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Need Analysis Development Instruments Evaluation of Vocational Industrial Work Practices Based on Competence Fitness

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Abstract---This development research aims to formulate the need for developing evaluation instruments for vocational industry work practices based on competency. Industrial Work Practice is a superior program for Vocational Schools to provide experience to the Business World and the Industrial World to their students. The research sample consisted of SMKs in the fields of engineering technology, business management and tourism. Respondents involved were principals, productive program teachers and business and industry instructors. The results of the analysis of the need to develop evaluation instruments for competency-based Vocational Industry Work Practices are as follows: 1) there are three aspects of Industrial Work Practices which are the main aspects in evaluation instruments, namely: a) aspects of Industrial Work Practices readiness, b) implementation aspects of Work Practices Industry, and c) aspects of monitoring and evaluating Industrial Work Practices; 2) 87% of respondents stated that continuous evaluation of the Industrial Work Practices program had not been implemented properly; 3) 79% of respondents stated that the Industrial Work Practices program that was running, did not yet have a standard evaluation instrument; 4) 85% of respondents stated that they strongly agreed when standard evaluation instruments were developed, in order to support the ongoing evaluation process in the Industrial Work Practice program based on competency. Based on the results of the analysis, it can be concluded that Vocational Schools need a standard instrument for evaluating industrial work practice programs, in order to support the improvement of the quality of the implementation of competency-based Vocational Industry Work Practices.

Keywords: need analysis, evaluation, industrial work practices, competence

I. INTRODUCTION

Based on data from the Central Statistics Agency of Indonesia, the unemployment rate of graduates of Vocational High School is the highest compared to graduates from other levels of education. The unemployment rate of graduates of Vocational High School in August 2018 reached 11.25%. The unemployment rate was higher than February 2018 of 8.92% but lower than the position in August 2017 of 11.41% (Kadata Databoks, 2018). The need for skilled labor in Indonesia is increasing, especially in the fields of technology and industry. Through the implementation of the Industrial Work Practices program, it is expected to produce a qualified workforce and professionals in their respective fields of work. Industrial Work Practice is a form of professional expertise education which is a combination of school education and expertise training education in the industry. Internship will increase student learning motivation because students directly in the workforce/ who need intensive learning and expertise.

Industrial practice is a concrete form of implementation of link and match policies. Industrial Work Practices in Vocational High Schools are also often known as Field Work Practices, namely training programs held in the field or outside the classroom, in a series of learning activities as an integral part of the training program (Oemar Hamalik, 2007: 91). Cujiningham, Dawes and Bennet (2004) show that the facts that occur in the field indicate the condition that the implementation of vocational education and training runs on its own program, on the other hand the work/ industry and professional associations often complain that the quality of graduates does not meet the demands of expertise (expected competency). Symptoms of "mismatch" like this

ultimately give birth to graduates "under qualified", this kind of situation is quite long, even today. The gap between the expectations and achievements of Vocational High Schools, especially in producing graduates who are expected to be able to meet the qualifications and competencies as expected in the world of work continues to be a challenge to vocational education.

Internship is a platform for students in the academic world to integrate theoretical knowledge with working environments and put them into practice. It is important for them to apply the theoretical knowledge acquired in the classroom (Burn. Et. Al., 2010) and (Idrus. Et. Al., 2010). In another study, stated that Prakerin was able to increase knowledge, experience and skills as well as both professional life and personal life (Muhammad Sabri Sahrir, et. Al. 2016). Muhamad et. al. (2009), Mohd Jaffri et. al., (2011) and Warinda (2013) state the need to conduct internship programs for students regardless of gender, which is indicated by a significant difference between genders who were undertaking this internship trainings.

