**The implementation of industrial work practices for outcome quality improvement in vocational school**

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**Abstract**.This study aims to determine the effectiveness of the implementation of industrial work practices (Prakerin) in:1) context aspects ;2) the input aspects; 3) the aspects of the process; 4) and the product aspects. The population of the study was 103 (included students, teacher supervisors, and industry advisers). The data collection was using a questionnaire. The validity and reability instruments were carried out with CFA factor analysis and alpha cronbach. The results showed that :1) the context component of SMK N 6 Yogyakarta is effective on average 8.9065 (19.5> X ≥ 15), while SMK N 1 Pengasih is effective on average 14.2547 (15> X ≥ 10); 2) The input components of SMK N 6 Yogyakarta is effective on average 53.0193 (X ≥ 52), while SMK N 1 is effective on average 44.9714 (52> X ≥ 40); 3) The process components of SMK N 6 Yogyakarta is effective on average 47.0907 (48.75> X ≥ 37.5), while SMK N 1 Pengasih is effective on average 37.00 (37.5> X ≥ 26.5); and 4) The product components of SMK N 6 Yogyakarta is effective on average 2.4043 (13> X ≥ 10), while SMK N 1 is effective on average 10.8694 (13> X ≥ 10).

1. **Introduction**

Education in vocational high schools in the 21st century leads to the orders students need to succeed in the world of work, it also focuses on helping students cultivate the confidence to put their skills into practice. Therefore, students need to have basic abilities to be able to work in the business / industrial world that have creative abilities, critical thinking skills, communication skills, and collaboration skills.

The formation of critical thinking skills, communication skills, and the ability to collaborate is integrated in the learning process, either learning in the classroom, in the laboratory, and in field practice. Integration done in all subjects. One of a very kind of subjects closely related to the formation of the ability to create, think critically, communicating, and collaborating are industry work practices, because achievement of student competencies in this subject will be very affect the quality of student work in the world of work.

Graduates will have good competence if the prakerin is well implemented, because prakerin involves various aspects of the school, from program planning to evaluation of prakerin implementation. When prakerin, students are really faced with the real conditions of a job and work environment Thus prakerin implementation can be used as a benchmark of SMK performance on the quality of graduates. It is therefore necessary to evaluate the implementation of industrial work practices in vocational high schools in SMK N 6 Yogyarta and SMK N 1 Pengasih. This research is limited to fashion education. Based on the description, the problem of this research can be formulated: Based on the background of the problem can be formulated problems in this study include: 1) how is the suitability of the work practices of the industry in SMK N 6 Yogyakarta and SMK N 1 Pengasihinterm of context?; 2) how is the suitability of the work practices of the industry in SMK N 6 Yogyakarta and SMK N 1 Pengasihinterm of input?; 3) how is the suitability of the work practices of the industry in SMK N 6 Yogyakarta and SMK N 1 Pengasihinterm of process?; (4) how is the suitability of the work practices of the industry in SMK N 6 Yogyakarta and SMK N 1 Pengasihinterm of product?

1. **Methods**
	1. *Vocational education as a world of work education*

Vocational education has the same meaning as vocational education [1]. Vocational education is education to develop a person's vocational education so have the capacity or capability assigned or given orders to perform a job or a particular position. In another perspective, vocational education is direct preparation for work was the main goal of vocational education [2]. It was perceived as providing specific training that was. reproductive and based on teachers' instruction, with the intention to develop an understanding of a particular industry, comprising the specific skills or tricks of the trade. Students' motivation was seen to be engendered by the economic benefits to them, in the future. Based on the above description can be interpreted that SMK is a unit of secondary education as well as part of the national education system that prioritizes the development of the ability of learners to be able to work in a particular field, adaptability in the work environment, view job opportunities and develop themselves. The procedure of Implementation Prakerin:



**Figure 1**. Field Work Practice Guidelines for the Directorate of Vocational Development.

 The steps in implementing the apprenticeship are based on the implementation guidelines for apprenticeship which are refined in the field work practice guidelines issued by the Directorate of Guidance for Vocational / Community Participation as follows:

The planning phase is the initial stage in preparing and designing the process of implementing apprenticeship. At the planning stage, it discusses the readiness of students, schools and DU / DI in the implementation of an internship. Students' readiness in participating in the whole series of activities carried out by the school is related to preparation in terms of ethics, discipline, religion to the aspects of competence and work readiness. Some processes include:

1) Mapping of participants and industry determination

Mapping of participants is part of the selection of competencies which analyzes competencies in the subjects of each vocational program. Determination of the industry carried out takes into account the carrying capacity and resources owned by the school and the partner institutions.

2). Prakerin socialization

After the industrial mapping phase, it continued with socialization. Dissemination was conducted to inform the plans and design of the internship program to school residents and parents of students. The socialization is related to the time and place of implementation, the implementation system of apprenticeship, the rules that apply to the budget needed and available for practical activities.

