors to industry.

Implementation of the dual system of education, it is necessary to get the attention of all parties, particularly vocational education, with some of the following: (1) the coordination of the industry ‘s practice to fit the students’ areas of expertise, (2) the timing of policy on industry practice, and (3) the efforts of the school to continue to work closely with industry continuously, and (4) completion of a task force for monitoring on an ongoing basis and the reward for implementers (teachers).

II. CONCLUSION

The increased employment of vocational high school graduates (SMK) can be achieved by requiring industry cooperation. Cooperation can be done
through: (1) cooperation in curriculum development, (2) cooperation in human resources development, (3) cooperation in infrastructure development, and (4) the implementation of developing cooperation through a dual system of education. Curriculum development to enable the link and match should be made continually (at least once a year), with the involvement of industry in planning, implementation, and curriculum evaluation. Resulting in suitability between graduates competency and industry needs.

The implementation of co-operation can also be done through training for teachers or students. Teacher training (conducted by industry) aims to improve the knowledge and skills of teachers, in terms of needs required by the industry. Teachers can also gain knowledge about the development of technology in industry. In improving the skills of teachers, the knowledge can be taught to students so that graduates increase their competence in accordance with industry requirements.

In the other hand, the cooperation development in improving infrastructure is needed because practical infrastructure is critical in increasing student skills. The development of infrastructure is tailored to suit with curriculum development.

When industry carrying out employee recruitment, they prioritizing capabilities in the areas of: affective, skills (psychometric), and knowledge. An interview with one of the SMK showed that the affective sphere of SMK graduates is a major factor in the recruitment of personnel / employees.

REFERENCES