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Contribution of K3 Implementation, the Role of Industrial Work Practice Mentoring and the Value of Productive Training Courses Towards Industrial Work Practice Results of Informatics Engineering Students Department of Cokroaminoto Vocational School, Kotamobagu

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ABSTRACT

This research aims to determine the contribution of the implementation of K3, the role of industrial work practice supervisors, and the value of training courses on the results of industrial work practices both individually and collectively. The method used in this research is a quantitative method with data collection techniques used are questionnaires and documentation, while the data analysis technique used is multiple regression analysis with the help of SPSS 24. The results of the research show that there is a contribution from the application of occupational safety and health to the results of industrial practice among Informatics Engineering students at Cokroaminoto Vocational School. The contribution of the application of occupational safety and health to the results of industrial practice is 73.5%. There is a contribution from the role of industrial supervisor teachers to the results of industrial practice for Informatics Engineering students at Cokroaminoto Vocational School. The contribution of the role of industrial supervising teachers to the results of industrial practice is 72.6%. There is a contribution of the value of students' productive training courses to the results of industrial practice for students in the Informatics Engineering Department at Cokroaminoto Vocational School. The

contribution of the role of industrial supervisors to the results of industrial practice is 74.4%. There is a contribution from the application of occupational safety and health, the role of industrial supervisors, and the value of students' productive training courses to the results of industrial practice together. The contribution of the application of occupational safety and health, the role of industrial supervisors, and the value of students' productive training courses to the results of industrial practice together is 75.3%, while the remainder is influenced by other variables that are not studied in this research.

Keywords: Contribution to the Implementation of K3, Role of Industrial Supervisors, Value of Training Subjects, Results of Industrial Work Practices

INTRODUCTION

Safety is a need for every human being and an instinct for every living creature. Since humans have lived on earth, they have subconsciously known about safety aspects to anticipate various dangers in their environment. At that time, the danger challenges faced were more natural, such as natural conditions, weather, wild animals, and other environmental dangers. Humans try to survive amid various dangers in various ways. In line with the development of human civilization, the challenges and potential dangers faced are increasingly numerous and varied, including dangers that arise as a result of human creation itself. It can be seen all around us, danger is everywhere. On the road, at home, at work, in public places, in the middle of residential areas, and even in playgrounds. that: By the legal basis of Law no. 1 of 1970, explains

Occupational safety and health (K3) is a practical effort to provide safety guarantees and improve the health status of workers/laborers by preventing work-related accidents and diseases, controlling workplace hazards, health promotion, treatment, and rehabilitation." Safety is protection from injury caused by work-related accidents. Meanwhile, health is freedom from physical or emotional disease. Occupational safety and health is the supervision of people, machines, materials, and methods that cover the work environment so that workers do not experience injury. Implementation of occupational safety and health is a form of effort to ensure that conditions and circumstances are maintained. safe and protected from various diseases caused by the work environment. The existence of occupational safety and health has been implemented by many organizations to reduce or avoid the risk of work accidents (zero accidents), and various incidents affecting workers due to unsafe treatment which causes work accidents. Most work accidents are caused by unsafe behavior, for example, falling heavy objects, falling from high places, being hit by building debris, and so on. Another cause that often causes work accidents is a lack of knowledge and ability to use work-related equipment. In the world of education, especially Vocational High Schools (SMK) are formal schools consisting of students, educators, and education staff as well as all employees involved in them. Cokroaminoto Kotamobagu Vocational School is one of the educational institutions in Kotamobagu City, North Sulawesi. This school is a school that has received A (very good) accreditation.

Usually, in carrying out industrial work practices, Cokroaminto Kotamobagu Vocational School uses a system of three consecutive months together in each department before students move up to class XI (eleven) at the beginning of semester 3. Before carrying out industrial work practices, students are given mental guidance, PSG administration, information on the business/industrial world, and others related to practices in the world of work. The improvement in the quality of vocational school students is reflected in the increase in their learning achievements. In other words, increasing learning achievement will also increase the quality of vocational school graduate students so that it will be easier for them to enter the world of work through the vocational school's educational mission.