Comprehensive evaluation is still very necessary, in order to uncover problems that occur in the process of implementing industrial practices, both in terms of administration and implementation of these activities. Evaluation is an activity to gather information about the workings of a thing, then information is used to determine the right alternative or policy in making decisions. Program evaluation is a unit or unit of activity that aims to collect information about the realization or implementation of a policy, takes place in a continuous process, and occurs in an organization that involves a group of people for decision making (Arikunto & Jabar, 2004). A comprehensive evaluation process, must be supported using appropriate evaluation tools. The development of standardized evaluation instruments has become a very urgent thing to do to be able to be used systematically by Vocational Schools to carry out continuous evaluations.

Furthermore, Need Assessment is the first step that must be taken in research activities in the field of development. Dwiyogo (2001: 1) suggests three important things that must be carried out in development research activities namely analyzing needs, developing products and testing products. The analysis is intended to find out what needs are needed to overcome problems encountered in educational / learning activities. Thus it is expected that the products produced are truly products that are in accordance with needs (based on need). Needs analysis is defined as environmental evaluation (Szuba et. Al. 2011). According to the journal from Erin. (2011) the purpose of the needs analysis is twofold: (1) To ensure existing capabilities and to determine the gaps that exist, if any, between the current conditions and the final conditions desired. (2) The study of needs analysis is more than just identifying gaps, however, the process also serves to provide direction for programs, projects, and activities. This confirms, that needs analysis is the most important stage in research development.

Based on this, a need analysis is needed, in order to develop evaluation instruments that are suitable for the evaluation process of the Industrial Work Practices program. The results of the analysis of this study will reveal: 1) important aspects that must be included in the evaluation instrument, 2) knowing the implementation of the Industrial Work Practices program evaluation, 3) whether the evaluation program of Industrial Work Practices has used standard instruments ?, and 4) The head of the Vocational School, productive teachers of the Vocational and Industrial Instructors agreed to develop a standard evaluation instrument for the Vocational School Industry Program.

II. METHODS

Setyosari P (2013: 230) suggests that needs analysis is used to strengthen the objectives of the program or product to be developed. In the needs analysis, researchers identify priority needs that need to be met immediately. Priority needs for research on the development of industrial evaluation instruments are what aspects should be the main components in the evaluation instruments developed.

The needs analysis in this study was carried out by observing the Vocational and Secondary Schools using instruments in the form of questionnaires. The observation results will show what aspects must be included in the standard . Industrial Work Practice evaluation instrument. To reveal the evaluation process that runs on the vocational training program, interviews were conducted with respondents. Respondents who were the subject of the interview consisted of: 1) Principals, 2) Productive Teachers, and 3) Industrial Instructors from Vocational Engineering Technology, Management and Business expertise

programs and Tourism Expertise Programs.

In this study used qualitative descriptive data analysis techniques in accordance with the opinions of Miles and Huberman (1994: 20) with stages: 1) Data reduction: is a form of analysis that sharpens, classifies, directs, discards unnecessary data, and organizes data with ways so that the final conclusions can be drawn and verified; 2) Presentation of data: is a set of structured information that gives the possibility of drawing conclusions and taking action; and 3) Verification: is part of one activity from a complete configuration so as to be able to answer research questions and research objectives by analyzing the results of research instrument data.

III. RESULTS AND DISCUSSION

Evaluation Aspects of Industrial Work Practice

The results of observations and strengthened by the results of interviews conducted with school principals, productive program teachers, and industrial instructors can be described as follows. The results of the interview converged on three things which were the main components of the evaluation of the Industrial Work Practices program. The three components which are the main components of incoming evaluation as the main aspects in evaluation instruments are: 1) planning aspects 2) implementation aspects, and 3) aspects of monitoring and evaluation of Industrial Work Practices.

Based on data analysis, 97% of principals strongly agree, that these three aspects are components of the Prakerin program that must be evaluated on an ongoing basis. In productive program teachers, as many as 95% strongly agree, planning Industrial Work Practices becomes a component in the evaluation instrument. In contrast to principals and productive program teachers whose majority expressed their agreement on three aspects of the evaluation component, 78% of industrial instructors strongly agreed on aspects of planning, and monitoring and evaluation became the main components that must be evaluated on an ongoing basis, but there were 22% of industrial instructors states do not agree if the implementation aspects are evaluated regularly. The industry revealed that the evaluation should not only be based on the standards set by the school regarding the ongoing Industrial Work Practice process, but also must consider the evaluation standards for the implementation of Industrial Work Practices set by the industry. The results of data analysis state that, important aspects that must be included in the evaluation instruments of the Industrial Practice program are: 1) aspects of planning, 2) aspects of implementation, and 3) aspects of monitoring and evaluation of Industrial Work Practices.

