

The Influence of Achievement Subject Package of Expertise (C3), Learning Motivation and Industrial Guidance Toward Achievement of Industrial Working Practice Multimedia Student at State Vocational High School 3 Surakarta

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Abstract:

The purpose of this research are to determine the influence between (1) achievement subject package of expertise (C3) toward student' achievement of industrial working practice (2) learning motivation toward student' achievement of industrial working practice multimedia (3) industrial guidance toward student' achievement of industrial working practice (4) the achievement subject package of expertise (C3), learning motivation, industrial guidance toward student' achievement of industrial working practice. The population was multimedia student of class XII at State Vocational High School 3 Surakarta. The research was using quantitative approach ex-post facto methods. Data were collected by questionnaire methods and documentation. Those data were analyzed with multiple regression. The result of this research have shown that: First, the achievement subject package of expertise (C3) variable positively and significantly influence toward student' achievement of industrial working practice. Second, learning motivation variable positively and significantly influence toward student' achievement of industrial working practice. Third, industrial guidance variable positively and significantly influences toward student' achievement of industrial working practice. Fourth, the achievement subject package of expertise (C3), learning motivation, and industrial guidance found to have significant ($F_{\text{calculation}}=10,735 > F_{\text{table}}= 2,77$) and positive ($r_{x1x2x3y}=0,654$; $R^2=0,428$) toward student' achievement of industrial working practice. The achievement subject package of expertise (C3) has the most significantly influence toward student' achievement of industrial working practice.

Keywords: Industrial guidance, Industrial working practice, Learning motivation, Learning achievements

Introduction

Indonesia is one country that is being carried out the development of education, especially in the formal education sector. The Government has established a formal educational institution that focuses on the skills of the students called SMK (Vocational High School). Skills students are directed towards the productive field skills. Skill-based education in the field of expertise is considered appropriate for vocational aims to produce graduates become qualified workforce able to compete in the era of globalization and can develop his abilities in the World of Business and Industry and the World of the college education. Further explained in PP 19 of 2005 on National Education Standards that Education SMK is a secondary education that promotes the development of students' ability to work on specific types.

State Vocational Highschool 3 Surakarta has implemented the use of Curriculum 2013, which was marked by the subjects grouped in C3 or commonly called a membership package is a collection of some of the subjects in vocational school that concentrates on the skills needed in the industry. Student achievement can be affected by various factors, but the factors that influence student achievement usually arise from within the student. One of the factors that support student achievement is student motivation.

Motivation to learn is the driving force or the pickup that caused the person's behavior towards a certain goal in order to have the willingness to act in a study. Often students do not have the motivation to learn so that the achievements obtained not optimal. Students who have low learning motivation also tend to have a lazy nature that will also inhibit the learning achievement.

State Vocational High School 3 Surakarta annually carry out industrial work practices, after carrying out industrial work practices is expected that students are able to absorb a wide range of experience, knowledge, and skills acquired in the industrialized world. With these experiences, students can have an idea and can indirectly accelerate the transition of students from school to the industry in the future. Implementation of the industrial working practices is also expected to lead to success on the competencies that are valued in the curriculum in 2013 that is the attitude, knowledge, and skills that further improve the quality of students.

Implementation of working practices in the industry skill program Multimedia (MM) 3 SMK Surakarta is in December-March. Before the industrial working practices implemented schools equip students with basic knowledge about the industry, the briefing carried out one by principals and vice-principals. The daily briefing has also been frequently done by the class teacher.

In the implementation of industry work practices are guiding the process industries. Guidance is given to students by the employee or the person designated as a student assistant for implementing the working practices of the industry. Provision of guidance can be verbal and practically immediate supervisor at the discretion of the industry. Based on the observation of the authors received guardianship of different industries among each student both in intensity and the charge of the guidance given.

In fact, the implementation of learning and training to achieve the standard of competence expected, can not be controlled entirely by the school. This is due to the presence of students scattered in various locations with the place and type of work that is diverse, thus gained the experience and ability of students through the practice of industrial work can not be equated between one student with another student.