Based on a preliminary survey, shows that the implementation of industrial work practices at Cokroaminoto Vocational School, Kotamobagu, especially the 2021/2022 Informatics Engineering teachings, can be said to be successful. This is proven by the increase in the industrial work practice achievements of students at Cokroaminoto Vocational School, Kotamobagu from the previous year, which is reflected in good certificate scores and is also supported by adequate TKJ, RPL, and Multimedia Laboratory facilities. Based on the background of the problem above, the researcher is interested in conducting research with the title "Contribution of the Implementation of K3, the Role of Industrial Work Practice Mentors and the Value of Productive Training on the Results of Industrial Work Practices for Informatics Engineering Students at Cokroaminoto Vocational School, Kotamobagu

METHODS

The design carried out in this research uses a quantitative research approach using a correlational survey method which studies the relationship between independent variables and dependent variables. The independent variables in this research are the Implementation of K3 (X1), the Role of Industrial Supervising Teachers (X2), and the Value of Productive Training Courses (X3), while the dependent variable in this research is the results of industrial work practices (Y). This is following Sudjana (2007) who states that correlational research is a study that studies two or more variables, as long as one variable is related to another variable.

The number of samples in the study which was calculated using the Slovin formula was 165 students. To make it easier to distribute the questionnaire to each class in the school, it was carried out proportionally.

Data collection in this research uses observation, namely to obtain data in the form of initial documents found in schools, questionnaire instruments, namely to collect data on variables x1, x2, and x3, while documentation is used to take photos or videos for each research data collection activity.

Data analysis is related to answering the problem formulation and testing the proposed hypothesis. Which form of hypothesis is proposed will determine which statistical technique is used. The data processing steps or procedures carried out in this research are (1) selecting data so that it can be processed further, namely by checking respondents' answers according to predetermined criteria; (2) determine the value weight for each possible answer to each research variable item using a predetermined assessment scale and then determine the score; (3) carry out descriptive analysis to

determine the trend of data from this analysis. You can find out the average, median, standard deviation, and variance of the data for each variable.

RESULTS AND DISCUSSION

Descriptive Statistical Data on the Implementation of Occupational Safety and Health

The following is the output of descriptive statistical testing of work safety implementation data using SPSS, see table 1.

Table 1. Descriptive Statistics on Occupational Safety and Health Implementation Data

Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Sum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Variance Statistic
Implementation of_Safety_and_Occupational_Health	165	55	63	118	14998	90.90	1.136	14.597	213.081
Valid N (listwise)	165								

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that data on the implementation of occupational safety and health has an overall value (Sum) of 14998, an average value (Mean) of 90.90, and a minimum value of 63, while the maximum value is 118.

Descriptive Statistical Data on the Role of Industrial Supervising Teachers

The following is the output of descriptive statistical testing for industrial supervising teachers using SPSS, see table 2.

Table 2. Descriptive Statistics Data on the Role of Industrial Supervising Teachers

Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Sum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Variance Statistic
Industry_Supervisor_Teacher_Role	165	56	62	118	14800	89.70	1.080	13.872	192.420
Valid N (listwise)	165								

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that the data on the role of industrial supervising teachers has an overall score (Sum) of 14800, an average score (Mean) of 89.70, and a minimum score of 62, while the maximum score is 118. Descriptive Statistics of Education and Training Course Score Data Productive Students

The following is the output of descriptive statistical testing of students' productive training course scores using SPSS, see table 3.

Table 3. Descriptive Statistics Data on Students' Productive Training Course Values

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Student_Productive_Education_Courtesy_Value	165	55	63	118	15141	91.76	1.000	12.840	164.877
Valid N (listwise)	165								

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that the student's productive training course score data has an overall score (Sum) of 15141, an average score (Mean) of 91.76, and a minimum score of 63, while the maximum score is 118.

Descriptive Statistical Data Results of Industrial Practices

The following is the output of descriptive statistical testing of industrial practice results using SPSS, see Table 4.

Table 4. Descriptive Statistics Data Resulting from Industrial Practices

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Industrial_Practice_Results	165	23	75	98	14452	87.59	.532	6.828	46.622
Valid N (listwise)	165								

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that the data resulting from industrial practice has an overall value (Sum) of 14452, an average value (Mean) of 87.59, and a minimum value of 74, while the maximum value is 98.

