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THE INFLUENCE OF THE TEACHING FACTORY LEARNING MODEL IN IMPROVING THE QUALITY OF GRADUATES AT STATE VOCATIONAL SCHOOL OF AGRICULTURAL DEVELOPMENT CIANJUR

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ABSTRACT

This research aims to determine the effect of the Teaching Factory Learning Model (TEFA) on improving the quality of graduates applied to Class This research uses a quantitative method. The object of this research is the Cianjur State Agricultural Development Vocational School business which is located on Jalan Raya Cibeber Km.5 Pasirsembung sirnagalih cilaku, Cianjur District, Cianjur Regency. The data collection method used is a questionnaire from several data collection methods. The results of this research show that the role of the Teaching Factory Learning Model (TEFA) Influence system is indeed quite influential in improving the quality of graduates in this learning model even though the TEFA learning method system is simple and still lacking.

Keywords: *The Influence, Teaching Factory Learning Model, Quality of Graduates.*

INTRODUCTION

Teaching factory learning is a concept of educational learning from vocational education based on the production of goods or services that refers to standards and procedures that apply in the industrial world, and is carried out in an atmosphere like that which occurs in industry. The Teaching Factory learning paradigm is based on the goal of successfully coordinating educational activities, research, and progress in a single concept that includes industry and science.

Teaching factory learning focuses on the integration of industry and academia through a curriculum approach, education/training. The teaching factory learning model focuses heavily on the integration of industry and academia through a curriculum approach, which is in line with teaching or training methods. Teaching factory learning is expected to produce graduates who are in accordance with the needs of the business world and the industrial world (DU/DI).

The conceptualization of the process of labor absorption by industry is still qualitatively far from the capacity of the industry each year. One of the problems faced by the industry can be seen from the gap factor in achieving competencies from graduates of vocational education and training institutions with the competencies required by the industry or in other words, a link and match relationship has not been created between schools and the Business World or the Industrial World DU/DI.

Teaching factory is a learning model that is expected to be able to reduce the competency gap between schools and the Business World or Industrial World DU/DI which integrates the learning process to produce good products in the form of goods or services that are worthy according to industry standards in order to produce added value for improving student competency, which in the end through the teaching factory process is expected to be able to foster self-confidence as prospective employees in the industrial sector and also foster an entrepreneurial spirit for students at SMKN PP Cianjur.

Meanwhile, according to our group, Teaching factory is a learning method that is expected to be able to reduce the competency gap between educational institutions and DU/DI which integrates the learning process to produce good products in the form of goods or services that are worthy according to industry standards in order to produce added value for improving student competency, which in the end through the teaching factory process is expected to foster self-confidence as prospective workers in the industrial sector and also foster an entrepreneurial spirit for students. Teaching factory is a form of learning model that is very effective and efficient for learning activities. Improving the quality of education is intended to produce graduate competencies that are in accordance with the demands of industry/market needs based on the potential of Indonesia's natural resources.

Increasing efficiency is a form of education management carried out through the implementation of school-based management and renewal of education management in a planned, directed, and sustainable manner. SMKN PP Cianjur was established in

1973 and is located in Cilaku District in Cianjur City. Initially, this school was named SPMA (Senior High School of Agriculture) under the Ministry of Agriculture, then changed to SPP-SPMA and SMKN PP Cianjur. The study programs at SMKN PP Cianjur are only agricultural groups. SMKN PP Cianjur has and practices a culture of time discipline, orderly worship, 5S (Smile, Greeting, Greeting, Polite and Courteous) and social concern for all school residents. The source of funding at SMKN PP Cianjur comes from the government, both from the regional and central governments. The source of funding comes from 3 sources of assistance, namely BOPD (Regional Government Operational Assistance), BOS (School Operational Assistance) which is assistance from the center. The Regional System and Policy implements, regulates and organizes the education system in policy makers and partnerships with DUDIKA are harmoniously established. It aims to channel graduates of students, DUDIKA is used as a learning partner for students by aligning the school curriculum with DUDIKA so as to produce graduates who are in accordance with the industry. SMKN PP Cianjur which has several potentials and weaknesses including in terms of students having low enthusiasm for registration; 100% student graduation; in terms of participant resources, 100% of educators have S1 educational qualifications and approximately 30% have S2 educational qualifications according to their fields and 23 teachers have passed Professional certification, 93% of whom are quite competent in learning and using technology. For general facilities and infrastructure, SMKN PP Cianjur has sufficient facilities to support the teaching and learning process and has a large land area but the ratio between the number of rooms and the number of rooms bell is not yet appropriate because the number of students at SMKN PP Cianjur is approximately 600 students with 23 classes, so based on this, the development of the SMKN PP Cianjur curriculum must also be adjusted to these conditions and potentials, in addition, the available water sources are also not sufficient for the daily needs of the school, especially for the Fisheries department. Management is a process in terms of planning, implementation, and supervision that can be sourced from an organization to achieve goals effectively and efficiently. The definition of management according to George R. Terry is in achieving a goal that has been set in advance by using the activities of other people. And according to Terry, management is a process or framework that involves guidance or direction of a group of people towards organizational goals or real intentions. From the several definitions above, it can be concluded that the definition of management is a process of planning, implementing, and supervising organizational resources to achieve goals effectively and efficiently which involves guidance and in terms of directing a group of people towards organizational goals. The SMK level has a BMW concept which can be interpreted as SMK graduates can immediately work or look for a job according to their abilities and SMK graduates can also continue their education to a higher level and SMK graduates can have jobs by opening their own jobs with entrepreneurship according to the skills they have.

