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DEVELOPING EMPLOYABILITY SKILLS OF VOCATIONAL HIGH SCHOOL STUDENTS IN IMPLEMENTING WORK BASED LEARNING (WBL)

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ABSTRACT

In Asia Economic Comunity (AEC) era, improving competences are recquired in competitive society. So, the vocational education has principle to prepare individual entering the workforce besides continue to higher degrees. The industries currently require labors who had the technical and employability skill. To prepare the students of vocatonal school having practical and employability skills depend on the implementation of Work Based Learning (WBL) that was the one of learning models. Industrial practice, apprentice, etc. could prepare the vocational high school students absorbed in the world of work in an optimum manner. The preparation of competence would be able to meet the needs of demand and supply in the work. This study aims to gain an understanding of the contribution of Work Based Learning (WBL) implementation for employability skills on students teamwork aspect at vocational school in SMKN 1 Cibadak and SMKN 1 Pacet in expertise of Agribisnis Pengolahan Hasil Pertanian (APHP)-bakery competence. This study used non experiment quantitative approach with ex-post facto survey. The data would be analyzed by descriptive analysis, comfirmatory factor analysis (CFA), and regression analysis with aided of SPSS version 23.0 software for Windows. Based on the research done, it can be concluded that the implementation of Work Based Learning (WBL) has contributed to employability skills on students teamwork aspect at SMKN 1 Cibadak and SMKN 1 Pacet in expertise of Agribisnis Pengolahan Hasil Pertanian (APHP). Based on regression analysis, the correlation of the implementation of Work Based Learning to employability skills on students teamwork aspect is significant, that rich 59.8 %. Hence it can be concluded that the implementation of Work Based Learning (WBL) could develop employability skill of the graduate of vocational high school on the teamwork aspects.

Keywords: team work, employability skills, work based learning

1. INTRODUCTION

The wave of world industrial and economic progress that keeps rolling faster have an impact on economic and business competition of countries in the world, beyound both the developed countries or developing countries. The high level of competition in international business and economic required the community of the world continuing their competences in the face of the dynamics of industrial and technology, the innovative realm business and economy included.

With regard to this ability of innovate, countries in the world gallop to improve its innovation ability, so they could survive and exist in the wake of the upheaval of

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science, technology, economic, and the international business. The Global Innovation Index which be clasified by World Bank showed a result of the shift rank of year to year, with the exception of Switzerland which kept on the first place since the year have had 2011 until 2017 with a score of 67.69, followed by Sweden (63.82) and Netherlands (63.36) on 2nd and 3rd place (Dutta, Lanvin, and Vincent; 2017, p. 15). In a year before (2016), United Kingdom occupied the 3rd place and drowned to 5th place in 2017. While United States still on the 4th place in 2016 and 2017.

The shift rank of this innovation not only happens to the high income group of countries, but it also occurs on the other groups, included the lower-middle income group where is Indonesia included in it and Philippine, Cambodia, and Vietnam in the same group. According to World Bank, Indonesia occupied in 87th place of innovation rank in 2017 with score gain 35.68, rised up one step from its rank in 2016 which in 88th place with score 29.07. But, it decrease from the rank in 2013 which in the 85th place (STRAED, 2016). Among the South East Asia and Oceania countries, Indonesia innovation index in 2017 (Dutta, Lanvin, and Vincent; 2017, p. 15) could occupied on 14th place only, under Philippine (13th), Thailand (10th), Malaysia (8th) and Singapore (1st).

Table 1. Global Innovation Index of South East Asia Countries in 2017

No.	Countries	Groups	World Rank	SEA-Oceania Rank	Score (0-100)
1.	Singapore	High Income	7	1	58.69
2.	Malaysia	Up-Middle Income	37	8	42.72
3.	Thailand	Up-Middle Income	51	10	37.57
4.	Brunei Darussalam	High Income	71	12	32.89
5.	Philippine	Low-Middle Income	73	13	32.48
6.	Indonesia	Low-Middle Income	87	14	30.10
7.	Cambodia	Low-Middle Income	101	15	27.05

Proceeded from: Dutta, S., Lanvin, B., dan Vincent, S.W. (2017, hlm. 14-19)

Meanwhile, Indonesia has occupied in 37th place in the rank of global competitiveness index in 2015-2016 with score rich 4.52 and decreased in 2016-2017 to the 41st place of 138 countries with score rich 4.25, In 2017-2018 Indonesia could rising up its rank to 36th place of 137 countries in the world with score 4.68. These phenomena show that Indonesia needs to be an ongoing made in the ability of innovation through science and technology, economy, and business. So, it can compete in international economic and improve citizens wealth.

