



# **An Analysis of the Management Problem of Working Practices of Industry in Vocational High School**

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## **ABSTRACT**

The purpose of this study is to analyze the problem and the management of working practice of industry in vocational high school. This research is based on analysis of the factors influencing the management of working practice of industry regarding steps taken in the stages of planning, organizing, implementing, monitoring, and assessing. The researchers applied survey method with descriptive quantitative. The subjects of the research 30 students majoring at the installation of electric power engineering at vocational high school 1 in Minasatene, Pangkajene Islands who have attended the job training industry. Based on the analysis of the data, it is found that the management of working practice of industry for planning phase is generally in the good and very good category. However, there are some problems in term of the determination of target industries so that some indicators are in the poor category. In organizing stage, some indicators about teachers and instructors understanding of job description in the industry are in the poor category. In implementing stage, the indicators of instructors and materials presented in the introduction of industry are in the good category, and there are no problems about these matters. There are still some problems in analyzing the steps and method of evaluation and assessment which put the role of supervisor and instructors. Based on the findings, it is expected that the results can be a reference in developing and improving the management of working practice of industry in vocational high school so that its implementation can be maximal.

**Keywords:** Problem Management, Working Practices, Vocational High School

**JEL Classification:** I2

## **1. INTRODUCTION**

Vocational high school is a part of the secondary education whose graduates are specially prepared to be able to plunge into the world of work according to the field. In an effort to equip vocational students with the knowledge and experience for the field work, the concepts of link and match between vocational high school and industrial world are born. The link refers to the process that should be interactive learning between in school and industry. Match refers to the results which should be appropriate or commensurate between the results acquired in school to be used in industry.

In carrying out its duties and functions, it is proven that vocational education has a strategic role in employment (Reinstra, 2010). It is also described in Law No. 20 in 2003 on National Education System (Education Law) Article 21 which states that "Vocational education is a secondary school that prepares students primarily to

work in a particular field." In addition, in Government Regulation No. 19 in 2005 on National Education Standards, it is stated that vocational education is secondary education that promotes the development of students' abilities to certain types of work, as the slogan "Ready to work, intelligent, and competitive." It is intended that graduates of vocational school are expected to compete in the world of work and at least to be able to produce their own jobs by using their knowledge and skills.

As a form of implementation of the mandate of Law and Government of Vocational education then it should pay attention to the achievement of their students' competency skills. The achievement of students' competence is not only acquired in school but also through the concept of link and match. One of them is by implementing the working practice of industry that can provide work experience driving directly, can develop employability skills in the industry, and can also develop students' character.

The achievement of competence, employability skills, and students' character can be elaborated by the management of working practice which is directed, systematic, and accountable. However, based on the reality in the field and empirical observation data it is known that the working practice of industry in vocational schools in Pangkajene islands has not been managed systematically so that it cannot achieve the goal working practice itself maximally.

As stated by Nelly (2013) in his research, it is concluded that the implementation of working practices of industry did not have a significant influence on the improvement of student competence. In addition, there are still weaknesses that make the implementation of working practices ineffective in achieving the expected results in the stages of planning, implementation, and evaluation. Therefore, it is necessary to remember that the management or educational management of multiple systems, in this case, the working practice of industry is an activity or series of activities such as managing or setting process to run effectively and efficiently in order to achieve a goal optimally. Suwarno (2012) states that the management concept consists of planning, organizing, actuating, and controlling. Therefore, the management problems are factors that affect the achievement of every stage of management. The management is created based on the factors that affect the management concept including in the implementation of the working practices of the industry.

Based on the definition and description above, it is very clear that the factors that influence of link and match, in this case, the implementation of the working practices of the industry requires good management with the concept which is a purposeful and systematic way. It is to support the achievement of competence in industry, employability skills and character development so that the results of the implementation of working practices can be more effective and accountable. To develop and maximize it, the first thing that needs to be known is the dominant factors affecting the effectiveness of the management of working practices of the industry in vocational education. Therefore, in this study, the researchers analyzed the management of working practices of the industry at vocational high school in which the formulation of the problem is what are factors affecting the management of the working practices of the industry at vocational high school? Therefore, this research aims at determining the dominant factors affecting the management of the working practices of the industry at vocational high school.