3). Industrial Networking

Industrial screening is done to determine the place to be used by students in the implementation of apprenticeship Determination of DUDI as a place of practice for students based on the number of students and competencies possessed.

4). Debriefing of students

Debriefing of internship participants is carried out on students who will carry out internship. The program is intended to provide an understanding of learning activities that must be carried out in Pair / Industrial Institutions. Debriefing is part of the school's readiness in preparing students' knowledge in terms of attitude, ethics, religion, description of the business world and the world of industry, industrial work culture, and procedures for filling out journals and making reports on internship.

5). Implementation Phase.

The next process is a guiding process that aims to direct, provide input, solutions and motivation to students during the process of implementing apprenticeship. The internship supervisor consists of a school superintendent, namely a productive teacher who is responsible for competency learning and an industry supervisor who also acts as an instructor who directs students to do their jobs in the industry.

6) Evaluation Phase

In the final stage of apprenticeship implementation, practical learning is carried out in accordance with the actual working conditions and equipped with facilities and learning resources in the practice.

The assessment of practical learning outcomes of students who take part in the internship program in the industry includes several things:

(a) Student Assessment

 Student assessment is contained in a guidebook, each issued by the school, Assessment of student learning outcomes during the implementation of the internship program is carried out thoroughly covering the domain of attitudes, knowledge, and skills [3].

(b) Provision of PKL Certificates

The awarding of certificates is also given by industry to apprentices in accordance with Minister of Manpower Regulation No. 36 of 2016 concerning the Implementation of Internship Internship. Article 19 states that:apprenticeship participants who have met the competency standards determined by the company are given apprenticeship certificates.

* 1. *Program Evaluation*

Evaluation is a process by which the judgment or decision of a process in a where consideration or decision of a value is made of various observations, backgrounds, and training of the evaluator).While training is intended to improve the mastery of employees against a variety of skills and techniques of implementation of certain work for the needs of the present.

* 1. *Work Based Learning*

WBL programs typically have the following characteristics: 1) a partnership between an external organization and an educational institution assigned to a contract; 2) learners are involved as workers; 3) the learning program is formulated from the workplace needs of the participants, and not only from the academic curriculum that has been developed; 4) individual learning programs individually adapted to each learner according to their previous educational / work / training experience; 5) learning programs as integrated projects / tasks; and 6) tuition fees are measured by educational institutions [4]. WBL also guide mentioned various forms / models of WBL among others: apprenticeship program, career awareness, cooperative work experience, recognized credit learning, learning period, accompanied work, work practices, entrepreneurship school-based, member-learning service, teacher's externship, vocational education preparation, vocational student organization, voluntary services, field visits.

1. **Results And Discussion**

This research was conducted in SMK N 6 Yogyakarta and SMK N 1 Pengasih. Informants of this research are students who follow prakerin and Prakerin Advisory Teachers. Technique of data collecting evaluation program of Industrial Work Practice of SMK N 6 Yogyakarta and SMK N 1 Pengasih students were collected using primary data, Questionnaire. Secondary data collection is done by documentation study. Documentation collected in the form of archives of the implementation of prakerin program in SMK N 6 Yogyakarta and SMK N 1 Pengasih. An experimental test was performed on students who were not included in the study sample.

Data analysis technique used in this research is quantitative descriptive analysis. The analysis is done in several steps, namely: (1) scoring the respondent's answer, (2) summing the total score of each component, (3) grouping the scores that can be by the respondent based on the trend level. Can be described by tabulating according to each variable by using SPSS help will get the average price (M), mode (Mo), median (Me) and standard deviation (SD). To describe or know the context variable, input, process and output are used scores. Aspects are assessed using a Likert scale consisting of four rating scales [5]. The mean and standard deviation are grouped into 4 categories as proposed by Djemari Mardapi theory, namely: very good, good, bad, not good. The research data taken from the research was taken from questionnaires distributed to prakerin students and teachers who have completed prakerin. In the description of this study are consecutively described.

* 1. *Context*

Implementation of Industrial Work Practices in SMK N 6 Yogyakarta on the context component of SMK N 6 Yogyakarta iseffective with an average of 18.9065 in the intervals of 19.5> X ≥ 15. While thecontext component of SMK N 1 Pengasih is less effective with an average of14.2547 at the intervals of 15> X ≥ 10.Based on the above findings, the results of qualitative analysis are also supported by teacher interviews related to the context indicator that discusses conformity with the industry. The interview result of prakerin guiding teacher stated that it has adjusted aspects of understanding related to the policy, objectives and benefits, so that its relevance is achieved.