Testing Requirements Analysis

Data Validity Test

Validity Test of Occupational Safety and Health Data

Testing the validity of the application of occupational safety and health was carried out using SPSS. The following is the output of data validity testing, see table 5.

Table 5. Data Validity Test Results on the Implementation of Occupational Safety and Health

R_{count}	R_{table}	Information
.704**	0,1528	Valid
.694**	0,1529	Valid
.556**	0,1530	Valid
.618**	0,1531	Valid
.372**	0,1532	Valid
.600**	0,1533	Valid
.766**	0,1534	Valid
.724**	0,1535	Valid
.738**	0,1536	Valid
.743**	0,1537	Valid
.715**	0,1538	Valid
.737**	0,1539	Valid
.743**	0,1540	Valid
.608**	0,1541	Valid
.741**	0,1542	Valid
.795**	0,1543	Valid
.690**	0,1544	Valid
.779**	0,1545	Valid
.787**	0,1546	Valid
.789**	0,1547	Valid
.704**	0,1548	Valid
.751**	0,1549	Valid
.714**	0,1550	Valid
.570**	0,1551	Valid
.651**	0,1552	Valid
.643**	0,1553	Valid
.687**	0,1554	Valid
.450**	0,1555	Valid

.401**	0,1556	Valid
.377**	0,1557	Valid
1	0,1558	Valid

Source: Data Testing Results, 2023

From the processing results above using SPSS, it can be explained that the calculated r item is > than the r table, so this result can be stated that all question items in variable X1 (implementation of occupational safety and health) are all declared valid.

Data Validity Test on the Role of Industrial Supervising Teachers

Testing the validity of data on the role of industrial supervising teachers was carried out using the SPSS application. The results of data validity testing can be presented as follows in table 6.

Table 6. Results of Data Validity Testing on the Role of Industrial Supervising Teachers

R_{count}	R_{table}	Information
.739**	0,1528	Valid
.669**	0,1529	Valid
.506**	0,1530	Valid
.603**	0,1531	Valid
.370**	0,1532	Valid
.577**	0,1533	Valid
.746**	0,1534	Valid
.699**	0,1535	Valid
.717**	0,1536	Valid
.707**	0,1537	Valid
.671**	0,1538	Valid
.724**	0,1539	Valid
.740**	0,1540	Valid
.165*	0,1541	Valid
.699**	0,1542	Valid
.740**	0,1543	Valid
.658**	0,1544	Valid
.753**	0,1545	Valid
.771**	0,1546	Valid
.759**	0,1547	Valid
.672**	0,1548	Valid
.711**	0,1549	Valid

.681**	0,1550	Valid
.742**	0,1551	Valid
.668**	0,1552	Valid
.651**	0,1553	Valid
.647**	0,1554	Valid
.401**	0,1555	Valid
.337**	0,1556	Valid
.388**	0,1557	Valid
1	0,1558	Valid

Source: Data Testing Results, 2023

From the processing results above using SPSS, it can be explained that the calculated r item is > than the r table, so this result can be stated that all question items in the variable

Data Validity Test for Productive Education and Training Course Values

Testing the validity of student productive value data using SPSS, with the following results, see table 7.

Table 7. Results of Data Validity Testing on Students' Productive Training Course Values

R_{count}	R_{table}	Information
.638**	0,1528	Valid
.631**	0,1529	Valid
.506**	0,1530	Valid
.576**	0,1531	Valid
.336**	0,1532	Valid
.585**	0,1533	Valid
.702**	0,1534	Valid
.654**	0,1535	Valid
.698**	0,1536	Valid
.693**	0,1537	Valid
.666**	0,1538	Valid
.706**	0,1539	Valid
.707**	0,1540	Valid
.586**	0,1541	Valid
.680**	0,1542	Valid
.753**	0,1543	Valid

.659**	0,1544	Valid
.684**	0,1545	Valid
.709**	0,1546	Valid
.750**	0,1547	Valid
.628**	0,1548	Valid
.650**	0,1549	Valid
.670**	0,1550	Valid
.554**	0,1551	Valid
.592**	0,1552	Valid
.556**	0,1553	Valid
.591**	0,1554	Valid
.406**	0,1555	Valid
.269**	0,1556	Valid
.263**	0,1557	Valid
1	0,1558	Valid

Source: Data Testing Results, 2023

From the processing results above using SPSS 24, it can be explained that the calculated r item is > than the r table, so this result can be stated that all question items in variable X3 (student productive training course scores) are all declared valid.