METHODOLOGY

Based on the title and objectives of the research that have been set, the approach taken is an experimental study research approach where variables are deliberately attempted and then controlled to see their effect on the quality of graduates taken is research with a quantitative research type. Quantitative research is a type of research whose research data is in the form of numbers and analysis using statistical processes. The place of this research is SMKN PP CIANJUR.

The author chose SMKN PP CIANJUR because there are many entrepreneurship learning activities held at the school. The time of the research was carried out in the even semester of March in the 2023/2024 academic year, namely on March 20, 2024. In terms of sampling techniques. This study takes a population approach. The population is the entire research subject. If someone wants to research all the elements in the research area, then the research is population research. The study or research is also called a population study or census1 The population in this study were grade XI students of SMKN PP CIANJUR consisting of 18 students from the Fisheries Department and 77 students from the APHP (Agribusiness and Agricultural Product Processing) Department with a total of 95 students. The sample is a portion of the population that has been selected using a certain procedure method so that it is expected to represent the population.1 In sampling, Suharsimi Arikunto provides guidelines that if the subjects are 100, then between 10% -15% or 20% -25% or more are taken, 3 Because the number of students is only 95 people which is less than 100, the researcher uses all students as research subjects. from Suharsimi Arikunto's book on Research Procedures for a Practical Approach, (Jakarta: PT. Rineka Cipta, 2006), p. 131. Process The sampling technique used in this study is the number of sampling techniques. The number of sampling techniques is one form of sampling technique that makes all members of the population as samples or can also be called population research. In this study, all students of class XI SMKN PP CIANJUR were used as research samples. So, the number of samples is the number of population, which is 95 students. Variables are the objects of research, or what is the focus of a study.

While data is the result of researcher records, either in the form of facts or figures, there are 2 variables in this study, namely:

1. Variable X (independent variable), namely the application of the teaching factory learning model. The indicators of this variable are:
   a. Organization of Teaching Factory
   b. Aspects of Student Involvement in Teaching Factory
   c. Evaluation and Feedback
   d. Readiness of Vocational High School Graduates
   e. General
2. Variable Y (dependent variable), namely the competency of student graduates. The indicators of this variable are:
   a. Technical Skills

b. Non-Technical Skills
c. Entrepreneurship Skills
d. Work Ethic Skills
e. Soft Skills

RESULT AND DISCUSSION

This research is quantitative in nature where the data produced will be in the form of numbers. From the data obtained, analysis was carried out using SPSS software. This study aims to analyze the influence of Learning using the teaching factory model, with the objectives based on, data was collected with a questionnaire of 95 respondents of SMK PP Cianjur. The distribution of questionnaires was carried out in a closed manner using a Likert scale of 1-5. This study uses 5 independent variables consisting of Technical skills, non-technical, entrepreneurship, work ethic, soft skills and dependent variables, namely purchasing decisions. The questionnaire created with the variables studied has an average of 25 question items. Respondent characteristics are the variety of backgrounds owned by the respondents themselves. Validity Test and Reliability Test This test is conducted to see whether the data obtained in the field is indeed worthy of being studied or not. This test uses validity test and reliability test. a. Validity Test Validity test is used to measure the validity of a questionnaire. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. The method used to assess the validity of the questionnaire is the product moment correlation or using Pearson's bevariate. Table Validation of Correlation of Variable X (Independent)
If r count < r table = not valid
If r count > r table = valid
The validity test of the research instrument shows that all questions have an item-total correlation value of r count> 0.169, r table for the number of respondents 95 with a significance level of 0.05% is 0.169 so that all questions are declared valid. Reliability Test The reliability coefficient category (Guilford, 1956: 145) is as follows:

