Work based learning in motorcycle classroom

D Hafid* and A Gafar

1 Technological and Vocational Education Students Programs Graduate School, Universitas Pendidikan Indonesia, Bandung, Indonesia
2 Technological and Vocational Education Programs, Universitas Pendidikan Indonesia, Bandung, Indonesia

*dangfid@yahoo.co.id

Abstract. This research was conducted with the aim to analyze schools of vocational education (SMK) which are feasible to be modelled schools for the application of the learning model of work based learning. The research was done by direct observation of all SMK Kompetensi Keahlian Teknik Sepeda Motor which are vocational schools for motorcycle engineering. All schools involved followed the guided class program of PT YIMM. The scope of this study relates to the availability of facilities, infrastructure, human resources and support from the industrial world, which encourages the implementation of the learning model of work based learning. Data collection was done by analyzing ten SMK Kompetensi Keahlian Teknik Sepeda Motor under the guidance of PT YIMM in West Java by using instruments that have been compiled and verified by authors and experts of vocational education, as well as from the industrial world. The result of the analysis was derived by observing all SMK Kompetensi Keahlian Teknik Sepeda Motor with advice and supervision from PT YIMM in West Java. Results showed only four schools meeting the criteria to practise and apply the learning model of work based learning as seen through their adequate facilities, infrastructure, human resources and support from the industrial world. Therefore, these four schools will be used as the model for research development of the learning model for work based learning in subsequent research.

1. Introduction
The development of technical and vocational education and training (TVET) is becoming increasingly important in the agenda of international and national intelligence. For example, UNESCO recommends TVET claiming that, technical and vocational education driven by market demand is more effective in increasing employment and income among underprivileged people [1]. The characteristics of TVET in the development of national skills vary among other countries. The status and role of TVET are shaped by historical, cultural, economic and social factors which influences how TVET systems evolve [2,3]. Therefore, it is important to understand the problems faced by TVET which impedes its implementation and effectiveness [4]. Changes within the dynamic of job types, the global market, and the progress of technology, has led entrepreneurs in potential labor markets to demand complex skill sets from employees [3]. Consequently, nations must begin to systematically evaluate their education system to keep abreast of market developments and demands by modifying the education system, to meet developmental social and economic needs [5]. This change, further challenges TVET to adjust to new competencies which appear faster than general education. Hence, TVET is directly responsible for equipping individuals to adapt to workplace demands [6]. One of the innovations in the development of
learning in vocational education is, Work Based Learning (WBL). This model of learning has long been applied, especially in developed countries such as England, Scotland, Ireland, Australia and America which has implemented WBL in higher education as of the early 20th century. In England, government policy on WBL as a significant element in professional development and lifelong learning [7].

2. Research methods
To analyze the carrying capacity of schools eligible for the implementation of the Work Based Learning-Learning Model based on the availability of infrastructure, human resources and support from the industry, qualitative research using field observation method and content analysis was applied. Content analysis examines documents in the form of general categories [8]. Moreover, content analysis is also a scientific analysis of the communicative message that includes the classification of marks, using criteria as the basis of calculation and using certain analytical techniques as predictors [9].

The population in this study are all motorcycle engineering vocational high schools, SMK Kompetensi Keahlian Teknik Sepeda Motor and the author sampled 10 (ten) guided schools of PT YIMM in West Java as recommended by PT YIMM.

In qualitative research, the instrument or research tool is the researcher itself. Researchers become human instruments whose function is to set the focus of research, select information as resource, collect data, assess data quality, make conclusions, analyze and interpret data [10].

The first step in this research is to identify problems related to the carrying capacity of facilities, human resources (instructor and management) and support from the industry. The second step is to determine the research objectives to be used as the basic reference in this study. Next, is to conduct literature studies from various sources, followed by collecting data through observation on the field to gain information about the feasibility of applying the Work Based Learning model in schools. Thereafter, process and analyze the data. Lastly, using the analysis, make conclusions and suggestions about the feasibility of schools in practicing the learning model of work-based learning.

The steps of the research procedure is described as follows:

![Research Procedure](image)

**Figure 1.** Research procedure.

3. Results
The data of this research is the direct observation of the schools by conducting an analysis and data processing to obtain result as follows:
From the picture above, it can be explained that from 10 (ten) schools analyzed, 4 (four) schools scored 100 for the availability of supporting facilities and perfect human resources, the four schools are the schools with the sequence number 4, 5, 6 and 7, while for support from the industry, PT YIMM already has an internship company assessment, where the ten schools are graded B and above.

4. Conclusions

Referring to the findings and discussions in the previous chapter, there are several conclusions that can be accepted. The conclusions are as follows:

- All vocational schools already have facilities and human resources that are sufficient, but of course, there are still differences between one school and another.
- The schools that have the highest scores which will be used as model schools for the application of the learning model, Work Based Learning are the schools with the number sequence of 4, 5, 6 and 7.
- Further research will be done by developing the learning model of work based learning in all four schools by using the R & D research method.

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