Work-Based Learning to Increase Vocational Ability in the Implementation MBKM (Merdeka Belajar Kampus Merdeka)

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ABSTRACT
Implementation of MBKM (Merdeka Belajar Kampus Merdeka) in Higher Education encourages each Study Program to make many improvements, including the arrangement of learning patterns, so that students are able to develop their potential according to their interests and talents. This study aims to get an overview of what vocational learning experiences are obtained by students before students carry out Industrial Practices, and how these experiences relate to application in the workplace.The research approach uses a survey. The research stages used literature studies, in-depth discussions, instrument design, instrument trials, data collection, data processing and reporting. The research subjects were 62 people, consisting of S1 and D4 students from the Culinary Study Program, Faculty of Engineering, UNY who were taking Industrial Practice in 2022. The validity of the instrument through expert judgment and data analysis used quantitative descriptive and regression analysis. The results showed that the classification of vocational abilities on campus was in the very high category (48%). The category of mastery of vocational skills in the workplace is on a very high average (71%). There is an average score increase of 0.28 for soft skills. Mastery of student vocational abilities based on the acquisition of scores has increased. It is known that the percentage of mastery of vocational skills on campus has increased from 48.4% to 71% in the workplace or an increase of 22.6%. The results of the correlation test show that the mastery of vocational skills on campus has a significant relationship. The results of the regression analysis show that vocational abilities on campus have an influence on vocational abilities in the workplace with an effective contribution of 50.7%.

Keywords: *Vocational ability, Work-based learning, MBKM .*

1. INTRODUCTION

The Independent Learning-Independent Campus (MBKM) policy implemented in tertiary institutions aims to prepare graduates who are resilient in dealing with various changes, both social, cultural and technological changes. To support this policy, programs are needed that can form the desired competencies. The MBKM curriculum allows students to be able to develop their potential according to their calling. Students' talents or passions are honed because in the MBKM curriculum each study program will offer a variety of learning experiences both on campus and off campus. Students are given the freedom to determine enrichment through various choices of learning experiences offered by the Study Program.

In the concept of curriculum, the arrangement of courses and learning has the same meaning. Various experts say that the curriculum is a list of courses that students must take. While others say that the curriculum designates a number of learning experiences that students must go through that are aligned with the needs of work competencies. Thus, the arrangement of courses and the learning experience of the MBKM curriculum must be well laid out, synchronous, efficient in implementation and effective in achieving student work competency targets. Study programs must carry out various stages of curriculum development including field studies, or carry out various validation tests with stakeholders, professionals, and related study program associations.

PI Prodi Boga provides a very broad and deep experience for students. Within 6 months, students are able to independently test the knowledge and work skills they have mastered, internalize the work culture built by the industry as part of work behavior and use work experience as work learning. This ability becomes part of him when there is hard work, discipline, openness to accept change, obeying the principles of various binding workplace rules, having a high work ethic, resistant to work pressure and ready to change. Thus it can be stated that the PI which is held for six months means strengthening student vocational competence.

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Vocational competence provides an overview of student work mastery in the workplace. When the mastery of vocational competencies is good, students can work effectively both for specific jobs and those related to the organization and work culture. Students can demonstrate both technical and non-technical performance with standardized results. On the other hand, students with poor competence are seen as less independent, less qualified, appear doubtful, and have unsatisfactory work results. Therefore work experience through PI should make students able to work effectively using knowledge in each of their work activities; able to merge himself with the work culture built by the organization and able to use work experience as an added value to his competence.

Industrial Practice is an activity program for implementing learning with a work-based learning (WBL) approach, where WBL is a learning approach that utilizes the workplace to structure experiences - experiences gained in the workplace contribute to social, academic and career development of learners and become a supplement in Learning Activities. Learning in a work environment. can be viewed from several aspects, namely the nature of learning in the workplace, learning factors namely the people involved in the learning activity, the learning process, namely how knowledge is formed and learned in the work environment, and how knowledge is transformed.

2. THEORETICAL REVIEW

The learning process in vocational education must receive attention. Learning by presenting real situations is the most effective way to improve students' career skills [4]. Therefore, education whose spearhead is learning activities must be carried out optimally by means of continuous improvement with various strategies so that learning objectives can be achieved in accordance with the specified achievements. The quality of vocational education results, both in terms of process and product, is greatly influenced by the learning approach used. Vocational education cannot be carried out without cooperation between educational institutions and the business world and the industrial world [1].