TEFA	R- Hitung	R- Tabel	Ket
X1	0.617**	0,169	Valid
X2	0.842**	0,169	Valid
X3	0.826**	0,169	Valid
X4	0.892**	0,169	Valid
X5	0.842**	0,169	Valid
X6	0.842**	0,169	Valid
X7	0.583**	0,169	Valid
X8	0.723**	0,169	Valid
X9	0.892**	0,169	Valid
X10	0.791**	0,169	Valid
X11	0.772**	0,169	Valid
X12	0.892**	0,169	Valid
X13	0.892**	0,169	Valid
X14	0.789**	0,169	Valid
X15	0.789**	0,169	Valid
X16	0.789**	0,169	Valid
X17	0.784**	0,169	Valid
X18	0.498**	0,169	Valid
X19	0.617**	0,169	Valid
X20	0.592**	0,169	Valid
X21	0.693**	0,169	Valid
X22	0.754**	0,169	Valid
X23	0.626**	0,169	Valid
X24	0.740**	0,169	Valid
X25	0.511**	0,169	Valid
X26	0.545**	0,169	Valid
X27	0.603**	0,169	Valid
X28	0.712**	0,169	Valid
X29	0.740**	0,169	Valid
X30	0.580**	0,169	Valid

0.80 < r11 1.00 very high reliability
0.60 < r11 0.80 high reliability
0.40 < r11 0.60 moderate reliability
0.20 < r11 0.40 low reliability.
-1.00 r11 0.20 very low reliability (not reliable)

Table Case Processing Summary

		N	%
Cases	Valid	94	98,9
	Excluded[a]	1	1,1
	Total	95	100,0

a. Listwise deletion based on all variables in the procedure.

Table Reliability Statistics

Cronbach's Alpha	N of Items
0,817	30

From the results of the reliability test, what is seen is the Cronbach's alpha value, the Cronbach's alpha value that we obtained was 0.817, meaning that the questionnaire that we made was reliable because it was greater than the value of 0.60 so it can be concluded that the research questionnaire is reliable.

Graduate Competencies (Y)	R- Hitung	R- Tabel	Keterangan
Y1	0.680**	0,169	Valid
Y2	0.766**	0,169	Valid
Y3	0.766**	0,169	Valid
Y4	0.725**	0,169	Valid
Y5	0.766**	0,169	Valid
Y6	0.766**	0,169	Valid
Y7	0.766**	0,169	Valid
Y8	0.945**	0,169	Valid
Y9	0.581**	0,169	Valid
Y10	0.832**	0,169	Valid
Y11	0.822**	0,169	Valid
Y12	0.864**	0,169	Valid
Y13	0.945**	0,169	Valid
Y14	0.774**	0,169	Valid
Y15	0.796**	0,169	Valid
Y16	0.860**	0,169	Valid
Y17	0.789**	0,169	Valid
Y18	0.857**	0,169	Valid
Y19	0.931**	0,169	Valid
Y20	0.843**	0,169	Valid
Y21	0.784**	0,169	Valid
Y22	0.800**	0,169	Valid
Y23	0.802**	0,169	Valid
Y24	0.795**	0,169	Valid
Y25	0.693**	0,169	Valid

If r count < r table = invalid
If r count > r table = valid
The validity test of the research instrument Y (Graduate Competence) shows that all questions have an item-total correlation value of r count > 0.169, r table for the number of respondents 95 with a significance level of 0.05% is 0.169 so that all questions are declared valid

Table Case Processing Summary Variabel Y

		N	%
Cases	Valid	95	100.0
	Excluded[a]	0	.0
	Total	95	100.0

Table Reliability Statistics Variabel Y

Cronbach's Alpha	0 of Items
.763	26

From the results of the reliability test of the Y variable (graduate competency), what is seen is the Cronbach's alpha value, the Cronbach's alpha value that we obtained was 0.763, meaning that the questionnaire that we created was reliable because it was greater than the value of 0.60 so that it can be concluded that the research questionnaire is reliable.