This ability of innovation and competitiveness are influenced by many factors i.e politics, education, research and development, infrastructures, investation, trade and market competition, knowledge of workers, adaptation of knowledge, innovation network. The highrer or lower of these factors depend on the quality of its human resouces which generally could be known by human development index.

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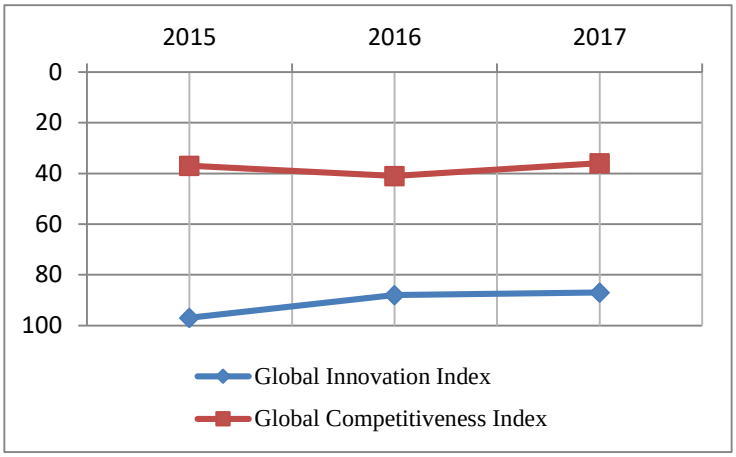

Figure 1. Indonesia Global Innovation Index and Global Competitiveness Index Achievement in 2015-2017
(Proceeded from: Dutta, S., Lanvin, B., dan Vincent, S.W., 2017; Schwab, 2015; 2016; 2017)

Indonesia Human Development Index (HDI) in 2017 is known rich score 0.68 and placing Indonesia in medium human development. Indonesia HDI progress a year to year, especially in 2010, it was slow and could rise 0,78 % only (ILO, 2017, p. 3). The slowing down of Indonesia HDI is caused by the low of the professional workforce occupation of Indonesia which show that in 2016 could rich 10 % in professional technique and 25 % in trade and business sectors. The higher occupation steel keeped by agricultural sector that rich more than 30 %.

Beside, unemployment rate will be the one of the causes of slow the Indonesia human development index. According to Sakernas 2016, the average of unemployment rate in Indonesia was relatively low, it rich 5.6 % (ILO, 2017, p. 27). Of this amount, majority of unemployment was the youth group (15-24 years old) which rich 19.4 %. But, the interesting related to the unemployment rate in Indonesia in 2016 is high of labor force idle who had university degrees, then followed by the vocational high school graduates (ILO, 2017, p. 27). It is as if indicate the opposite from thinking about that with improving education it'll ease to obtain work. While, science and work experiences been transmitted to the students in the process of education as guide for the them to participate in the field.

The education process that be implemented in education institutions is a process that conducted in a planned manner to realize the atmosphere and learning process, so the students could expand themself to have spiritual power, self-control, personality, intelligence, the remembrance of the noble, as well as the skills required themself, their people, and their country (Indonesia Law No. 20/2003 articel 1 point 1). This process would be the spacecraft for learners to gain knowledge and experience before they participated in society life. Through this education, they would rise up their ability and competence in many thing that can be useful for the reality of their life on next days, included science and experience to do the jobs.

