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Contribution of Work Environment and Working Skill to Work Preparation of SMK Students of Machining Engineering in South Sulawesi, Indonesia

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Abstract:
This study aims to reveal how much the contribution of work environment (X1) and lathe skill (X2) to the readiness of work (Y) either partially or simultaneously student of SMK Machining Engineering in South Sulawesi. The research method used a quantitative approach with survey method. The research was conducted at SMK in South Sulawesi, Class XII Department of Machinery Engineering with the number of respondents 172 students. The technique of collecting data of variable X1, using observation sheet, X2 using documentation and Y using questionnaire. Data analysis included descriptive and regression with the help of SPSS Version 19. The results revealed that: (1) work environment contribution to job readiness of 9.2%; (2) the contribution of lathe skill to work preparedness of 32.3%; and (3) work environment contribution and skill of turning students simultaneously to work preparedness equal to 43,8%.

Keyword: *work environment, lathe skills, and job readiness*

1. Introduction

Global competence in the era of Asean Economic Community (MEA), is an important agenda facing the world of education, especially vocational education (SMK) in meeting the needs of various sectors. ASEAN Community Bulletin (2015) revealed that to compete in the era of MEA, Indonesia should prepare graduates who have the ability in accordance with the needs of the competence of the world of work. In this regard, the rapidly changing social paradigm demands the educational world to respond to these needs, especially vocational education (SMK) in preparing productive, qualified, superior, professional and high work ethic, and competitiveness in entering the world of work.

Vocational High School is one of the educational institutions that substantially have responsibilities and patterns in directing, preparing and developing learners to create competent and relevant human resources in their field. According to Clarke & Witch (2007: 26), vocational education is a social development effort of employment, maintenance, acceleration and improvement of the quality of certain workers in order to increase community productivity. In addition, SMK is a place for the development of knowledge, skills in printing labor must always be up to date on the development of the industrial world to produce graduates that are needed by the industry (Baiti, 2014, 165). This is reinforced by Wang (2012), which states that vocational education is directed to equip students with a wide range of specific competencies, skills, attitudes, and attitudes of cooperation and social responsibility to enter the workforce. The existence of SMK in preparing skilled and professional middle job candidates, is important in contributing to the development of industrial and business world. Vocational high school as a place in producing graduates who are ready to work, with various special characteristics appropriate to the industrial world, so as to provide benefits and impact for SMK graduates to become skilled and competent personnel in their field. According to Sudjimat (2014), the characteristics of education that must be applied to SMK is to equip students with a variety of cognitive skills (academic) and technical skills (vocational) as well as complete with a variety of soft skills (attitude, soft skills, employability skills, or generic skills) are integrated in shaping the competence of students to work in their chosen field.

SMK graduates are human resources that are expected to meet all the needs of the industrial world as a workforce ideally ready to work and work in the industrial world. But the reality is that vocational education graduates are still lagging behind and considered premature as skilled and ready-made graduates. In this regard, the results of Samsudin's research (2010), revealed that, ideally nationally, SMK graduates who can directly enter the workforce about 80-85%, while all this time only absorbed only 61%. Similarly,

the results of the Bangser (2008) identification in the National High School Center report suggest that several surveys conducted in the United States consistently show that many high school graduates do not meet industry-standard standards.

The rapid development of science and technology, the demands and needs of the industrial world are always expected to be realized quickly, thus causing high competition to make the graduates of SMK must be ready to accept and face the current reality. In connection with this, the results of Sam's (2011: 34) study reveal the current and even possible problems in the future are the number of job offers in the job market, as well as new types of work emerging and never before, failed to meet the needs of the labor market. It shows, not all SMK graduates have job readiness, in other words the readiness of self in a field of work, and the gap on the competence that is not relevant in the field, so it can be influential in determining career choice to work.

This condition indicates that the quality of SMK graduates needs to be improved, especially as prospective middle-aged workers should have the readiness of work and relevant competencies both in qualification and specialization required by the industry. Putrianingrum (2009: 12) reveals that SMK graduates in Malang are known to still have difficulty and tend to be easily frustrated to get a job that suits their field of expertise.

