

# Cooperation Concept of Vocational High School and Industrial World

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## Abstract

The success of Indonesia's national development is depending on human resources as the nation's asset. To optimize and maximize the development of all human resources owned, it should be done through education, both formal education and non-formal education. The development of education world is currently entering an era marked by incessant technological innovation, thus demanding an adjustment in education system to fulfill the demand of the working world. The benefits gained from this cooperation are felt by both parties in the cooperation, schools and businesses. Vocational schools are helped in improving the quality of education, implementation of field Industrial practice, distribution of graduates, knowing the developments that occur in the business/industrial world.

**Keywords:** Cooperation, Vocational High School, Industrial.

## Cooperation Background of Schools and Business/Industrial World

The success of Indonesia's national development is depending on human resources as the nation's asset. To optimize and maximize the development of all human resources owned, it should be done through education, both formal education and non-formal education. The development of education world is currently entering an era marked by incessant technological innovation, thus demanding an adjustment in education system to fulfill the demand of the working world. Education must reflecting the process of humanizing human beings in the sense of actualizing all the potential they have into the ability that can be utilized in everyday life in the wider community. An institution of formal education that prepares its graduates to have excellence in the working world is vocational education.

The principle of industrial cooperation between schools and the working world aims to accelerate the adjustment time of vocational schools graduates when entering the workforce, which will ultimately improve the quality of vocational high schools. Implementation of school cooperation with the working world is a strategy to overcome the resources limitations in schools in order to further develop the school.

In the case of developing the cooperation between schools and industries, the schools should behave that the schools are more interested; with this attitude the schools should always take the initiative to approach the industries. Also the schools should offer something that can really help the industries. The peak of the implementation of cooperation between schools and industries can institutionalize into partnership institution.

Cooperation undertaken by vocational high schools with Business and Industrial World is learning and business strategy that can provide benefits for both parties. Cooperation is performed to the demands of the curriculum, and also efforts to develop the skills of vocational school students in the form of real industrial work, it is also expected to provide benefits for the industries in utilizing students as auxiliary workforce at the operational level as well as industry. The pattern of cooperation can be done continuously, and technically the schools must take initiative to inform the industries about schedule and time, so that between industries and schools together make a commitment with MoU. As a guideline, this cooperation pattern will be complemented by a more detailed Standard Operating Procedure (SOP).

This pattern of cooperation should be started by the schools with the pattern of pick up the ball, schools should go to the industries to seek the needs of competencies that can encourage the industries progress in term of human resources ability, at least for the level of industrial operator. Eventually the industries will grow and grow through the additional competencies, and also schools can ensure the training pattern, the tools available, and the teachers who have the abilities. To give trust to the industries, this pattern will be made in detail on the Training Guideline, and will be protected with clearer MoU Industry. The implementation process will be handled professionally by the Technical Implementation Unit of Production and Training under the Sector of Industrial Cooperation and Service in each Vocational High School.

The principle of industrial cooperation between schools and the working world aims to accelerate the adjustment time of vocational schools graduates when entering the workforce, which will ultimately improve the quality of vocational high schools. Vocational education can seize the attention of various parties, especially education stakeholders, because the principles of vocational education affect the behaviour of education customers.

High attention to vocational education is related to the principles of vocational education, as identified by Barlow (Murniati and Usman 2009: 20), which are: (1) Vocational education is a rational concern of labour, education of industrial, agriculture and government assistance, economic needs are national framework of vocational education; (2) Vocational education maintains general defence and promotes general welfare; (3) Vocational education preparing adolescents and adults, it is the responsibility of schools, government, educational democratization in which

the government shows good industries, for the needs of vocational education in the education industry of government's schools; (4) Vocational education requires a basic education; (5) Vocational education is planned and conducted in close cooperation with employers and industries; (6) Vocational education provides valuable skills and knowledge in the labour market; (7) Vocational education provides advanced education for adolescents and adults.

### **Positive and Negative Effects of Cooperation with Business/Industrial World**

The benefits gained from this cooperation are felt by both parties in the cooperation, schools and businesses. Vocational schools are helped in improving the quality of education, implementation of field Industrial practice, distribution of graduates, knowing the developments that occur in the business/industrial world. This is in accordance with Soewandito's opinion in (Wena, 1997: 54), that the benefits of this cooperation are: (1) ensuring the relevance of educational programs; (2) knowing the trends of new technology to be used in the industries; (3) acquire knowledge of the techniques and methods applied in the industries; (4) gaining industrial experiences for both students and teachers; and (5) creating work affiliation. In the process of cooperation, the businesses also get advantages, because it can search for skilled workers who can be recruited to become a workforce in the company.