**Table 1**. Context of SMK N 6 Yogyakarta

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X≥19,5 | 18,90 | Very Good |
| 2 | 19,5 > X ≥ 15 |  | Good |
| 3 | 15 > X ≥ 10,5 |  | Less |
| 4 | 10,5 > X |  | Poor |

**Table 2**. Context of SMK N 1 Pengasih

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X≥19,5 | 14,25 | Very Good |
| 2 | 19,5 > X ≥ 15 |  | Good |
| 3 | 15 > X ≥ 10,5 |  | Less |
| 4 | 10,5 > X |  | Poor |

*3.2 Input*

The input components of SMK N 6Yogyakarta are very effective with a mean of 53.0193 at the intervals X ≥ 52.While the input components of SMK N 1 Compassion are effective with anaverage 44.9714 at the intervals 52> X ≥ 40.From the findings of the input indicators in the form of coordination monitoring, starting from providing debriefing to students, it means the readiness of students mature enough in the implementation prakerin.

**Table 3**. Input of SMK N 6 Yogyakarta

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X ≥ 52 | 53,01 | Very Good |
| 2 | 52> X ≥ 40 |  | Good |
| 3 | 40 > X ≥ 28 |  | Less |
| 4 | 28> X |  | Poor |

**Table 4**. Input of SMK N 1 Pengasih

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X ≥ 52 | 44,97 | Very Good |
| 2 | 52> X ≥ 40 |  | Good |
| 3 | 40 > X ≥ 28 |  | Less |
| 4 | 28> X |  | Poor |

*3.3. Process*

Implementation of Industrial Work Practices in SMK N 6 Yogyakarta on the process components of SMKN 6 Yogyakarta are effective with an average of 47.0907 at the intervals 48.75> X≥ 37.5, while the process components of SMK N 1 Pengasih are less effectivewith an average 37.00 at the intervals between 37.5> X ≥ 26.5.From the findings of the process indicators on the aspects of coordination and handling of aspects of the process, it is true that it is done by the tutors.

**Table 5**. Process of SMK N 6 Yogyakarta

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X ≥ 48.75 | 47,09 | Very Good |
| 2 | 48.75> X≥ 37.5 |  | Good |
| 3 | 37.5> X ≥ 26.5 |  | Less |
| 4 | 26,25 > X |  | Poor |

**Table 6**. Process of SMK N 1 Pengasih

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X ≥ 48.75 | 37,00 | Very Good |
| 2 | 48.75> X≥ 37.5 |  | Good |
| 3 | 37.5> X ≥ 26.5 |  | Less |
| 4 | 26,25 > X |  | Poor |

1. *4. Products*

Implementation of Industrial Work Practices at SMK N 6 Yogyakartaon the productcomponents of SMK N 6 Yogyakarta are effective with an average of 12.4043 inthe intervals 13> X ≥ 10, while the product components of SMK N 1 are effectivewith an average of 10.8694 at the intervals of 13> X ≥ 10.From the findings of product indicators in the form of output prakerin implementation, starting from final task perakerin to students, it means final task prakerin real student.

**Table 7**. Product of SMK N 6 Yogyakarta

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X ≥ 13 | 12.404 | Very Good |
| 2 | 13> X ≥ 10 |  | Good |
| 3 | 10> X ≥ 7 |  | Less |
| 4 | 7 > X |  | Poor |

**Table 8**. Product of SMK N 1 Pengasih

|  |  |  |  |
| --- | --- | --- | --- |
| No | Interval | Mean | Category |
| 1 | X ≥ 13 | 10.86 | Very Good |
| 2 | 13> X ≥ 10 |  | Good |
| 3 | 10> X ≥ 7 |  | Less |
| 4 | 7 > X |  | Poor |

1. **Conclusion**

The results showed that the implementation of industrial work practices program in terms of (1) the context component of SMK N 6 Yogyakarta is effective with an average of 18.9065 in the intervals of 19.5> X ≥ 15. While the context component of SMK N 1 Pengasih is less effective with an average of 14.2547 at the intervals of 15> X ≥ 10. (2) The input components of SMK N 6 Yogyakarta are very effective with a mean of 53.0193 at the intervals X ≥ 52. While the input components of SMK N 1 Compassion are effective with an average 44.9714 at the intervals 52> X ≥ 40. (3) The process components of SMK N 6 Yogyakarta are effective with an average of 47.0907 at the intervals 48.75> X ≥ 37.5, while the process components of SMK N 1 Pengasih are less effective with an average 37.00 at the intervals between 37.5> X ≥ 26.5 (4) The product components of SMK N 6 Yogyakarta are effective with an average of 12.4043 in the intervals 13> X ≥ 10, while the product components of SMK N 1 are effective with an average of 10.8694 at the intervals of 13> X ≥ 10.From the findings of product indicators in the form of output prakerin implementation, starting from final task perakerin to students, it means final task prakerin real student.

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