Research Questions

The following question were raised to guide the study

1. How does the influence between the achievement subject package of expertise (C3) toward student' achievement of industrial working practice?
2. How does the influence between learning motivation toward student' achievement of industrial working practice?
3. How does the influence between industrial guidance toward student' achievement of industrial working practice

4. How does the influence between achievement subject package of expertise (C3), learning motivation, industrial guidance toward student' achievement of industrial working practice?

Hypothesis

Hypothesis of this research are there is a positive and significant influence between:

1. The achievement subject package of expertise (C3) toward student' achievement of industrial working practice.
2. learning motivation toward student' achievement of industrial working practice multimedia
3. industrial guidance toward student' achievement of industrial working practice
4. achievement subject package of expertise (C3), learning motivation, industrial guidance toward student' achievement of industrial working practice

Research Methods

The method used is a quantitative method of ex-post facto. According to Emzir (2008: 119) ex-post facto research conducted because of the influence and that influence has occurred and examined in a review rearward. In this case that determines the effect of subjects membership package (C3), the motivation and guidance of the industry individually or jointly on the outcomes of achievement working practices of the industry. The research was conducted at State Vocational Highschool 3 Surakarta Jl. Brigadier General Sudiarto number 34, Danukusuman, Serengan, Surakarta. The population in this study were students of class XII multimedia skills program State Vocational High School 3 Surakarta which consists of two classes, namely XII MM 1 there were 31 students, and XII MM 2 there were 29 students, bringing the total of the population is 60 students. In the present study used a saturated sampling technique. Data collection techniques used in the form of questionnaire and documentation. Data analysis techniques in this study consisted of (1) a description of the data, (2) test prerequisites: (a) test of normality (b) linearity test (c) multicollinearity test (d) test of heterokesdastisitas and (3) testing of hypotheses using regression analysis and multiple regression predictors.

Result and Discussion

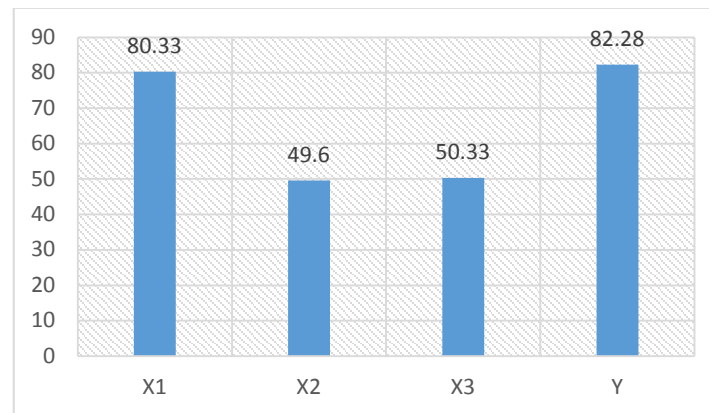


Figure 1. Bar Chart the Average Score Each Variable

Based on Figure 1 the average score of the variable Achievement Subjects Skills Package (X1) is 80.33 with the maximum score is 100. The trend of the lower category is of 5 people with a percentage of 8.33%, the moderate category is 31 students with a percentage of 51.67 %, and high category amounted to 24 people with a percentage of 40%.

In variable Motivation (X2) obtained an average of 49.6 with a maximum score of 64. The tendency of students' motivation to learn in the low category amounts to 4 people with a percentage of 6.67%, the moderate category amounted to 42 students with a percentage of 70%, and the category high total of 14 people with a percentage of 23.33%.

Industry Guidance on variables obtained an average of 50.33 with a maximum score of 64. Trends Industry Guidance on the low category is numbered 17 people with a percentage of 28.33%, the moderate category amounted to 28 students with a percentage of 46.67%, and the high category totaled 15 people with a percentage of 25%.

In variable Achievement of Industrial Work practices gained an average of 82.28 with a maximum score of 100. The trend of Accomplishment Achievement Industry Work Practices class XII student of State Vocational High School 3 Surakarta in the low category is a total of 11 people with a percentage of 18.33%, the category being totaled 27 students with a percentage of 45% and higher categories amount to 22 people with a percentage of 36.67%.

