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# Entrepreneurship Education in Vocational Schools in Indonesia

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## Abstract

One of the objectives of vocational school is to develop an entrepreneur. Via vocational high school education, students are provided with entrepreneurship learning so that they are able. Students are often exposed to the business community to find out what the real world of entrepreneurship is like. First, this paper will outline the goals and growth of Indonesia's Vocational High School, respective government policies respectively. Second, the introduction of entrepreneurship education through academic programs, the introduction of apprenticeship programs, and assessment respectively. In Indonesia, through the vocational school curriculum program, entrepreneurship education is included as a compulsory subject and is strengthened by the experience of the industrial world through an internship in the development of an entrepreneur.

**Keywords:** entrepreneurship education, internship and vocational education

## 1. Introduction

The Ministry of Education and Culture through the Directorate General of Secondary Education and the Directorate General of Higher Education have implemented entrepreneurship education as a study are to examine of fostering a creative, innovative, competitive spirit as well as entrepreneurial spirit in edges as an elaboration of the development of the Creative Economy (Presidential Decree No. 6 of 2009). In particular, the aim of providing this content, among others, is to provide skills in the form of basic skills related to the freedom of graduates to be able to work independently. It is suggested that students will be able to apply entrepreneurship theory to work experience in this learning process. Besides, the expected education imposes further emphasis on the mastery of certain fields of work which are essentially carried out in academic units. Its essence, entrepreneurship education in its vocational schools has been carried out by "development units" in various fields of study/expertise programs. Even so, the viability of real entrepreneurship research in vocational schools also varies greatly in terms of success. The number of entrepreneurs in a country could be seen as a reflection about whether or not a country is developing, since by getting more entrepreneurs in that country entirely, there would be many independent businesses in the form of large corporate entities and small and medium-sized businesses. This would have an impact on the increase and wide opening of the number of jobs, which in turn raises the level of the country's economy. It has not happened in our beloved country of Indonesia. Indonesia's mental entrepreneurship is still weak. That is demonstrated by a limited number of entrepreneurs with independent companies. There are still a lot of people who are

still uncertain about getting a job every year. Government Regulation No 29 of 1990, Article 3(2), in the context of the vocational schools' goals, must therefore include:

1. Join the job market and be able to cultivate a professional mindset within the framework of company and management skills.
2. Able to include career, be able to compete, and be able to establish within the scope of business and management.
3. Become a middle-level workforce to meet the present and future needs of the corporate sector and industry in terms of market share and management.
4. Be active, resilient, and innovative people.

As a result, vocational school graduates are actively trained to reach the field of employment either by career ladders to become middle-level employees or to become single, self-employed, or entrepreneurial. First, this paper will outline the goals and growth of Indonesia's Vocational High School, relevant government policies. Secondly, the implementation of entrepreneurship education through apprenticeship programs, the implementation of apprenticeship programs, and assessment.

## 2. Educational standard in Indonesia

The level of education is the stage of education defined based on the level of student progress, the goals to be accomplished and the skills to be developed. Formal education in Indonesia covers primary education, secondary and higher education. Each level has a specific age range and period of education. Indonesia has completed 12 years of compulsory education. Twenty years of compulsory education must, therefore, be the standard of primary education consisting of 6 years of primary school or equivalent and 3 years of junior high school or equivalent. For now, though, the upper secondary school is taken up to 3 years and is generally conducted up to 4 years for higher education (S1) (Figure 1).

### 2.1 Primary education

Primary education is the basic curriculum to be pursued during the first nine years of school and consists of a six-year primary school education system and a three-year junior secondary school educational program. Primary education takes the form of elementary school (SD) and junior high school (SMP). Primary

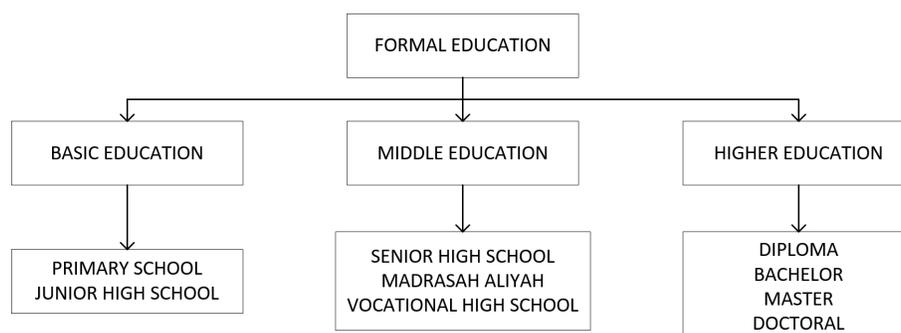


Figure 1. Formal education level in Indonesia (source: [1]).