Data Reliability Testing

Reliability Test of Occupational Safety and Health Data

Testing the reliability of data on the application of occupational safety and health in this research using the SPSS application, with the following results, see Table 8.

Table 8. Results of Data Reliability Testing on the Implementation of Occupational Safety and Health

Reliability Statistics	
Cronbach's Alpha	N of Items
0.957	30

Source: Data Testing Results, 2023

Based on the test results of the Reliability Test for the application of occupational safety and health above, a Cronbach's Alpha value of 0.957≥ 0.6 was obtained. From these results, it can be seen that these results are reliable. So it can be concluded that the data obtained from the questionnaire on the application of occupational safety and health is reliable.

Data Reliability Test on the Role of Industrial Supervising Teachers

Testing the reliability of data on the role of industrial supervising teachers using the SPSS application, with the following results, see Table 9.

Table 9. Data Reliability Test Results on the Role of Industrial Supervising Teachers

Reliability Statistics

Cronbach's Alpha	N of Items
0.950	30

Source: Data Processing with SPSS, 2023

Based on the test results of the Reliability Test for the role of the industrial supervising teacher above, a Cronbach's Alpha value of 0.950 ≥ 0.6 was obtained. From these results, it can be seen that these results are reliable. So it can be concluded that the data obtained from the questionnaire on the role of industrial supervising teachers is reliable.

Testing the Reliability of Productive Training Course Value Data

Testing the reliability of students' productive training course score data in this research using the help of the SPSS application, with the following results, see Table 10.

Table 10. Data Reliability Test Results for Students' Productive Training Course Values

Reliability Statistics

Cronbach's Alpha	N of Items
0.941	30

Source: Data Processing with SPSS, 2023

Based on the results of the Reliability Test for the students' productive training course scores above, a Cronbach's Alpha value of 0.941 ≥ 0.6 was obtained. From these results, it can be seen that these results are reliable. So it can be concluded that the data on students' productive training course score questionnaires is reliable.

Classical Assumption Testing

Normality test

Before carrying out data analysis testing, the classic assumption test is first carried out, namely testing the normality of the data to find out whether the data distribution in the data group for each variable is normally distributed or not. Data normality testing in this study used the SPSS application with the following results, see Table 11.

Table 11. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Implementation of_Safety_and_Occupational_Health	Government_Teacher_Role imbing_Industri		Student_Productive_Education_Courtesy_Value	Industrial_Practice_Results
N		165	165		165	165
Normal Parametersa,b	Mean	90.90	89.70	91.76		87.59
	Std. Deviation	14.597	13.872	12.840		6.828
Most Extreme Differences	Absolute	.103	.118	.085		.147
	Positive	.060	.071	.062		.133
	Negative	-.103	-.118	-.085		-.147
Test Statistic		.103	.118		.085	.147
Asymp. Sig. (2-tailed)		.000c	.000c		.006c	.000c

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Source: Data Processing with SPSS, 2023

Based on the results of the normality test, it can be explained that the significance value is greater than the value of 0.05, in testing using Kolmogorov, namely in the application of occupational safety and health (X1) is 0.103≥ 0.05, the role of industrial guidance teachers (X2) is 0.118 ≥ 0.05, the value of students' productive training subjects (X3) is 0.085 ≥ 0.05 and the result of industrial practice (Y) is 0.147 ≥ 0.05 in the Kolmogorov test

Based on the comparison results above, it can be concluded that the data normality test, whether testing using Kolmogorov-Smirnov, all data is normally distributed.

Homogeneity Test

Data homogeneity testing in this study used SPSS, with the following results, see Table 12.