Vocational Education (SMK) will be effective and efficient if it is a replica of the state of employment. In order for the vocational school to be effective and efficient, the vocational school must provide vocational knowledge and skills appropriate to the conditions of employment. With the existence of identical conditions between vocational schools and employment is expected learners will be responsive and accustomed to thinking in the work environment. Therefore, vocational high schools as vocational training must conform to the first principles of vocational education introduced by Charles Prosser and Quigley Thos, namely; "Vocational education will be efficient in proportion as the environment in which the learner is trained is a replica of the environment in which he must subsequently work"(Surya, et.al:2013).

Work environment is one of the most important aspects in improving the quality of vocational graduates, especially in shaping skills and readiness of work in entering the industry. Work environment for learners is where they move in order to form competence in accordance with the field of interest. In this regard, Andam (2013) states that the work environment is related to work motivation. Similarly, Kahya (2007) revealed that there is a substantial relationship between employee performance with job level and working environment condition (physical work, physical condition of work environment, and work safety). In addition, in the context of vocational learning can form students' knowledge in developing job readiness that includes aspects of academic skills, technical skills and values and attitude aspects to support the potential development.

Sutrisno (2010), suggests that the work environment is the whole facility and work infrastructure that is around employees who are doing work that can affect the implementation of the work. Similarly Rivai (2006) defines the work environment is the overall means and infrastructure that is around employees who are doing the work itself. In addition, Sedarmayanti, (2001) classifies the work environment can be a physical and non-physical work environment.

Physical work environment is a means and infrastructure associated with comfort in work, namely: (1) light illumination in the workplace; (2) the temperature or temperature of the air in the workplace; (3) moisture in the workplace; (4) air circulation in the workplace; (5) noise at work; (6) mechanical vibrations in the workplace; (7) color in the workplace; (8) decoration in the workplace (layout); and (9) workplace security, while non-physical work environments are all related to work relationships that include tasks, job design, cooperation patterns, leadership patterns, and organizational culture.

Halimuddin, (2014), reveals his study results in several countries that show that institutions implementing industrial programs to simulate the actual work environment, resulting in students with a variety of knowledge and experience, and have better skills and expertise. But in fact, based on the results of existing studies in one of the SMK in South Sulawesi, indicates that the low quality of the implementation of learning practicum is characterized by the condition of the learning environment that has not represented the real conditions or conditions that should exist in the industrial world. This can be an indication that the vocational education system has not been able to create a working environment-based learning environment, so that the skills of graduates are irrelevant to their field, both in qualification and in industry specialization.

Physical work environment factors that affect student performance in carrying out practical activities such as lighting; adequate and well-regulated lighting will help create a comfortable and safe working environment. The intensity of lighting according to the type of work can increase work productivity. McCormick and Sanders (1994) suggest that if lighting is appropriate there is an increase in employment of between 4 and 35%. The smoother the job and the less contrast the higher the lighting is needed. Learners should be able to see clearly the work objects to be done and other supporting equipment in the school workshop.

In addition, as for other factors that can affect the temperature of the room causing uncomfortable conditions that is, the occurrence of exposure to heat and noise in the work environment. Exposure to heat can occur when the body absorbs or produces heat greater than that received by the thermal regulatory process. Exposure to heat with high temperatures in the work space, can cause the condition of the room, machines or heat tools as well as sourced from the sun that heats the roof which then cause radiation into the production work room (Huda and Pandiangan, 2012). Another factor is noise. High noise can alter the accuracy of motion coordination so that it is suspected to extend reaction time (Octavia, et.al, 2013).

This condition poses challenges to the existence of the world of education, especially the quality of SMK graduates who should create a working environment-based learning atmosphere in supporting the formation of competence or relevant skills in the industry. Vocational learning activities focused on forming students' knowledge in developing vocational competencies in both academic skills, technical skills and values, as well as attitude aspects to support their potential development.