Research question 1: The influence between the achievement subject package of expertise (C3) toward student' achievement of industrial working practice

Membership package subjects (C3) consists of subjects that can improve the ability of students theoretically and practically in the field of multimedia given starting XI - XII (half 3- 6). Based on the analysis in the study found positive and significant influence between the achievements subjects membership package (C3) of the achievements of the working practices of the industry. The percentage of students with a moderate category is the most dominant. Viewed from the effective contribution and relatively thus it can be concluded that the better the achievements of subjects membership package (C3) the better the achievement industrial working practices. Vice versa, the lower the achievement subjects membership package (C3) then the lower the achievement industrial working practices.

Sugihartono, et al (2007: 130) in teaching and learning activities, measurement of learning outcomes is needed to determine how far the changes in students' behavior after appreciating the learning process. Student achievement should be measured or assessed to determine the extent to which the level of success achieved by students in the learning process. If student achievement is high means that students have achieved the learning objectives. Students who have successfully done or achieved something to feel proud/satisfied with the success. The success and pride it is a reinforcement for the student to achieve subsequent success (Robert, G. M., & Marcy, D. P, 1988: 70). In addition, if all individuals in the school, especially the students have high academic achievement, it will create a learning environment that is highly competitive and create qualified human resources.

The data analysis research conducted in this study show the influence achievement membership package subjects (C3) of the achievements of the industry working practices achievement moderate. Thus the need for efforts to improve student achievement in schools, especially in terms of subjects membership package (C3) which will affect also the achievements of students working practices industry expertise Multimedia program at State Vocational High School 3 Surakarta. To improve student achievement in teaching and learning activities in schools efforts are needed to improve factors or other variables associated with successful teaching and learning activities that are not investigated in the present study. Sudjana (2005: 39), learning outcomes are achieved by students is influenced by two factors of the students and the factors that come from outside the student or environmental factors. This is reinforced by the opinion Ruhimat, et al. (2011: 140-141) detailing clearly the factors that affect student achievement, namely internal and external factors. The theory is based on factors or other variables not done research on the study include effective learning methods in the delivery of teaching materials, classroom conditions were comfortable, the teaching facilities, laboratories and other feasibility. These things need to be improved in order to create an optimal student achievement.

Hypothesis 1:

Table 1. The results of the analysis of the First Hypothesis Test

| Model | Coeficient | r | R ² | t value | t table df= 56 | Sig. |
|--|------------|-------|----------------|---------|-------------------|------|
| (Constant) | 23,184 | 0,570 | 0,325 | 1,160 | 2,00 | ,251 |
| The achievemet subject package of expertise (C3) | 1,313 | | | 5,284 | | ,000 |

From the calculation of regression between the X1-Y can be obtained the following regression equation: $Y = 1,313X_1 + 23.184$. When viewed from t table value and significance, the hypothesis which states that "there is significant influence between the achievements subjects membership package (C3) with the achievements of the industry working practices achievements of students of State Vocational High School 3 Surakarta" acceptable.

Research Question 2: the influence between learning motivation toward student' achievement of industrial working practice

Based on the analysis that has been done to the research data of the variable motivation to learn, was found positive and significant influence between learning motivation toward achievement industry working practices can be concluded that the higher the students' motivation, the higher the achievement achievements working practices of the industry. Vice versa, the lower the motivation to learn it will also lower the achievement industrial working practices. Based on research from Lee (2010) states that there is significantly positive and significant correlation between students' motivation and academic achievement of students. It can be concluded that students who choose a high motivation to learn will have a good learning performance anyway.

Djamarah (2008: 148) is a driving motivation that transforms the energy into a person in the form of real activity to achieve the goal. Motivation to grow driven by the needs of a person, such as the need to be able to reach high achievement in school, the student will be trying to learn and master all the material that is taught in schools. If the learning activities a student does not have a high motivation in learning, it is not possible that a student will learn. Instead, students will learn to earnestly as motivated to achieve high performance.

