



Investigation of Teaching Factory (TEFA) Implementation in Vocational Education

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Received: 14 February 2022. Accepted: 28 March 2022. Published: 01 May 2022

ABSTRACT

The purpose of this research is: 1) investigating the implementation of the Teaching Factory in the Department of Automotive Light Vehicle Engineering at SMK in a systematic manner, 2) understanding the factors that support the implementation of Teaching Factory at SMK Department of Automotive Light Vehicle Engineering, and 3) Recognizing the factors impeding the implementation of the Teaching Factory at SMK Department of Automotive Light Vehicle Engineering. This study is a type of descriptive study. The method used is qualitative. Data collection techniques are carried out through 1) observation, 2) interview, and 3) documentation activities. The stages of description, reduction, and selection are all part of the research procedure. The study results that, overall, the management of the Teaching Factory implementation in the Department of Automotive Light Vehicle Engineering, the Teaching Factory workshop service unit at SMK has been well implemented. It has followed the concepts and objectives of the Teaching Factory itself in implementing the Teaching Factory workshop business unit as a manifestation of the Teaching Factory form. The involvement of students in the management of Teaching Factory implementation in the Department of Automotive Light Vehicle Engineering, the Teaching Factory workshop service unit at SMK is following the teaching factory learning concept in this case. Students are only involved in the implementation of the Teaching Factory in the Automotive Light Vehicle Engineering Department. Meanwhile, it is still carried out by the management of the Teaching Factory in the Automotive Light Vehicle Engineering Department, the Teaching Factory workshop service business unit at SMK in terms of Planning, Organizing, and Supervision.

Keywords: Teaching factory, Automotive light vehicle engineering

INTRODUCTION

Education is one of the efforts made by humans to acquire knowledge and skills. Education should be able to produce superior, competent, creative, and responsible human resources accompanied by noble personality and character [1][2][3][4][5][6]. This is in accordance with what is written in law number 20 of 2003 Chapter 2 article 3 which has mandated that national education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of the intellectual life of the nation.

In a process, of course, there are several obstacles that make the current state of education not fully able to produce quality human resources that can answer the challenges of the times. The Indonesian government through the Ministry of Education and Culture has maximally improved the quality of human resources through various educational programs that aim to improve the quality of the whole human being, namely humans with noble character, advanced personality, tough, intelligent, creative, skilled, disciplined, professional work ethic, responsible responsible, productive, physically and mentally healthy. To achieve the national education goals,

the quality of the learning process must be pursued with knowledge and improvements as needed through educational innovation. Vocational education (vocational) has a distinctive value, namely the relationship between the acquisition of knowledge, skills and attitudes with the value of work (position) especially related to the skills needed by the world of work [7].

Vocational High Schools are expected to be able to reduce unemployment, as well as produce graduates with quality human resources to meet human resources globally [2][8][9], Vocational High Schools (SMK) are required to build quality human resources who have good soft skills and hard skills and improve the quality of learning, especially in the field of practice [10][11][12]. The industrial world which is the target of the process and learning outcomes of vocational high schools has its own character and atmosphere. Therefore, vocational high schools in the learning process must be able to make the right emphasis and learning approach in accordance with the needs of the industrial world.

One of the problems faced in learning in SMK lies in the students themselves. There is still a lack of

activeness and independence in the practical learning process. And students are less active in reading manual books, so in practice there are still many questions to the instructor because they cannot understand the worksheets or practical Job Sheets. For now, many are implementing the block system practice with the Teaching Factory system, the practice time is quite long, students should have plenty of time to learn and practice every job given by the teacher. But the fact is that with the length of practice time there are still some students who are still less enthusiastic about block practice, causing some of these students to still be unable to practice optimally.

To overcome these problems, efforts can be made to achieve learning success in SMK, one of which is the implementation of production or service-based learning, namely Teaching Factory. The implementation of Teaching Factory in Vocational Schools will encourage mutually beneficial cooperation mechanisms between schools and industries so that later Vocational Schools will always follow industry developments such as curriculum development, field work practices, and so on [13].

Teaching Factory is a learning concept in real conditions so that it can bridge the competency gap between

industrial needs and school knowledge [14]. The Teaching Factory (TEFA) program is a combination of existing learning, namely Competency Based Training (CBT) and Production Based Training (PBT), in the sense that a skill or skill process (Life Skill) is designed and implemented based on actual work procedures and standards for produce products that meet the demands of the market and consumers.