Provision of skills education and training (vocational competency), students can have the readiness to enter the world of work. Diah (2012: 28). The observation result at SMK in South Sulawesi, especially the skill of machining technique, obtained information that the result of the students in the vocational learning process, specially the lathe skill has not fully fulfill the determined standard of

graduation. This is because, the atmosphere and condition of learning environment (practice) is not conducive like the existing work environment in the industrial world.

The role of the work environment in shaping the skills of learners in a provision in preparing students have readiness work. Through the introduction of an early working environment, it is hoped learners can acquire the knowledge and skills needed to prepare themselves in order to enter the world of work after completing the study later. For the purpose to be achieved, the skill level of the learner must be in accordance with the qualification standard and the specialist and have a picture or information about the working environment in accordance with the replica of the industry. Therefore, there is a need for research that can provide a picture and information to the students about the role of work environment that can form skills in accordance with their fields, so that it can affect the readiness of work in entering the world of work.

In accordance with the above description, as well as considering the importance of SMK graduates to have job readiness in order to produce candidate middle workers who are ready to work and absorbed in the industrial world, it is necessary to conduct research that will examine matters relating to the role of work environment and lathe skills against readiness of vocational students' work ". The purpose of this research is to reveal: (1) contribution of work environment to readiness of vocational students; (2) the contribution of skills to the readiness of vocational students; and (3) the contribution of working environment and skills simultaneously to the readiness of the vocational school students.

2. Method

Referring to the formulation of the problems and hypotheses that have been proposed, the design of this study using a quantitative approach with survey methods, where researchers describe quantitatively, trends, behavior or opinions of a population by examining the sample population (Creswell, 2013: 216). Data analysis technique using regression analysis which aims to predict how far the value of dependent variable change, if the independent variable is manipulated or / changed or upgraded, Sugiyono (2012). The independent variables (X) and bound (Y) to be investigated include: work environment (X1), lathe skills (X2), and work readiness (Y).

To determine the sample size is used random number table with the error rate α = 5%, so that from the population of 245 then the sample used is 172 students. Technique of sampling of research done in total sampling. Data collection techniques of variables X1, X2 and Y use questionnaires, observation sheets and documentation.

Data analysis conducted in the research consists of two analyzes namely descriptive statistics and inferential statistics. Descriptive statistical analysis is used to describe data based on central tendency and dispersion. Central tendencies are mean, median, minimum value, and maximum value. Dispersion is standard deviation.

The prerequisite analysis test is performed with the aim to qualify hypothesis test using regression analysis. The test of prerequisite analysis include test of normality, linearity, heterokedasticity, and multikolinieritas. Hypothesis test using regression analysis that is: (1) simple linear regression analysis to know contribution of each independent variable to individual bound variable; and (2) multiple linear regression analysis to know the contribution of independent variable to the dependent variable simultaneously.

Hypothesis testing is done by using SPSS based on the value of significance. The basis of decision-making is based on comparing the probability value of 0.05 with the probability value of Sig i.e.: (1) if the probability value 0.05 is smaller or equal to the probability value of Sig or [0.05 ≤ Sig], then Ho is accepted or Ha is rejected, meaning insignificant; and (2) if the probability value of 0.05 is greater than or equal to the probability value of Sig or [0.05 ≥ Sig], then Ho is rejected or Ha accepted, meaning significant.

3. Result

The result of the research is description of data of each variable, prerequisite test, and hypothesis test either partially or individually. The following is a description of the research results. The central tendencies are mean, median, minimum value, and maximum value and standard deviation. Descriptive description of data for work environment variable (X1), lathe skill (X2) and job readiness (Y).

Work Environment (X1)

No	Var	Sta	Center Value Trends			
			TP	PC	KB	LR
1	X_1	Mea	32.10	460.26	80.97	46.21
		Med	32.23	390.28	80.38	47.94
		SD	0.80	191.58	2.17	4.10
		Max	32.77	776.59	8.61	49.78
		Min	29.77	224.44	76.94	37.94

Table 1: Description of the Working Environment Data

Based on the results of direct measurements in the field shown in Table 1, the maximum temperature of 32.77 ^{0}C, the minimum temperature of 29.77 ^{0}C, and the average temperature of 32.77 ^{0}C, and the middle value of 32.23 ^{0}C. When viewed from an average that is above the mean value this means that the temperature in the work environment is higher. The size of the data distribution is seen at the standard deviation of 0.80. This explains that the average value minus the standard deviation of 31.97^{0}C explains that the existence of a working environment that has a lower temperature. Compared to the average temperatures in Indonesia that are in the equator or tropical, the average temperature in the Indonesian region can generally reach 35^{0}C with high humidity level which can

reach 85% (humid tropical hot climate). This condition will be less beneficial for the individual in carrying out the work due to work productivity will come down in uncomfortable environment conditions such as too hot or too cold.