## 2. RESEARCH METHOD

This research was a survey research with descriptive quantitative approaches to describe or depict factors influencing the management of working practices of the industry in vocational high school. The data were collected through direct observation during this research was conducted. In addition, interviews were performed to collect data in the form of direct revelation from the data source. Furthermore, questionnaires containing questions and statements were distributed. Besides, the data were also collected using documentation, the students' work recording, students' attendance lists, and other relevant documentation.

In this study, the indicators which were used are the component of the management concept, namely planning, organizing, implementation, and assessment. These indicators become the variables in formulating factors which become the management issues in each indicator.

Based on theoretical studies and research method which have been described previously, the conceptual framework of this study can be described as shown Figure 1.

Based on the framework above, it can be explained that the working practices of the industry in vocational high school are conducted through four management stages such as planning, organizing, actuating, and controlling. Problem identification is then carried by steps which will be implemented at every stage of management. The planning stage includes implementation schedule, team mentors, and industry targets or placement. The organizing stage includes the understanding of job description of supervisor. The actuating stage covers the debriefing of participants from schools and industry objectives to escort students to the location of the target industry. The monitoring stage includes the role of mentors and tutors under the supervision and guidance as well as methods of assessment results of the implementation of working practices of the industry.

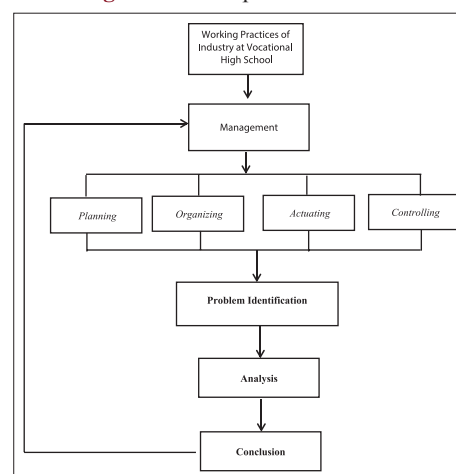
Based on the identification of the problems which is found, an in-depth analysis was conducted related to the issue. It is to draw a conclusion of all of the results of analysis of the problems of managing the working practices of the industry at vocational high school, and the conclusion results are returned as a source of improvement and development in the management of working practices of the industry.

## 3. RESULTS

Based on the research results, the answer to the research question is obtained which shows the description of students' responses toward the stages at every stage in the management of working practices of the industry.

Data analysis of planning stage in the management of working practices of the industry in this study describes three steps

**Figure 1:** Conceptual framework



implemented in planning working practices, and the results can be seen in Figure 2.

The Figure 2 shows that there are 21 of 30 respondents or 70% who said that the determining of the schedule for the working practices is in very good and 9 or 30% said that it is in a good category. There are 19 or 63.3% who said that determining supervisor is in good category and 11 respondents 36.7% stated that it is in the very good category. Regarding the placement of target industry, there are 15 respondents or 50% who said that it is in the very good category and ten respondents or 33.3% who stated that it is in a good category. Besides, there are five respondents or 50 % who said that it is in the poor category.

Data analysis of organizing stage in the management of working practices of the industry in this study describes the understanding of job description by school supervisor and industry supervisor as shown in Figure 3.

The Figure 4 shows that in organizing stage in this case understanding job description by school supervisor and industry supervisor of the 30 students who became respondents can be described as follows. 11 respondents or 36.7% said that school supervisor in the understanding job description is in the very good category, 19 respondents or 63.3% stated that it is in a good category, and two respondents or 6.7% said that it is in the poor category. Meanwhile, for supervisor in industrial, it is obtained that 15 respondents or 50% stated that it is in very good category, 10 respondents or 33.3% are in good category, and five respondents or 6.7% said that it is in poor category.