In an effort to improve the education quality, the partnership of vocational schools and the businesses/industries involves cooperation in various aspects. In the cooperation are the implementation of field Industrial practice, distribution of graduates, procurement of competence test, procurement of teaching and learning supporting facilities, and preparation of school programs. The thing suggested by the business community in the cooperation implementation is involving the business world in planning, implementing, and assessing vocational high schools education programs, and also preparing working experience as part of vocational education (Caslin, 1984: 19). From the aspects that are collaborated, it will certainly feel the positive and negative impacts felt by the parties in cooperation. In practice, the negative impact is rarely felt by both parties, this is because of the mutual need that underlies this cooperation program. Positive impacts that can be felt to both parties are described as follows.

#### **For Schools**

- Knowing information about the working world that relevant to the school's courses.
- Broaden insights about new technology.
- Industrial experience for apprentice teachers.
- Industry as a source of school development.
- Improving skills and work experience of teachers.
- Facilities of labour distribution.

- Places to send field Industrial practice of students.
  - Development sources of school and its graduates.
  - Teaching by Factory
  - Improving graduates' competitiveness
  - Reduce graduation waiting time
2. **For Students**
- Skills improvement.
  - Working experience as an employee (work habit)
  - Character guidance information.
  - Broaden the horizons.
3. **For Industries:**
- Promotion of the company.
  - As community service.
  - Transfer of technology and information.
  - Get the source of manpower.
  - Additional areas of marketing.

However, there is little negative impact to the business side, which is the supervision process will affect the production process in the company, because the time spent on the production process is covered with students' guidance. While the negative effects for schools, after field Industrial practice, the students tend to be a bit lazy to enter school again, but they will get used to it and back as before.

### **Cooperation Pattern of Internship Program**

The combination of theoretical learning in the classroom and library, and practical learning in laboratories is designed in such a way as to produce graduates of a certain quality level who are ready to enter the workforce. The success of vocational education is not only measured in terms of quality but also in terms of relevance. The relationship of quality and relevance is like two sides of a single coin. The quality of vocational education graduates is considered relevant by graduate users, in this case the businesses and industries, when they get what they expected or more. The fact is the opposite, businesses and industries assess that vocational education graduates are not ready for work; they are over-qualified but under-experienced. Based on this experience, many pre-recruiters face a dilemma in which many high potential applicants must be denied because they have no relevant work experience, as are often requested on job advertisements.

Now and in the future, job providers expect graduates to not only have knowledge of the subjects or courses, but also the adaptability to the new work environment, bringing great communication skills, leadership skill and ability to be led, and capabilities that can function efficiently and effectively. It means that transferable skills are important for students. Transferable skills are skills or abilities that can be applied equally from one job to another. These skills are also known as key skills,

generic skills or core skills. These skills increase the employability of graduates and can be improved through workplace learning. Leaving the negative difference of students need to get experiential learning. In addition, the available laboratory facilities are generally set up in the form of experimentative incubative simulative miniatures as a means of learning, not to produce real goods or services for the market.

Working experience is totally different from experiment, and can not be replaced by the laboratory. Working in industries is the best way to learn professional attitude and interpersonal skills. It also different with classroom learning, which is based on the acquisition to set of technical skills, and formal teaching activities that equip learners with knowledge, skills, and concepts, and emphasis on cognitive skills. Work Basic Learning is different from classroom learning, because it focuses on reflective learning on what it does. Workplace learning or sandwich program or educational cooperation or work placement or internship is not apprenticeship. While learning in the workplace is a structured learning where a learners are asked to work in a company or organization in a real working environment, with the aim to learn from the work and supervised by academic tutors and workplace supervisors, self-study supported by learning contracts and learning instructions. Businesses and industries prefer graduates who have grounds work experience, because they can work independently in the not-too-distant future after start to work. Internship cooperation is done as effort to develop vocational students' skills in the form of real industrial work experience, which is also can give advantages for industries in utilizing them as auxiliary worker at operational level. Industries can use this moment as pre-recruitment program for students who have good job preferment, so that this pattern can continue as a beginning for recruitment of operator-level employees. The cooperation pattern can be done on an ongoing basis, and technically schools must take the initiative to inform the industries about the schedule and time, thus between industries and schools together make a commitment with the MoU. As a guideline, this cooperation pattern will be complemented by a more detailed Standard Operating Procedure (SOP).