Motivation plays an important role in learning activities a student. B.Uno stated motivation can be a reinforcement learning for a person, in his own motivation can determine what things will be done in the environment (2014: 28). In order to make more optimal motivation, then the principles of motivation in learning are not only known and presented but also should be applied in teaching and learning activities. In the world of education in schools, the motivation direct effect in improving student achievement. Students who have a high motivation to learn will continue to study in earnest, attentive to any material submitted by the teacher, and always do all the tasks assigned. So it will be a direct impact in the form of maximum learning achievement.

The influence of a given level of student motivation to improve performance working practices of industrial achievement in State Vocational High School 3 Surakarta included in the low category. Teachers as educators must continues to provide encouragement and motivation in learning for the students to be able to improve the understanding and the spirit of the students in learning activities at school or during the implementation of the industrial working practices in order to always be motivated in order to increase practical skills in the industry.

Hypothesis 2:

Table 2. The results of the analysis of the Second Hypothesis Test

| Model | Coefficient | r | R ² | t value | t table df= 56 | Sig. |
|---------------------|-------------|-------|----------------|---------|-------------------|------|
| (Constant) | 51,121 | 0,298 | 0,089 | 3,886 | 2,00 | ,000 |
| Learning Motivation | 0,627 | | | 2,378 | | ,021 |

From the calculation of regression between the X2-Y can be obtained the following regression equation: $Y = 0,627X_2 + 51.121$. When viewed from t table value and significance, the hypothesis which states that "There is a positive and significant influence between learning motivation and achievement outcomes industrial working practices of students of State Vocational High School 3 Surakarta.

Research Question 3: the influence between industrial guidance toward student' achievement of industrial working practice

Based on the analysis that has been done to the research data of variable guidance of industry, found a positive effect but not significant between industry guidance towards the achievement industrial working practices.

In research Odhiambo (2014) states that there is positive influence between guidance to student achievement. In the study also shows that in order to gain influence over the maximum teacher (mentor) must do all guidance services, in addition to the supervisor should also take advantage of the positive attitude of students to improve achievement.

On the distribution, trends can be seen that almost half of the sample to get a score on the questionnaire were categorized guidance, but in this research turns out there is positive but not significant, tendency guidance means that are not followed by the industrial working practice protocols achievement outcomes are optimal. We also see that the influence of industry guidance with the achievements of industry achievements working practices classified as very low, which indicates that the implementation of the guidance is implemented when students carry out work practices in the industry has not been maximized.

Industry guidance counselors can not be separated from the role in providing guidance intensively that really support the results of the implementation of industry work practices. The amount of the contribution made supervisor of the results of the implementation of industrial working practices due to the quality supervisor and is responsible for educating and guiding and directing students in learning and practicing. If the guidance is done by a supervisor who is less competent than students who guided indirectly also will lack the competence. Less maximal industrial guidance obtained by the students while carrying out industrial working practices can also be derived from the environment and internal factors of students themselves.

Other factors that trigger less maximum industry guidance can also be caused by the communication barriers. (Gumilang: 2010) Differences in perception, language, bad approach, cultural differences and physical and emotional disturbances can be a barrier to communication students with industry mentors. Often students do not understand the purpose of supervising, for it is important to make the perception and language. Sometimes in a state of daydreaming or tired to think about other problems, students and counselors tend to be less interested in listening to one another. Cultural differences between students and tutors are also one of the most difficult obstacles to overcome. Their emotional and physical disorders, much less to impede communication. In a state of disappointment, anger, sadness, or fear, someone will find it difficult when composing messages or receive messages properly. Student or supervisor may be disrupted by physical barriers such as poor acoustics, the text can not be read, the light is dim, or health problems. Physical disturbance can interfere with the concentration in communication.