Figure Normality Test with Graphical Analysis

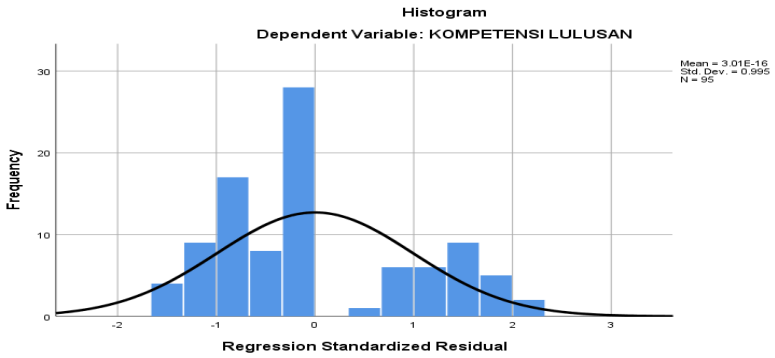


Figure Graduate Competency Regression Test

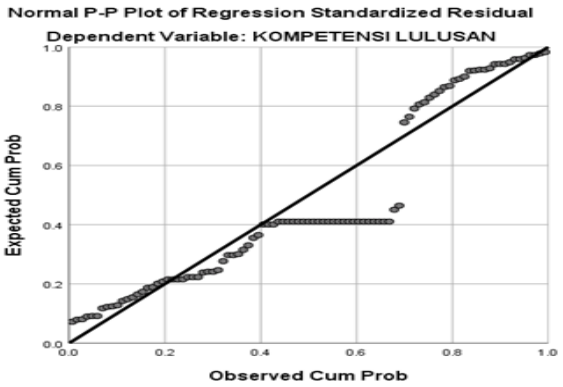
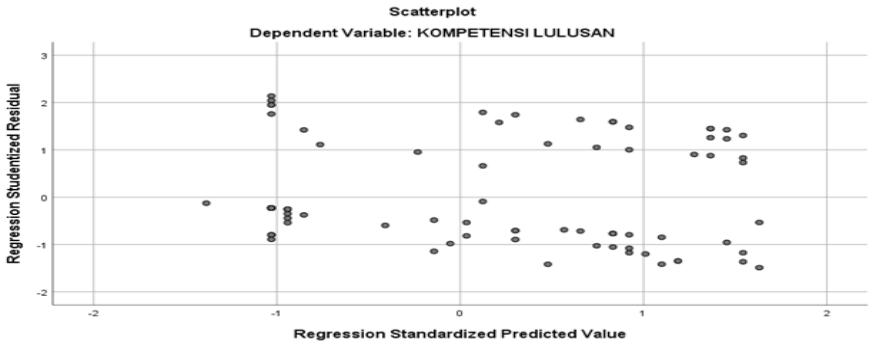


Figure Standard Regression



Interpretation of the data from the first image can be seen that the dependent curve and rss form a balanced bell-like image so that it can be concluded that the data is normally distributed from the second image we can see that the data distribution points are around the line and in the third image the plot distribution is spread out and does not accumulate in one part. This shows that the data is normally distributed.

Table. Simple linear regression test F test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F hitung	F Tabel	Sig.
1	Regression	885.610	1	885.610	7.767	3.94	.006[b]
	Residual	10603.548	93	114.017			
	Total	11489.158	94				

a. Dependent Variable: KOMPETENSI LULUSAN

b. Predictors: (Constant), TEFA

Interpretation of data from the output is known that F-count>F-table = 7.767> 3.94 with a significance level of 0.006<0.05, then the regression model can be used to predict the participation variable or in other words there is an influence of the variable of the implementation of the Teaching Factory learning model (X) on the variable of the competence of vocational school graduates (Y). The results of the study indicate that the implementation of the TEACHING FACTORY learning model has a positive and significant influence on increasing the competence of vocational school graduates. This is evidenced by the results of the survey which shows that students who take part in TEACHING FACTORY learning have higher scores in hard skills and soft skills competencies compared to students who take conventional learning.

Table. Simple linear regression test T test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t hitung	t tabel	Sig.
		B	Std. Error	Beta			
1	(Constant)	69.742	12.905		5.404	1,1661	.000
	TEFA	.272	.098	.278	2.787	1,1661	.006

Dependent Variable: GRADUATES' COMPETENCY

H0 = there is no influence between the application of the TEFA learning model on improving the competence of SMK graduates

H1 = there is an influence between the application of the TEFA learning model on improving the competence of SMK graduates

The decision-making based on the comparison of the calculated t value with the t table in this independent test can be guided by the following decision basis.