Data analysis of the implementation stage in the management of working practices of the industry in this study illustrates how the briefing and introduction to industries involving elements of

school and industrial targets are implemented, as shown in the Figure 4.

The implementation stage (introduction to industry) regarding speaker and the material presented in its implementation shows that there are 22 respondents or 73.3% said that it is in the very good category and eight respondents or 26.7% declared that it is in a good category. Regarding the method which is used during the introduction, it is obtained that 20 respondents or 66.7% stated that it is in very good category and 10 respondents or 33.3% stated that it is a good category.

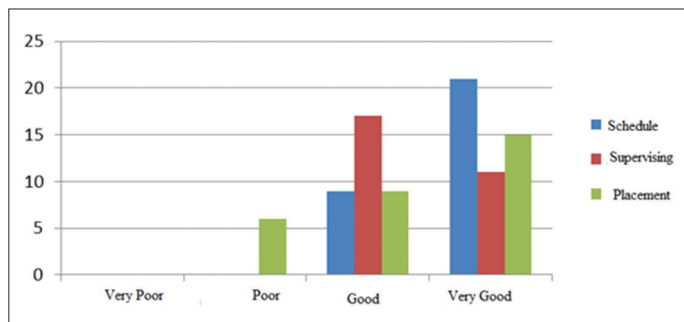
Data analysis of monitoring stage in the management of working practices of the industry in this study illustrates the role of school supervisor and industry supervisor in providing supervision and guidance as well as the method of assessment in the implementation of working practices, as shown in the Figure 5.

The Figure 5 shows that 11 respondents or 36.7% put the role of school supervisor in the very good category, 10 respondents or 33.3% said that it is in a good category, and nine respondents or 30% stated that it is in the poor category. In terms of the role of supervisor or instructor in industry, it is obtained that 10 respondents or 33.33% said that it is in the very good category, 13 respondents or 43.33% stated that it is in good category and seven respondents or 23.33% indicated that it is the poor category. In addition, regarding the method of assessment, it is obtained that 14 respondents or 46.7% said that it is in the very good category, 12 respondents or 40% said that it is in good category and four respondents or 13.3% stated that it is in the poor category.

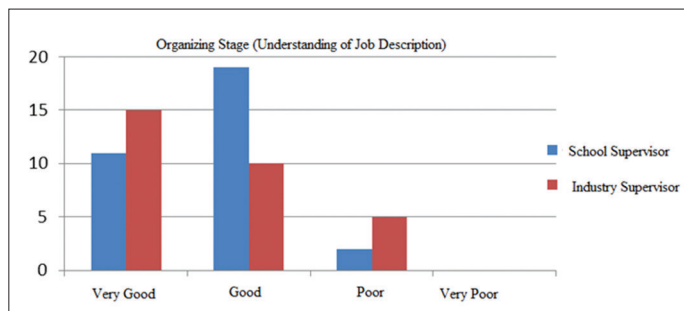
## 4. DISCUSSION

Discussions of the descriptive analysis of data for each stage in the implementation of the working practices of industry which