Table 12. Data Homogeneity Test Results

Test of Homogeneity of Variances

Variabel_X1,X2_dan_X3

Levene Statistic	df1	df2	Sig.
1.712	2	492	.182

Source: Data Processing with SPSS, 2023

The homogeneity test is used to determine whether the data from research results on variables X1, X2, X3, and Variable Y have the same variance value or not. It is said to have the same/not different (homogeneous) variant value if the significance level is ≥ 0.05 and if the significance level is <0.05 then

the data is concluded to not have the same/different variant value (not homogeneous). From the results of the homogeneity test calculations, it is known that the significance value is 0.182. Because the value obtained from the homogeneity test has a significance level of ≥ 0.05, the data has the same variance value.

Multicollinearity Test

Multicollinearity testing in this research uses the SPSS application with the following results, see Table 13.

Table 13. Multicollinearity Test Results

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	51.184	2.786		18.375	.000		
	Implementation of_Safety_and_Occupational_Health	-.024	.128	-.052	-.188	.851	.036	27.823
	Government_Teacher_Role imbing_Industri	.149	.094	.302	1.577	.117	.073	13.615
	Student_Productive_Education_ Courtesy_Value	.275	.098	.518	2.811	.006	.079	12.599

a. Dependent Variable: Hasil_Praktek_Industri

Source: Data Processing with SPSS, 2023

The table above shows the results that the output tolerance value for the occupational safety and health application variant (X1) is 0.036 the VIF value is 27.823, the tolerance value for the role of industrial supervisor teacher variable (X2) is 0.073 and the VIF value is 13.615 and the tolerance value for the eye value variable. Student productive training (X3) is 0.079 and the VIF value is 12,599. Based on these results, it can be concluded that there is no multicollinearity between the independent variables, this can be seen in the tolerance not being greater than 0.10 and the VIF value being less than 10.

Heteroscedasticity Test

Heteroscedasticity testing in this research uses the help of the SPSS application with the following test results, see Table 14.

Table 14. Heteroscedasticity Test Results

Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF

1	(Constant)	3.030	1.724		1.757	.081		
	Implementation of_Safety_and_Occupational _Health	.079	.079	.405	.997	.320	.036	27.823
	Government_Teacher_Role imbing_Industri	.053	.058	.260	.915	.361	.073	13.615
	Student_Productive_Educati on_Courtesy_Value	-.126	.061	-.566	-2.073	.440	.079	12.599

a. Dependent Variable: Abs_RES

Source: Data Processing with SPSS, 2023

Based on the output value above, the significance value (sig) is known. for the variable application of occupational safety and health (X1) is 0.320, the role of industrial supervisor (X2) is 0.361 and the sig value for the student productive education and training value variable is 0440. Because the significance value of the three variables above is greater than 0.05, it follows The basis for decision-making is the Glejser test, it can be concluded that no symptoms occur.

Data analysis

Multiple Regression Analysis

Multiple regression testing was carried out to determine or estimate the magnitude of the relationship between each variable in the implementation of occupational safety and health (X1), the role of industrial supervisor teachers (X2), and the value of students' productive training courses on the results of industrial practice (Y). Multiple regression testing in this research uses the SPSS application with the following test results, see Table 15.

Table 15. Multiple Regression Testing Results

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	51.184	2.786		18.375	.000
	Implementation of_Safety_and_Occupational _Health	.124	.128	-.052	-.188	.851
	Government_Teacher_Role imbing_Industri	.149	.094	.302	1.577	.117
	Student_Productive_Educati on_Courtesy_Value	.275	.098	.518	2.811	.006

a. Dependent Variable: Hasil_Praktek_Industri

Source: Data Processing with SPSS, 2023

Based on the results of the multiple regression test above, the following equation values are obtained:

$$Y = 51.184 + 0.124X1 + 0.149X2 + 0.275X3$$

From the equation above, the following conclusions can be drawn:

1. Every increase in the occupational safety and health implementation variable (X1), will be followed by an increase in industrial practice results of (Y) of 0.124
2. Every increase in the role of industrial supervisor (X2), will be followed by an increase in industrial practice results (Y) of 0.149
3. Every increase in the student's productive training course score (X3), will be followed by an increase in industrial practice results (Y) of 0.275

Determination Testing to Find Out the Contribution of Each Variable

Contribution of the Role of Occupational Safety and Health to Industrial Practice Results
Testing the determination value (R2), to determine the contribution of each variable X to variable Y. Testing the contribution of occupational safety and health in this research using SPSS with the following results, see Table 16.