### **Cooperation Pattern of Training Program**

Training and development carried out for improving human resources quality have been conducted with a variety of conventional (pedagogical) approaches. Training is a set of activities designed to improve the skills, knowledge, experience, or change in an individual's attitude. Training deals with the acquisition of certain skills or knowledge.

The cooperation pattern of this Training Program is focused on optimizing all existing resources in schools, in order to be used in the training process for industrial executive officers, and also a means to make partnership with the industries in order to remain sustainable. This cooperation pattern is expected that the proximity of

industries with the school will remain intensely intact, because there is a bond that needs each other and give each other benefits.

This pattern of cooperation should be started by the schools with the pattern of pick up the ball, schools should go to the industries to seek the needs of competencies that can encourage the industries progress in term of human resources ability, at least for the level of industrial operator. Eventually the industries will grow and grow through the additional competencies, and also schools can ensure the training pattern, the tools available, and the teachers who have the abilities.

To give trust to the industries, this pattern will be made in detail on the Training Guideline, and will be protected with clearer MoU Industry. The implementation process will be handled professionally by the Technical Implementation Unit of Production and Training under the Sector of Industrial Cooperation and Service in each Vocational High School.

### **Cooperation Pattern of Production Program (Innovative Product)**

The pattern of cooperation in the production field is an effort of curriculum implementation, with the Production Base Education (PBE) method, in hopes to further sharpen the students' competencies, this can be done if there is set-up of equipment and laboratory facilities. And also adequate workshop to conduct production activities, as well as competent teachers who are at least on par with industry supervisors, either in hard skills or soft skills. This pattern is what will be called Teaching factory, and this can work effectively if the school is able to convince the industries to become partner in production activities and also become a vendor of the surrounding industries.

The implementation process will be handled professionally by the Technical Implementation Unit of Production and Training under the Sector of Industrial Cooperation and Service in each Vocational High School.

### **Cooperation Pattern of Graduates Distribution Program**

The cooperation pattern of Graduates Distribution Program is the spearhead of the whole program, because this will be the benchmark of success in the final process of learning activities, in the hope that all outputs become outcome. One of the efforts is cooperation with the partnership industries in the process of graduates' recruitment. This is should be done with the initiative from the schools to convey the data and competence of its graduates and can provide assurance that the graduates to be distributed have adequate competence and in accordance with the standards of industrial needs, all in their knowledge skills and attitude.

The implementation process will be handled professionally by the Technical Implementation Unit of Field Industrial Practice and Distribution under the Sector of Industrial Cooperation and Service in each Vocational High School.

## **Strategies**

### **School Recruitment**

Recruitment activities of human resources directly conducted at school by the Industrial companies with various stages of selection/screening process. The school should prepare the infrastructure and facilities as a form of service to the businesses or industries companies.

### **School Career Fair**

School Exchange Exhibition in the form of job market is implemented after students' graduation. Sector of Industrial Cooperation and Service in every vocational high school, as the organizer of the event, invite the Industrial World to attend with various events. In addition to job vacancy, various activities including various skill competitions also being held, thus the point is to show all the competencies possessed by school offered to the Industries.

### **Sending Human Resources to Companies**

This activity is carried out by the Sector of Industrial Cooperation and Service, where every demand for human resources both for field Industrial practices or prospective employees in companies are always supported by sending and accompanying some students/alumni to fulfil the number of human resources requested.

### **Recruitment Process**

Professionally, Technical Implementation Unit of Field Industrial Practice and Distribution is under the Sector of Industrial Cooperation and Service in each Vocational High School. Accommodating application files send by students/alumni to follow up to companies that need human resources. With Recruitment CV from students/alumni, it will greatly facilitate the companies and students/alumni themselves of up to date job vacancy. Sending a number of students /alumni databases based on the sorting and qualification filtering requested by companies for HR they need.

### **Come to Company**

Method of picking up the ball done professionally by Technical Implementation Unit of Field Industrial Practice and Distribution under the Sector of Industrial Cooperation and Service in each Vocational High School. They visit the companies in order to explain various things about the school, such as competencies have been given to students/alumni, some industries and businesses world as an effort to increase the selling value of school, and also increase the trust level of industries in the cooperation, especially recruitment/distribution.

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