education is the beginning of children's education, as it teaches children to read properly, develop their math and reasoning skills. Primary literacy aims to lay the foundations for intelligence, knowledge, maturity, good character, and capacity to live independently and pursue further education. To attempt to achieve primary education goals, a teacher's position to the learning process is required to ensure that students have consistency between cognitive, emotional, and psychomotor skills.

## **2.2 Secondary education**

Secondary education is an extension of primary education. This form of secondary education is a secondary school (SMA), madrasah aliyah (MA), vocational school (SMK), and vocational madrasah aliyah (MAK) or other similar types. The general aim of secondary education is to improve comprehension, knowledge, personality, moral strength, and the ability to live independently and engage in further education. While the general aim of vocational secondary education is to improve intellect, knowledge, personality, moral strength, and ability to live independently and pursue further education in compliance with their vocational training.

## **2.3 Higher education**

Higher education is an extension of secondary school education. Higher education is no longer carried in schools but universities. Including a variety of diplomas, bachelor, master, doctoral and specialized programs organized by universities. Higher education institutions are required to provide education, research, and community services. At this level, students are required to be more active in practicing/directly involved in each learning activity, because the ultimate goal of this level of education is that students are expected to be human beings who are useful to others. Higher education institutions may organize academic, vocational programs.

# **3. Vocational school in Indonesia**

## **3.1 About entrepreneurship**

Entrepreneurship is ultimately a creative and imaginative way of thinking that is used as a framework, tools, and driving force, goals and strategies, and tips to deal with the challenges of life. According to Agus Wibowo's statement, entrepreneurship is the ability to merge existing expertise, innovation, and opportunities. Entrepreneurs are people who know how to take risks, are imaginative, inventive, never give up, and are willing to cope with opportunities properly [2]. Entrepreneurship is a mindset, a spirit, and a capacity to build something new that is very important and useful, both for oneself and for others [2, 3]. Entrepreneurship is a mental attitude and a soul that is often active or productive, motivated, innovative, creative, humble, and seeks to increase income for its company. While entrepreneurs are people who are willing to take advantage of opportunities to grow their businesses, intending to improve their lives.

Entrepreneurship is a creative and imaginative ability that is used as a framework, tips, and tools to find growth opportunities [4]. Creative and creative processes typically begin with the creation of ideas and concepts to create something new and special. Creativity is the ability to develop new ideas and ways of solving problems and finding opportunities (thinking new things). Innovation is the desire to apply ingenuity to solve problems and discover ways (to do new things). Emigawaty added that the cycle of entrepreneurship is beginning with challenges [4]. Ideas,

motivation, and ability to take the initiative, which is nothing but fresh thinking and constructive action, should arise from the challenges.

### **3.2 The purpose of vocational school**

Vocational education is education that incorporates, matches, and teaches people to have working habits to be able to join and expand the world of work (industry) so that they can be used to better their lives. National Education System Law (UUSPN) No. 20 of 2003 Article 15 states that vocational education is secondary education which prepares students, in particular, to work in certain fields [1]. Vocational education is associated with grooming an individual for employment and enhancing the development of a future workforce. This involves different forms of schooling, training, or further development to prepare someone to join or continue working in a legal role. Vocational education is certainly part of the national education program, which intends to train workers who have skills and expertise following the requirements of job requirements and who are able to strengthen their capacity by embracing and adapting to technological developments.

Vocational education is part of the national education program, structured as a continuation of the Junior Secondary School and Madrasah Tsanawiyah:

- a. In line with the skills, interests, and abilities to meet the needs/job opportunities that are and will be created in the community.
- b. Vocational school graduates are trained, educated, and trained workers.
- c. Able to engage in further education and/or respond to technological changes.
- d. Impact as a promoter of (small or large) industrial development.
- e. Significant decrease in unemployment and crime rates.
- f. Economic growth and national income by income tax and value-added.