Maximum lighting aspect of 776.49 lux, minimal lighting of 224.44 lux, and average lighting equal to 460.26 lux and middle value 390.28 lux. When viewed from the average amount of illumination far above its mean value indicates that there is a work environment that has a level of lighting well above the average. The size of the data distribution can be seen from the standard deviation of 191.58 lux. For lighting there is considerable variation of this can be seen from the distance of a maximum value and a minimum of 552.05 lux. This indicates that there are schools that have high levels of lighting, and there are working environments that have low levels of lighting. Illumination greatly affects vision, when viewed from the context of learning will greatly affect. Thus, the effort to make the eyes more comfortable in the classroom contributes to the optimal learning. For learning in the workshop requires a minimum standard lighting of 200 lux.

For a maximum noise of 87.61 dB, a minimum noise of 76.94 dB, and an average noise of 80.97 dB and a mean value of 80.38 dB. The size of the noise data distribution can be seen from the standard deviation of 2.17. The difference between a mean and a mean of 0.59 indicates that the average work environment has almost the same level of noise. Furthermore the size of the distribution of data with a standard deviation value of 3.61 with an average value minus standard deviation 78.56 explains the existence of a work environment that has a low noise level. Noise occurs when disturbing or unwanted noise is intense and can affect human performance and health. The exposure of work noise is assessed by measuring the permissible noise levels acquired on a daily basis. Further Threshold Limit Value (NAB) of allowable noise for 8 hours a day is 85 dB.

For a Maximum area of 49.78 m^2, a minimum area of 37.94 m^2, and an average area of 46.21 m^2 and a median value of 47.94 m^2. The size of the spatial value distribution is indicated by the standard deviation of 4.10 m^2. If seen from the average value is smaller than the middle value it can be said that the average space has a smaller area. Furthermore, the size of the data distribution with a standard deviation value of 4.10 m^2 indicates that the wide difference between schools is not too large. Work space greatly affects the performance of students in the school workshop. The workspace is narrow and makes it difficult for students to move to produce lower performance when compared to students who have extensive work space. If the work space refers to the size of the room per student, the arrangement refers to the distance between the person and the facility. Students generally allow a great degree of privacy in their work. But there are students who want to be able to interact with fellow students in doing the work. Privacy can help students to reduce troublesome interruptions while performing complex tasks.

Lathe Skill (X2)

Var	Min	Max	Med	Mean	SD
X_2	80.60	95	68	68.18	7.635

Table 2: Description of the Data of Rolling Skills

Based on table 2 it can be explained that the highest value of skill turning variable is 95.00 with a minimum value of 80.60 with an average of 88.554. The value of skill turning a maximum of 95 this illustrates that there are students who have skills above average. While a minimum score of 80.60 is well below the average, it explains that there are students with somewhat less skill. Skill is the ability to do the work either in the form of practice or the implications of the activity. This skill can be obtained well or not depending on the duration or frequency of such activity or exercise. The more often these skills are trained the better the skills acquired. Lathe is a machining process which produces cylindrical objects which are worked by using lathe.