Implementation of Industrial Work Practice Evaluation

The results of observations made at the school found the fact that the Industrial Work Practices carried out by students were carried out without a clear planning program. Industrial Work Practices are carried out by XI level Vocational High School students entering school holidays. Implementation of Industrial Work Practices, preceded by the coordination of schools with partner industries to find out work competencies, schedules, facilities and industrial capacity for students who will carry out Industrial Work Practices. The duration of the implementation of Industrial Work Practices, adjusted to the Industrial Work Practices program plan prepared by the school, then further coordinated with the industry.

Furthermore, before the student jumps in the partner industry, the school will conduct a mapping of the supervising teacher. Supporting documents for the implementation of Industrial Work Practices are compiled by the Vocational Industry Working Group (Working Group) that is adapted to the implementation process of Vocational School Engineering, including: Standard Operating Procedure Book (SOP), Industrial Work Practice Guidance Book, for tutors and industrial instructors.

The implementation of Industrial Work Practices in the industry is supported by a monitoring process. Monitoring is carried out by Prakerin supervisors who are productive program teachers. Mapping Prakerin guidance teachers is carried out by the Vocational School Working Group and is considered based on each expertise program. The monitoring process is carried out once a month by the guidance teacher in coordination with industrial instructors and students.

The next stage is the testing process for students who have completed industrial work practices in the industry. The test was carried out by the school and industry. At this stage, if students meet the criteria required by industry and school, a pass will be given. The entire process of

implementing Industrial Work Practices by students, from dropping to the testing phase of the implementation of Industrial Work Practices should be evaluated regularly, whether the implementation of Industrial Work Practices by students in the industry is in accordance with the expected planning, or vice versa.

The results of data analysis show that, as many as 87% of respondents stated that continuous evaluation of the Industrial Work Practices program had not been implemented properly. Furthermore, as many as 79% of respondents stated that the Industrial Work Practices program that was running, did not yet have a standard evaluation instrument; and as many as 85% of respondents stated that they strongly agreed if a standard evaluation instrument was developed, in order to support the ongoing evaluation process in the Industrial Work Practices program based on competency. This confirms the importance of developing standard evaluation instruments for the Industrial Work Practice program based on competency suitability. Based on the attachment of the Indonesian Minister of Education and Culture Regulation Number 66 of 2013 concerning assessment standards, the assessment instrument must fulfill the following requirements: 1) the substance that represents the assessed competency; 2) construction that meets technical requirements in accordance with the form of the instrument used; and 3) the use of good and correct language and communicative in accordance with the level of development of students.

IV. CONCLUSION

Based on the results of research and data analysis that has been carried out in this study, the conclusions of this study are as follows:

There are three components that are the main components of the evaluation program of the Vocational Industrial Work Practices and must be included as the main aspects in the evaluation instrument are: 1) aspects of industrial planning, 2) aspects of apprenticeship implementation, and 3) aspects of apprenticeship monitoring and evaluation;

In the ongoing evaluation of the Industrial Work Practices program, 87% of respondents stated that it had not been implemented properly.

79% of respondents stated that the Industrial Work Practices program that was running, did not yet have a standard evaluation instrument;

85% of respondents stated that they strongly agreed if a standard evaluation instrument was developed, in order to support the ongoing evaluation process in the Industrial Work Practice program based on competency

The conclusion above, can confirm that Vocational Schools need a standard instrument for evaluating the Industrial Work Practices program, in order to support the improvement of the quality of the implementation of competency-based Vocational Industry Work Practices.

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