One of the requirements for someone to could be involved and participate in the world of jobs is the quality of ability and work competence that had correspond with the demands of the job itself. According to Robinson (2000), these both ability

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and work competence are called as employability skills. The attention of entrepreneurs today is getting labor who have adequate competence and skills. By acquiring the employee who has employability skills or work readiness, it'll help them to control environment where they do their activities. Robinson (2000, p. 1) asserted that:

> *Employers need reliable, responsible workers who can solve problems and who have the social skills and attitudes to work together with other workers ... high performance workforce needed for competitiveness in today's marketplace. Employees with these skills are in demand and are considered valuable human capital assets to companies.*

To fulfill the demands of ability of work, each candidate be organized in many ways through the process of education, training, and training as eagerly as applied in education process in vocational high school. Educational process that be implemented in vocational high school related directly to the industry and economy where the school works as a producers of educated labor, as well as vocational high school in the expertise of Agribisnis Pengolahan Hasil Pertanian (APHP)-bakery competence that prepare the students have the skills in preparing the food and drink that altered to both commercially nature or non-commercially, for a person or general (Decree of Directorate General of National Ministry of Education No. 251/C/Kep/Men/2008).

But, the major challenges to be faced by the vocational education system in Indonesia today is the effort in order to prepare the professional and educated workforce cadidates who have high employability skills, meanwhile the fact showed that there were a lot of vocational high school graduates in Indonesia who are unemployed, as explained before.

The main factor underlying cause poverty is the student ability/job skills on their own not in accordance with the demand skills that be required by the job, yet. So that, it need the effort to develop and to improve the quality of learning process in vocational high schools to be able to produce graduates who mostly having competence in accordance with the demand of work that keep going rapidly, especially in the formation of academic skills, higher-order thinking skills, and personal qualities. So that, the graduate of a vocational high schools can be a skilled workforce and have professional skills in conjunction with adequate.

An effort to realize the demands, one of which may be supported by learning strategy and approach for the students vocational high school that maintain and point them to gain the work competence work as a professional, which is implementing the work based learning (WBL) that put students as subjects who actively explore their experience through any kinds of fieldwork in the workplace. Pertaining to learning based work or in Indonesia, it is called as *Praktek Kerja Industri* (*prakerin*), Helyer (2015, p. 2) said that WBL not only was a read of work process, or observing of work, but entertain to place students to do the activity in the real job.

The problem then, how is WBL can be implementated optimally, especially in train the students teamwork ability in vocational high schools for feveloping their employability skills as a candidate of skilled and educated workforce? This is what it became the basic study of developing employability skills of vocational high school students through teamwork activitis in implementing work based learning.

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2. METHODE

Quantitative approach is used in this study and combined with non-experimental survey, because the data that be analysed are the sample data of the population and recruited by quetionaires (Mitchell & Jolley, 2007:208). Samples be determined based on the technique of purposive sampling. It based on the considering that these schools have been implementating WBL in training and preparing its students to enter the job field. In the meantime, analysis techniques that are applied to amounts of the influence of the teamwork activity in implementation of work based learning against employability skills is regression analysis technique.

Data collection in this study used questionaires for collecting data of work based learning (WBL) and employability skill implementation. The data be analyzed by descriptive analysis technique and regression technique which formerly undergone a normality and linearity test. The process of data analysis be aided by SPSS version 23.0 software for Windows. Descriptive analysis that be used in this study intended to know the implementation of work based learning (WBL) variable and employability skills. Confirmatory factor analysis intended to confirm of work base learning (WBL) implementation and employability skills. Meanwhile, the regression analysis used to see all the contribution of implementation of work based larning (WBL) to the employability skills.

3. RESULTS AND DISCUSSION

a. Implementation of work based learning data description

Work based learning data be handled by the quetionaire which consisting of 30 points statement in 4 scale. The minimun amount score for Implementasi of Work Based Learning variables is 30, maximum score is 120. The data show that the number of minimum score is 45, maximum score is 100, score average is 85.99, and deviation standard 7.34. By using the value of average of criteria ($\bar{X}k$=75) and deviation standard of criteria (σk=15), then may be prepared the classifications of score amount in five categories that be presented in table 2.

Table 2. Criteria of the Work Based Learning Implementation Score

No	Categories	Interval	Frequency	Percent
1	Very low	30.0 – 52.5	2	5
2	Low	52.6 – 67.5	5	12.5
3	Middle	67.6 – 82.5	9	22.5
4	High	82.6 – 97.5	20	50
5	Very high	97.6 – 120	4	10
Total			**40**	**100**

The average of result ($\bar{X}$ = 85.99) if it's compared with the clasification criteria in table 2, generally the students perceive that the implementation of work based learning in productive learning at Vocational School in expertise of Agribusiness of Agricultural Product (APHP) – bakery in the middle category. 5 % of the students asume that the implementation of work based learning in the very low category, 12.5 % in the low category, 22.5 % in middle category, 50 % in the high category, and 10 % in the very high category.