Job Readiness (Y)

Var	Min	Max	Med	Mean	SD
X_2	60	88	74	74.34	5.480

Table 3: Description of Job Readiness Data

Based on Table 3 it can be explained that the work preparedness variable has a score range between 60 to 88 with an average of 74.34 and a standard deviation of 5.480. A minimum score of 60 explains that there are respondents who rate is not good for job readiness. An average score of 74.34 with a mean of 74 gives an illustration that the readiness of student work is high. This can be explained from the average score above the mean value. Furthermore the size of the distribution of data with a standard deviation value of 6.07 explains that the average value minus standard deviation of 68.27 as an illustration that there are students whose readiness work is still lacking. Job readiness is the ability of a person with a good level of maturity in carrying out to distribute talent or ability in accordance with its potential. Readiness of work is a must-have for students to perform various jobs to obtain maximum results. Work preparedness is needed to obtain a reliable and qualified workforce that is ready to compete in the world of work.

The prerequisite analysis test included normality test, linearity test, heteroskedasticity test, and multicollinearity test which will be described as follows:

Testing the normality of the sample using the Kolmogorov-Smirnov One-Sample test with the help of SPSS. Normality is known by looking at the significance value that is, if the significance value (Asymp.sig)> 0.05 then the data is normally distributed. Normality test results show that: (1) the significance value of work environment variables that include temperature, lighting, noise and outer is 0.00, so it can be concluded that the working environment data is not normally distributed. (2) skill turning variable that is 0.262; and (3) work preparedness variable is 0.127, where the value of significance of this variable is more than 0.05 so it can be concluded that for skill turning and work preparedness variable is normal.

Test linearity with Test for Linearity method with the help of SPSS, where if probability value (Asymp.sig) <0.05 then data distribution is linear. The result of linearity test shows that the significance value of each variable relationship are: (1) the working environment that includes temperature, lighting, noise and space of work readiness has value> 0.05, so it can be concluded that it has no linear relationship, and (2) the lathe skill of job readiness has a value of 0.00, so it can be concluded that it has a linear relationship. Hypothesis test is done to find out how big influence of independent variable that cause change on dependent variable, either partially or simultaneously. The test uses SPSS program with simple linear regression test and multiple linier regression test.

The first hypothesis is that there is a significant contribution between work environment to the readiness of SMK students' skill in machining technique skill in South Sulawesi. This hypothesis aims to find out how much the contribution of work environment to the readiness of work. The results of the simple linear regression test for the first hypothesis that has been analyzed can be seen in Table 4 as follows.

Model	R	R_{Square}	Adj. R_{Square}	Stan. Coef. Beta	Sig
X_1	0.303	0.092	0.070	0.262	0.003

Table 4: Summary of First Hypothesis Test Results

Table 4 shows the results of simple linear regression analysis with regression coefficient for work environment variable (X1) on job readiness (Y) is 0.262 and positive value. The price of the regression coefficient states that job readiness will increase, if the work environment is improved. The higher the knowledge about the student work environment, the higher the readiness of work in entering the industrial world.

The value of the probability of significance is 0.003 and shows less than 0.05 (p <0.05), which means the first hypothesis is accepted, so it can be concluded that there is a significant contribution between the work environment to the readiness of the students' in South-Sulawesi. The amount of contribution of work environment to work readiness is from coefficient of determination (r2) multiplied 100%, that is 0.092 x 100% = 9.2%. The amount of work environment contribution that is 9.2% to readiness of vocational student of skill of machinery engineering skill in Sulawesi-Selatan, and the rest 81.8% influenced by other variable.

The second hypothesis is that there is a significant contribution between lathe skills to the readiness of SMK students' skill in mechanical engineering skill in South Sulawesi. This hypothesis aims to find out how much lathe skill to work preparedness. The results of simple linear regression test for the first hypothesis that has been analyzed can be seen in Table 5 as follows.

Model	R	R_{Square}	Adj. R_{Square}	Stan. Coef. Beta	Sig
X_2	0.568	0.323	0.319	0.568	0.000

Table 5: Summary of Second Hypothesis Test Results

Table 5 shows the results of simple linear regression analysis with regression coefficient for skill turning variable (X2) on job readiness (Y) is 0.568 and positive value. The price of the regression coefficient states that the readiness of work will increase, if the students' turning skills are improved. The higher the students turning skills, the higher the readiness of work in entering the industrial world.