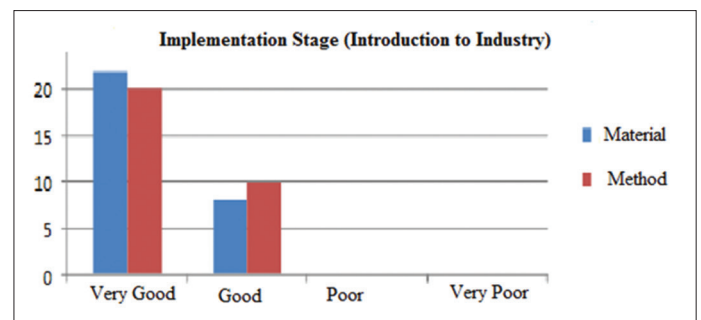
**Figure 2: Planning stage**



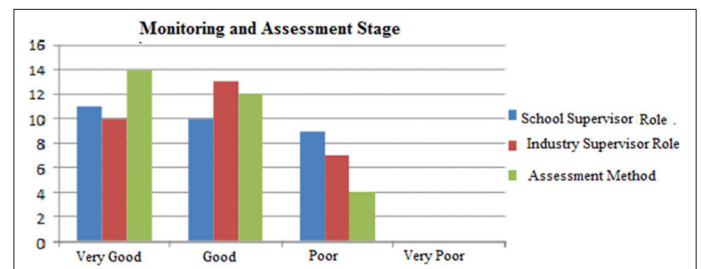
**Figure 3: Organizing stage**



**Figure 4: Implementation stage**



**Figure 5: Monitoring stage**



was obtained through observation, interview, and questionnaires to describe the identification and analysis of problems in the management of working practices of the industry at vocational high school (SMK Negeri 1 Minasatene) are as follows.

#### 4.1. Analysis of the Problem in Planning Stage

In the planning stage, the management of working practices of the industry in this study illustrates the three most important steps implemented namely determining schedules, determining supervisor, and determining the target or location of industry. Data analysis at this stage indicates that there is no problem in determining the schedule. It can be seen from the data that there are 70% of schedule in the very good category and 30% in the good category. For determining the supervisor, 63.3% is in good category, and 36.7% is in the very good category. In addition, regarding determining the location, 50% is in the very good category, and 33.3% is in the good category, and the remaining 16.7% is in the poor category. Therefore, it can be stated that there is still a problem in determining the location or target. After doing the interview, it is found that it happens because some students feel less happy with the place that is determined to conduct the working practices. It tends to affect the students' interest, enthusiasm, and motivation for learning and working at the determined location. In addition, the industry should be a place to implement a program that is designed from formal training and guidance to gain work experience in order to apply the theory and practice (Raelin, 2008).

#### 4.2. Analysis of Problem in Organizing Stage

Data analysis of organizing stage in managing working practices of the industry in this study illustrates how job description understood by school supervisor, and industry supervisor can be aligned and have an impact on their work systems in guiding students. Based on data analysis it is found that 36.7% of the respondents said that the understanding of school supervisor about job description is very good, 63.3% of the respondents stated that it is in the good category, and 6.7% of the respondents stated that it is in the poor category. Meanwhile, it is obtained that 50% of the respondents said that the industry supervisor is in the very good category in the understanding job description, 33.3% of the respondents said that it is the good category, and 6.7% of the respondents said that it is in the poor category. From these data, it is illustrated that there are still some problems faced by school supervisor and industry supervisor in the understanding job description. After doing the in-depth interview, it is known that lack of supervisors' understanding about job description is because there is still school supervisor who is not vocational teachers and they are the teachers from general subjects. Therefore, it affects students' ability to understand the technical work to guide students in the industry.

Meanwhile, industry supervisor who is in the poor category is due to the lack of involvement in the planning and preparation of the working practices in school before the students entered implementation stage in the industry. In fact, when the industry is a partner in implementing the education and experience as well as working practices (Douglas, 2007). To ensure this condition is met, cooperation between the industry and the school is required (Majundar, 2008). Thus, the understanding of job description by

school supervisor and instructor greatly affects the quality of the implementation working practices in the period of implementation.

#### 4.3. Analysis of the Problems in Implementation Stage

Data analysis of the implementation stage in the management of working practices of the industry in this study illustrates how the introduction to industry involving elements of school and industrial objectives is implemented. The results of data analysis showed that in the implementation stage (briefing and introduction to industry) regarding presenters and presented materials, 73.3% is in the very good category and 26.7% is in the good category. It means people who introduce the material can attract students to participate in the briefing and introduction stage. Regarding the method used in the briefing and introduction, 66.7% is in the very good category, and 33.3% is in the good category. It also shows that the presents used the good method. It can be stated that there is no problem faced by students in briefing and introduction before getting into the industry. In addition, presenters and methods used in briefing and introduction are dominantly in the very good category.