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b. Employability skills data description

Employability skills data be handled by the quetionaire which consisting of 30 points statement in 4 scale. The minimun amount score for employability skills variables is 30, maximum score is 120. The data show that the number of employability skills minimum score is 35, maximum score is 119, score average is 82.33, and deviation standard 10.88. By using the value of average of criteria ($\bar{X}k$=75) and deviation standard of criteria (σk=15), then may be prepared the classifications of employability skills variables score amount in five categories that be presented in table 3.

Table 3. Criteria of the Employability Skills Score

No	Categories	Interval	Frequency	Percent
1	Very low	30.0 – 52.5	1	2.5
2	Low	52.6 – 67.5	4	10
3	Middle	67.6 – 82.5	13	32.5
4	High	82.6 – 97.5	18	45
5	Very high	97.6 – 120	4	10
Total			**40**	**100**

The average of result ($\bar{X}$ = 82.33) if it's compared with the clasification criteria in table 3, generally the employability skills of the students at Vocational School in expertise of Agribusiness of Agricultural Product (APHP) – bakery in the high category. 2.5 % of the students precieve the employability skills in the very low category, 10 % in the low category, 32.5 % in middle category, 45 % in the high category, and 10 % in the very high category.

c. Hypotetical Test by Regression Analysis

To know the contribution of work based learning to employability skills in team work aspect, it's done by linear regression test. Based on this test, it was knew that the value of R square (R^2) is 0.598. That's mean that the contribution of work based learning to employability skills is 59.8 %. Meanwhile, the rest of 40.2 % influenced by other factors. The result that show in ANOVA table intended rhe value of sig. as much 0.000, that's mean 0.05 ≥ nilai Sig. 0.000. So that H0 is rejected and H1 is accepted, it's mean that the regression coeficient is significant. Based on it, can be conclude that work based learning implementation could contribute to employability skills significantly in team work aspect.

Based on the regression analysis, it's knew that the corelation of implementation of work based learning to employability skills in the team work aspect is significant as much 59.8 %. It prove the contribution of work based learning to employability skills in Vocational High School. This outcome is supported by research that be conducted by Harvey (2003:1) which employability skills growing as a result of the well learning system.

Today, the work place is requiring labor who did not only have technical skills, but also employability skills. So, the education need to tailor its approach with more emphasis on the principle of based on skills in the process of learning which is comprehensive and not be oriented to gain certificate only (Hanafi, 2014:7). According to Cleary (2007:37), employability skills could be advanced through academic examines, jobs practices, learning based industry, and cooperative learning which be integrated with jobs.

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Skill and work attitude as one of competence that should be owned by graduates can be created and developed during learning. Educational institutions as institutions are obliged to provide the support facilities, the educators involvement is conveying and give experience of all the elements skills in learning. The effectiveness of skills work depends on its development in learning and preparation of students (Sudirman dan Pangestu, 2015:347).

Based on the both theoretical and empirical study that have explained above, it could be concluded that work based learning can be contributed to students employability skills significantly, especially in expertise of Agribusiness of Agricultural Product (APHP)-bakery competence. It provides implication that the efforts to improve the quality of the diverse learning programs can develop graduates of vocational high shool employability skills.

This research was strengthen Stern, Rahn, and Chung (Alfeld, *et.al*., 2013, p. 9) who expected that work based learning gave much opportunity to the students in teamwork, especially at workplace today, “You can’t work in almost any job without being able to understand what your contribution is anywhere along the pipeline and what happens if your part is broken”.

4. CONCLUSION

Based on this study, can be concluded that work based learning can be contributed to employability skills of students in expertise of Agribisnis Pengolahan Hasil Pertanian (APHP)-bakery competence significantly. Hence it can be said that the implementation of work based learning as a model of learning and can be applied in developing employability skill of graduates of vocational high school. The ability of work together cooperatively that be required in the workplace need to be emphasized and taught to students through various democratic approach, so they can realize the importance of value, attitude, and responsibilities in work.

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