The resulting probability value of significance is 0.000 and less than 0.05 (p <0.05) means that the second hypothesis is accepted, so it can be concluded that there is a significant contribution between lathe skill to readiness of vocational student SMK package of machining engineering skill in South Sulawesi. The amount of contribution of lathe skill to job readiness is from coefficient of determination (r2) multiplied 100%, that is 0.323 x 100% = 32.3%. The magnitude of the contribution of the latrine skill is 32.7% towards the readiness of the vocational students of the vocational training package of machining engineering in South Sulawesi, and the rest 68.7% influenced by other variable.

The third hypothesis is that there is a significant contribution between work environment and lathe skill to readiness of vocational student SMK package of machining engineering skill in South Sulawesi. This hypothesis aims to find out how much influence the work environment and skill of turning students to readiness work. The results of simple linear regression test for the third hypothesis that has been analyzed can be seen in Table 6 as follows.

Model	R	R_{Square}	Adj. R_{Square}	Stan. Coef. Beta	Sig
X_2	0.662	0.438	0.421	4.16939	0.000

Table 6: Summary of Third Hypothesis Test Results

Table 4 above shows the results of multiple linear regression tests between variables X1 and X2 to Y simultaneously. The magnitude of the regression coefficient simultaneously is equal to 0.662 which means having a strong effect as it approaches the number 1. The meaning is that the work environment and the students' skills have a strong influence on the readiness of work. The greater the value of X1 and X2, the greater the value of Y. The value of probability significance is 0.000 and less than 0.05 so it can be concluded that the third hypothesis is accepted. Thus, it can be concluded that there is a significant contribution between work environment and lathe skill to readiness of vocational student SMK package of machining engineering skill in South Sulawesi.

The amount of contribution of work environment and skill of turning student to work preparedness is from coefficient of determination (r2) multiplied 100%, that is 0.438 x 100% = 43.8%. The conclusion is that simultaneously the work environment and

the students 'turning skills contributed 43.8% to the readiness of SMK students' skill in mechanical engineering skill in South Sulawesi, and 57.2% influenced by other variables.

4. Discussion

The results of the first hypothesis test proved that "there is a significant contribution between the work environment on the readiness of SMK students' skills in machining skills engineering in South Sulawesi". The first hypothesis is concluded accepted based on the results of data analysis using simple linear regression analysis that is a direct contribution to the relationship of independent variables X1 to the dependent variable Y. The findings show that the work environment has a contribution of 9.2% in improving the readiness of the students SMK package technical expertise machining in South-Sulawesi in entering the world of work and industry. With knowledge and insight on the working environment in the form of replica of industry and work, students will be easier to prepare himself to work in accordance with the field of interest.

Work environment is very important to note in the school environment. This is because it deals directly with teachers and students who carry out the process of teaching and learning activities. Work environment is a condition or circumstances that exist around the workplace environment and can affect a person's performance in carrying out its duties either directly or indirectly and affect the optimization of results obtained and also affect the productivity of school institutions in general.

The place of work practices for vocational school students is one place for students to know the work environment, to prepare to work according to his skills after graduation later. In this regard, Zawawi's (2012) study finds that there is a significant relationship between the practice of school production units, the experience of industrial work practices, and family support for job readiness. Similarly, research conducted by Kahya (2007) revealed that there is a substantial correlation between employee performance with job level and work environment condition (physical work, physical condition of work environment, and work safety). In addition, in the context of vocational learning, through insights and information about the existing work environment in the industry can form students' knowledge in developing job readiness that includes aspects of academic skills, technical skills and values, as well as attitude aspects to support the development of its potential. The results of this study by other researchers support the findings that exist in this study, so it can be concluded that the work environment contribute significantly to the readiness of the students of SMK package of mechanical engineering skills in South Sulawesi.

The results of the second hypothesis testing in this study revealed that "there is a significant contribution between lathe skills to the readiness of SMK students' skill in mechanical engineering skill in South Sulawesi". The second hypothesis is concluded accepted based on the results of data analysis using a simple linear regression analysis that is a direct contribution to the relationship of independent variables X2 to the dependent variable Y. The research findings indicate that turning skills have a contribution of 43.8% in preparing students to enter the workforce and industry according to his choice.