Vocational learning experiences can be obtained inside and outside the classroom by utilizing various situations outside the classroom to support the learning process. In a work situation a person can experience changes, both changes in knowledge, skills and work attitudes. Changes can also occur due to work challenges, so students respond to these challenges with various actions [5].

Learning in the work environment in some literature is expressed in several terms such as learning at work, learning in work, work-related learning, work-based learning, or workplace learning [6], so that the theories of experiential learning, context teaching and learning, and work-based learning is very relevant in the implementation of vocational education [1]-[3].

Work-Based Learning itself has several concepts, Boud & Solomon [7] describe it as a program in the classroom where schools and organizations or companies jointly design workplace learning. Raelin Joseph A [8] described that Work Based Learning (WBL) is much more than the familiar experiential learning which consists of adding a layer of simulated experience to conceptual knowledge. Work-based learning is closer to experiential learning which contains additional examples of experience into conceptual knowledge. Furthermore Raelin [8] added "In Work Based Learning, theory may be acquired in concert with practice." In work-based learning, theory of possibility can be obtained during practice.

Learningwork-based one based on cognitive theory which holds that learning is an internal process that includes memory, retention, processing of information, emotions and other psychological aspects. Learning is an activity that involves a very complex thought process. According to cognitive theory, knowledge is built within an individual through a continuous process of interaction with the environment [9]. Cognitive theory can be classified into information acquisition theory and constructivist theory. Emphasis on the implementation of learning in the workplace refers more to constructivist theory. Learning is a process of constructing knowledge. Humans can know something by using their senses, through their interactions with objects and their environment [10].

Learning in the work environment according to the study of Hager & Becklkket [6] states, First, there is constant interaction between individuals and their environment; the individual acts and reflects on his environment, namely the environmental conditions affect and are influenced by the individual. Second, the individual's actions are carried out with other individuals or in a context where decisions are made by other people in the form of rules, values, attitudes, expectations, and so on. Third, knowledge is in action not in the theory behind it; the activities of thinking and acting occur together. Based on this assumption, learning is a form of relatively permanent change in individual or group competencies obtained through interaction with their environment.

3. RESEARCH METHODS

The research approach uses a survey. The research stages used literature studies, in-depth discussions, instrument design, instrument trials, data collection, data processing and reporting. The research subjects were S1 and D4 students of the Culinary Study Program, Faculty of Engineering, UNY, who were taking Industrial Practice in 2022. The instrument was developed based on content analysis of the D4 Applied Undergraduate curriculum. Tata Culinary, and S1 Catering Education. Instrument validity through expert judgment and Alpha Cronbach calculations, data were analyzed. quantitatively descriptively.

4. RESEARCH RESULT

Industrial Practice as a learning process that provides a very broad and in-depth experience for students to work independently and test the knowledge and skills they have learned on campus is one of the real work-learning activities. The application of Industrial Practices for students of the Culinary Study Program, both Undergraduates and Applied Bachelors, has a minimum duration of 3 months to 6 months in the Industry. Through the duration of the Industrial Practice implementation, students can implement the knowledge and skills they have learned on campus, which are then put into practice in the industry. Implementation of this Industrial Practice is also part of improving work behavior which can affect discipline, openness to accept change, adherence to principles and various work rules, Culinary Study Program Students carry out Industrial Practices in several industry groups such as Hospitality (Hotel Grand Keisha Yogyakarta, Four Season Hotel Jakarta, D'Senopati Malioboro Grand Hotel, The Rich Jogja Hotel), Restaurants (Soregasuki, Roaster and Bear, Floating Resto Sleman) , Catering (Wijaya Catering), Bakery and Pastry (Kuki Bakery, UNY BOGA, Andra Brown Cake and Bakery, Gallery Bakery, Petit Paris Boulangerie Factory, Cinema Bakery, Via via Bakery), Dormitory (Military Academy), Café (Café Brick and Café Ken Eco), Food Industry (PT. nDalem Value Creation Indonesia, PT. Mount Merapi Bakehouse, Bluder Moju), and Multi Business (Esco Restaurant and No.27 Coffee, Hoya Bakery and Resto, Kayonna Coffee and Pastry, Silol Coffee and Eatery).