Based on the problems above, this study aims to: 1) To know systematically the implementation of Teaching Factory in the Department of Automotive Light Vehicle Engineering at SMK 2) Knowing the factors that support the implementation of Teaching Factory in the Department of Automotive Light Vehicle Engineering at SMK. 3) Knowing the factors that hinder the implementation of Teaching Factory in the Department of Automotive Light Vehicle Engineering at SMK Taman Karya Madya Teknik Kebumen.

RESEARCH METHOD

Research Design

This research is a type of descriptive research. Descriptive research is research that seeks to clearly describe the researcher's questions that have been determined

before the researchers go into the field and they do not use hypotheses as directions or guides in research [15][16]. The approach used is a qualitative approach. The qualitative approach is a research approach that is carried out on natural objects. This study contains a description or a systematic description of the management of the implementation of the Teaching Factory in the Department of Automotive Light Vehicle Engineering at SMK.

Place and Time of Research

The research was conducted in the odd semester of the 2020/2021 Academic Year at SMK Taman Karya Madya Teknik Kebumen in the Department of Automotive Light Vehicle Engineering. The time of the research was carried out in July 2021-September 2021.

Research Subjects and Objects

The subject of this research is the management of the Teaching Factory at SMK Taman Karya Madya Teknik Kebumen in the Department of Automotive Light Vehicle Engineering. The object of this research is the management of the Teaching Factory in the Department of Automotive Light Vehicle Engineering at SMK Taman Karya Madya Teknik Kebumen.

Population and Sample

1. Research Population

The data source of this research is the manager of the Teaching Factory which consists of teachers and employees of the Teaching Factory service unit in the Department of Automotive Light Vehicle Engineering at SMK.

2. Research Sample

The teacher sampling technique used was saturated sampling, because the number of teachers in the Automotive Light Vehicle Engineering Department was relatively small, less than 35 people.

Data Collection Method

1. Observation

The researcher uses a non-participant and structured observation method because the researcher is not directly involved with the activities of the people being observed but only becomes an independent observer. Structured observations are observations that are designed systematically, about what will be observed, when and where it is. So structured observations were carried out because researchers already knew the observed aspects focused on the indicators in the Teaching Factory implementation variables and other indicators in the inhibiting factors and supporting

factors for the Teaching Factory implementation.

2. Interview

The researcher used the interview method to reveal data and information from direct sources whose data were related to the meanings of the implementation of the Teaching Factory, the inhibiting factors, and the supporting factors of the Teaching Factory. There are seven steps in using interviews to collect data in qualitative research, namely:

- a. Decide on whom the interview will be conducted
- b. Prepare the main issues that will be the subject of discussion
- c. Initiating or opening the interview flow
- d. Carry out the interview flow
- e. Confirm the summary of the interview results by ending it
- f. Write down interview results into field notes
- g. Identifying follow-up actions on interview results that have been obtained.

3. Documentation

Documentation is a supporter of the use of interview and observation methods. Documentation studies are carried out by collecting the data needed in the research problem and then carefully examining it so that the data can support to increase trust and

prove an event. The results of interviews and observations will be more reliable when they can be supported by documents related to research. In this study, the documentation collected is official documents, pictures and other documents related to the Teaching Factory so that it can add to the description of the variables studied.

Research Instruments

1. Observation Guidelines

Observation guidelines are made by looking at the research objectives in order to be more efficient and effective in making observations of the subjects and objects under study.

2. Interview Guide

The interview guide used to collect data about the management of the Teaching Factory is in the form of in-depth questions. The list of questions are aspects that will be explored, while further elaboration can occur as the interview continues.

3. Documentation

The documentation in this research is in the form of official and unofficial documents. This instrument is used to obtain information about the organizational chart, production implementation, and documents needed in Teaching Factory management in the Department of

Automotive Light Vehicle Engineering at SMK Taman Karya Madya Teknik Kebumen.

Data Analysis Techniques

The data analysis technique used in this research is descriptive analysis. Descriptive research tries to systematically and accurately provide actual facts and characteristics of a particular population.

Descriptive data analysis used in this study includes several stages that function to measure the level of management success in achieving the effectiveness and efficiency of Teaching Factory.