Hypothesis 3 :

Table 3. The results of the analysis of the Third Hypothesis Test

| Model | Coefficient | r | R ² | t value | t table df= 56 | Sig. |
|---------------------|-------------|-------|----------------|---------|-------------------|-------|
| (Constant) | 48,725 | 0,042 | 0,002 | 2,019 | 2,00 | 0,000 |
| Industrial Guidance | 0,071 | | | 0,319 | | 0,751 |

From the calculation of regression between the X3-Y can be obtained the following regression equation: $Y = 0,071X_3 + 48.725$. When viewed from t table value and significance, the hypothesis which states that "There is a positive and significant impact among industry guidance with the achievements of industrial work practices student achievement State Vocational High School 3 Surakarta" rejected.

Research Question 4: the influence between achievement subject package of expertise (C3), learning motivation, industrial guidance toward student' achievement of industrial working practice

The results of the fourth hypothesis which will be tested in this study were "There is a positive and significant influence between the achievements subjects membership package (C3), the motivation and guidance in the industry together with the achievements of the industry working practices achievements of students of State Vocational High School 3 Surakarta".

Through multiple regression analysis with three predictor variables obtained higher achievement results subject membership package (C3), motivation to learn, and industry guidance, the higher the achievement industry work practices student multimedia skills program State Vocational High School 3 Surakarta. The fourth hypothesis receipt proving that the three predictor variables turned out to give a positive and significant impact on the outcomes of achievement working practices of the industry.

Achievement of industrial work practices is a benchmark used to measure student success in carrying out an internship in the industry. The purpose is to provide industry work practices and experience real teaching the students about DUDI. For students, the achievements of the industry work practices are used as a benchmark to measure the extent to which the students' understanding in mastering the material provided in the school learning and applying the DUDI. Achievement industrial working practices is influenced by several factors or variables, so in this study, the learning achievement used as the dependent variable or variables that are influenced by other variables associated with successful working practices of industrial processes.

Students can achieve high industrial working practices when working practices in the activities of the industrial subjects students master skills package (C3), have a high motivation to learn and also get maximum industry guidance. These three things must always go hand in hand. Mastery of subject expertise packages (C3) is very important, without the knowledge of school students are not able to carry out the practice of industrial work smoothly because of limited knowledge. Similarly, the motivation to learn, a student who does not have a purpose in learning, will not have a good motivation to learn. Motivation to learn is very important to encourage students to perform learning activities both in school and in industry. Without the motivation to learn, students will be lazing in learning activities, making it difficult to be trying to understand all the material provided by the teacher which led to a decrease in academic achievement. Similarly, the guidance of the industry, the existence of a good mentor and competent industry, followed by the intensity enough guidance will produce industrial achievement optimal working practices

Hypothesis 4:

Table 4. The results of the analysis of the Fourth Hypothesis Test

| Variabel | Regression Coefficients |
|--|-------------------------|
| Constant | 4,078 |
| Achievement Subject Package of Expertise | 1,231 |
| Learning Motivation | 0,417 |
| Industrial Guidance | 0,054 |
| R | 0,654 |
| R Square (r ²) | 0,428 |
| F Calculation | 10,735 |
| F Table | 2,77 |
| F Significance | 0,000 |

Conclusion and Recommendations

Conclusions

(1) Achievement subjects membership package (C3) significant positive effect on achievement achievements working practices of the industry. (2) Motivation to learn positive and significant impact on the outcomes of achievement practice industry working students (3) Guidance industry positive effect but

not significant to the achievement of achievement working practices industry (4) Achievement of subjects packet expertise (C3), the motivation and guidance of industry as together positive and significant impact on the outcomes of achievement of industrial work practices (5) Of the three independent variables subjects achievement membership package (C3) is the most significant variable affecting achievement industrial working practices.

Recommendations

(1) Students should improve the performance of subjects membership package (C3) for those lessons can affect the smoothness and performance achievements of high industrial working practices. (2) Master membership package subjects (C3) should further stimulate students' motivation in different ways according to their ability to appeal to teachers and students. (3) Schools should be more selective again in cooperation with the industry, it can be seen in the intensity of the industry guidance received relatively different students, causing low levels of influence of industry guidance on the outcomes of achievement working practices of the industry. (4) The researchers then expected to examine more sources, literature, and references related to student achievement, motivation to learn and industry guidance

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