UUSPN No. 20 of 2003 Article 15 states that vocational education aims, in particular, to prepare students to work in plenty of other fields. This goal can be further transferred as follows by [1] into general objectives and precise objectives:

#### **a. General Aims**

As part of the vocational education system, the goals of Vocational Schools are:

1. Preparing students to succeed in a decent life.
2. Improve the students' faith and modesty;
3. Preparing students to become independent and accountable individuals;
4. Prepare students to appreciate and acknowledge the rich cultural heritage of the people of Indonesia, and
5. Prepare students for a healthy lifestyle, environmental insight, knowledge, and art.

## b. Specific Aims

Vocational schools are especially purposeful:

1. Prepare students to be able to work independently or to fill established positions in the business community and industry as middle-level employees, in keeping with the fields and knowledge system of their preference;
2. Equip students to be able to choose professions, to be versatile and to remain competitive and to be able to construct professional attitudes in areas of expertise or interest, and
3. Equip students with science and technology to be able to enhance themselves through higher education.

In contrast, according to the Directorate of Secondary and Vocational Education (Dikmenjur) in 2006, the SMK learning system adheres to the concept of full learning (Mastery Learning) in addition to being able to master behaviors, information, and skills to be able to function following their career. As required by competence. In addition to being able to research extensively, it is necessary to develop the overall evaluation principles:

a. Learning by doing (learning by actual activities or activities that provide meaningful learning experiences) is transformed into production-based learning.

b. Objectives of Vocational Education and Entrepreneurship Education  
Implications Government Regulation No 19 of 2005 on National Education Standards (SNP) Section 25 paragraph 4 implicitly notes that graduates (SMKs) are required to meet graduate-level competency requirements representing the ability of graduates to act, know-how and skills. Therefore, the learning process in educational units is carried out in an active, interactive, creative, challenging, fun, and independent manner according to self-potential, physical development, talents, and interests, as well as students' psychology. Individualized learning (learning with emphasis on the uniqueness of each individual) with a modular program. Empirical statistics show that most vocational school graduates are not yet following customer expectations or requirements of stakeholders.

Graduates tend to be “job hunters” and not many are able to work “independently” to incorporate and improve their skills (survival skills). On the other hand, the work ethic of vocational school graduates is still weak in terms of entrepreneurial thought. In accordance with Law No. 20 of 2003 on the National Education System, secondary education consists of general secondary education and vocational secondary education (Article 18, paragraph 2). Senior High School is a general education unit, while Specialized School is a specialized secondary education unit. The objective of the introduction of high school is to provide academic competence for students to pursue their higher education, while at the same time, vocational schools emphasize more on preparing students to be ready to work under certain fields. The introduction of the SMK also offers incentives for students who have the qualifications and skills to pursue professional, professional, and academic education (dual purpose).

### **3.3 Evolution of vocational high school**

The terms of vocational education and technology are currently being established, there are a stigma and a tendency to define vocational education and technology as an institution that seeks to prepare the workforce in accordance with the interests of students. However, there are quite many limitations related to vocational education and technology in its advancement, namely, among other things, the differing viewpoints of professionals, such as the following.

In the 1920s, Barlow [5] stated that vocational education was a means for someone to prepare and prepare for the services we need. These restrictions are very specific since the word “services” has very different definitions. Struck [5] provides another perspective on vocational education and technology, which leads to the provision of experience to students to be able to carry out work in the field. It seems that this restriction is still very common, as it does not specifically reflect the form and quality of education, both within and outside the classroom.

One form of technical and technological education, namely vocational high school technology. The educational goal is to produce students who comply with the intermediate level work requirements as interpreters or technicians in compliance with other forms of vocational training. Therefore, the management of the learning cycle is more oriented towards the incorporation of vocational skills theory and practice, which refers to the intermediate level of work requirements required by the industrial environment. The presence of an imbalance between what is created by educational institutions and the needs of the labor market is a serious concern of the Directorate for Vocational High School Growth. This seriousness is expressed in the 100-day flagship program of the “Indonesia Bersatu” Cabinet Volume II. Processes, strategies, and action plans should be developed to resolve this mismatch in the 100-day program, in particular the education program.

In order to improve the quality of vocational school graduates, the Ministry of Education and Culture will increase industrial simulations for each vocational school. The purpose of the industrial simulation is to provide vocational students with knowledge of the working culture, the real conditions in the industry, and the mastery of technology. The creation of a cooperation model will also be carried out as a policy action plan. The relationship will be formed between vocational school, vocational higher education, and skills training with the industrial environment, including the creative sector.