Skills is a skill in completing the required task or skill. According to the Cambridge dictionary, the meaning of skill is the ability to perform an activity or a job, primarily because it has practiced it. While according to Gordon (1994: 55), skill is an ability to operate the job more easily and precisely. According to Nedler (1986: 73) skills (skills) are activities that require practice or can be interpreted as an implication of the activity. Thus, skill is the ability to work or perform activities or work well which is the result of the practice or the implications of the activity.

Every human being is able to learn skills or skills that support his ability to become a good expert at a great or ordinary level. With practice, trained behaviors become more accurate and responses are made faster (Smith and Kosslyn, 2014: 207). To acquire the skill takes three stages (Fitts & Posner, 1967 in Smith and Kosslyn, 2014). For example in lathe skills, the first stage is the cognitive stage, where knowledge is displayed declaratively and the attention required is very high. When starting to learn how to lengthwise, the conscious mind is a series of instructions, such as adjusting the spindle speed, feed and the depth of cut. The exercise will gradually move to the second stage of the associative stages. The behavior starts to fad and errors will decrease as the visual information about the workpiece to be latched, and the motoric response allows it to traverse the workpiece and association in the memory required for the lathe to be formed and strengthened. Finally, the autonomy stage will be achieved, where behavior becomes very accurate, executed quickly, and relatively automatic, and requires little attention.

There are several aspects that learners must have to work in the industry. A study conducted by Sholata (2014) examines students of SMK Negeri 1 Singosari who perform on the job training in heavy equipment industry PT. *Trakindo Utama* by using competency-based curriculum found that the graduates of the cooperation are declared ready to use labor because almost 100% of its graduates are absorbed by business world / industry that active in the field of heavy equipment.

Furthermore, according to Pertiwi (2008) stated workshop or school workshop is a tool that gives experience to students to hone skills or skills. While the laboratory to provide experience to students about the needs in the field or conditions appropriate reality For that, laboratory and workshop schools are required to function properly so as to produce students or graduates who are skilled and educated.

The results of both theoretical and empirical studies by other researchers support the findings of this research, so it can be concluded that lathe skills have a significant contribution to the readiness of SMK students' skill in mechanical engineering skills in South Sulawesi.

Testing the third hypothesis simultaneously, the results of the analysis show that the work environment and turning skills have an impact on students' readiness in entering the workplace and industry. The result of multiple linear regression analysis shows that the contribution simultaneously is 43.8% toward the readiness of the students of SMK package of mechanical engineering skill in South Sulawesi, and 57.2% influenced by other variable which cannot be expressed in research.

The role of work environment and student turning skills in vocational school is a provision of knowledge that is a picture and information about the readiness of work to enter the world of work later. Through the introduction of an early working environment, students are expected to gain knowledge about the replica of the work world and the formation of skills in accordance with their fields in preparing him enter the world of work after graduation later. Thus, it can be concluded that the higher the role of work environment and lathe skills, the higher the readiness of students' work in entering the industry and workplace.

5. Conclusions and Recommendations

Conclusions that can be drawn from the results of hypothesis testing and discussion of research results are; (1) Working environment contribution to job readiness of 9.2%, with work environment in the form of industrial and work replica will improve skill and support readiness of student work in entering industry world; (2) There is a contribution of lathe skill to work preparedness of 32.3%, with provision of lathe skill, students can prepare themselves and determine their job choice according to their field in entering industry. (3) Working environment contribution and turning skills 43.8%. With the work environment in the form of industrial and work replica of work and good lathe skills, students can be motivated in shaping and improving skills in accordance with their fields, thereby affecting the readiness of work in entering the world of industry and work.

Suggestions that can be given by the researchers to some interested parties for the benefits of the results of this study for the school that can be an evaluation of the student work environment to be tailored to the world of industry and work. Schools can arrange programs by involving the industry, so that students get information and description about the industry so that will be better prepared in entering the world of work. The realization of the readiness of SMK graduate work can be done by applying work-based learning methods that can shape the skills in accordance with the field so that it can have an impact on his readiness in determining job options in the industry.

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