RESULT AND DISCUSSION

This research was carried out at SMK with data sources namely the management of the Teaching Factory at SMK, teachers and student respondents in class XII of the Department of Automotive Light Vehicle Engineering at SMK. The number of interviewees was 3 interviewees, namely Managers, teachers and employees of the Teaching Factory majoring in Automotive Light Vehicle Engineering at SMK. The discussion of the results of the research was carried out by the teacher regarding the management of the Teaching Factory at the Light Automotive Engineering Department

at SMK Taman Karya Madya Teknik Kebumen which was implemented in the TEFA workshop at SMK.

Planning for Teaching Factory at SMK

In HR planning, the results of the research show that HR planning in addition to determining the people involved in the Teaching Factory, HR planning in the implementation of the Teaching Factory with the TEFA workshop business unit pays attention to planning for employee recruitment to employee termination. Recruitment of TEFA workshop employees with expertise in Automotive Light Vehicle Engineering at SMK is an alumnus of students in Automotive Light Vehicle Engineering at SMK itself.

TEFA workshop product planning is carried out continuously or continuously. After the product criteria are set, product standards have been planned, all of which will later be implemented so that they will get a profit. Part of the profit will be used to improve facilities and infrastructure.

Marketing planning is made when you already have a product plan. Marketing planning for TEFA workshops. Light Automotive Engineering Skills at SMK is based on the STP (Segmenting, Targeting, and Positioning) concept. The strategy

used in the Teaching Factory of the Automotive Light Vehicle Engineering Department with the TEFA workshop business unit is the Marketing Mix, namely 7P (Product, Price, Place, Promotion, Process, People, Physical Evidence).

The financial planning of the TEFA workshop. Light Automotive Engineering Skills at SMK is adjusted to the initial capital which is then used for capital development (production). Sources of capital and those issued by SMK for the costs of teaching Factory learning needs through KAS funds.

Organizing Teaching Factory at SMK

Departmentalization of Teaching Factory with TEFA workshop business unit Automotive Light Vehicle Engineering Expertise at SMK Taman Karya Madya Teknik Kebumen consists of the person in charge of Teaching Factory activities, coordinator, chief executive, secretary, treasurer, warehousing, employees, students and teachers. A teaching factory with a TEFA workshop business unit. Light Automotive Engineering Expertise at SMK is led by a chief executive who is directly supervised by the Principal of SMK. The chief executive will be assisted by the treasurer, secretary and executive division. As the executor of the Teaching Factory activity with the

TEFA workshop business unit, Automotive Light Vehicle Engineering Skills at SMK are employees, students and teachers of Automotive Light Vehicle Engineering at SMK.

Implementation of Teaching Factory at SMK

The implementation of HR activities at the TEFA workshop at SMK is in accordance with the plan made, namely in the Teaching Factory, it will involve teachers, employees, and students. Although in the implementation of the involvement of students, they are only included in the production process, namely in jobs or jobs that are spontaneous if there are consumers who come to the TEFA workshop at SMK [7][13][15]. The involvement of students in the Teaching Factory of SMK, if represented, only contributed 30%. HR implementation went well, because everyone worked with their respective job descriptions without any overlapping jobs. The implementation of production pays attention to product quality and quality. Starting from product procurement, manufacturing processes, marketing, product pricing, to selling, also pay attention to the quality of materials and product quality.

CONCLUSION

Implementation of Teaching Factory

Implementation of Teaching Factory in the Department of Automotive Light Vehicle Engineering, the TEFA workshop service business unit at SMK starting from the implementation of HR, production, marketing and finance has been carried out properly in accordance with what has been planned, by the management and management of the Teaching Factory, Department of Expertise. Automotive Light Vehicle Engineering at SMK.

Teaching Factory Inhibitor

In practice, there is no maximum supervision of student performance. Supervision is only limited to monitoring the employees of the workshop service unit. In the process of implementing marketing outside of school, a little less is done, besides that the promotional media used are also still minimal.

Teaching Factory Support

The procurement of goods and services is carried out by the main management of the TEFA workshop and is adjusted to the needs of consumers. the involvement of students in the Teaching Factory Management of the Automotive Light Vehicle Engineering Department with

the TEFA workshop business unit in the high category. Marketing planning for the TEFA workshop at SMK Taman Karya Madya Teknik Kebumen is oriented to the STP concept (Sigmeting, Targeting, Positioning. The strategy used in the TEFA workshop is the Marketing Mix, namely 7P (Product, Price, Place, Promotion, Process, People, Physical Evidence).

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