4.1. Vocational Capability on Campus

The mastery of vocational skills by students on campus can be seen in several fields of work, such as food production, food service (service), as well as bakery and pastry fields. These three fields of work are fields of work that are generally found and used in most industrial groups related to culinary planning [11-12]. Of the three fields of work, each field of work has several detailed statements relating to their mastery on campus as follows:

4.1.1 Boasting in the Field of Food Production

The culinary competencies included in the field of food production include sixteen points including setting standard ingredients to be used, using fresh and good ingredients, storing food ingredients both dry and wet, using knives according to ingredients, preparing ingredients according to recipe requests, techniques provision of spices used, use of various cooking tools, food processing techniques according to recipe requests, application of basic cooking processing techniques, proper and correct food presentation techniques, creative and attractive food presentation techniques, production time management, mastery of various recipes (Indonesian, Asia and Europe), invent new recipes that are marketable, sanitary hygiene in all aspects and activity levels, and food storage techniques. From the results of the study, it was found that the average mastery of culinary skills in the field of food production for college students ranged from 3.90 to 4.90. Consecutively, the five highest masteries in the field of food production are occupied by the statements of using fresh and good ingredients, preparing ingredients according to recipe requests, setting standard ingredients to be used, using food processing techniques according to recipe requests, and storing food ingredients either wet or dry. dry. The five statements that have the highest average belong to the culinary ability in the field of food production, which is very basic to being able to produce a quality food dish.

4.1.2 Passion in Food Service

Culinary competence in the field of food service includes twelve important points to support the creation of maximum food service for consumers. The twelve points include communication skills with guests, techniques for carrying trays, techniques for serving food to guests, mastery of food products served, maintaining cleanliness, mastery of English, friendly and cheerful faces, orderliness in carrying out work procedures, maintaining sanitation and hygiene in all aspects of work, taking orders quickly, stylistic dishes, and time management. Consecutively, the statement that has the highest average is mastery in terms of maintaining cleanliness, maintaining sanitary hygiene in all aspects of work, orderly carrying out work procedures, friendly and cheerful faces, and mastery of the food products served. Delivering food to customers, or food service, is one of the important points that must be applied by students when they enter the workforce in the future. Accuracy in food service, such as maintaining cleanliness, being friendly to guests, and understanding the products presented, can have a positive impact on the sustainability of a food business. Vice versa, when the food service is not satisfactory, the sustainability of the business can also be threatened. Therefore, apart from mastery of culinary skills in the field of food production

4.1.3 Passion in Pastry and Bakery

The competence in pastry and bakery includes thirteen points including preparing ingredients according to recipes, preparing ingredients according to recipe standards in terms of quality, measuring dry and wet ingredients, using ingredients according to work procedures, making dough for various Indonesian cakes, making dough for various pastries , making dough for various cakes, making dough for various breads and layered products (puff pastry, danish and croissants), adjusting the baking temperature, cooking various Indonesian products according to processing techniques, marking products that are ripe, presenting products in a beautiful and attractive way, and creating products new. Successively, the statements that have the highest average in the field

of bakery production are: measuring dry and wet ingredients; using ingredients according to work procedures; preparing ingredients according to recipe standards in terms of quality; preparing ingredients according to recipes; and making various pastry doughs. When making bakery products, there are several things that are mandatory and must be done so that the resulting product is maximized, one of which is the measurement of both dry and wet ingredients. Producing the right bakery products, of course, starts with the process of measuring the right ingredients first and then using them according to work procedures and standard recipes before turning them into dough and producing quality products.

4.2 Vocational experience in the world of work

The vocational experience of students while in the world of work or their mastery of work skills while carrying out industrial practices or internships can be an illustration of how far students apply the skills they have learned on campus and then apply them in the world of work or industry. Vocational experience in the world of work can be seen from several fields, including: mastery of work skills during industrial practice in the field of food production.

1. Mastery of work skills during industrial practice in the field of food production. Which in this case also includes the field of pastry and bakery production, has five aspects that have the highest average, including preparing ingredients according to recipe requests, making dough or preparing ingredients ready for processing, using good materials according to standards set by the company, choosing materials according to production needs, and mastering basic processing techniques according to work orders.

2. Mastery of employability during industrial practice in the field of food service In mastering work skills during industrial practice in the field of food service, the five aspects that have the highest average are friendly and cheerful faces, orderly carrying out work procedures, keeping the work area and dining area clean, mastering language that is polite and pleasing guests, and taking orders quickly.

