

THE BASIC CONCEPTION TEACHING FACTORY CONCEPT IS A LEARNING METHOD

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Submission date: 21-Jun-2023 10:50AM (UTC+0700)

Submission ID: 2120095052

File name: THE_BASIC_CONCEPT.pdf (637.4K)

Word count: 2539

Character count: 14178



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ABSTRACT

The current issues at SMK are typically connected to the school's limited resources, low practical costs, and an insufficiently workplace-relevant learning environment. This circumstance may make graduates of SMK vocational schools unprepared to enter the workforce. The user industry is negatively impacted by the SMK graduates' inability to perform existing duties in the workplace. Therefore, cooperation between SMKs and the business/industrial sector is required to produce SMK graduates who are prepared for the workforce. This will ultimately help to raise the standard of SMKs while also reducing the adjustment period for SMK graduates when they enter the workforce. This study's objectives were to assess the Teaching Factory's efficacy at SMK Negeri 2 Bitung and choose the best Teaching Factory implementation approach to generate SMK graduates who are competitive in the job market. Case studies and research and development are the research techniques to be used. An academic journal published nationally is the result of this research. Keywords; Teaching Factory, strategy, SMK, learning

INTRODUCTION

Vocational education is instruction that enables students to pursue further education as well as prepares them for the workforce. The government's initiatives to boost the number of SMKs are part of a larger endeavor to create a productive workforce so that Indonesia's enormous population may become Human Resources that focus on quality rather than just quantity. Along with other educational standards, the significant expansion in the number of SMKs must be accompanied with good and quality teaching personnel, education, and facilities. According to the 2010-2014 Vocational Education Development Roadmap, the number of SMKs increased by 11,708 up until 2013, and in 2014, there were 11,748 SMKs with 4,512,063 students and 219,000 employees. The growth in the number of SMKs throughout Indonesia is not accompanied by the quality of graduates according to their areas of expertise. The quality of SMK graduates has not been able to fill the needs of the business world and the industrial world, because the skills possessed are not up to the standards required by the world of work. Data from the Central Statistics Agency, in August 2015, as many as 12.65 percent of the unemployed came from SMK, 10.32 percent from SMA, 7.54 percent from diplomas, and 6.40 percent from universities.

In Indonesia, the application of the Teaching Factory idea was introduced in SMKs in the year

2000 in a very simple form, specifically in the form of developing production units that had been carried out in SMKs. This was done in order to meet the requirements of the Indonesian Ministry of Education's (Kemendes) National Curriculum. After then, in 2005, the idea progressed to become a model for SMK development that was based on industry.

The province of North Sulawesi is home to 169 SMKs total, including both governmental and private institutions. There are 32 Vocational Schools in Manado City, 114 Vocational Schools in Bitung City, and 7 Vocational Schools in Bitung City. Manado City is located in Bitung City. The city of Bitung was chosen as the setting for the research that was carried out there. According to the preliminary study carried out in Bitung City, there was only one SMK that was putting into practice the Teaching Factory, and that school was SMK Negeri 2 Bitung. According to the preliminary findings, the implementation of the Teaching Factory has not been carried out in the correct manner according to the correct concept of the Teaching Factory. The implementation at SMK is still restricted to classroom instruction supplemented by hands-on experience gained in Production Units, which can be thought of as a school-based version of a miniature corporation. The concept of a Teaching Factory should result in graduates who are professionals in their respective fields, the development of curricula that place an emphasis on contemporary ideas, the demonstration of appropriate solutions to challenges faced by the industrial world, and the transfer of technology from industries that become partners with students and educational institutions.

The "Factory to Classroom" concept that underpins Teaching Factory is based on the idea that the actual industrial production environment may be successfully translated into learning environments. Improving classroom instruction so that it is more closely aligned with the actual tasks performed in the workplace on a daily basis requires immediate attention. Students are able to attain industry standard skills through the stages of the process of achieving motor, cognitive, and social competencies using the Teaching Factory idea, which is a learning approach that was developed by Teaching Factory. affective mastery standards and bringing up inspirational-intuitive behavioral learning outcomes which are academically described as character learning. (Directorate of Vocational School Development).

Seeing the implementation of Teaching Factory in Vocational Schools and the concept that there should be a discrepancy between practice in schools and the program that should be achieved. Why did this happen? What causes the Teaching Factory program to not work? This problem needs to be studied and solutions sought so that human resources that are expected to have high competitiveness can be realized, especially in Bitung and North Sulawesi in general.

METHODS

The research design used is the case study method. This method is used to examine how the teaching factory is implemented at SMK Negeri 2 Bitung and the inhibiting and supporting factors for the implementation of the teaching factory. The stages in this case study include:

- a. Collecting data related to true teaching factory-based learning
- b. Collect data on supporting facilities for teaching factory implementation
- c. Collect curriculum data used by SMK Negeri 2 Bitung
- d. Collect productive teacher competency data available in schools

Data collection was carried out by observation, in-depth interviews, and Focus Group Discussion (FGD). Observation techniques, researchers come directly to the school to observe the situation and collect data. In-depth interviews took place through direct interaction with

informants, both verbal and non-verbal. The interview used was an open system, meaning that the subject knew that they were being interviewed and understood the purpose of the interview. The FGD technique was carried out to collect data that has not been explored from the results of in-depth interviews. The implementation of this technique is in the form of discussion groups between researchers and informants who are considered to understand the research problem.