This is achieved in order to improve the prospects for intermediation and apprenticeship as well as the suitability of education or training for the world of work [5]. On the other hand, the competitiveness of education can be accomplished through the growth of entrepreneurship, including technology entrepreneurs (IT entrepreneurs) through collaboration between educational institutions and the business world. By the numerous measures outlined above, it is hoped that the connection between education and jobs required by the labor market can be developed and that the unemployment rate will be reduced to the lowest level.

The idea of connection and match has essentially been implemented since the 1994s, when five PSG model schools (Jakarta, Karawang, Semarang, Surabaya, and Medan) were set up, supported by the German Technical Zusammenarbeit (GTZ). Nevertheless, in its growth, ups and downs are induced, among other things, by the lack of a consistent partnership pattern that can lead to mutually beneficial relationships (mutual benefits). The concept of establishing a mutually beneficial relationship was initially designed to provide tax relief for manufacturing communities that have collaborated intensively with vocational schools and can report on the outcomes. It takes time and a clear political will from the Government in the process of understanding the notion. In addition to applying the principle of

linkage and equivalence (link and match), the structuring of study programs or skill programs (re-engineering) is an evolution of existing fields and skill programs in all vocational schools (public and private) to meet the geographic capacity and the requirements of the job market.

The outcomes of the re-engineering structuring would benefit: (1) vocational school, because the field of expertise program designed is in line with the needs of the future of employment; (2) prospective students and parents, so they can select a field of expertise program that facilitates integration in the future of employment; (3) business and industry, as it makes it easier to find employees who suit them. The structuring of the vocational education framework approach would eventually lead to the introduction of a CBT (Curriculum Based Training) that complies with the concepts of a competency-oriented curriculum that is now being developed into a unit level curriculum (KTSP). Competence-based education and training offer, ultimately, individual learning programs.

The introduction of vocational schools will, therefore, be successful and productive where: (1) provision of appropriate teaching materials/modules in terms of number, form, and quality; (2) provision of sufficient learning time in accordance with each student's learning pace and ability; (3) provision of learning facilities that allow classical learning in schools and industrial practices outside of school.

## **4. Implementation of entrepreneurship education**

### **4.1 Entrepreneurship as a compulsory subject**

There are educational courses in entrepreneurship in technical schools that students will take. Entrepreneurship training courses are conducted in Class X to Class XII. The competencies offered are different for each class. Class X competencies include: (1) recognizing entrepreneurial attitudes and behaviors; (2) adopting attitudes and job habits (always trying to move forward); (3) formulating problem solutions; (4) cultivating entrepreneurial spirit; (5) creating loyalty to oneself and others; (6) taking business risks; (7) making decisions. Whereas in the same semester the competencies given include: (1) displaying an unyielding and resilient attitude; (2) handling conflicts; (3) developing a business vision and task.

For reality, entrepreneurship training courses are structured into adaptive training courses. Adaptive education and subject training is a training and subject training community that acts to educate students as individuals so that they have a broad and strong knowledge base to adopt or adapt to changes in the social climate, the economic environment and to be able to learn based on the advancement of science, technology, and art. Adaptive programs provide training courses that emphasize majorly on offering opportunities for students to learn and master the fundamental concepts and principles of science and technology that can be applied to daily life or underpin work skills. Adaptive approaches ensure that students not only understand and learn "what" and "how" a job is done, but also provide comprehension and mastery of "why" a job needs to be done.

### **4.2 Introducing the business world through apprenticeship education**

Vocational School is one of the national education systems which strives to equip students with skills or expertise through the Dual System Education (PSG) program or whatever is often referred to as an internship. Vocational schools are introducing Technical and Vocational Education Training (TVET) in Indonesia. According to Putu Sudira [6], TVET also brings schools closer to the business environment and