Table 16. Test Results Contribution of the Implementation of Occupational Safety and Health to Industrial Practice Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735a	.541	.538	4.641

a. Predictors: (Constant), Implementation of_Safety_and_Occupational_Health

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that the contribution of variables implementing occupational safety and health to the results of industrial practices can be determined using the square formula (r2), with the following formula;

KD = R2 X 100%
KD = 0.735 X 100%
KD = 73.5%

So it can be concluded that the contribution of variables implementing occupational safety and health to the results of industrial practice majoring in information engineering at SMKN Cokroaminoto Kotamobagu is 73.5%.

Contribution of the Role of Industrial Supervising Teachers to Industrial Practice Results

Testing the contribution of the role of industrial supervising teachers to the results of industrial practice in this research using SPSS assistance with the following results, see Table 17.

Table 17. Test Results Contribution of the Role of Industrial Supervising Teachers to Industrial Practice Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.726a	.527	.524	4.712

a. Predictors: (Constant), Government_Teacher_Roleimbing_Industri

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that the magnitude of the contribution of the variable role of the industrial supervising teacher to the results of industrial practice can be determined using the square formula (r2), with the following formula;

KD = R2 X 100%
KD = 0.726 X 100%
KD = 72.6%

So it can be concluded that the contribution of the industrial supervising teacher variable to the results of industrial practice majoring in information engineering at SMKN Cokroaminoto Kotamobagu is 72.6%.

Contribution of the Value of Productive Training Courses to the Results of Industrial Practices

Testing the contribution of students' productive training course scores to the results of industrial practice was carried out using SPSS with the following test results, see Table 18.

Table 18. Test Results Contribution Value of Productive Training Courses to Industrial Practice Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.744a	.554	.551	4.574

a. Predictors: (Constant), Student_Productive_Education_Courtesy_Value

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that the contribution of the variable value of students' productive training courses to the results of industrial practice can be determined using the square formula (r2), with the following formula;

KD = R2 X 100%
KD = 0.744 X 100%
KD = 74.4%

So it can be concluded that the contribution of the variable value of students' productive training courses to the results of industrial practice majoring in information engineering at SMKN Cokroaminoto Kotamobagu is 74.4%.

Contribution of the Implementation of Occupational Safety and Health, the Role of Industrial Supervising Teachers, and the Value of Students' Productive Training Courses on Industrial Practice Results.

Testing the contribution of the application of occupational safety and health, the role of industrial supervisors, and the value of students' productive training courses to the results of industrial practice was jointly carried out using the help of the SPSS application, with the following results, see Table 19.

Table 19. Contribution of the Implementation of Occupational Safety and Health, the Role of Industrial Supervising Teachers, and the Value of Students' Productive Training Courses on Industrial Practice Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.753a	.567	.559	4.537

a. Predictors: (Constant), Student_Productive_Education_Courtesy_Value, Government_Teacher_Roleimbing_Industri Implementation of_Safety_and_Occupational_Health

Source: Data Processing with SPSS, 2023

Based on the table above, it can be explained that the contribution of the variable implementation of occupational safety and health, the role of industrial supervisor teachers, and the value of students' productive training courses to the results of industrial practice together with the results of industrial practice can be determined using the square formula (r2), with the formula as follows;

KD = R2 X 100%
KD = 0.753 X 100%
KD = 75.3%

So it can be concluded that the contribution of the variable value of students' productive training courses to the results of industrial practice majoring in information engineering at SMKN Cokroaminoto Kotamobagu is 75.3%, and the remainder is influenced by other variables that are not studied in this research.

Contribution of the Implementation of Occupational Safety and Health to the Value of Industrial Practices at Cokroaminoto Vocational School, Kotamobagu

After testing, processing, and analyzing the data, it was found that there was a contribution from occupational safety and health practices to the results of industrial practice among students majoring in Informatics Engineering at Cokroaminoto Vocational School, Kotamobagu. This can be

seen from the test results which show that the square value (r2) is 735. From this value, it is obtained that the contribution of the implementation of occupational safety and health to the results of industrial practices is 73.5%.