DISCUSSION

The Teaching Factory at SMK Negeri 2 Bitung consists of several production units, namely motorcycle production units, woodworking, welding and computer network engineering. Products produced in superior production units are included in Teaching Factory products. Products that are not considered good or superior are not included as a result of the Teaching Factory.

According to the results of interviews with the person in charge of the Teaching Factory, so far the Timber unit has been able to produce products ordered by the public, including offices. These products are blanks, doors/windows as well as tables and chairs/furniture, mainly orders for offices and schools in Bitung. The advantage of the results of the Teaching Factory is that students get income and the production unit also gets a percentage of the sales of products or services. The role of the production unit is highly expected by the manager of the Teaching Factory because if the production unit is not productive then no products or services will be sold. This means that there is no income for the school.

Proceeds from the sale of products and services help finance operations in each production unit. Funds provided by the government, in this case PSMK for Teaching Factory, are up to IDR 300,000,000 to assist the operation of the Teaching Factory. In 2016, they did not receive assistance because there were 3 production units that did not carry out activities regularly and continuously.

The benefits of Teaching Factory are to support learning. The learning process in Vocational Schools requires high skills, therefore entrepreneurial groups are made effective. In the production unit there are entrepreneurial groups of students. The group is a forum for increasing experience in practice in order to produce superior products or services. Another benefit obtained from implementing Teaching Factory learning is that students can win competitions at both the regional and national levels.

The obstacle faced by the Teaching Factory is cost because the funds given to SMKs are all the same, namely the procurement of materials and equipment for practice requires more. The lack of funds must be overcome with income earned from the sale of products so that learning activities in the Teaching Factory can be sustainable. Another obstacle faced is that not all teachers think about increasing student productivity through activities in the production unit and in the Teaching Factory. The leadership element has not fully supported the Teaching Factory activities.

Teaching Factory learning at SMK Negeri 2 Bitung is not fully in accordance with the principles of Teaching Factory learning itself because it has not utilized industries or institutions related to Teaching Factory products. Do not yet have cooperation with industry either in terms of experts or in terms of marketing Teaching Factory products. Thus, for certain products and services, if there are no orders, production will not be carried out.

Teaching factory is a concept that combines learning and a realistic work environment and to

bring up relevant learning experiences (Nayang Polytechnic, 2003 in Siswandi). This learning is a practical process that integrates application-oriented training with a problem-solving approach.

Siswanto (in Siswandi), stated that the teaching factory process that had been carried out at RSBI Vocational Schools in the Yogyakarta area was influenced by supporting and inhibiting factors. Factors supporting the implementation of the teaching factory are: (1) good equipment facilities; (2) human resources; (3) products produced; (4) market influence; (5) leadership; and (6) marketing. The inhibiting factors for the implementation of teaching factories are: (1) regulations regarding the legality of production units; (2) lack of marketing; (3) parents' perceptions; (4) prices from producers are too high; and (5) the busyness of teachers and students. Hasbullah (2010), concluded that one of the learning approaches based on production and learning in the world of work is the learning factory, also known as the teaching factory (TEFA).

The results of Siswandi's research (2015) found that in the implementation of the teaching factory model learning process there are several special parts that distinguish it from the non teaching factory practice model applied at Karsa Mulya Palangka Raya Vocational School, namely: (1) students do real work according to SOPs like in the industrial world ; (2) practical materials that are used are real objects or vehicles owned by consumers; (3) work jobs based on problems found in consumer vehicles; (4) work based on work standards is supported by a service manual for the type of vehicle being worked on; (5) students are required to work based on the same time as working hours in the industrial world; (6) work safety is further improved both for tools, people and work objects; and (7) instilling a greater sense of responsibility, especially towards consumer satisfaction. The conclusions of Siswandi's research (2015) show that the teaching factory model developed is in accordance with the required criteria, namely: (1) the availability of a room as a place for practice; (2) There is a production unit as a place for process implementation; (3) available supporting facilities and infrastructure such as tools, keys, and machines; (4) have taken advantage of local environmental conditions in the process of practical learning; (5) human resources involved in the implementation, namely teachers/instructors and students; (6) there is cooperation between the industry and the school; (7) practical subject teachers, instructors have a commitment in implementing and applying the concept of practical learning of the teaching factory model; and (8) students are fully involved in the process. The effectiveness of the process of developing the teaching factory model that was carried out was shown by the students' ability to complete the work.

Based on observations and interviews with teachers/instructors who handle workshops or places where teching factories are held at SMK Negeri 2 Bitung, what happened at Karsa Mulya Vocational School, Palangka Raya regarding the supporting and inhibiting factors for implementing the teaching factory, was not much different. This, according to the experience of researchers as KTI national assessors/benchmarks for SMK principals, complaints from school principals, for example, there is no legality/strong legal basis for developing production units/teaching factories, especially for participating in large project tenders (government/private).

CONCLUSION

The Teaching Factory learning carried out at SMK Negeri 2 Bitung in particular is as follows:

1. Learning for practicum is carried out in the production unit. Timber/Furniture production units are productive. The implementation of the Teaching Factory is carried out based on the production units of each department.
2. Certain Production Unit facilities are still being improved so that productivity is not maximized.

SUGGESTION

1. The government through President Jokowi's policy since the end of 2016 has begun to pay a lot of attention to the development of vocational and vocational education, in this case Vocational High Schools and Polytechnics. For this reason, SMK as vocational education must continue to improve itself in producing graduates who are ready to use skilled in certain fields, which of course increases practical activities through production units and teaching factories.
2. The commitment of school principals and Productive Program teachers is needed to continue carrying out production unit/teaching factory activities at SMK Negeri 2 Bitung

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