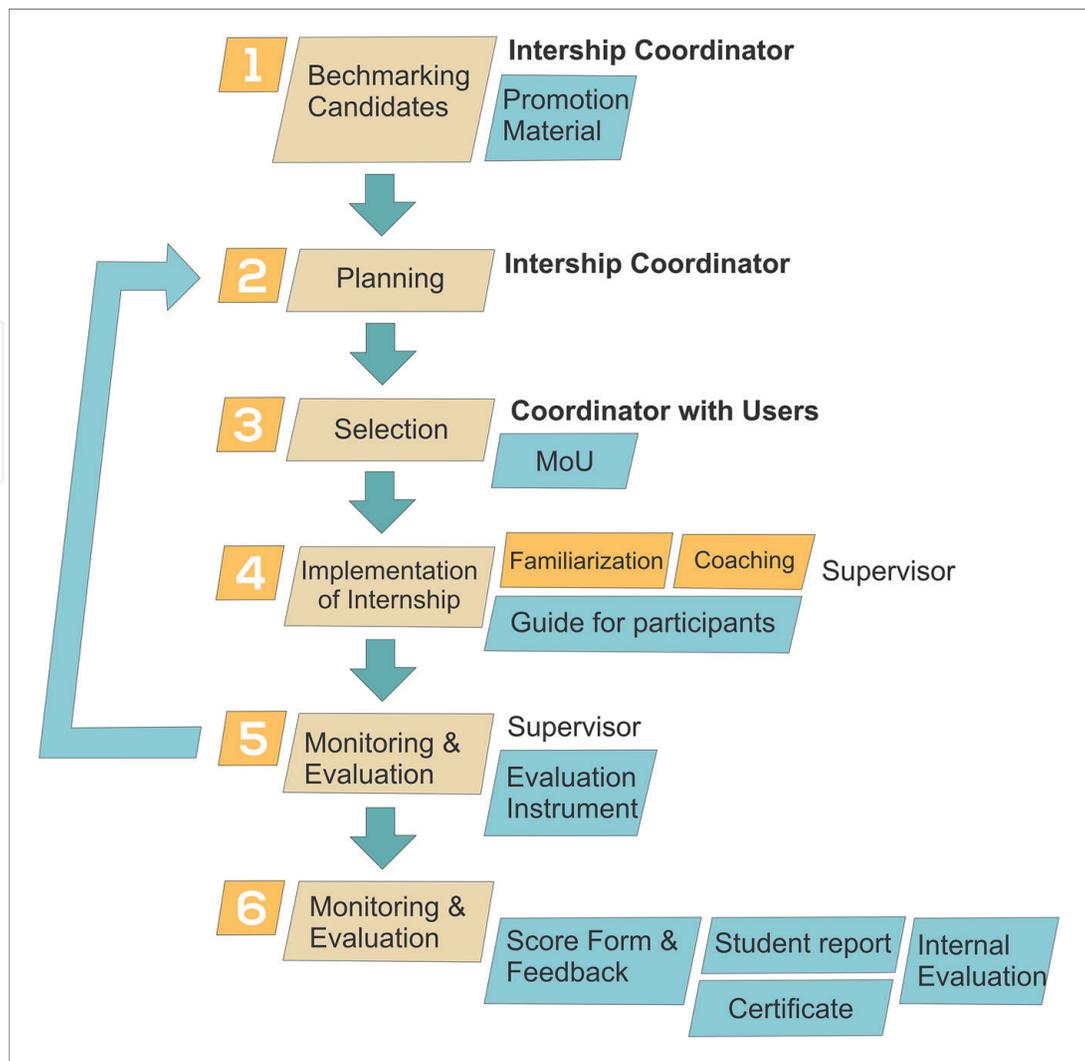
the industrial sector. PSG aims to sync the business community and the field of education. Vocational school in legislation No. 20 of 2003 on the National Education Framework Article 18, paragraphs 2 and 3. Vocational in secondary school is organizes vocational education that gives legitimacy to student preparation to join the workforce and establishes professional attitudes (Article 1 paragraph 2 of the Decree of the Minister of Education and Culture of the Republic of Indonesia No 323/U/1997 on the introduction of the Dual System of Education at vocational school.

Vocational schools seek to develop students' knowledge and skills in such a way that they are ready and willing to work based on their expertise in their respective fields following graduation from secondary education. The competence of vocational school graduates will be expressed in the form of achievement as real or unidentified activities, including (a) both a strong character and a weak character. (b) The development of knowledge mastery, which is characterized by a process of knowledge that is capable of processing information (a process of understanding, know-how, and know-how). (c) Professional development (tool capacity development) characterized by adherence to protocols, punctuality, resistance to fatigue, precision, and thoroughness. (d) The creation of critical thought process skills is characterized by developing new concepts, looking at problems in new ways, and preparing for strategic problem-solving. Based on the outline of the vocational school teaching program (1993: 11A), priority is given to the adoption of the vocational school curriculum: (a) Prepare students to enter the workforce and build professional attitudes. (b) Preparing students to be able to have a career, succeed, and grow to a better standard of living. (c) Preparing a middle-level workforce to meet the present and future needs of the corporate sector and industry. (d) Prepare for graduation so that they are active people who are ready to create, adapt, and be innovative.