1. If the t count value < t table then H0 is accepted and H1 is rejected, which means there is no influence between the application of the TEFA learning model on improving the competence of vocational high school graduates
2. If t count > t table then H0 is rejected and H1 is accepted, which means there is an influence between the application of the TEFA learning model on improving the competence of vocational high school graduates (Jonathan Sarwono.2015. Popular Formulas in SPSS 22 for Thesis Research. Yogyakarta: Andi Offset. page 152)

Data interpretation based on the results of the t test can be concluded that with a t table value of significance 0.05 and df 95 obtained a value of 1.166 while the t count value obtained from the calculation of statistical spss is 5.404. T count> T table = 5.404> 1.1661 then H0 is rejected and H1 is accepted, which means there is an influence between the application of the TEFA learning model on improving the competence of vocational high school graduates. The results of interviews with students showed that they felt more motivated and more confident after participating in TEACHING FACTORY learning. They also felt more prepared to work because they had direct experience in working in the real world. Observation results showed that students who participated in TEACHING FACTORY learning were more active and more creative in completing tasks. They were also better able to work together in teams and solve problems effectively. The increase in the competence of vocational school graduates who participated in TEACHING FACTORY learning can be explained by several factors. First, the TEACHING FACTORY learning model provides opportunities for students to learn and practice directly using the latest equipment and technology. This allows students to develop the skills needed in the world of work. Second, the TEACHING FACTORY learning model encourages students to be more active and creative in completing tasks. This is because students are required to complete real

projects that are in accordance with industry needs. Third, the TEACHING FACTORY learning model helps students develop soft skills that are important in the world of work, such as communication skills, teamwork, and problem solving. This is because students are required to work together in teams and solve problems together.

CONCLUSION

In this Research Method used is a survey research method with a quantitative approach. using the definition of research methods according to Sugiono, this research method is a research survey that takes samples from one population in using questionnaires as the main data collection tool. With a population of 95 students of SMK PP Cianjur, then by using the Slovin formula, a sample of 95 respondents was obtained who would be distributed in this study. Before distributing, we reviewed the test instruments, validity and reliability tests and per-dimension tests and the results of the initial hypothesis. We use the single test double trial reliability technique by using two tests on the same concept and device and if the measurement results obtained are relatively consistent, then the measuring instrument is reliable. With the discussion on the reliability method, it shows the consistency of a measuring instrument in measuring the same symptoms. To test reliability, the author used the SPSS 21.0 program with the Cronbach alpha statistical analysis method. Data collection was carried out by distributing 30 questionnaires for variable X, interpersonal communication quality and 30 questions for variable Y, customer loyalty to 59 students who were sampled, where each answer refers to the Likert scale as follows: This study uses a significance of 5% so that the minimum requirement for an instrument to be considered valid is if the level of significance of r count r table, then the questionnaire can be said to be reliable. It is known that for n 30 and a significance of 5%, the Pearson r table value is 0.361. From the calculation in r count above, a value of 0.756 is obtained. Thus, it can be concluded from the research that has been done that r count> r table, meaning that the test can be said to be reliable. Based on the research that has been done above, it can be concluded that the respondents in this study were mostly male, as many as 38 respondents or 66.7% and female, as many as 57 respondents or 33.3%. In the survey that has been conducted previously, we realize that there are still limitations and errors in this study.

1. For School Supervisors, The results of this study can be used as a basis for SMK School Supervisors as a development of the Tefa Learning model to improve graduate competency at SMKN PP Cianjur schools.
2. For School Principals, The results of this study can be used as a basis for School Principals in Developing the Tefa Learning model to improve graduate competency at SMKN PP Cianjur schools.
3. For Kaprodi, The results of this study can be used as a basis for Kaprodi as the Implementer of the Tefa Learning model to improve graduate competency at SMKN PP Cianjur schools.

4. For Students, The results of this study can be used as a basis for Students to improve graduate competency through the Tefa Learning model at SMKN PP Cianjur schools.

Based on this research, it is expected to provide a quality contribution for all. For students of SMK PP Cianjur, it is expected that this study can provide input and policies with TEFA (Teaching Factory) learning efforts while still paying attention to potential and ability. Alhamdulillah, we express our gratitude to Allah SWT, because of His grace, guidance and guidance this study can be completed. We are aware that what has been presented in this study still has many shortcomings and weaknesses both in terms of writing language and the content contained. Deficiencies and mistakes as humans, make us aware of the imperfection of this thesis. In the process of this research, it is hoped that greetings and constructive criticism suggestions are very much expected by the author from suggestions and criticisms that are constructive are very much expected by the author for the perfection of the next writing.

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