#### 4.4. Analysis of the Problem in Monitoring and Assessment Stage

There are still some problems in monitoring and assessment stage in the management of working practices in which this stage describes how the role of school supervisor and industry supervisor provide supervision, guidance, and assessment methods in the implementation of working practices. Data show that 36.7% of the respondents put the role of the supervisor in the very good category, 33.3% is in a good category. However, there are still 30% who put the role of the supervisor in the poor category such as on the analysis of understanding of job description in the implementation and supervision during the ongoing industry working practices which are closely related to the background of a teacher who is not a vocational teacher in the field. Therefore, the understanding of job description as working practices supervisor is very poor and eventually has an impact on the lack of the role of school supervisor during the implementation of the working practices of the industry, especially the role of guiding the participants.

In terms of the role of industry supervisor, it is found that 33.33% is in very good category, 43.33% is in the good category, and 23.33% is in the poor category. Based on this data analysis, it is known that the role of industry supervisor is still a bit problematic this is because, during the execution of working practice in the industry, industry supervisors (instructor) who are the employee of the industry do not understand the directions in guiding the students. Instructors or supervisors in working practices of industry are individuals who have to provide training skills to vocational students (UNESCO, 1997; Grollmann, 2008) so that the students tend to only work in the field of supervisor without a process of learning and understanding other things associated in the industry.

In terms of the assessment methods which are applied, it is obtained that 46.7% is in the very good category, 40% is in the good category, and 13.3% is in the poor category. It means that there are still some problems in assessment methods. Based on the in-depth interview, it is known that the absence of systematic assessment of the implementation of working practices eventually led to a

lack of understanding of coaching and assessment methods. The instructors in the industry only involve the participants to work as the work of employees without considering other aspects that need to be owned and controlled by students after the implementation of working practices. It is consistent with the presence of an instructor in which they are experts in the field, but they have lack sufficient knowledge pedagogically (UNESCO, 1997; Grollmann, 2008).

## 5. CONCLUSION

Based on the research findings that have been pointed out above, some conclusions can be drawn as follows:

1. In the planning stage, the schedule of working practice which has been determined has been highly customized and can be implemented by all students. In addition, school supervisor has been determined based on the number of participants and industrial purposes. However, there is still some problem faced in the place for conducting the working practices. There is still not based on the students' expectation. It also is because the lacking number of industries exists in the school area. In addition, the students' ability regarding the financing to carry out industrial working practices outside area is lack so that the school puts students to be centered on some existing industries in that area, without considering the quantity and quality of the development of student competence in that place.
2. In organizing stage, it is focused on the understanding of job description of school and industry supervisor. There is still a problem which occurs because some supervisors are not yet fully aware of the job description of each case, so that lack of communication occurs between the school and industry in performing duties and functions which entailed the implementation of working practices of the industry.
3. In the implementation stage, it is focused on briefing and the introduction to the industry by involving the elements of the school and the target industry, and it has run up. In addition, it is found that there is no problem with it.
4. In the monitoring and assessment stage, it is focused on the role of school supervisor, the role of industry supervisor, and methods of assessment in the technical industry. From these three indicators, there are still some problems encountered, which can generally be concluded that the problem is due to a lack of understanding of supervisor and instructor for their role. In addition, existing media or guidance has not been systematically used as a reference by supervisors in supervising and assessing. Besides that, there is also a problem from the school in which there is a limited vocational teacher that affects the assignment of non-vocational teachers to guide students to participate in the implementation of the industrial working practices.
5. There are some problems in the management of working practices of the industry. First, there is a lack of industry targets in the area of school locations, and it is aggravated by the lack of students' ability regarding financing to be placed on the industry in other regions or districts. Therefore, it forces the school to maximize the existing industry although

in the end, it is not in line with expectations. Second, there is a lack of communication between the school and industry in planning, preparing, and organizing the implementation of working practices so that there is no similar perception about the job description, especially for school supervisor and instructors in the industry. Third, the condition of vocational school with limited vocational teachers affects the assignment of non-vocational teachers to guide students to participate in the implementation of the working practices, and it will greatly influence the quality of the supervising role. Third, media and guidebooks for working practices have not been made systematically to be referred by the supervisor and instructor in the process of supervising and assessment.

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