### **4.3 Apprenticeship implementation**

The internship is an absolute prerequisite for the introduction of technical education. This is the primary reason for the introduction of internships in most technical education institutions. Training may also provide tangible benefits for vocational education and training programs, such as meeting the criteria of accreditation and attempts to develop the credibility of a school. Recognition of the need to expose students to the world of industry is the biggest motivation for vocational education institutions to coordinate internship programs [7, 8]. In the meantime, for industry, there are many explanations for promoting collaboration through apprenticeship programs, including (a) Public care (b) 2.2. The interpersonal connection between industry and vocational education institutions, for example, business players, is alumni of the school concerned. (c) And get a workforce that suits your needs. According to the rules, the minimum length of the internship is three months, but in certain places, the optimal maturity is six months to one year. In summary, the apprenticeship program will be carried out in the following stages (**Figure 2**).

The prerequisites for the completion of the internship [9] include: (a) the department at school must be in keeping with the area of jobs in industrial apprenticeship location. (b) Schools must ensure that the definition of internships to be introduced complies with Regulation. (c) Schools must set industry standards for the location of apprenticeships. Evaluation practices must be seen as part of the growth of all businesses, schools, and students. In particular, internships are also supposed to be a feedback platform. Therefore, evaluations should be carried out regularly, not only at the end of the industrial working cycle, but even once a



**Figure 2.**  
*Internship adoption batch (source: [9]:p. 17).*

month, for example. Bon and Eschborn [9] listed a variety of items that were evaluated, including the achievement of the internship participants is consistent with the objectives set for the internship. (a) Creation of technical competence. (b) Creation of non-technical competencies (soft skills and attitudes) focused, in particular, on the goals of competence. (c) Quality according to job requirements and client commitment. (d) Another capacity of the participants. According to Duc in Billet [10], “The contribution of the student is linked to the various ways in which internship guidance can be given or not depending on the context in which they are trained.” In our study of vocational education in the Swiss VET dual program, observations find workplaces where spontaneous types of instruction are much more common than others, or where vocational trainers respond easily and enthusiastically to assist requests. Conversely, we often identified firms where contested modes of instruction were the prevailing pattern of interaction and staff fought for knowledge and became a valid teacher. In particular, the requirements given to students can differ from one background to another [11]. This degree of high contextual variability is an essential challenge for practice-based learning models, as it greatly undermines overall performance. The introduction of the PSG is carried out in phases at SMK, to ensure the quality and efficacy of coaching, as well as allow the process of improving the PSG to take place. In other words, the adoption of this initial stage is a trial that is often accompanied by constant evaluation and review, and, in effect, it is expected that the principle and application of the PSG, which is legitimately

solid and in line with the school, will be formulated. The distribution of the adoption of the PSG in schools will be decided by the readiness of the vocational school concerned, in particular, the readiness to develop cooperative ties with industry or companies to become partner institutions.

## **5. Conclusion**

The internship is part of a vocational curriculum that aims to prepare students' skills or abilities in a specific field in order to be able to work. Through the apprenticeship training course, students are prepared to face the true world of life, both through the mindset, the job is done, and the actual working environment. It is expected that the graduates of this apprenticeship program will be better qualified mentally and in their abilities to succeed in the real work environment.

Via internships, students are required (1) to experience the working climate in the world of work directly, (2) to acquire work experience, including expertise, skills, work attitudes and character-based values that emerge from industrial culture, (3) to know the real working environment in the world of work, (4) to know the working processes of the business (products, labor, discipline, values of work), (5) contrasting the knowledge and skills acquired at school with the knowledge and skills acquired during the internship in industry, (6) acquiring the most recent knowledge from the internship, (7) applying the principles of attitudes and character, knowledge and skills acquired at the internship, and (8) getting stronger soft skills in terms of motivation, communication, freedom.

The introduction of the internship has similar features to the apprenticeship program as provided for in Regulation No 36 of 2016 of the Minister of Labor of the Republic of Indonesia on the implementation of the Domestic Apprenticeship, which states that the apprenticeship is stipulated as part of the vocational training system that is carried out in an integrated manner between the training. Directly under the direction and supervision of teachers or staff who are more knowledgeable in the manufacturing process of products and/or services within the business, intending to acquire those skills or expertise.

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