So it can be said that there is a contribution from occupational safety and health training to the results of industrial practice among students majoring in Information Engineering at Cokroaminoto Vocational School, Kotamobagu. This is also supported by research conducted by Prilia (2014) entitled The Influence of K3 Knowledge and Attitudes on Awareness of K3 Behavior in the Lab. CNC and PLC at SMK Negeri 3 Yogyakarta with the results 1) K3 knowledge can influence awareness of K3 behavior because students know what risks they will get if they don't pay attention to K3; 2) attitude can influence K3 awareness because students who have a positive attitude tend to fully accept the rules that must be fulfilled to create safety; 3) the magnitude of the influence of K3 knowledge and attitudes together on awareness of K3 behavior is 0.352 (35.2%), and the remaining 64.8% is influenced by other factors.

Based on several of these studies, it can be concluded that the role of occupational safety and health in the school environment and industrial environment needs to be studied so that later students who participate in industrial work can know the importance of K3 for students. The important role of students in knowing the function of K3 in the industrial world will result in good assessments from the industrial world so that the results of the scores given by DUDI will have a good impact on students. Based on this research and previous research, shows that the implementation of K3 contributes to the results of industrial work practices for students majoring in information engineering at Cokroaminoto Vocational School.

Contribution of the Role of Industrial Supervising Teachers to the Results of Industrial Work Practices at Cokroaminoto Vocational School, Kotamobagu

Tests carried out using the SPSS application show that there is a contribution from the role of industrial supervising teachers to the results of industrial practice at Cokroaminoto Vocational School. The magnitude of the contribution/contribution of the role of industrial supervising teachers to the results of industrial practice at Cokroaminoto Vocational School in the informatics engineering department is 72.6.

Based on several studies, it can be concluded that the role of supervising teachers can have a positive impact on students' internship results. Students who receive maximum guidance will get satisfactory results and vice versa. The presence of guidance and good internship results are expected to shape the student's personality. to be ready to enter the workforce after graduation.

This reinforces that the teacher's role contributes to the results of industrial work practices for students majoring in information engineering at Coktoaminoto Vocational School, Kotamobagu.

Contribution of the Value of Productive Training Courses to the Results of Industrial Practices at Cokroaminoto Vocational School, Kotamobagu

Based on the results of data analysis carried out using the SPSS application, it can be explained that the contribution of the variable value of students' productive training courses to the results of

industrial practice can be determined using the square formula (r2), with the value of r being 0.744. So the contribution of the variable value of students' productive training courses to the results of industrial practice is 74.4%.

Contribution of the Implementation of Occupational Safety and Health, the Role of Industrial Supervising Teachers, and the Value of Students' Productive Training Courses on Industrial Practice Results. Testing the contribution of the application of occupational safety and health, the role of industrial supervisor teachers, and the value of students' productive training courses to the results of industrial practice was jointly carried out using the help of the SPSS application, with the results showing that there was a contribution to the application of occupational safety and health, the role of industrial supervisor teachers and The value of students' productive training courses on the results of industrial practice together is 75.3%, while the rest is influenced by other variables which are not studied in this research.

CONCLUSION

Based on data collection, data processing, data analysis and discussions that have been carried out, the following conclusions can be drawn: 1). There is a contribution from the application of occupational safety and health to the results of industrial practice for students of the Informatics Engineering Department at Cokroaminoto Vocational School. The contribution of the implementation of occupational safety and health to the results of industrial practices is 73.5%. 2). There is a contribution from the role of industrial supervising teachers to the results of industrial practice for Informatics Engineering students at Cokroaminoto Vocational School. The contribution of the role of industrial supervising teachers to the results of industrial practice is 72.6%. 3). There is a contribution of the value of students' productive training courses to the results of industrial practice for Informatics Engineering students at Cokroaminoto Vocational School. The contribution of the role of industrial supervising teachers to the results of industrial practice is 74.4%. 4). There is a contribution from the application of occupational safety and health, the role of industrial supervisors and the value of students' productive training courses to the results of industrial practice together. The contribution of the application of occupational safety and health, the role of industrial supervisors and the value of students' productive training courses to the results of industrial practice together is 75.3%, while the remainder is influenced by other variables which are not studied in this research.

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