4.3 Ownership of Catering Students' Soft Skills on Campus

In addition to the hard skills that are needed when students go directly into the world of work or industry, soft skills are also things that cannot be abandoned. Soft skills are related to students' self-adjustment abilities with all the changes and dynamics that exist in the world of work, including implementing a work culture and complying with various applicable workplace rules. The following statement describes the mastery or ownership of student soft skills while studying on campus, including responsibility for the work assigned, obedience to work rules, readiness to carry out orders, resilience or work pressure, prioritizing the perfection of work results, time discipline, working efficiently and effectively, carrying out work procedures, being active in every learning activity in the habit of learning, and developing creativity and innovation. Based on the results of research on students, the aspect of responsibility in the work assigned has the highest average score of 4.09, followed by obeying and obeying work rules.

4.4 Soft Skills experience gained by students in the world of work

The implementation of student soft skills ownership in the world of work is also related to student grooming while undergoing industrial practice. Based on the data obtained, after students undergo industrial practice, ownership, or experience of soft skills in the world of work, which also includes grooming, the aspects that have the highest value include appearing clean and fresh and obeying the work clothes set by the company with an average score of 4,37, followed by carrying out work procedures determined by the company with an average value of 4.35, then maintaining personal and workplace hygiene and being resilient to work pressure.

4.5 Improving Student Vocational Abilities After Participating in Work-Based Learning

4.5.1 Mastery of Vocational Skills on Campus

Categorization of vocational ability mastery scores in the dictionary with an ideal mean (Mi) and ideal standard deviation (SDi) The number of questions on the campus mastery variable is 41 multiplied by the maximum score of 5, and a score of 205 is obtained. The minimum number is 41 multiplied by 1 to obtain a score of 41.

Calculation of the Ideal Mean (Mi) = 12 (205 +41)
= 123

Calculation of the Ideal Standard Deviation (SDi) = 16 (205 + 41)
= 27.33

From the results of the categorization, the very high category obtained a percentage of 48.4%, followed by the high category with a percentage of 45.2%, the medium category with a percentage of 6.5%, and the low category with a percentage of 0%. When viewed from the acquisition of vocational skills mastery scores in the fields of food production and food service, the following scores are obtained:

Table 1. Mastery of work ability in the field of food production on Campus

Mastery On Campus	Total	Average

	number	
Mastery of work skills in food production on campus	3945	3.97
Mastery of work skills in the field of service on campus	2817	3.78
Total/ average	6762	3.8

Mastery of work ability in the field of food production obtained an average of 3.97 and 3.78 for mastery in the field of food service (Service). The mean for the mastery of both abilities is 3.8.

4.5.2 Mastery of Vocational Skills in the Workplace

Categorization of Mastery Scores with an Ideal Mean (Mi) and Ideal Standard Deviation (SDi) The number of questions on the variable of mastery at work is 28 multiplied by the maximum number of scores, namely 5, the maximum score is 140, and the minimum score is 28.

Calculation of the ideal mean (Mi) = 12 (140 +28)
= 84.

Calculation of the ideal standard deviation (SDi) = 16 (140 + 28)
= 18.66.

The results of the categorization of the acquisition score for mastery at work show that the very high category obtained a percentage of 71%, followed by the high category with a percentage of 24.2%, the medium category with a 4.8% percentage, and the low category with a percentage of 0%. When viewed from the acquisition of vocational skills mastery scores in the fields of food production and food service, the following scores are obtained:

Table 2. Mastery of work ability in the field of food production at Work.

Mastery At Work	Total number	Average
Mastery of food production work skills in the workplace	4056	4.08
Mastery of work skills in the field of service in the workplace	2967	3.98
Total/ average	9938	4.03

Mastery of work ability in the field of food production obtained an average of 4.08 and 3.98 for mastery in the field of food service (Service). The mean for the mastery of both abilities is 4.03.

4.5.3 Increasing Student Vocational Ability

Increasing students' vocational abilities after obtaining work-based learning through industrial practical experience can be seen in the following table:

Table 3. Mastery of vocational ability.

Mastery of Vocational Ability	Average	
	On campus	At workplace
Mastery of food production work skills in the workplace	3.97	4.08
Mastery of work skills in the field of service in the workplace	3.78	3.98

Based on the table, it can be seen at a glance that there is an increase in the mastery of vocational skills after students are in the workplace. Of course, in addition to students applying the mastery of the vocational skills they already have on campus, when students go directly into industry or the world of work, they will gain additional insight from the experiences they have had while participating in industrial practices in the workplace, observing and learning directly about the vocational skills needed. in the world of work.

Apart from the table above, the increase in vocational skills can also be seen from the categories of score acquisition, which show a significant increase, which can be seen in the following table:

Table 4. The increase of vocational skills in some categories.

Category	Mastery	
	On campus	At workplace
Very High	48.4% x 4 = 193.6	71% x 4 = 284
Tall	45.2% x 3 = 135.6	24.2% x 3 = 72.6
Currently	6.5% x 2 = 13	4.8% x 2 = 9.6
Low	6.5% x 1 = 6.5	0% x 1 = 0
Amount	100% = 348	100% = 366.2

Based on the table, there is an increase in the mastery of vocational skills in the very high category, where mastery on campus is at 48.4% and increases to 71% in the workplace, or an increase of 22.6%.6%. If you look at the overall score, there was an increase of 18.2 points.

4.6 The Influence of Vocational Abilities on Students After Obtaining Work-Based Learning

The results of the Pearson correlation test show that the mastery of vocational skills on campus has a significant relationship with the mastery of vocational skills in the workplace, where $r = 0.704$, $p < 0.001$. $r2 = 0.495$, $N = 62$. Based on the results of the normality test, it is known that the significant value is $0.291 > 0.05$, so it can be concluded that the data is normally distributed.

4.7 The Influence of Vocational Abilities and Soft Skills of Students on Vocational Experience

In this case, a simple linear regression analysis was carried out to test the effect of one independent variable on the dependent variable. As a basis for decision-making, it can refer to two things by comparing the significant value with a probability value of 0.05 as follows:

1. If the significance value is less than 0.005, it means that variable X affects variable Y.
2. If the significance value is greater than 0.005, it means that variable X has no effect on variable Y.

Based on the results of the regression test, it is known that the calculated F value is 61,800 with a significance level of 0.000 <0.05, so this regression model can be used to predict variables or whether there is an influence of variable X on variable Y. In order to find out how strong the influence of variable X is on variable Y, see the following figure:

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18435.863	1	18435.863	61.800	.000[b]
	Residual	17898.991	60	298.317		
	Total	36334.855	61			

a. Dependent Variable: Y
b. Predictors: (Constant), X

Figure 1. ANOVA results.

The correlation value or relationship ® is 0.712. So from the output, it is obtained a coefficient of determination (R Square) of 0.507, which implies that the effect of the independent variable on the dependent variable is 50.7%.

Based on the data obtained, the vocational skills possessed by students on campus have a significant effect on students' vocational experience in the workplace. This is evident from the increased score or percentage of students' ability when participating in work-based learning or industrial practice. In the results of the instruments distributed to students, it was conveyed that there were several jobs entrusted to students while in the industry. The vocational skills that are trained when students enter or work in the industry include food service, which includes taking orders, preparing materials for food processing or production, being assigned to the warehousing department, or checking material stocks. During the learning process at work, students are trained in several vocational skills, such as producing food, which includes preparing ingredients, processing techniques, sanitation hygiene, and plating. Even several jobs in the workplace are entrusted to students, who are given full responsibility for handling them, including service, checking material stock, preparing and cooking, marketing, packaging, and quality assurance. Soft skills possessed by students also get influence from vocational experience carried out in the workplace, where it is stated in the data that students are trained on how to maintain discipline in the workplace, including by complying with all work principles that apply to related women, applying work speed, which of course will have a significant effect on work effectiveness and efficiency, as well as working in teams. When working in a team goes wrong, an indication of student soft skills can develop along with the work experience that has been carried out. Through teamwork, students will be able to collaborate with each other on a job assigned to them.

5. CONCLUSION

The description of vocational abilities on campus has increased through work-based learning in the form of industry practice programs, with a very high frequency of acquisition from 48.4% to 71%, thus the gain score in the very high category is 23.6%. Likewise, the correlation level is very high, 74% and shows a strong relationship.

Based on the results of this study, suggestions are made that work-based learning is very suitable for increasing vocational competence in implementing the independent learning curriculum. Students can choose a workplace that fits their passion. Therefore, carefulness is needed in choosing partner institutions between the world of education and the world of work

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